THE UNIFORM SOYBEAN TESTS

NORTHERN REGION

2019

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE WEST LAFAYETTE, INDIANA

COOPERATING WITH
STATE AGRICULTURAL EXPERIMENT STATIONS NORTHERN STATES

UNIFORM SOYBEAN TESTS

NORTHERN REGION

2019

USDA-ARS
Crop Production and Pest Control Research Unit
Department of Botany and Plant Pathology
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Introduction

The purpose of The Uniform Soybean Tests is to critically evaluate the best of the experimental soybean lines developed by federal and state research personnel in the U.S. and Canada, for their potential release as new varieties.

A test is established for each of ten maturity groups. Uniform Test 00 includes maturity Group 00 strains adapted to production in the northern fringe of the present area of soybean production. Uniform Tests 0 through IV include later maturing strains adapted to locations progressively further south in the North Central States and areas of similar latitude. Each year new selections are added and others that have been sufficiently tested are dropped from the tests. The summary of performance of strains in Uniform Tests 00 through IV in the northern region is included in this report. The USDA-ARS Soybean Production Research Unit, P.O. BOX 345, STONEVILLE, MS 38776, issues the report on Uniform Tests IVS through VIII in the southern states.

Data from the Uniform Soybean Tests are the basis for decisions on the regional release of soybean varieties. Preliminary Tests are grown at a limited number of locations throughout the region to evaluate the experimental strains for one year before they are dropped or advanced in the Uniform Tests. Uniform Tests are grown at more locations with more replications than Preliminary Tests.

The Uniform Soybean Test Report is a progress report containing statements, which may or may not be verified by subsequent experiments. Statements or data in the report, therefore, should not be published unless those concerned have obtained permission previously.

The USDA-Agricultural Research Service does not vouch for the authenticity of either the parentage or ancestry of entries in the Uniform Soybean Tests. This agency is not responsible for the accuracy of data submitted to and included in The Uniform Test Report.

Germplasm exchange among breeding programs is the foundation of breeding progress. The purpose of the Uniform Soybean Test is to facilitate the free exchange of germplasm to maximize genetic diversity and provide well-adapted, stable breeding lines and varieties in the pursuit of breeding progress. Participants are encouraged to exchange germplasm within the legal guidelines pertaining to transgenic strains.

NORTHERN REGION UT – POLICY ON EVALUATION AND RELEASE OF STRAINS

Qualifications for inclusion in the Uniform Tests:

1) Participants must be willing and able to conduct separate tests for conventional strains and strains containing proprietary and/or transgenic traits. However, all participants are not required to evaluate both; and, placement of proprietary entries depends on whether transgenic or non-transgenic.
2) Participants are individually responsible to ensure that any proprietary and/or transgenic strains that they submit are approved for human consumption and are cleared for sale as commodity seed.
3) Participants must disclose pedigrees to the Uniform Test Coordinator for publication with performance data in Uniform Soybean Test Report unless contract arrangements prohibit disclosure of information.
4) It is recommended that breeders obtain written permission for the use of privately developed varieties or strains that are used as parents in the development of lines included in the Uniform Tests.

Use of Uniform Test entries in soybean breeding and research:

1) Seed of Uniform Test entries is for evaluation in the Uniform Tests only and may not be distributed to non-participants in these tests without prior approval by the originator of the entry.
2) Uniform Test participants must obtain written approval before using any entry, other than their own, as a recurrent parent in backcrossing, in any breeding or genetic studies, or for any other research.
3) Experimental strains entered in the Uniform Tests should be labeled “Experimental Strain” and should not be identified by strain designation when grown in demonstration plots or when the Uniform Tests are shown on field days or farm tours.
4) Seed of any transgenic entry must not be used for further evaluation without written permission from the originator of the entry and must be discarded at the end of the season, except for crossing purposes, subject to the restrictions outlined in the preceding sections two and three.

Release of Uniform Test entries:

Entries in the Uniform Tests are released according to the policy of the originating institution (USDA-Agricultural Research Service and State Agricultural Experiment Station or Canadian government).

Strain Designations

Experimental (i.e., unreleased) strains are identified by a number with a state or province code letter prefix. The code letters have been agreed upon in meetings of experiment station agronomists with the U.S. Department of Agriculture. Additional code letters may be used to designate the individual within a state or province that developed the strain.

A	Iowa A.E.S. (A=W. Fehr, AR=S. Cianzio)
Ar	Arizona A.E.S.
Au	Alabama A.E.S.
B	California
C	Purdue (Indiana) A.R.P. (C=J.R. Wilcox, CL=A. LeRoy)
CM	Canada Dept. of Agriculture, Morden, Manitoba
D	Mississippi A.E.S.
DSN	Indiana (K. Rainey - Diers/Specht-developed NAM strains)
E	Michigan A.E.S.
F	Florida A.E.S.
FC	Forage and Range Research Branch, USDA
Ga	Georgia A.E.S.
H	Ohio A.R.D.C. (HC=R.L. Cooper, HF=R. Fioritto, HS=S.K. St. Martin/L. McHale)
K	Kansas A.E.S.
Ky	Kentucky A.E.S.
L	Illinois A.E.S. (LD=B. Diers, LG=R.L. Nelson, LN=C.D. Nickell, LW=D. Walker)
La	Louisiana A.E.S.
LS	Southern Illinois University (LS=M. Schmidt)
M	Minnesota A.E.S.
Md	Maryland A.E.S.
Me	Maine A.E.S.
N	North Carolina A.E.S.
ND	North Dakota A.E.S.
OAC	University of Guelph, Guelph, Ontario
OK	Oklahoma Agricultural Experiment Station
ORC	Ridgetown, Ontario
OT	Central Experimental Farm, Ottawa, Ontario
OX	Research Station, Harrow, Ontario
PI	Plant Inventory
R	Arkansas A.E.S.
RJ	Arkansas State University, Jonesboro
S	Missouri A.E.S. (SS=D. Sleper)
SC	South Carolina A.E.S.
SD	South Dakota A.E.S.
T	Soybean Genetic Type Collection, USDA, Urbana, IL
Ts	Texas A.E.S.
U	Soybean Genetic Type Collection, USDA, Urbana, IL
U, NEX	Nebraska A.E.S.
UD	Delaware A.E.S.
UM	University of Manitoba, Winnipeg, Manitoba
UT	Tennessee A.E.S.
V	Virginia A.E.S.
W	Wisconsin A.E.S.
X(Y)	Two or more states cooperatively, e.g. ND(M) North Dakota and Minnesota distribution has not been made previously.

Methods

Uniform tests are planted in multiple-row plots with three or four replications, and the center rows are harvested for yield and seed quality determinations. Preliminary Tests are multiple-row plots with two replications. Usually 15 to 20 feet of row are planted and 12 to 16 feet harvested, to eliminate end-of-row effects. Coefficients of variability are included with all replicated test data.

Discretion is used in including data with high CVs in the regional means. If the CV is greater than 15, participants should include the reason, such as disease or environmental conditions. Lines may be heterogeneous for morphological traits the first year in the Uniform Tests but must be pure lines the second year of testing. It is the responsibility of the breeder to purify heterogeneous lines.

Generation Composited is the generation after the final single-plant selection, when seeds from plants or rows are composited.

Previous Testing is the number of previous years in the same Uniform Test or, in the case of new entries, a reference to the previous year's test, abbreviated to PT IIA for Preliminary Test IIA, for example.

Yield is measured after the seeds have been dried to uniform moisture content and is recorded in bushels (60 pounds) per acre. To convert to kilograms/hectare multiply by 67.25.

Maturity is the date when 95% of the pods have ripened, as indicated by their mature pod color. Delayed leaf drop and green stems are not considered in assigning maturity. Maturity is expressed as days earlier (-) of later (+) than the average date of the reference variety. To aid in maturity group classification, one earlier (E) and one later (L) check variety are given in the maturity column for each test, or a maturity check from an earlier or later maturity group is included. Current reference and check varieties and the maturity group limits relative to the reference varieties are:

Group	Reference:	Range	Early check	Late check
00	MN0083			MN0095
0	ND Stutsman		MN0095	MN1410
I	MN1410		ND Stutsman	U11-917032 (SCN)
II	IA2102		U11-917032 (SCN)	U14-910097 (SCN)
III	LD11-2170		U14-910097 (SCN)	LD07-3395bf (SCN)
IV	LD06-7620		LD07-3395bf (SCN)	LD00-2817
00TM	MN0083			MN0095
0TM	ND Stutsman		MN0095	MN1410
ITM	MN1410		ND Stutsman	U11-917032 (SCN)
IITM	IA2102		U11-917032 (SCN)	U14-910097 (SCN)
IIITM	LD11-2170		U14-910097 (SCN)	LD07-3395bf (SCN)
IVTM	LD06-7620		LD07-3395bf (SCN)	LD00-2817

These maturity group ranges are based on long-term means over many locations. When using data from other environments, the interval between reference varieties may vary, and the division between maturity groups should be estimated in proportion to the above figures. Additional check varieties may be included in specific tests such as U11-917032 (SCN) for resistance to the soybean cyst nematode in UT I.

Lodging is rated at maturity according to the following scores:
1 = Almost all plants erect
2 = All plants leaning slightly or a few plants down.
3 = All plants leaning moderately (45 degrees), or 25% to 50% of the plants down.
4 = All plants leaning considerably, or 50% to 80% of the plants down.
5 = Almost all plants down.

Methods

Height is the average length in inches of mature plants from the ground to the tip of the main stem. To convert to centimeters, multiply by 2.54.

Seed Size (i.e. weight per seed) is recorded in grams per 100 seeds based on a 100 - or 200 - seed sample. To convert to seeds per pound, divide this into 45,359.

Seed Quality is rated according to the following scores considering the amount and degree of wrinkling, defective seed coat (growth cracks), greenishness, and moldy or other pigment. Ratings for seed quality are:

1 -- Very good	2 -- Good	3 -- Fair	4 -- Poor	5 -- Very poor

Descriptive Code: 1 2 3 4 5 6 7 abbreviated as underlined below.
1 = Flower color: Purple, White
2 = Pubescence color: Tawny, Gray, Light tawny
3 = Pod color: Brown, Tan
4 = Seed coat luster: Dull, Shiny, Intermediate
5 = Seed coat color = Yellow, Gray, Light gray, Green
6 = Hilum color: Black, Imperfect black, Brown, Buff, Gray, Yellow, Prefixes indicate:
Light or Dark shades, e.g. Lbf = light buff, Dib = dark imperfect black. H indicates heterogeneous for hilum color.
7 = Stem termination: Determinate, Indeterminate, Semi-Determinate.

Green Stem is a rating of delayed green stem at time of plant maturity (R8 = 95% of the pods have reached their mature pod color). The condition is rated according to the following scores.
1 = almost all plant stems yellowing or have ripened, as indicated by their mature stem color.
2 = 1 - 10% plants with green stems
3 = 11 - 25% plants with green stems
4 = 26 - 50% plants with green stems
5 = > - 50% plants with green stems

Shattering is scored at a specified time after maturity and is based on estimates of the percent of open pods as follows:
1 = No shattering
2 = 1 - 10% shattered
3 = 10 - 25% shattered
4 = 25 - 50% shattered
5 = > - 50% shattered

Iron Chlorosis is rated from 1, no chlorosis, to 5, severe chlorosis.

Emergence score is related to hypocotyl elongation and is measured at Ames, Iowa by germination at 25 C (a critical temperature for differentiating strains). Four replications of 25 seeds/entry are planted in a 5-inch plastic pot at a 4.5-inch depth in sand. Seedlings that have emerged by 12 days after planting are counted and emergence score in relation to percent of seeds that germinate and emerge are as follows:
1 > 95%
2 = 91 - 95%
3 = 85 - 90%
4 = 76 - 84%
5 < 76%

Methods

Oil and Protein. Oil and protein percentages were determined from representative locations of the uniform and preliminary tests. A 50-gram composite sample from all replications of a strain in trial was sent to the USDA-ARS, National Center for Agricultural Utilization Research, Bio-Oils Research Unit at Peoria, Illinois for analysis. One sample of 20-gram sample of whole seed was analyzed for protein and oil composition by near infrared transmittance analysis (NIT) using an IM 9500 Grain Analyzer (Perten Instruments AB, Sweden). Analysis of the seed was conducted on an 'as is' basis and then mathematically converted to a 13% moisture basis (13%) beginning in 2015. Prior to 2015 protein and oil percentages were reported on a dry weight basis (DWB). The conversion factor is 1.1494252 to convert from 13% to DW. The conversion factor is 0.87 to convert DW to 13%.

Amino Acids. Seed amino acid percentages were determined for strains expected to have modified amino acid percentages and normal checks from representative locations of the uniform and preliminary tests. A composite sample from all replications of a strain in a trial was sent to the University of Missouri Experiment Station Chemical Laboratories (ESCL) for analysis of crude protein and amino acids using the "Cysteine, Methionine, Lysine +9" analysis.

Fatty Acids. Fatty acid analysis of strains expected to have oleic acid levels over 75% and normal checks were determined from representative locations of the uniform and preliminary tests. Percent palmitic, stearic, oleic, linoleic and linolenic acid content in the oil were determined. A 30-gram composite seed sample of all replications of a strain in a trial was sent to Dr. Pengyin Chen, University of Missouri, Delta Center, Portageville, MO for analysis.

Mr. Stewart Selves at University of Missouri – Delta Center conducted the fatty acid analysis using a five-seed sample placed in an envelope and manually crushed with a hammer. Crushed seeds were extracted in 5mL chloroform: hexane: methanol (8:5:2, v/v/v) overnight. Derivatization was done by transferring 100 µL of extract to vial and adding 75 µL of methylating reagent (0.25 M methanolic sodium methoxide: petroleum ether: ethyl ether, 1:5:2 v/v/v). Hexane was added to dilute samples to approximately 1 mL. An Agilent (Palo Alto, CA) series 7890 capillary gas chromatograph fitted with a flame ionization detector (275°C) was used with an AT-Silar capillary column (Alltech Associates, Deerfield, IL). Standard fatty acid mixtures (Animal and Vegetable Oil Reference Mixture 6, AOACS) were used as calibration reference standards.

Oligosaccharides (Sugars). Seed sugar percentages were determined for strains known to have a modified sugar profile and normal checks from representative locations of the uniform and preliminary tests. Composite seed samples of all replications of a strain in a trial were sent to Dr. Bo Zhang, Virginia Polytechnic Institute and State University for analysis. A 10-gram sample was used for High Performance Liquid Chromatography (HPLC). (Insert additional details as you deem necessary, such as standard curve, how many sub-samples)

Disease Methods

Disease reactions are listed according to "Soybean Disease Survey Standards", March 1960, unless otherwise specified. Disease reaction is scored from 1 (no disease) to 5 (very severe), or in some cases as percent infected or simply as + (present) or 0 (absent). Purple seed stain and seed mottling follow the disease severity class rating:

Disease severity class rating:	1	2	3	4	5
Percent of diseased seed in sample:	0%	1-3%	4-8%	9-19%	20-100%

An additional classification to describe the extent of seed coat mottling as M (mild), E (extensive), or S (severe), is included. Pod and stem blight is rated as percent of infected seed on a four-week delayed ("d") harvest sample. The location where the test was made is identified in the column heading, and the letter "a" or "n" signifies artificial or natural infection. Clear-cut and consistent reactions are given by letter instead of number: R = resistant, S = susceptible, I = intermediate, and H = heterogeneous. Natural infection ratings are from agronomic tests in some instances and from special disease plantings in others. Absence of symptoms under natural infection does not necessarily mean high resistance.

Abbreviation	Disease	Pathogen
BB	Bacterial blight	Pseudomonas syringa pv. glycinea
BBV	Bud blight	Tobacco ringspot virus
BP	Bacterial pustule	Xanthomonas campestris pv. phaseoli
BS	Brown spot	Septoria glycines
BSR	Brown stem rot	Phialophora gregata
BTS	Bacterial tan spot	Corynebacterium flaccumfaciens
CN	Cyst nematode	Heterodera glycines
CR	Charcoal rot	Macrophomina phaseolina
DM	Downy mildew	Peronospora manshurica
FE	Frogeye leafspot	Cercospora sojina
NSC	Northern Stem canker	Diaporthe phaseolorum var. caulivora
PM	Powdery mildew	Microsphaera diffusa
PR	Phytophthora rot	Phytophthora sojae
PS	Purple stain	Cercospora kikuchii
P&SB	Pod & stem blight	Phomopsis spp.
Pyd	Pythium root rot	Pythium debaryanum
Pyu	Pythium root rot	Pythium ultimum
RK	Root knot nematode	Meloidogyne spp.
RP	Rhizoctonia root rot	Rhizoctonia solani
SB	Sclerotial blight	Sclerotium rolfsii
SCL	Sclerotinia stem rot	Sclerotina sclerotiorum
SDS	Sudden death syndrome	Fusarium virguilforme, (F. solani f.sp.
SMV	Soybean mosaic virus	Soybean mosaic virus
TS	Target spot	Corynespora cassiicola
YMV	Yellow mosaic virus	Yellow mosaic virus

Disease Methods

Rating for BB, BP, DM, FE, and PM are based on leaf symptoms; those for BSR on percent of plants with stem browning, or percent of stem length browned.

Illinois Sudden Death Syndrome rating: Plots were scored by Southern Illinois University. All disease scores were interpolated to the R 6.2 growth stage.

Frogeye Leaf Spot:

SEVERITY 0-9 = linear severity rating scale 0–9; 0 = no symptoms, 1 = 10% of leaf area covered with lesion, 9 = 90% of leaf area covered and/or defoliation occurring.

SDS:

%INCID = % of plot showing leaf symptoms.
SEVERITY 0-9 = severity of the leaf symptoms; 1 = 0-10% leaf chlorotic (LC), 2 = 10-20% LC, 3 = 20-40% LC, 4 = 40-60% LC, 5 > 60% LC, 6 = premature leaf drop up to 1/3 defoliation, 7 = premature leaf drop up to 2/3 defoliation, 8 = premature leaf drop greater than 2/3 defoliation, 9 = premature death.
DX = SDS Disease index (DI x DS/9)

Minnesota Iron Chlorosis Scores (IDC): Scores are the values for 2 observation, taken July 12, and 19, 2019. Data was collected from Danvers, Minnesota. Planting date: May 29, 2019.

Procedure for Testing and Release of Strains

Public soybean breeders have agreed upon this policy on testing and release of soybean strains evaluated in the Uniform Soybean Tests Northern Region. The policy was developed to assist breeders in preparing schedules for seed increases and to assist individuals and committees responsible for approving releases. The policy will aid private breeders in the U.S. and foreign countries to understand how releases will be made that may affect their programs.

Many public institutions carry out development and release of soybean strains. The programs at these institutions operate independently until strains are available for advanced testing in the Uniform Soybean Tests. The USDA-Agricultural Research Service coordinates the Uniform Soybean Tests. The tests are divided into those in the Northern Region, for strains in maturity groups 00 to IV, and those in the Southern States, for strains in maturity groups IVS to VIII. Group IV maturity strains are divided into an IVN test for the northern region and an IVS test for the southern region. Public soybean breeders are encouraged to enter superior strains they develop into the Uniform Soybean Tests.

Strains are evaluated for one year in the Preliminary Tests (PT), which are conducted at eight or more locations in several states. When the tests are completed, each public breeder is given the opportunity to review the results and to decide which strains merit further testing. In instances where there is little consensus among the breeders on the merits of a strain, the originator of the strain generally makes the final decision.

Strains that merit further testing are evaluated in the Uniform Tests (UT) conducted at more locations than Preliminary Tests and with three or four replications. Lines developed by four or more backcrosses to a released cultivar may be entered directly into the UT without prior evaluation in PT. Strains evaluated in Regional Cyst Nematode (SCN) tests may also be entered directly into the UT.

Strains may be considered for release after they have been evaluated for two years in the UT. Exceptions to this are special purpose strains or strains derived from four or more backcrosses to a released cultivar; these may be considered for release after one year in the UT. Any institution or breeder participating in the Uniform Soybean Tests may request consideration for release of any strains in the UT, however the institution that developed the strain usually initiates it.

A strain should be released only if it is distinctly superior to existing varieties in one or more characteristics important for the crop, or it is superior in overall performance in areas where adapted. A single major production hazard, which a new cultivar can overcome, e.g., a highly destructive disease, may be the overriding consideration in releasing a variety. Strains with a very limited range in adaptation should not be released unless performance in that limited range is outstandingly superior, or the strain possesses important use values not otherwise available, including diversification of the germplasm base for the species.

When a decision has been made to multiply a strain for release, the originating institution will inform other UT participants of the decision by February 15. This will give each UT participant the opportunity to participate in the multiplication and release of the strains.

By March 15 all institutions intending to participate in the multiplication of the strain must notify the originating institution of their intent. A final decision to participate in the release of the strain may be delayed until an additional year's data are available for review. By April 1 the originating institution should notify all UT participants what states will be participating in the multiplication and are considering participating in the release of the strain. Breeder's seed is distributed to foundation seed organizations in participating states for production during the summer. Now, if a final decision to release has been made, a sample of seed may be distributed to non-participants in the UT, including private soybean breeders, in accordance with a State's Experiment Station policy. This distribution is made only by the originating institution.

Procedure for Testing and Release of Strains

The originating institutions prepare a release notice to soybean seed producers listing all institutions participating in the release of the cultivar. This notice is circulated for signature by all participating institutions. Assistance in the preparation and circulation of this release notice may be obtained by Dr. Kay Simmons, Deputy Administrator for Crop Production and Protection, Office of National Programs, USDA, ARS, 5601 Sunnyside Avenue, Beltsville, MD 20705, phone 301-504-6252. The office for clearance of proposed names of new soybean cultivars is: Dr. Richard Payne, Chief, Seed Regulatory & Testing Branch, Crossing Place, Suite C, Gastonia, North Carolina 28054-2193, phone 704-810-8870, Fax: 704-852-4189 (Lab). The date for simultaneous publicity release on new soybean cultivars by participating states is determined by the originating state and is usually in August but may be delayed until the following April if additional UT data are being reviewed and a final decision to release has not been made.

If an additional year of UT data is being reviewed prior to a final decision on release, states producing foundation seed must notify the originating state by February 15 of their intent to participate in the release of the cultivar. The release notice to soybean seed producers should be distributed for signature by the participating institutions by April 1.

Foundation seed under the name of the new cultivar is distributed to qualified-certified seed producers in states releasing the new cultivar by April 1. At this time, a sample of seed may be distributed to non-participants in the UT, including private plant breeders, for testing and crossing if this distribution has not been made previously.

Disease, Shattering, and Descriptive Data, 2019

State/ Province	Location	Tests Conducted By:	Tests	UT	PT	UTTM
IL	Peoria	B. Diers/T. Cary	SCN	00-IV	I-IV	00-IV
IN	West Lafayette	G. Cai / T. Fleury	PR Evaluations	00-IV	I-IV	00-IV
KS	Manhattan	W. Schapaugh	Shattering	00-IV	I-IV	00-IV
MN	Crookston	A. Lorenz	Green Stem	0		
MN	Danvers	A. Lorenz	Fe Chlorosis (IDC)	00-I	I	00-I
ONT	Elora	I. Rajcan	Leaf Shape	00-I	I	
ONT	St Mathieu-de-Beloeil	L. O'Donoughue	Green Stem	00-0		

Uniform Test Strains Released or Licensed, 2019

Variety	Experimental Designation		Uniform Test Evaluations
E14077	E14077		2016-2018 Uniform Test II
E17808-1	E17808-1		2018 Uniform Test II, Traited Material
Illini 4218N	LD15-3818		2019 Uniform Test IV
ND Rolette	ND12-15647		2015-2019 Uniform Test 00
P 4678	S13-3851C		2016-2018 Uniform Test IV
S13-10592C	S13-10592C		2016-2018 Uniform Test IV
S13-2743C	S13-2743C		2016-2018 Uniform Test IV
SHOW ME SOY 4301 C	S13-10590C		2016-2018 Uniform Test IV
Variety	**Release Date**	**Releasing States**	**Foundation Seed Production**
E14077	2019	Michigan	2019
E17808-1	2019	Michigan	2019
Illini 4218N	February-19	Illinois	
ND Rolette	January-19	North Dakota	2019
P 4678	2018	Missouri	2017-2019
S13-10592C	2019	Missouri	2017-2019
S13-2743C	2018	Missouri	2017-2019
SHOW ME SOY 4301 C	2019	Missouri	2017-2019
Variety	**Licensed Trait**		**Licensing Entity**
E14077	Yield, SCN Resistance		
E17808-1	HOLL, low saturated		
Illini 4218N			Baird Seed Company
ND Rolette			NDSU Research Foundation
P 4678	Conventional		Erwin-Keith Inc.
S13-10592C	Conventional		
S13-2743C	Conventional		
SHOW ME SOY 4301 C	Conventional		

2019 UT Regional Entries for SCN Screening

2500 eggs	HG Type 0			
	initial		***retest***	
4 reps	mean	FI	mean	FI
Lee	223		*117*	
PI548402	0	0	*0*	*0*
PI88788	5	2	*3*	*2*
PI90763	0	0	*0*	*0*
PI437654	0	0	*0*	*0*
PI209332	3	1	*2*	*2*
PI89772	0	0	*0*	*0*
PI548316	13	6	*6*	*5*
PI438489B	19	9		
Pickett	1	0		

2000 eggs	HG Type 2.5.7			
	initial		***retest***	
4 reps	mean	FI	mean	FI
Lee	274		*203*	
PI548402	0	0	*0*	*0*
PI88788	130	**47**	*94*	*46*
PI90763	0	0	*0*	*0*
PI437654	0	0	*0*	*0*
PI209332	155	**57**	*103*	*50*
PI89772	0	0	*0*	*0*
PI548316	193	**71**	*117*	*58*
PI438489B				
Pickett	25	9	*26*	*13*

(*)=small root, (.)=missing sample, (**)=rep data too variable to rate

Uniform			HG Type 0							HG Type 2.5.7						
Reg. Test	Ent.	Strain	rep1	rep2	rep3	mean	cv	FI	rating	rep1	rep2	rep3	mean	cv	FI	rating
19PT IIA	**5**	**E17040**	4	9	12	8		**4**	**HR**	223	207	209	213	4	**78**	**NR**
19PT IIA	**6**	**E17054**	7	29	31	22		**10**	**R**	238	206	217	220	7	**81**	**NR**
19PT IIA	**8**	**E17167**	5	2	1	3		**1**	**HR**	162	149	174	162	8	**59**	**NR**
19PT IIA	**9**	**E17184**	4	3	10	6		**3**	**HR**	140	123	155	139	11	**51**	**LR**
19PT IIA	**10**	**E17203**	11	9	13	11		**5**	**HR**	247	256	255	253	2	**92**	**NR**
19PT IIA	**12**	**E17269**	37	29	44	37		**16**	**R**	281	288	259	276	5	**101**	**NR**
19PT IIA	**13**	**E17274**	22	16	25	21		**9**	**HR**	184	276	198	219	23	**80**	**NR**
19PT IIA	**14**	**E17275**	3	3	8	5		**2**	**HR**	261	136	237	211	31	**77**	**NR**
19PT IIA	**15**	**E17283**	0	1	13	5		**2**	**HR**	146	132	155	144	8	**53**	**LR**
19PT IIIA	**15**	**SA16-1961**	21	19	19	20		**9**	**HR**	143	194	152	163	17	**60**	**NR**
19PT IIIA	**16**	**SA16-2194**	21	16	23	20		**9**	**HR**	193	178	131	167	19	**61**	**NR**
19PT IIIA	**17**	**SA16-10349**	73	76	89	79	11	**36**	**MR**	237	152	217	202	22	**74**	**NR**
19PT IIIA	**18**	**SA16-12014**	38	8*	45	42	12	**19**	**R**	239	238	213	230	6	**84**	**NR**
19PT IIIA	**19**	**SA16-12491**	8	9	17	11		**5**	**HR**	155	122	145	141	12	**51**	**LR**
19PT IIIA	**20**	**SA16-12880**	4	8	9	7		**3**	**HR**	176	156	166	166	6	**61**	**NR**
19UT IV	**21**	**S15-10879C**	41	39	36	39		**17**	**R**	146	129	135	137	6	**50**	**LR**
19PT IV	**22**	**SA16-11227**	7	5	16	9		**4**	**HR**	173	185	187	182	4	**66**	**NR**
19PT IV	**23**	**SA16-12348**	10	8	15	11		**5**	**HR**	255	234	127	205	33	**75**	**NR**
19UT 0	**9**	**M13-104022**	29	24	37	30		**13**	**R**	178	183	250	204	20	**74**	**NR**
19UT 0	**17**	**M13-250051**	10	0*	16	13	33	**6**	**HR**	5	11	193	70	153	**25**	**retest**
19UT 0	***17***	***M13-250051***								*0*	*157*	*127*	*95*	*88*	***47***	***LR***
19PT I	**13**	**LD17-4967a**	21	18	37	25		**11**	**R**	75*	178	228	203	17	**74**	**NR**
19PT I	**14**	**LD17-5169a**	26	28	23	26		**12**	**R**	104	92	14*	98	9	**36**	**retest**
19PT I	***14***	***LD17-5169a***								*138*	*149*	*155*	*147*	*6*	***73***	***NR***
19PT I	**24**	**M13-252001**	61	81	76	73	14	**33**	**MR**	189	187	181	186	2	**68**	**NR**
19PT I	**25**	**M13-252032**	17	36	44	32		**14**	**R**	137*	0*	148	148		**54**	**retest**
19PT I	***25***	***M13-252032***								*74*	*118*	*106*	*99*	*23*	***49***	***LR***
19PT I	**26**	**M13-264022**	71	60	84	72	17	**32**	**MR**	282	267	296	282	5	**103**	**NR**
19PT I	**27**	**M13-264055**	23	28	35	29		**13**	**R**	271	258	258	262	3	**96**	**NR**
19PT I	**28**	**OAC 13-87C-SCN**	4	1	11	5		**2**	**HR**	176	65*	180	178	2	**65**	**NR**
19PT I	**35**	**U16-127010**	145	135	139	140	4	**63**	**NR**	213	261	41	172	67	**63**	**retest**
19PT I	***35***	***U16-127010***								*156*	*147*	*161*	*155*	*5*	***76***	***NR***
19PT I	**36**	**U16-128648**	117	95	109	107	10	**48**	**LR**	255	186	240	227	16	**83**	**NR**

2019 UT Regional Entries for SCN Screening

2500 eggs	HG Type 0			
	initial		***retest***	
4 reps	mean	FI	mean	FI
Lee	223		*117*	
PI548402	0	0	*0*	*0*
PI88788	5	2	*3*	*2*
PI90763	0	0	*0*	*0*
PI437654	0	0	*0*	*0*
PI209332	3	1	*2*	*2*
PI89772	0	0	*0*	*0*
PI548316	13	6	*6*	*5*
PI438489B	19	9		
Pickett	1	0		

2000 eggs	HG Type 2.5.7			
	initial		***retest***	
4 reps	mean	FI	mean	FI
Lee	274		*203*	
PI548402	0	0	*0*	*0*
PI88788	130	**47**	*94*	*46*
PI90763	0	0	*0*	*0*
PI437654	0	0	*0*	*0*
PI209332	155	**57**	*103*	*50*
PI89772	0	0	*0*	*0*
PI548316	193	**71**	*117*	*58*
PI438489B				
Pickett	25	9	*26*	*13*

(*)=small root, (.)=missing sample, (**)=rep data too variable to rate

Uniform			HG Type 0							HG Type 2.5.7						
Reg. Test	Ent.	Strain	rep1	rep2	rep3	mean	cv	FI	rating	rep1	rep2	rep3	mean	cv	FI	rating
19PT IIA	**5**	**E15901**	6	11	15	11		**5**	**HR**	165	121	106	131	23	**48**	**LR**
19PT IIA	**22**	**LD16-4306a**	16	23	24	21		**9**	**HR**	298	199	306	268	22	**98**	**NR**
19PT IIA	**23**	**LD16-4350**	95	86	106	96	10	**43**	**LR**	173	214	189	192	11	**70**	**NR**
19PT IIA	**24**	**LD16-4385a**	95	83	109	96	14	**43**	**LR**	164	217	179	187	15	**68**	**NR**
19PT IIA	**25**	**LD16-4386a**	31	42	39	37		**17**	**R**	211	207	233	217	6	**79**	**NR**
19PT IIA	**26**	**LD16-4587a**	87	61	103	84	25	**37**	**MR**	6	136	220	121	89	**44**	**retest**
19PT IIA	***26***	***LD16-4587a***								*167*	*175*	*183*	*175*	*5*	***86***	***NR***
19PT IIA	**27**	**LD17-5908a**	124	88	144	119	24	**53**	**LR**	281	186	293	253	23	**93**	**NR**
19PT IIA	**28**	**LD17-5963a**	119	93	128	113	16	**51**	**LR**	257	19*	267	262	3	**96**	**NR**
19PT IIB	**22**	**U16-128607**	136	95	147	126	22	**56**	**LR**	189	148	185	174	13	**64**	**NR**
19PT IIB	**23**	**U16-129612**	7	75	81	54	76	**24**	**retest**	273	77*	258	266	4	**97**	**NR**
19PT IIB	***23***	***U16-129612***	*54*	*50*	*45*	*50*	*9*	***42***	**LR**							
19PT IIB	**27**	**U16-324137**	95	119	109	108	11	**48**	**LR**	281	183	275	246	22	**90**	**NR**
19PT IIB	**32**	**U17-919065**	133	101	119	118	14	**53**	**LR**	227	219	152	199	21	**73**	**NR**
19PT IIB	**35**	**U17-933052**	13	9	36	19		**9**	**HR**	212	222	206	213	4	**78**	**NR**
19PT IIIA	**5**	**LD16- 759**	28	24	33	28		**13**	**R**	141	50*	134	138	4	**50**	**retest**
19PT IIIA	***5***	***LD16- 759***								*81*	*88*	*69*	*79*	*12*	***39***	***MR***
19PT IIIA	**6**	**LD16-2636**	1*	5	10	8		**3**	**HR**	191	145	196	177	16	**65**	**NR**
19PT IIIA	**7**	**LD16-2751**	20	26	16	21		**9**	**HR**	263	126	241	210	35	**77**	**NR**
19PT IIIA	**8**	**LD16-2794**	4	2	9	5		**2**	**HR**	187	194	199	193	3	**71**	**NR**
19PT IIIA	**9**	**LD16-2923**	34	27	26	29		**13**	**R**	165	149	171	162	7	**59**	**LR**
19PT IIIA	**10**	**LD16-2983**	39	31	46	39		**17**	**R**	279	285	261	275	5	**100**	**NR**
19PT IIIA	**11**	**LD16-3589**	3	2	9	5		**2**	**HR**	171	85	159	138	34	**51**	**LR**
19PT IIIA	**12**	**LD16-5075a**	15	17	2	11		**5**	**HR**	217	162	206	195	15	**71**	**NR**
19PT IIIA	**14**	**LG16-2547**	18	14	26	19		**9**	**HR**	266	190	188	215	21	**78**	**NR**
19PT IIIB	**21**	**U16-325193**	79	88	99	89	11	**40**	**LR**	201	285	212	233	20	**85**	**NR**
19PT IIIB	**22**	**U16-326197**	98	84	117	100	17	**45**	**LR**	205	181	118	168	27	**61**	**NR**
19UT IV	**17**	**S16-14161C**	12	7	18	12		**6**	**HR**	210	197	222	210	6	**77**	**NR**
19PT IV	**10**	**K16-1045**	1	1	10	4		**2**	**HR**	186	212	177	192	9	**70**	**NR**
19PT IV	**11**	**K16-1071**	21	18	19	19		**9**	**HR**	141	161	154	152	7	**56**	**LR**
19PT IV	**12**	**K16-1076**	56	47	48	50		**23**	**R**	191	122	214	176	27	**64**	**NR**
19PT IV	**13**	**K16-1211**	5	9	2	5		**2**	**HR**	259	235	264	253	6	**92**	**NR**
19PT IV	**14**	**K16-1222**	28	22	26	25		**11**	**R**	131	139	127	132	5	**48**	**LR**
19PT IV	**15**	**K16-1229**	9	11	15	12		**5**	**HR**	215	171	200	195	11	**71**	**NR**
19PT IV	**16**	**K16-1706**	6	5	13	8		**4**	**HR**	157	144	143	148	5	**54**	**LR**
19PT IV	**18**	**LG17-8693**	7	4	14	8		**4**	**HR**	237	236	225	233	3	**85**	**NR**

2019 UT Regional Entries for SCN Screening

2500 eggs	HG Type 0			
	initial		***retest***	
4 reps	mean	FI	mean	FI
Lee	223		*117*	
PI548402	0	0	*0*	*0*
PI88788	5	2	*3*	*2*
PI90763	0	0	*0*	*0*
PI437654	0	0	*0*	*0*
PI209332	3	1	*2*	*2*
PI89772	0	0	*0*	*0*
PI548316	13	6	*6*	*5*
PI438489B	19	9		
Pickett	1	0		

2000 eggs	HG Type 2.5.7			
	initial		***retest***	
4 reps	mean	FI	mean	FI
Lee	274		*203*	
PI548402	0	0	*0*	*0*
PI88788	130	**47**	*94*	*46*
PI90763	0	0	*0*	*0*
PI437654	0	0	*0*	*0*
PI209332	155	**57**	*103*	*50*
PI89772	0	0	*0*	*0*
PI548316	193	**71**	*117*	*58*
PI438489B				
Pickett	25	9	*26*	*13*

(*)=small root, (.)=missing sample, (**)=rep data too variable to rate

Uniform			HG Type 0							HG Type 2.5.7						
Reg. Test	Ent.	Strain	rep1	rep2	rep3	mean	cv	FI	rating	rep1	rep2	rep3	mean	cv	FI	rating
19UT 0 TM	**18**	**M13-276034**	24	30	21	25		**11**	**R**	162	226	182	190	17	**69**	**NR**
19UT 0 TM	**20**	**M13-278078**	132	127	122	127	4	**57**	**LR**	237	294	242	258	12	**94**	**NR**
19UT I TM	**12**	**M07-297007**	12	15	8	12		**5**	**HR**	142	183	156	160	13	**59**	**LR**
19UT I TM	**28**	**M13-276053**	11	9	10	10		**4**	**HR**	288	272	273	278	3	**101**	**NR**
19UT II TM	**18**	**LD17-12673**	33	26	36	32		**14**	**R**	257	70*	266	262	2	**96**	**NR**
19UT II TM	**19**	**LD17-12905**	22	16	18	19		**8**	**HR**	303	296	284	294	3	**108**	**NR**
19UT II TM	**20**	**LD17-13294**	35	27	46	36		**16**	**R**	294	285	286	288	2	**105**	**NR**
19UT II TM	**22**	**SA17-13168-1**	25	19	32	25		**11**	**R**	177	187	186	183	3	**67**	**NR**
19UT III TM	**19**	**LD16-10165**	18	14	26	19		**9**	**HR**	214	152	227	198	20	**72**	**NR**
19UT III TM	**21**	**LD16-10310**	17	12	57	29		**13**	**R**	167	177	152	165	8	**60**	**NR**
19UT III TM	**22**	**LD16-10319**	17	13	24	18		**8**	**HR**	78	189	144	137	41	**50**	**retest**
19UT III TM	***22***	***LD16-10319***								*92*	*79*	*12*	*61*	*70*	***30***	***MR***
19UT III TM	**24**	**LD17-12201**	18	12	16	15		**7**	**HR**	136	229	152	172	29	**63**	**NR**
19UT III TM	**25**	**LD17-12679**	3*	2	56	29		**13**	**retest**	199	117	203	173	28	**63**	**NR**
19UT III TM	**25**	**LD17-12679**	11	16	21	16	31	**14**	**R**							
19UT III TM	**26**	**LD17-12708**	23	17	19	20		**9**	**HR**	263	176	235	225	20	**82**	**NR**
19UT III TM	**27**	**LD17-12986**	3*	12	18	15		**7**	**HR**	228	185	216	210	11	**77**	**NR**
19UT III TM	**32**	**SA17-5753**	14	17	28	20		**9**	**HR**	178	158	181	172	7	**63**	**NR**
19UT III TM	**33**	**SA17-5771**	112	81	121	105	20	**47**	**LR**	163	54*	158	161	2	**59**	**retest**
19UT III TM	***33***	***SA17-5771***								*66*	*81*	*93*	*80*	*17*	***39***	***MR***
19UT III TM	**34**	**SA17-5776**	54	57	62	58	7	**26**	**MR**	221	141	237	200	26	**73**	**NR**
19UT III TM	**35**	**SA17-5792**	31	67	39	46		**20**	**R**	181	124	197	167	23	**61**	**NR**
19UT III TM	**36**	**SA17-5797**	101	80	104	95	14	**43**	**LR**	151	106	145	134	18	**49**	**LR**
19UT III TM	**37**	**SA17-6259**	10	6	14	10		**4**	**HR**	156	123	150	143	12	**52**	**LR**
19UT III TM	**38**	**SA17-7283**	47	32	44	41		**18**	**R**	162	173	171	169	3	**62**	**NR**
19UT III TM	**40**	**SA17-8035**	7	16	15	13		**6**	**HR**	85	157	94	112	35	**41**	**LR**
19UT IV TM	**23**	**K4117Nsgr**	2	25	12	13		**6**	**HR**	179	184	184	182	2	**67**	**NR**
19UT IV TM	**24**	**LD17-12352**	16	13	24	18		**8**	**HR**	273	266	255	265	3	**97**	**NR**
19UT IV TM	**25**	**LD17-12668**	27	22	35	28		**13**	**R**	211	232	228	224	5	**82**	**NR**
19UT IV TM	**26**	**S15-6047R**	13	14	21	16		**7**	**HR**	163	149	188	167	12	**61**	**NR**

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
MN0083 (00)	**UT00 1**	0%	0/11	25%	3/12	45%	5/11
MN0095	**UT00 2**	0%	0/12	100%	12/12	100%	12/12
ND Rolette	**UT00 3**	0%	0/12	33%	4/12	0%	0/11
M10-207102	**UT00 4**	0%	0/12	100%	7/7	33%	4/12
M12-439036	**UT00 5**	10%	1/10	18%	2/11	100%	10/10
ND16-2745	**UT00 6**	0%	0/11	17%	2/12	0%	0/11
ND16-3107	**UT00 7**	58%	7/12	25%	3/12	36%	4/11
ND16-4031	**UT00 8**	0%	0/12	0%	0/12	17%	2/12
ND16-5352	**UT00 9**	8%	1/12	10%	1/10	0%	0/12
ND16-6045	**UT00 10**	91%	10/11	100%	12/12	100%	12/12
ND16-6908	**UT00 11**	0%	0/11	0%	0/10	0%	0/12
ND16-7274	**UT00 12**	0%	0/12	17%	2/12	17%	2/12
ND16-7895	**UT00 13**	0%	0/9	8%	1/12	17%	2/12
ND16-7896	**UT00 14**	8%	1/12	22%	2/9	0%	0/12
ND16-7913	**UT00 15**	0%	0/11	18%	2/11	50%	6/12
ND16-8064	**UT00 16**	0%	0/11	22%	2/9	60%	6/10
ND16-8305	**UT00 17**	11%	1/9	30%	3/10	10%	1/10
ND16-8873	**UT00 18**	0%	0/12	0%	0/9	9%	1/11
ND16-8909	**UT00 19**	0%	0/10	40%	4/10	8%	1/12
AG00437	**UT00TM 4**	0%	0/10	0%	0/8	91%	10/11
AG00632	**UT00TM 5**	0%	0/6	0%	0/4	n/a	n/a
AG00937	**UT00TM 6**	0%	0/12	0%	0/9	92%	11/12
ND17009GT	**UT00TM 7**	100%	9/9	100%	11/11	100%	12/12
M12-454061	**UT00TM 8**	0%	0/8	11%	1/9	100%	12/12
ND16-10069GT	**UT00TM 9**	73%	8/11	64%	7/11	42%	5/12
ND16-10359GT	**UT00TM 10**	0%	0/10	0%	0/10	8%	1/12
ND16-10485GT	**UT00TM 11**	18%	2/11	0%	0/12	17%	2/12
ND16-10491GT	**UT00TM 12**	0%	0/12	11%	1/9	8%	1/12
ND16-11108GT	**UT00TM 13**	18%	2/11	25%	3/12	0%	0/9
ND16-11172GT	**UT00TM 14**	0%	0/8	0%	0/12	9%	1/11

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
MN0083 (00)	**UT00 1**	0%	0/11	8%	1/12	100%	6/6
MN0095	**UT00 2**	88%	7/8	0%	0/9	100%	8/8
ND Rolette	**UT00 3**	0%	0/8	0%	0/12	100%	11/11
M10-207102	**UT00 4**	67%	6/9	9%	1/11	100%	12/12
M12-439036	**UT00 5**	9%	1/11	0%	0/10	100%	12/12
ND16-2745	**UT00 6**	0%	0/9	0%	0/12	0%	0/12
ND16-3107	**UT00 7**	100%	10/10	100%	12/12	67%	8/12
ND16-4031	**UT00 8**	0%	0/9	0%	0/9	25%	3/12
ND16-5352	**UT00 9**	30%	3/10	0%	0/12	0%	0/11
ND16-6045	**UT00 10**	90%	9/10	100%	12/12	100%	12/12
ND16-6908	**UT00 11**	80%	8/10	100%	12/12	0%	0/12
ND16-7274	**UT00 12**	82%	9/11	92%	11/12	9%	1/11
ND16-7895	**UT00 13**	0%	0/10	0%	0/11	64%	7/11
ND16-7896	**UT00 14**	75%	9/12	100%	12/12	30%	3/10
ND16-7913	**UT00 15**	42%	5/12	33%	4/12	42%	5/12
ND16-8064	**UT00 16**	100%	10/10	90%	9/10	27%	3/11
ND16-8305	**UT00 17**	100%	8/8	n/a	n/a	11%	1/9
ND16-8873	**UT00 18**	100%	12/12	n/a	n/a	18%	2/11
ND16-8909	**UT00 19**	100%	11/11	100%	12/12	0%	0/12
AG00437	**UT00TM 4**	0%	0/8	0%	0/7	75%	6/8
AG00632	**UT00TM 5**	17%	1/6	n/a	n/a	63%	5/8
AG00937	**UT00TM 6**	25%	2/8	n/a	n/a	89%	8/9
ND17009GT	**UT00TM 7**	100%	10/10	75%	9/12	60%	6/10
M12-454061	**UT00TM 8**	33%	3/9	8%	1/12	33%	2/6
ND16-10069GT	**UT00TM 9**	100%	11/11	n/a	n/a	30%	3/10
ND16-10359GT	**UT00TM 10**	11%	1/9	n/a	n/a	0%	0/10
ND16-10485GT	**UT00TM 11**	100%	12/12	100%	10/10	20%	2/10
ND16-10491GT	**UT00TM 12**	100%	12/12	100%	12/12	0%	0/9
ND16-11108GT	**UT00TM 13**	100%	10/10	n/a	n/a	8%	1/12
ND16-11172GT	**UT00TM 14**	100%	9/9	n/a	n/a	0%	0/11

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
ND16-11448GT	**UT00TM 15**	0%	0/10	0%	0/10	0%	0/10
ND16-11454GT	**UT00TM 16**	0%	0/9	0%	0/10	36%	4/11
ND16-12086GT	**UT00TM 17**	0%	0/7	0%	0/11	10%	1/10
ND16-9796GT	**UT00TM 18**	25%	3/12	0%	0/11	25%	3/12
ND18008GT	**UT00TM 19**	10%	1/10	20%	2/10	42%	5/12
ND Stutsman (0)	**UT0 1**	0%	0/11	0%	0/10	100%	10/10
MN0404CN (SCN)	**UT0 3**	0%	0/10	0%	0/12	0%	0/12
MN1410 (L)	**UT0 4**	100%	12/12	100%	12/12	100%	12/12
M08-362045L	**UT0 5**	100%	12/12	100%	10/10	100%	12/12
M11-245026	**UT0 6**	9%	1/11	22%	2/9	45%	5/11
M11-271059	**UT0 7**	0%	0/9	80%	8/10	58%	7/12
M12-416003	**UT0 8**	0%	0/10	9%	1/11	83%	10/12
M13-104022	**UT0 9**	55%	6/11	58%	7/12	100%	12/12
M13-106018	**UT0 10**	0%	0/11	0%	0/9	17%	2/12
M13-190024	**UT0 11**	0%	0/9	33%	4/12	25%	3/12
M13-198033	**UT0 12**	33%	3/9	56%	5/9	33%	3/9
M13-204003	**UT0 13**	0%	0/12	27%	3/11	17%	2/12
M13-236028	**UT0 14**	0%	0/12	89%	8/9	92%	11/12
M13-236029	**UT0 15**	0%	0/10	92%	11/12	100%	10/10
M13-247009	**UT0 16**	0%	0/8	0%	0/6	100%	12/12
M13-250051	**UT0 17**	13%	1/8	44%	4/9	55%	6/11
ND13-4508	**UT0 18**	0%	0/10	0%	0/7	83%	10/12
ND13-4810	**UT0 19**	73%	8/11	100%	11/11	92%	11/12
ND13-7510	**UT0 20**	89%	8/9	100%	11/11	100%	12/12
ND15-19739	**UT0 21**	0%	0/10	0%	0/11	0%	0/12
ND16-2739	**UT0 22**	0%	0/11	0%	0/10	0%	0/12
ND16-3035	**UT0 23**	8%	1/12	0%	0/10	0%	0/12
ND16-5639	**UT0 24**	0%	0/12	0%	0/12	100%	11/11
ND16-6769	**UT0 25**	0%	0/11	0%	0/8	0%	0/12
ND16-7155	**UT0 26**	0%	0/11	0%	0/6	0%	0/12

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
ND16-11448GT	**UT00TM 15**	0%	0/12	0%	0/7	0%	0/10
ND16-11454GT	**UT00TM 16**	100%	11/11	100%	11/11	8%	1/12
ND16-12086GT	**UT00TM 17**	100%	11/11	0%	0/9	0%	0/7
ND16-9796GT	**UT00TM 18**	100%	10/10	100%	12/12	0%	0/9
ND18008GT	**UT00TM 19**	91%	10/11	100%	10/10	0%	0/8
ND Stutsman (0)	**UT0 1**	11%	1/9	0%	0/11	100%	10/10
MN0404CN (SCN)	**UT0 3**	20%	2/10	9%	1/11	0%	0/11
MN1410 (L)	**UT0 4**	100%	10/10	55%	6/11	36%	4/11
M08-362045L	**UT0 5**	36%	4/11	100%	12/12	67%	8/12
M11-245026	**UT0 6**	0%	0/12	10%	1/10	83%	10/12
M11-271059	**UT0 7**	100%	12/12	0%	0/9	73%	8/11
M12-416003	**UT0 8**	0%	0/10	0%	0/10	45%	5/11
M13-104022	**UT0 9**	40%	4/10	45%	5/11	64%	7/11
M13-106018	**UT0 10**	20%	2/10	0%	0/12	0%	0/12
M13-190024	**UT0 11**	63%	5/8	29%	2/7	80%	8/10
M13-198033	**UT0 12**	100%	8/8	100%	8/8	0%	0/8
M13-204003	**UT0 13**	0%	0/9	0%	0/12	50%	4/8
M13-236028	**UT0 14**	73%	8/11	0%	0/12	100%	10/10
M13-236029	**UT0 15**	90%	9/10	0%	0/12	89%	8/9
M13-247009	**UT0 16**	0%	0/10	0%	0/12	82%	9/11
M13-250051	**UT0 17**	33%	3/9	18%	2/11	89%	8/9
ND13-4508	**UT0 18**	0%	0/10	0%	0/11	0%	0/12
ND13-4810	**UT0 19**	91%	10/11	92%	11/12	100%	12/12
ND13-7510	**UT0 20**	75%	9/12	100%	12/12	91%	10/11
ND15-19739	**UT0 21**	0%	0/12	0%	0/11	0%	0/12
ND16-2739	**UT0 22**	0%	0/12	0%	0/12	0%	0/12
ND16-3035	**UT0 23**	80%	8/10	100%	11/11	0%	0/12
ND16-5639	**UT0 24**	0%	0/10	0%	0/10	100%	11/11
ND16-6769	**UT0 25**	100%	12/12	100%	11/11	0%	0/11
ND16-7155	**UT0 26**	100%	12/12	100%	12/12	0%	0/12

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
ND16-7175	**UT0 27**	0%	0/11	0%	0/9	0%	0/11
ND16-7176	**UT0 28**	0%	0/12	0%	0/10	0%	0/12
ND16-7291	**UT0 29**	10%	1/10	0%	0/7	0%	0/11
ND16-7704	**UT0 30**	0%	0/9	0%	0/5	91%	10/11
ND16-7744	**UT0 31**	0%	0/7	8%	1/12	90%	9/10
ND16-8257	**UT0 32**	50%	6/12	56%	5/9	0%	0/12
ND16-8821	**UT0 33**	0%	0/11	0%	0/12	17%	2/12
ND16-8865	**UT0 34**	0%	0/10	78%	7/9	17%	2/12
ND16-9606	**UT0 35**	9%	1/11	75%	9/12	0%	0/12
OAC 14-16C-SCN	**UT0 36**	0%	0/10	18%	2/11	0%	0/12
OAC 17-14C	**UT0 37**	36%	4/11	45%	5/11	45%	5/11
OAC 17-56C	**UT0 38**	0%	0/8	0%	0/9	100%	11/11
AG0536	**UT0TM 5**	0%	0/5	17%	1/6	20%	2/10
AG0835	**UT0TM 6**	0%	0/8	0%	0/6	10%	1/10
AG1135	**UT0TM 7**	0%	0/6	0%	0/3	13%	1/8
ND17009GT	**UT0TM 8**	100%	9/9	100%	10/10	100%	11/11
M06R-614008	**UT0TM 9**	91%	10/11	100%	11/11	75%	9/12
M07-296048	**UT0TM 10**	0%	0/12	92%	11/12	75%	9/12
M07-296048HOLL-1	**UT0TM 11**	0%	0/11	100%	11/11	50%	5/10
M07-296048HOLL-2	**UT0TM 12**	8%	1/12	100%	11/11	100%	12/12
M07-296048HOLL-3	**UT0TM 13**	0%	0/10	100%	12/12	36%	4/11
M07-296048HOLL-4	**UT0TM 14**	0%	0/12	100%	12/12	83%	10/12
M13-209007	**UT0TM 15**	0%	0/11	92%	11/12	17%	2/12
M13-268035	**UT0TM 16**	0%	0/9	100%	12/12	92%	11/12
M13-270022	**UT0TM 17**	0%	0/12	100%	12/12	100%	12/12
M13-276034	**UT0TM 18**	0%	0/12	100%	12/12	58%	7/12
M13-277057	**UT0TM 19**	100%	10/10	100%	12/12	83%	10/12
M13-278078	**UT0TM 20**	50%	6/12	100%	12/12	100%	12/12
M13-280012	**UT0TM 21**	0%	0/9	50%	6/12	100%	12/12
M13R-309006	**UT0TM 22**	0%	0/10	78%	7/9	0%	0/11

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
ND16-7175	**UT0 27**	100%	11/11	100%	10/10	0%	0/11
ND16-7176	**UT0 28**	92%	11/12	100%	12/12	0%	0/11
ND16-7291	**UT0 29**	83%	10/12	100%	12/12	0%	0/11
ND16-7704	**UT0 30**	0%	0/10	0%	0/12	75%	9/12
ND16-7744	**UT0 31**	0%	0/10	0%	0/9	100%	10/10
ND16-8257	**UT0 32**	100%	11/11	100%	12/12	18%	2/11
ND16-8821	**UT0 33**	0%	0/10	0%	0/12	36%	4/11
ND16-8865	**UT0 34**	0%	0/12	0%	0/12	100%	11/11
ND16-9606	**UT0 35**	100%	11/11	100%	12/12	18%	2/11
OAC 14-16C-SCN	**UT0 36**	100%	8/8	91%	10/11	0%	0/11
OAC 17-14C	**UT0 37**	88%	7/8	75%	9/12	40%	4/10
OAC 17-56C	**UT0 38**	10%	1/10	11%	1/9	9%	1/11
AG0536	**UT0TM 5**	0%	0/5	9%	1/11	100%	5/5
AG0835	**UT0TM 6**	0%	0/9	0%	0/11	30%	3/10
AG1135	**UT0TM 7**	n/a	n/a	0%	0/6	100%	3/3
ND17009GT	**UT0TM 8**	100%	10/10	100%	12/12	80%	8/10
M06R-614008	**UT0TM 9**	100%	12/12	83%	10/12	0%	0/8
M07-296048	**UT0TM 10**	75%	9/12	8%	1/12	90%	9/10
M07-296048HOLL-1	**UT0TM 11**	67%	8/12	0%	0/12	100%	12/12
M07-296048HOLL-2	**UT0TM 12**	100%	11/11	0%	0/12	100%	11/11
M07-296048HOLL-3	**UT0TM 13**	38%	3/8	20%	2/10	100%	12/12
M07-296048HOLL-4	**UT0TM 14**	100%	9/9	0%	0/11	100%	11/11
M13-209007	**UT0TM 15**	0%	0/12	9%	1/11	92%	11/12
M13-268035	**UT0TM 16**	67%	4/6	0%	0/11	100%	11/11
M13-270022	**UT0TM 17**	73%	8/11	0%	0/11	92%	11/12
M13-276034	**UT0TM 18**	27%	3/11	17%	2/12	92%	11/12
M13-277057	**UT0TM 19**	92%	11/12	58%	7/12	91%	10/11
M13-278078	**UT0TM 20**	92%	11/12	38%	3/8	100%	12/12
M13-280012	**UT0TM 21**	58%	7/12	9%	1/11	92%	11/12
M13R-309006	**UT0TM 22**	0%	0/10	0%	0/11	80%	8/10

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
M13R-309009	**UT0TM 23**	0%	0/10	58%	7/12	17%	2/12
M13R-309021	**UT0TM 24**	0%	0/10	88%	7/8	58%	7/12
M13R-309024	**UT0TM 25**	0%	0/11	67%	6/9	0%	0/12
M13R-309033	**UT0TM 26**	11%	1/9	56%	5/9	25%	3/12
M13R-309035	**UT0TM 27**	0%	0/9	100%	7/7	8%	1/12
M13R-323110	**UT0TM 28**	0%	0/7	89%	8/9	73%	8/11
M14HO-1329-1001	**UT0TM 29**	0%	0/7	100%	8/8	9%	1/11
M14HO-1329-4008	**UT0TM 30**	0%	0/9	100%	11/11	10%	1/10
M14HO-1330-14001	**UT0TM 31**	0%	0/11	67%	8/12	8%	1/12
M14HO-1330-3006	**UT0TM 32**	0%	0/12	83%	10/12	100%	12/12
MCH13R-117072	**UT0TM 33**	30%	3/10	80%	8/10	8%	1/12
ND15-22873(GT)	**UT0TM 34**	100%	11/11	100%	12/12	100%	12/12
ND16-11368GT	**UT0TM 35**	0%	0/12	55%	6/11	8%	1/12
ND16-11624GT	**UT0TM 36**	10%	1/10	0%	0/11	100%	12/12
ND16-11836GT	**UT0TM 37**	0%	0/9	0%	0/10	0%	0/12
ND16-9741GT	**UT0TM 38**	30%	3/10	36%	4/11	0%	0/10
ND16-9745GT	**UT0TM 39**	11%	1/9	91%	10/11	17%	2/12
ND16-9755GT	**UT0TM 40**	0%	0/12	92%	11/12	92%	11/12
MN1410 (I)	**UTI 1**	45%	5/11	100%	12/12	92%	11/12
ND Stutsman (E)	**UTI 2**	0%	0/11	0%	0/12	75%	9/12
U11-917032 (SCN) (L)	**UTI 3**	91%	10/11	100%	12/12	67%	8/12
U14-103015	**UTI 4**	100%	12/12	92%	11/12	100%	12/12
E15338	**UTI 5**	0%	0/8	42%	5/12	0%	0/12
E16099	**UTI 6**	100%	12/12	100%	12/12	73%	8/11
E16346	**UTI 7**	75%	9/12	83%	10/12	17%	2/12
M11-241015	**UTI 8**	100%	12/12	100%	12/12	33%	4/12
M11-358032	**UTI 9**	80%	8/10	100%	12/12	83%	10/12
M12-421024	**UTI 10**	0%	0/7	9%	1/11	17%	2/12
M12-437045	**UTI 11**	0%	0/9	10%	1/10	0%	0/12
U14-108007	**UTI 14**	100%	12/12	100%	12/12	9%	1/11

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
M13R-309009	**UT0TM 23**	50%	5/10	0%	0/12	100%	12/12
M13R-309021	**UT0TM 24**	11%	1/9	0%	0/11	89%	8/9
M13R-309024	**UT0TM 25**	9%	1/11	17%	2/12	89%	8/9
M13R-309033	**UT0TM 26**	10%	1/10	9%	1/11	82%	9/11
M13R-309035	**UT0TM 27**	20%	2/10	0%	0/11	78%	7/9
M13R-323110	**UT0TM 28**	78%	7/9	67%	6/9	33%	4/12
M14HO-1329-1001	**UT0TM 29**	0%	0/9	33%	3/9	50%	5/10
M14HO-1329-4008	**UT0TM 30**	0%	0/8	9%	1/11	67%	6/9
M14HO-1330-14001	**UT0TM 31**	0%	0/9	0%	0/11	100%	12/12
M14HO-1330-3006	**UT0TM 32**	9%	1/11	0%	0/10	100%	12/12
MCH13R-117072	**UT0TM 33**	13%	1/8	17%	2/12	33%	4/12
ND15-22873(GT)	**UT0TM 34**	100%	11/11	100%	10/10	50%	5/10
ND16-11368GT	**UT0TM 35**	45%	5/11	83%	10/12	0%	0/12
ND16-11624GT	**UT0TM 36**	100%	11/11	100%	11/11	0%	0/12
ND16-11836GT	**UT0TM 37**	100%	10/10	100%	12/12	0%	0/12
ND16-9741GT	**UT0TM 38**	44%	4/9	100%	10/10	0%	0/11
ND16-9745GT	**UT0TM 39**	91%	10/11	100%	11/11	0%	0/11
ND16-9755GT	**UT0TM 40**	91%	10/11	100%	10/10	10%	1/10
MN1410 (I)	**UTI 1**	100%	12/12	58%	7/12	100%	12/12
ND Stutsman (E)	**UTI 2**	10%	1/10	0%	0/9	92%	11/12
U11-917032 (SCN) (L)	**UTI 3**	100%	12/12	100%	11/11	100%	10/10
U14-103015	**UTI 4**	100%	12/12	100%	12/12	100%	12/12
E15338	**UTI 5**	92%	11/12	0%	0/11	100%	11/11
E16099	**UTI 6**	100%	12/12	92%	11/12	100%	11/11
E16346	**UTI 7**	25%	3/12	18%	2/11	92%	11/12
M11-241015	**UTI 8**	92%	11/12	45%	5/11	100%	12/12
M11-358032	**UTI 9**	100%	12/12	58%	7/12	100%	12/12
M12-421024	**UTI 10**	0%	0/11	0%	0/12	90%	9/10
M12-437045	**UTI 11**	0%	0/11	0%	0/11	50%	6/12
U14-108007	**UTI 14**	100%	12/12	67%	8/12	60%	6/10

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
U14-110036	**UTI 15**	80%	8/10	33%	4/12	27%	3/11
U14-111010	**UTI 16**	50%	6/12	50%	6/12	10%	1/10
AG1135	**UTITM 5**	0%	0/10	0%	0/2	0%	0/6
AG1733	**UTITM 6**	0%	0/8	8%	1/12	90%	9/10
AG2031	**UTITM 7**	0%	0/6	0%	0/10	80%	4/5
E15165T	**UTITM 8**	0%	0/10	0%	0/12	0%	0/12
E17137	**UTITM 9**	100%	9/9	100%	10/10	92%	11/12
E17808-1	**UTITM 10**	0%	0/10	0%	0/11	0%	0/11
E18834	**UTITM 11**	0%	0/12	0%	0/10	0%	0/10
M07-297007	**UTITM 12**	100%	12/12	83%	10/12	75%	9/12
M07-297007HOLL-1	**UTITM 13**	100%	9/9	83%	10/12	82%	9/11
M07-297007HOLL-2	**UTITM 14**	82%	9/11	73%	8/11	45%	5/11
M07-297007HOLL-3	**UTITM 15**	100%	12/12	92%	11/12	56%	5/9
M07-297007HOLL-4	**UTITM 16**	100%	12/12	75%	9/12	45%	5/11
M10-236-2007	**UTITM 17**	0%	0/9	0%	0/12	0%	0/12
M10-238-2036	**UTITM 18**	0%	0/12	8%	1/12	0%	0/12
M11-314020	**UTITM 19**	0%	0/11	82%	9/11	67%	8/12
M11-314101	**UTITM 20**	0%	0/9	0%	0/11	75%	6/8
M12R-801080	**UTITM 21**	80%	8/10	67%	8/12	83%	10/12
M12R-803016	**UTITM 22**	17%	2/12	64%	7/11	42%	5/12
M13-182037	**UTITM 23**	0%	0/10	83%	10/12	82%	9/11
M13-194010	**UTITM 24**	33%	3/9	50%	6/12	0%	0/10
M13-215031	**UTITM 25**	0%	0/12	83%	10/12	0%	0/15
M13-246073	**UTITM 26**	0%	0/11	0%	0/7	17%	2/12
M13-268021	**UTITM 27**	83%	10/12	100%	12/12	58%	7/12
M13-276053	**UTITM 28**	0%	0/10	100%	12/12	80%	8/10
M13R-323009	**UTITM 29**	91%	10/11	100%	11/11	81%	13/16
M13R-323077	**UTITM 30**	0%	0/11	40%	4/10	7%	1/14
M13R-323140	**UTITM 31**	100%	12/12	100%	11/11	100%	12/12
M13R-323141	**UTITM 32**	10%	1/10	18%	2/11	9%	1/11

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
U14-110036	**UTI 15**	100%	11/11	100%	12/12	40%	4/10
U14-111010	**UTI 16**	70%	7/10	8%	1/12	50%	6/12
AG1135	**UTITM 5**	0%	0/8	0%	0/4	33%	2/6
AG1733	**UTITM 6**	30%	3/10	0%	0/11	100%	11/11
AG2031	**UTITM 7**	0%	0/5	0%	0/5	n/a	n/a
E15165T	**UTITM 8**	11%	1/9	0%	0/8	92%	11/12
E17137	**UTITM 9**	100%	12/12	36%	4/11	92%	11/12
E17808-1	**UTITM 10**	27%	3/11	8%	1/12	92%	11/12
E18834	**UTITM 11**	0%	0/10	8%	1/12	0%	0/11
M07-297007	**UTITM 12**	83%	10/12	92%	11/12	75%	9/12
M07-297007HOLL-1	**UTITM 13**	83%	10/12	25%	3/12	92%	11/12
M07-297007HOLL-2	**UTITM 14**	90%	9/10	17%	2/12	73%	8/11
M07-297007HOLL-3	**UTITM 15**	82%	9/11	80%	8/10	100%	11/11
M07-297007HOLL-4	**UTITM 16**	100%	12/12	82%	9/11	100%	10/10
M10-236-2007	**UTITM 17**	0%	0/12	0%	0/12	0%	0/12
M10-238-2036	**UTITM 18**	18%	2/11	0%	0/12	10%	1/10
M11-314020	**UTITM 19**	100%	12/12	0%	0/12	91%	10/11
M11-314101	**UTITM 20**	9%	1/11	0%	0/10	100%	11/11
M12R-801080	**UTITM 21**	100%	11/11	100%	10/10	100%	12/12
M12R-803016	**UTITM 22**	25%	3/12	0%	0/11	67%	8/12
M13-182037	**UTITM 23**	100%	8/8	0%	0/10	100%	11/11
M13-194010	**UTITM 24**	60%	6/10	30%	3/10	82%	9/11
M13-215031	**UTITM 25**	25%	3/12	25%	3/12	100%	12/12
M13-246073	**UTITM 26**	0%	0/9	0%	0/11	70%	7/10
M13-268021	**UTITM 27**	100%	11/11	58%	7/12	100%	12/12
M13-276053	**UTITM 28**	100%	10/10	10%	1/10	89%	8/9
M13R-323009	**UTITM 29**	100%	11/11	100%	12/12	100%	11/11
M13R-323077	**UTITM 30**	22%	2/9	0%	0/11	0%	0/12
M13R-323140	**UTITM 31**	100%	12/12	100%	12/12	100%	12/12
M13R-323141	**UTITM 32**	92%	11/12	92%	11/12	10%	1/10

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
M13R-324135	**UTITM 33**	83%	10/12	100%	12/12	25%	4/16
M14HO-1326-1002	**UTITM 34**	0%	0/10	60%	6/10	0%	0/12
MCH13R-117054	**UTITM 35**	83%	10/12	91%	10/11	73%	8/11
LD17-4967a	**PTI 13**	100%	8/8	100%	12/12	73%	8/11
LD17-5169a	**PTI 14**	100%	10/10	100%	12/12	82%	9/11
M13-106002	**PTI 15**	0%	0/10	45%	5/11	0%	0/13
M13-106007	**PTI 16**	0%	0/11	73%	8/11	27%	3/11
M13-106015	**PTI 17**	42%	5/12	0%	0/10	0%	0/11
M13-106022	**PTI 18**	100%	11/11	100%	8/8	82%	9/11
M13-106037	**PTI 19**	75%	9/12	82%	9/11	82%	9/11
M13-194009	**PTI 20**	100%	10/10	67%	8/12	18%	2/11
M13-194018	**PTI 21**	75%	6/8	100%	7/7	45%	5/11
M13-194022	**PTI 22**	0%	0/12	25%	2/8	8%	1/12
M13-194051	**PTI 23**	92%	11/12	80%	8/10	50%	6/12
M13-252001	**PTI 24**	91%	10/11	89%	8/9	83%	10/12
M13-252032	**PTI 25**	100%	10/10	92%	11/12	50%	5/10
M13-264022	**PTI 26**	0%	0/12	92%	11/12	73%	8/11
M13-264055	**PTI 27**	0%	0/12	100%	9/9	80%	8/10
OAC 13-87C-SCN	**PTI 28**	100%	6/6	75%	6/8	11%	1/9
OAC 14-37C-SCN	**PTI 29**	100%	12/12	40%	4/10	30%	3/10
OAC 17-112C	**PTI 30**	0%	0/10	0%	0/12	10%	1/10
OAC 17-93C	**PTI 31**	0%	0/10	0%	0/8	0%	0/11
U16-125610	**PTI 32**	56%	5/9	33%	3/9	18%	2/11
U16-126608	**PTI 33**	0%	0/8	0%	0/11	0%	0/12
U16-126662	**PTI 34**	38%	3/8	0%	0/8	0%	0/10
U16-127010	**PTI 35**	0%	0/9	0%	0/9	9%	1/11
U16-128648	**PTI 36**	0%	0/12	100%	9/9	70%	7/10
U16-129655	**PTI 37**	0%	0/11	89%	8/9	100%	7/7
U17-920008	**PTI 38**	88%	7/8	100%	7/7	100%	6/6
U17-924011	**PTI 39**	100%	6/6	100%	9/9	90%	9/10

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
M13R-324135	**UTITM 33**	92%	11/12	100%	12/12	64%	7/11
M14HO-1326-1002	**UTITM 34**	0%	0/6	0%	0/8	80%	8/10
MCH13R-117054	**UTITM 35**	100%	11/11	100%	12/12	100%	12/12
LD17-4967a	**PTI 13**	100%	9/9	92%	11/12	100%	11/11
LD17-5169a	**PTI 14**	100%	9/9	100%	11/11	100%	12/12
M13-106002	**PTI 15**	100%	10/10	40%	4/10	0%	0/11
M13-106007	**PTI 16**	100%	12/12	0%	0/11	75%	9/12
M13-106015	**PTI 17**	100%	12/12	92%	11/12	0%	0/12
M13-106022	**PTI 18**	100%	11/11	92%	11/12	92%	11/12
M13-106037	**PTI 19**	82%	9/11	67%	8/12	100%	12/12
M13-194009	**PTI 20**	100%	12/12	92%	11/12	64%	7/11
M13-194018	**PTI 21**	86%	6/7	70%	7/10	82%	9/11
M13-194022	**PTI 22**	0%	0/11	0%	0/11	45%	5/11
M13-194051	**PTI 23**	92%	11/12	92%	11/12	75%	9/12
M13-252001	**PTI 24**	100%	12/12	100%	12/12	64%	7/11
M13-252032	**PTI 25**	100%	10/10	100%	10/10	92%	11/12
M13-264022	**PTI 26**	100%	11/11	0%	0/11	40%	4/10
M13-264055	**PTI 27**	100%	12/12	0%	0/9	70%	7/10
OAC 13-87C-SCN	**PTI 28**	100%	10/10	92%	11/12	63%	5/8
OAC 14-37C-SCN	**PTI 29**	83%	10/12	83%	10/12	64%	7/11
OAC 17-112C	**PTI 30**	10%	1/10	33%	3/9	8%	1/12
OAC 17-93C	**PTI 31**	100%	12/12	67%	8/12	0%	0/12
U16-125610	**PTI 32**	100%	9/9	11%	1/9	33%	3/9
U16-126608	**PTI 33**	33%	3/9	0%	0/7	10%	1/10
U16-126662	**PTI 34**	89%	8/9	33%	4/12	0%	0/9
U16-127010	**PTI 35**	89%	8/9	0%	0/9	0%	0/9
U16-128648	**PTI 36**	90%	9/10	22%	2/9	100%	7/7
U16-129655	**PTI 37**	86%	6/7	13%	1/8	80%	8/10
U17-920008	**PTI 38**	100%	5/5	80%	4/5	100%	12/12
U17-924011	**PTI 39**	100%	9/9	75%	6/8	100%	10/10

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
IA2102 (II)	**UTII 1**	100%	7/7	100%	2/2	100%	4/4
LD02-4485 (SCN)	**UTII 2**	50%	6/12	33%	3/9	82%	9/11
U11-917032 (SCN) (E)	**UTII 3**	100%	12/12	100%	11/11	100%	8/8
U14-910097 (SCN) (L)	**UTII 4**	56%	5/9	92%	11/12	50%	5/10
CR14-7814	**UTII 5**	0%	0/10	40%	4/10	0%	0/12
CR15-0899	**UTII 6**	0%	0/9	0%	0/3	80%	8/10
CR15-2189	**UTII 7**	0%	0/10	8%	1/12	0%	0/8
E15339	**UTII 8**	89%	8/9	83%	10/12	60%	6/10
E15345	**UTII 9**	90%	9/10	100%	10/10	83%	10/12
E15347	**UTII 10**	20%	2/10	50%	5/10	50%	5/10
E15349	**UTII 11**	0%	0/12	25%	3/12	0%	0/12
E15351	**UTII 12**	17%	2/12	9%	1/11	0%	0/11
E15390	**UTII 13**	0%	0/6	29%	2/7	11%	1/9
E16030	**UTII 14**	100%	12/12	100%	11/11	100%	10/10
E16031	**UTII 15**	100%	12/12	100%	12/12	67%	6/9
E16265	**UTII 16**	0%	0/12	10%	1/10	0%	0/11
E16380	**UTII 17**	0%	0/12	9%	1/11	0%	0/11
E16398	**UTII 18**	44%	4/9	20%	2/10	25%	3/12
E16410	**UTII 19**	100%	12/12	75%	9/12	20%	2/10
E16411	**UTII 20**	100%	12/12	100%	12/12	91%	10/11
LD15-544	**UTII 21**	100%	12/12	100%	12/12	27%	3/11
LD16-4471a	**UTII 22**	100%	12/12	100%	11/11	58%	7/12
U14-206326	**UTII 23**	0%	0/7	11%	1/9	100%	9/9
U14-216260	**UTII 24**	42%	5/12	18%	2/11	55%	6/11
U15-917133	**UTII 25**	100%	12/12	100%	10/10	92%	11/12
U16-609059	**UTII 26**	45%	5/11	25%	3/12	40%	4/10
U16-904053	**UTII 27**	100%	12/12	100%	12/12	100%	12/12
U16-905030	**UTII 28**	100%	12/12	92%	11/12	83%	10/12
U16-907052	**UTII 29**	80%	8/10	80%	8/10	67%	8/12
U16-909058	**UTII 30**	20%	2/10	9%	1/11	0%	0/10

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
IA2102 (II)	**UTII 1**	14%	1/7	100%	4/4	90%	9/10
LD02-4485 (SCN)	**UTII 2**	17%	2/12	30%	3/10	100%	12/12
U11-917032 (SCN) (E)	**UTII 3**	92%	11/12	100%	12/12	82%	9/11
U14-910097 (SCN) (L)	**UTII 4**	83%	10/12	40%	4/10	45%	5/11
CR14-7814	**UTII 5**	0%	0/8	0%	0/9	90%	9/10
CR15-0899	**UTII 6**	13%	1/8	14%	1/7	63%	5/8
CR15-2189	**UTII 7**	9%	1/11	18%	2/11	67%	4/6
E15339	**UTII 8**	42%	5/12	82%	9/11	83%	5/6
E15345	**UTII 9**	70%	7/10	90%	9/10	100%	11/11
E15347	**UTII 10**	0%	0/11	27%	3/11	89%	8/9
E15349	**UTII 11**	0%	0/10	17%	2/12	91%	10/11
E15351	**UTII 12**	0%	0/10	10%	1/10	55%	6/11
E15390	**UTII 13**	0%	0/8	0%	0/5	0%	0/10
E16030	**UTII 14**	91%	10/11	50%	6/12	100%	10/10
E16031	**UTII 15**	75%	9/12	60%	6/10	82%	9/11
E16265	**UTII 16**	0%	0/11	33%	1/3	13%	1/8
E16380	**UTII 17**	0%	0/12	0%	0/12	50%	4/8
E16398	**UTII 18**	27%	3/11	73%	8/11	33%	3/9
E16410	**UTII 19**	9%	1/11	92%	11/12	0%	0/6
E16411	**UTII 20**	82%	9/11	100%	12/12	58%	7/12
LD15-544	**UTII 21**	42%	5/12	36%	4/11	30%	3/10
LD16-4471a	**UTII 22**	18%	2/11	100%	11/11	63%	5/8
U14-206326	**UTII 23**	0%	0/9	0%	0/9	83%	5/6
U14-216260	**UTII 24**	44%	4/9	100%	11/11	57%	4/7
U15-917133	**UTII 25**	75%	9/12	100%	11/11	100%	10/10
U16-609059	**UTII 26**	64%	7/11	80%	8/10	33%	3/9
U16-904053	**UTII 27**	75%	9/12	83%	10/12	83%	10/12
U16-905030	**UTII 28**	67%	8/12	70%	7/10	36%	4/11
U16-907052	**UTII 29**	83%	10/12	73%	8/11	67%	6/9
U16-909058	**UTII 30**	0%	0/11	0%	0/11	100%	9/9

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
U16-909085	**UTII 31**	100%	12/12	100%	10/10	73%	8/11
U16-929043	**UTII 32**	90%	9/10	100%	11/11	80%	8/10
U16-929142	**UTII 33**	100%	10/10	100%	8/8	100%	6/6
U16-932015	**UTII 34**	30%	3/10	17%	2/12	0%	0/12
U16-934075	**UTII 35**	0%	0/11	0%	0/12	83%	10/12
AG2031	**UTIITM 5**	0%	0/5	0%	0/5	100%	1/1
AG2535	**UTIITM 6**	0%	0/10	14%	1/7	0%	0/7
LD12-15246 R2a	**UTIITM 7**	67%	6/9	30%	3/10	75%	9/12
E11128T	**UTIITM 8**	92%	11/12	92%	11/12	83%	10/12
E15346T	**UTIITM 9**	63%	5/8	82%	9/11	33%	3/9
E17143	**UTIITM 10**	0%	0/9	30%	3/10	8%	1/12
E17801-08	**UTIITM 11**	100%	12/12	100%	11/11	100%	9/9
E17804-01	**UTIITM 12**	67%	8/12	100%	9/9	86%	6/7
HM15-H006	**UTIITM 13**	0%	0/12	17%	2/12	0%	0/11
HM15-J049	**UTIITM 14**	0%	0/12	0%	0/6	0%	0/5
HM16-M015	**UTIITM 15**	8%	1/12	0%	0/12	0%	0/8
HM16-W150	**UTIITM 16**	0%	0/11	0%	0/11	0%	0/10
LD16-10150	**UTIITM 17**	92%	11/12	100%	12/12	100%	12/12
LD17-12673	**UTIITM 18**	100%	12/12	100%	12/12	92%	11/12
LD17-12905	**UTIITM 19**	91%	10/11	100%	12/12	75%	9/12
LD17-13294	**UTIITM 20**	92%	11/12	100%	12/12	60%	6/10
SA17-12251	**UTIITM 21**	91%	10/11	100%	3/3	100%	5/5
SA17-13168-1	**UTIITM 22**	92%	11/12	100%	11/11	67%	6/9
SA17-14575	**UTIITM 23**	100%	10/10	89%	8/9	78%	7/9
SA17-2316	**UTIITM 24**	100%	6/6	100%	7/7	67%	6/9
SA17-2418	**UTIITM 25**	67%	6/9	75%	6/8	60%	6/10
SA17-2742	**UTIITM 26**	90%	9/10	100%	12/12	100%	10/10
SA17-5794	**UTIITM 27**	80%	8/10	100%	10/10	100%	8/8
E15901	**PTIIA 5**	0%	0/12	17%	2/12	0%	0/11
E17004	**PTIIA 6**	0%	0/12	17%	2/12	11%	1/9

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
U16-909085	**UTII 31**	71%	5/7	100%	10/10	100%	9/9
U16-929043	**UTII 32**	83%	10/12	100%	11/11	75%	6/8
U16-929142	**UTII 33**	83%	10/12	100%	9/9	67%	4/6
U16-932015	**UTII 34**	75%	9/12	91%	10/11	0%	0/12
U16-934075	**UTII 35**	0%	0/11	0%	0/11	90%	9/10
AG2031	**UTIITM 5**	0%	0/2	n/a	n/a	n/a	n/a
AG2535	**UTIITM 6**	0%	0/12	0%	0/8	63%	5/8
LD12-15246 R2a	**UTIITM 7**	18%	2/11	30%	3/10	20%	2/10
E11128T	**UTIITM 8**	67%	8/12	89%	8/9	91%	10/11
E15346T	**UTIITM 9**	10%	1/10	50%	6/12	56%	5/9
E17143	**UTIITM 10**	0%	0/11	0%	0/8	17%	1/6
E17801-08	**UTIITM 11**	100%	12/12	100%	10/10	100%	9/9
E17804-01	**UTIITM 12**	82%	9/11	100%	12/12	88%	7/8
HM15-H006	**UTIITM 13**	0%	0/11	18%	2/11	10%	1/10
HM15-J049	**UTIITM 14**	88%	7/8	0%	0/8	0%	0/10
HM16-M015	**UTIITM 15**	0%	0/9	73%	8/11	10%	1/10
HM16-W150	**UTIITM 16**	73%	8/11	100%	12/12	11%	1/9
LD16-10150	**UTIITM 17**	100%	11/11	100%	10/10	100%	8/8
LD17-12673	**UTIITM 18**	92%	11/12	18%	2/11	83%	10/12
LD17-12905	**UTIITM 19**	82%	9/11	50%	6/12	88%	7/8
LD17-13294	**UTIITM 20**	50%	5/10	91%	10/11	73%	8/11
SA17-12251	**UTIITM 21**	67%	4/6	100%	4/4	67%	2/3
SA17-13168-1	**UTIITM 22**	67%	8/12	64%	7/11	67%	6/9
SA17-14575	**UTIITM 23**	88%	7/8	44%	4/9	100%	7/7
SA17-2316	**UTIITM 24**	63%	5/8	25%	2/8	80%	4/5
SA17-2418	**UTIITM 25**	30%	3/10	30%	3/10	50%	5/10
SA17-2742	**UTIITM 26**	90%	9/10	67%	8/12	73%	8/11
SA17-5794	**UTIITM 27**	90%	9/10	42%	5/12	50%	3/6
E15901	**PTIIA 5**	0%	0/12	10%	1/10	80%	8/10
E17004	**PTIIA 6**	0%	0/12	0%	0/12	100%	10/10

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
E17040	**PTIIA 7**	8%	1/12	90%	9/10	0%	0/10
E17054	**PTIIA 8**	0%	0/12	20%	2/10	0%	0/7
E17062	**PTIIA 9**	92%	11/12	100%	12/12	100%	12/12
E17069	**PTIIA 10**	55%	6/11	78%	7/9	80%	8/10
E17167	**PTIIA 11**	0%	0/10	17%	2/12	0%	0/11
E17184	**PTIIA 12**	82%	9/11	92%	11/12	18%	2/11
E17203	**PTIIA 13**	92%	11/12	100%	12/12	36%	4/11
E17227	**PTIIA 14**	0%	0/12	17%	2/12	0%	0/10
E17269	**PTIIA 15**	0%	0/12	42%	5/12	9%	1/11
E17274	**PTIIA 16**	0%	0/12	25%	2/8	0%	0/10
E17275	**PTIIA 17**	78%	7/9	42%	5/12	0%	0/12
E17283	**PTIIA 18**	0%	0/10	20%	2/10	0%	0/9
E17545	**PTIIA 19**	100%	12/12	100%	11/11	100%	9/9
E17550	**PTIIA 20**	100%	12/12	100%	11/11	100%	10/10
HM16-W248	**PTIIA 21**	0%	0/10	0%	0/11	64%	7/11
LD16-4306a	**PTIIA 22**	83%	10/12	92%	11/12	n/a	n/a
LD16-4350	**PTIIA 23**	0%	0/12	0%	0/12	0%	0/11
LD16-4385a	**PTIIA 24**	0%	0/12	0%	0/12	0%	0/12
LD16-4386a	**PTIIA 25**	11%	1/9	0%	0/12	0%	0/12
LD16-4587a	**PTIIA 26**	0%	0/11	27%	3/11	n/a	n/a
LD17-5908a	**PTIIA 27**	58%	7/12	50%	4/8	80%	8/10
LD17-5963a	**PTIIA 28**	0%	0/10	0%	0/8	50%	4/8
LG15-2779	**PTIIA 29**	100%	9/9	100%	9/9	75%	9/12
LG15-4648	**PTIIA 30**	0%	0/9	50%	5/10	0%	0/10
LG17-5670	**PTIIA 31**	0%	0/10	90%	9/10	50%	6/12
LG17-5677	**PTIIA 32**	0%	0/10	100%	9/9	55%	6/11
CR16-0058	**PTIIB 14**	83%	10/12	100%	12/12	36%	4/11
CR16-0059	**PTIIB 15**	100%	9/9	100%	11/11	36%	4/11
CR16-0070	**PTIIB 16**	0%	0/11	9%	1/11	86%	6/7
CR16-0076	**PTIIB 17**	8%	1/12	100%	10/10	78%	7/9

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
E17040	**PTIIA 7**	0%	0/8	0%	0/9	73%	8/11
E17054	**PTIIA 8**	0%	0/11	0%	0/11	91%	10/11
E17062	**PTIIA 9**	73%	8/11	100%	11/11	100%	11/11
E17069	**PTIIA 10**	36%	4/11	67%	8/12	91%	10/11
E17167	**PTIIA 11**	50%	6/12	0%	0/11	0%	0/12
E17184	**PTIIA 12**	67%	8/12	58%	7/12	80%	8/10
E17203	**PTIIA 13**	83%	10/12	73%	8/11	92%	11/12
E17227	**PTIIA 14**	0%	0/12	0%	0/10	82%	9/11
E17269	**PTIIA 15**	8%	1/12	0%	0/11	56%	5/9
E17274	**PTIIA 16**	0%	0/11	0%	0/12	67%	8/12
E17275	**PTIIA 17**	0%	0/12	27%	3/11	50%	5/10
E17283	**PTIIA 18**	0%	0/11	8%	1/12	75%	9/12
E17545	**PTIIA 19**	90%	9/10	38%	3/8	100%	10/10
E17550	**PTIIA 20**	82%	9/11	30%	3/10	67%	6/9
HM16-W248	**PTIIA 21**	0%	0/10	0%	0/10	80%	8/10
LD16-4306a	**PTIIA 22**	17%	2/12	25%	3/12	33%	4/12
LD16-4350	**PTIIA 23**	0%	0/11	0%	0/12	36%	4/11
LD16-4385a	**PTIIA 24**	0%	0/12	0%	0/8	67%	8/12
LD16-4386a	**PTIIA 25**	0%	0/12	18%	2/11	55%	6/11
LD16-4587a	**PTIIA 26**	0%	0/12	0%	0/9	50%	5/10
LD17-5908a	**PTIIA 27**	50%	4/8	44%	4/9	86%	6/7
LD17-5963a	**PTIIA 28**	0%	0/10	13%	1/8	67%	6/9
LG15-2779	**PTIIA 29**	100%	12/12	100%	6/6	90%	9/10
LG15-4648	**PTIIA 30**	22%	2/9	40%	4/10	100%	9/9
LG17-5670	**PTIIA 31**	100%	8/8	13%	1/8	70%	7/10
LG17-5677	**PTIIA 32**	100%	7/7	0%	0/8	43%	3/7
CR16-0058	**PTIIB 14**	100%	12/12	100%	11/11	73%	8/11
CR16-0059	**PTIIB 15**	100%	8/8	100%	10/10	75%	6/8
CR16-0070	**PTIIB 16**	14%	1/7	0%	0/9	89%	8/9
CR16-0076	**PTIIB 17**	100%	9/9	0%	0/10	100%	9/9

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
ORC 14.150.284	**PTIIB 18**	0%	0/8	0%	0/10	45%	5/11
ORC 14.150.305	**PTIIB 19**	60%	6/10	100%	12/12	30%	3/10
ORC 14.150.307	**PTIIB 20**	13%	1/8	10%	1/10	33%	3/9
U16-127621	**PTIIB 21**	0%	0/8	11%	1/9	0%	0/8
U16-128607	**PTIIB 22**	100%	8/8	100%	11/11	78%	7/9
U16-129612	**PTIIB 23**	75%	6/8	86%	6/7	38%	3/8
U16-129646	**PTIIB 24**	100%	10/10	100%	9/9	100%	8/8
U16-322148	**PTIIB 25**	100%	10/10	100%	9/9	73%	8/11
U16-322178	**PTIIB 26**	91%	10/11	100%	10/10	100%	8/8
U16-324137	**PTIIB 27**	8%	1/12	10%	1/10	0%	0/7
U17-618174	**PTIIB 28**	0%	0/12	14%	1/7	9%	1/11
U17-905083	**PTIIB 29**	0%	0/11	0%	0/9	0%	0/11
U17-905087	**PTIIB 30**	22%	2/9	86%	6/7	0%	0/7
U17-916070	**PTIIB 31**	50%	4/8	60%	6/10	0%	0/7
U17-919065	**PTIIB 32**	38%	3/8	40%	4/10	63%	5/8
U17-920124	**PTIIB 33**	63%	5/8	33%	3/9	38%	3/8
U17-928093	**PTIIB 34**	22%	2/9	17%	2/12	0%	0/10
U17-933052	**PTIIB 35**	75%	6/8	80%	8/10	30%	3/10
LD11-2170 (III)	**UTIII 1**	9%	1/11	0%	0/10	0%	0/9
IA3048 (SCN)	**UTIII 2**	88%	7/8	40%	4/10	33%	3/9
LD07-3395bf (SCN) (L)	**UTIII 3**	100%	9/9	50%	5/10	44%	4/9
U14-910097 (SCN) (E)	**UTIII 4**	89%	8/9	36%	4/11	0%	0/12
CR14-5524	**UTIII 5**	13%	1/8	30%	3/10	100%	12/12
CR14-6116	**UTIII 6**	22%	2/9	40%	4/10	17%	1/6
CR14-7871	**UTIII 7**	100%	11/11	89%	8/9	38%	3/8
CR15-0636	**UTIII 8**	100%	8/8	73%	8/11	50%	5/10
CR15-1385	**UTIII 9**	100%	11/11	82%	9/11	57%	4/7
CR15-2775	**UTIII 10**	92%	11/12	60%	6/10	64%	7/11
LD15-5776793	**UTIII 11**	0%	0/10	0%	0/8	31%	4/13
LD15-5782791	**UTIII 12**	0%	0/6	0%	0/11	47%	7/15

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
ORC 14.150.284	**PTIIB 18**	0%	0/11	18%	2/11	67%	4/6
ORC 14.150.305	**PTIIB 19**	100%	10/10	100%	11/11	50%	4/8
ORC 14.150.307	**PTIIB 20**	33%	4/12	45%	5/11	10%	1/10
U16-127621	**PTIIB 21**	0%	0/10	0%	0/8	0%	0/6
U16-128607	**PTIIB 22**	100%	8/8	90%	9/10	75%	6/8
U16-129612	**PTIIB 23**	80%	4/5	86%	6/7	83%	5/6
U16-129646	**PTIIB 24**	100%	9/9	56%	5/9	50%	3/6
U16-322148	**PTIIB 25**	75%	6/8	70%	7/10	89%	8/9
U16-322178	**PTIIB 26**	80%	8/10	60%	3/5	71%	5/7
U16-324137	**PTIIB 27**	0%	0/10	0%	0/10	100%	7/7
U17-618174	**PTIIB 28**	33%	4/12	60%	6/10	0%	0/10
U17-905083	**PTIIB 29**	10%	1/10	0%	0/8	0%	0/9
U17-905087	**PTIIB 30**	88%	7/8	56%	5/9	17%	1/6
U17-916070	**PTIIB 31**	17%	1/6	43%	3/7	33%	3/9
U17-919065	**PTIIB 32**	30%	3/10	0%	0/9	57%	4/7
U17-920124	**PTIIB 33**	70%	7/10	50%	4/8	29%	2/7
U17-928093	**PTIIB 34**	70%	7/10	43%	3/7	0%	0/12
U17-933052	**PTIIB 35**	25%	2/8	90%	9/10	22%	2/9
LD11-2170 (III)	**UTIII 1**	0%	0/12	0%	0/12	100%	12/12
IA3048 (SCN)	**UTIII 2**	91%	10/11	75%	9/12	92%	11/12
LD07-3395bf (SCN) (L)	**UTIII 3**	100%	12/12	58%	7/12	100%	11/11
U14-910097 (SCN) (E)	**UTIII 4**	100%	12/12	9%	1/11	75%	6/8
CR14-5524	**UTIII 5**	92%	11/12	0%	0/12	100%	12/12
CR14-6116	**UTIII 6**	100%	10/10	0%	0/10	100%	11/11
CR14-7871	**UTIII 7**	100%	7/7	100%	7/7	92%	11/12
CR15-0636	**UTIII 8**	70%	7/10	67%	6/9	100%	11/11
CR15-1385	**UTIII 9**	91%	10/11	89%	8/9	100%	12/12
CR15-2775	**UTIII 10**	25%	2/8	70%	7/10	91%	10/11
LD15-5776793	**UTIII 11**	0%	0/10	0%	0/11	100%	11/11
LD15-5782791	**UTIII 12**	11%	1/9	0%	0/12	83%	10/12

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
LD15-5789800	**UTIII 13**	0%	0/3	0%	0/9	17%	1/6
LD15-6762	**UTIII 14**	0%	0/10	0%	0/10	55%	6/11
SA13-1385	**UTIII 15**	100%	11/11	78%	7/9	0%	0/9
SA14-9653	**UTIII 16**	20%	2/10	0%	0/11	0%	0/7
U14-211209	**UTIII 17**	0%	0/12	0%	0/12	0%	0/10
U14-605217	**UTIII 18**	33%	2/6	36%	4/11	20%	2/10
U14-924158	**UTIII 19**	100%	12/12	60%	6/10	50%	4/8
U15-322139	**UTIII 20**	0%	0/10	0%	0/11	0%	0/8
U15-322140	**UTIII 21**	0%	0/12	0%	0/12	8%	1/12
U15-606207	**UTIII 22**	17%	2/12	8%	1/12	0%	0/11
U16-609052	**UTIII 23**	33%	3/9	0%	0/10	0%	0/10
U16-610065	**UTIII 24**	36%	4/11	0%	0/10	0%	0/10
U16-902058	**UTIII 25**	100%	9/9	44%	4/9	73%	8/11
U16-903131	**UTIII 26**	80%	8/10	57%	8/14	18%	2/11
U16-914101	**UTIII 27**	100%	8/8	70%	7/10	75%	9/12
U16-928123	**UTIII 28**	0%	0/5	0%	0/9	64%	7/11
AG3334	**UTIIITM 5**	0%	0/4	0%	0/6	20%	1/5
AG3832	**UTIIITM 6**	0%	0/2	0%	0/7	0%	0/4
CR16-0020	**UTIIITM 7**	100%	6/6	63%	5/8	67%	8/12
CR16-0023	**UTIIITM 8**	89%	8/9	78%	7/9	70%	7/10
CR16-0024	**UTIIITM 9**	100%	6/6	90%	9/10	92%	11/12
CR16-0025	**UTIIITM 10**	0%	0/10	0%	0/9	0%	0/6
CR16-0027	**UTIIITM 11**	78%	7/9	27%	3/11	25%	2/8
CR16-0029	**UTIIITM 12**	17%	1/6	0%	0/9	0%	0/8
CR16-0033	**UTIIITM 13**	0%	0/7	0%	0/10	0%	0/5
HM16-L079	**UTIIITM 14**	0%	0/8	0%	0/11	7%	1/15
HM16-L084	**UTIIITM 15**	0%	0/5	0%	0/9	0%	0/6
HM16-M006	**UTIIITM 16**	0%	0/8	11%	1/9	11%	1/9
HM16-M016	**UTIIITM 17**	0%	0/11	0%	0/10	0%	0/6
HM16-M019	**UTIIITM 18**	0%	0/11	0%	0/12	0%	0/10

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
LD15-5789800	**UTIII 13**	0%	0/10	0%	0/12	100%	10/10
LD15-6762	**UTIII 14**	8%	1/12	0%	0/11	100%	11/11
SA13-1385	**UTIII 15**	100%	9/9	100%	11/11	100%	10/10
SA14-9653	**UTIII 16**	0%	0/10	0%	0/12	82%	9/11
U14-211209	**UTIII 17**	0%	0/10	0%	0/10	91%	10/11
U14-605217	**UTIII 18**	44%	4/9	17%	2/12	100%	10/10
U14-924158	**UTIII 19**	100%	8/8	80%	8/10	100%	10/10
U15-322139	**UTIII 20**	0%	0/12	0%	0/12	90%	9/10
U15-322140	**UTIII 21**	0%	0/10	0%	0/11	100%	11/11
U15-606207	**UTIII 22**	100%	10/10	100%	7/7	0%	0/11
U16-609052	**UTIII 23**	100%	12/12	64%	7/11	17%	2/12
U16-610065	**UTIII 24**	100%	10/10	100%	10/10	0%	0/12
U16-902058	**UTIII 25**	100%	11/11	92%	11/12	91%	10/11
U16-903131	**UTIII 26**	67%	6/9	78%	7/9	90%	9/10
U16-914101	**UTIII 27**	91%	10/11	100%	12/12	83%	10/12
U16-928123	**UTIII 28**	0%	0/11	0%	0/9	100%	12/12
AG3334	**UTIIITM 5**	0%	0/6	0%	0/4	83%	5/6
AG3832	**UTIIITM 6**	0%	0/6	0%	0/7	100%	6/6
CR16-0020	**UTIIITM 7**	100%	12/12	100%	10/10	91%	10/11
CR16-0023	**UTIIITM 8**	100%	11/11	100%	12/12	100%	11/11
CR16-0024	**UTIIITM 9**	100%	11/11	29%	2/7	100%	11/11
CR16-0025	**UTIIITM 10**	100%	12/12	64%	7/11	9%	1/11
CR16-0027	**UTIIITM 11**	100%	12/12	88%	7/8	20%	2/10
CR16-0029	**UTIIITM 12**	0%	0/10	0%	0/11	100%	10/10
CR16-0033	**UTIIITM 13**	0%	0/11	0%	0/10	100%	12/12
HM16-L079	**UTIIITM 14**	0%	0/12	9%	1/11	58%	7/12
HM16-L084	**UTIIITM 15**	0%	0/10	11%	1/9	0%	0/10
HM16-M006	**UTIIITM 16**	0%	0/11	50%	6/12	9%	1/11
HM16-M016	**UTIIITM 17**	0%	0/12	11%	1/9	0%	0/12
HM16-M019	**UTIIITM 18**	0%	0/11	55%	6/11	0%	0/11

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
LD16-10165	**UTIIITM 19**	100%	9/9	82%	9/11	78%	7/9
LD16-10183	**UTIIITM 20**	100%	7/7	100%	12/12	100%	4/4
LD16-10310	**UTIIITM 21**	0%	0/8	0%	0/11	0%	0/6
LD16-10319	**UTIIITM 22**	27%	3/11	40%	4/10	0%	0/10
LD16-10351	**UTIIITM 23**	50%	4/8	60%	6/10	25%	3/12
LD17-12201	**UTIIITM 24**	89%	8/9	80%	8/10	78%	7/9
LD17-12679	**UTIIITM 25**	100%	12/12	100%	11/11	0%	0/9
LD17-12708	**UTIIITM 26**	100%	11/11	83%	10/12	0%	0/10
LD17-12986	**UTIIITM 27**	100%	5/5	70%	7/10	0%	0/4
SA17-11294	**UTIIITM 28**	13%	1/8	0%	0/8	20%	2/10
SA17-11463	**UTIIITM 29**	100%	10/10	92%	11/12	0%	0/8
SA17-11700	**UTIIITM 30**	100%	10/10	70%	7/10	0%	0/10
SA17-13516	**UTIIITM 31**	100%	8/8	88%	7/8	50%	4/8
SA17-5753	**UTIIITM 32**	83%	5/6	89%	8/9	8%	1/12
SA17-5771	**UTIIITM 33**	100%	7/7	78%	7/9	0%	0/9
SA17-5776	**UTIIITM 34**	100%	7/7	78%	7/9	13%	1/8
SA17-5792	**UTIIITM 35**	100%	10/10	82%	9/11	13%	1/8
SA17-5797	**UTIIITM 36**	100%	10/10	89%	8/9	0%	0/8
SA17-6259	**UTIIITM 37**	88%	7/8	78%	7/9	20%	2/10
SA17-7283	**UTIIITM 38**	100%	9/9	89%	8/9	80%	12/15
SA17-749PR	**UTIIITM 39**	33%	2/6	20%	1/5	25%	1/4
SA17-8035	**UTIIITM 40**	86%	6/7	100%	9/9	0%	0/4
LD16- 759	**PTIIIA 5**	100%	10/10	18%	2/11	40%	4/10
LD16-2636	**PTIIIA 6**	100%	11/11	100%	12/12	9%	1/11
LD16-2751	**PTIIIA 7**	0%	0/10	0%	0/10	9%	1/11
LD16-2794	**PTIIIA 8**	0%	0/7	0%	0/6	33%	3/9
LD16-2923	**PTIIIA 9**	100%	7/7	20%	2/10	22%	2/9
LD16-2983	**PTIIIA 10**	100%	11/11	67%	6/9	45%	5/11
LD16-3589	**PTIIIA 11**	100%	10/10	38%	3/8	8%	1/12
LD16-5075a	**PTIIIA 12**	100%	10/10	55%	6/11	40%	4/10

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
LD16-10165	**UTIIITM 19**	100%	12/12	91%	10/11	100%	12/12
LD16-10183	**UTIIITM 20**	100%	11/11	80%	8/10	100%	10/10
LD16-10310	**UTIIITM 21**	0%	0/10	0%	0/10	100%	10/10
LD16-10319	**UTIIITM 22**	44%	4/9	25%	2/8	100%	11/11
LD16-10351	**UTIIITM 23**	56%	5/9	58%	7/12	90%	9/10
LD17-12201	**UTIIITM 24**	100%	10/10	80%	8/10	100%	8/8
LD17-12679	**UTIIITM 25**	14%	1/7	83%	10/12	100%	10/10
LD17-12708	**UTIIITM 26**	100%	9/9	92%	11/12	100%	10/10
LD17-12986	**UTIIITM 27**	80%	4/5	91%	10/11	100%	9/9
SA17-11294	**UTIIITM 28**	0%	0/10	0%	0/6	100%	10/10
SA17-11463	**UTIIITM 29**	100%	7/7	88%	7/8	100%	11/11
SA17-11700	**UTIIITM 30**	50%	4/8	100%	9/9	89%	8/9
SA17-13516	**UTIIITM 31**	73%	8/11	100%	10/10	90%	9/10
SA17-5753	**UTIIITM 32**	22%	2/9	60%	6/10	100%	9/9
SA17-5771	**UTIIITM 33**	70%	7/10	88%	7/8	100%	11/11
SA17-5776	**UTIIITM 34**	50%	2/4	100%	9/9	100%	9/9
SA17-5792	**UTIIITM 35**	42%	5/12	63%	5/8	100%	10/10
SA17-5797	**UTIIITM 36**	33%	3/9	86%	6/7	90%	9/10
SA17-6259	**UTIIITM 37**	56%	5/9	44%	4/9	91%	10/11
SA17-7283	**UTIIITM 38**	63%	5/8	67%	4/6	100%	7/7
SA17-749PR	**UTIIITM 39**	22%	2/9	20%	1/5	100%	5/5
SA17-8035	**UTIIITM 40**	90%	9/10	100%	10/10	100%	11/11
LD16- 759	**PTIIIA 5**	25%	3/12	86%	6/7	100%	9/9
LD16-2636	**PTIIIA 6**	10%	1/10	100%	10/10	83%	5/6
LD16-2751	**PTIIIA 7**	0%	0/10	0%	0/9	88%	7/8
LD16-2794	**PTIIIA 8**	0%	0/9	0%	0/7	90%	9/10
LD16-2923	**PTIIIA 9**	17%	2/12	88%	7/8	100%	10/10
LD16-2983	**PTIIIA 10**	22%	2/9	89%	8/9	90%	9/10
LD16-3589	**PTIIIA 11**	22%	2/9	100%	9/9	100%	9/9
LD16-5075a	**PTIIIA 12**	50%	6/12	100%	11/11	100%	11/11

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
LG15-4491	**PTIIIA 13**	100%	10/10	67%	6/9	18%	2/11
LG16-2547	**PTIIIA 14**	100%	10/10	82%	9/11	22%	2/9
LG16-3733	**PTIIIA 15**	100%	10/10	89%	8/9	50%	6/12
LG17-5436	**PTIIIA 16**	0%	0/10	0%	0/12	0%	0/10
LG17-5672	**PTIIIA 17**	83%	5/6	67%	6/9	33%	3/9
LG17-5674	**PTIIIA 18**	0%	0/3	70%	7/10	38%	3/8
LG17-5693	**PTIIIA 19**	0%	0/10	0%	0/10	0%	0/10
LG17-5869	**PTIIIA 20**	100%	8/8	82%	9/11	100%	11/11
SA16-10349	**PTIIIA 21**	100%	11/11	33%	3/9	10%	1/10
SA16-11831	**PTIIIA 22**	100%	11/11	83%	10/12	10%	1/10
SA16-12014	**PTIIIA 23**	100%	11/11	36%	4/11	0%	0/9
SA16-12472	**PTIIIA 24**	100%	4/4	40%	4/10	20%	1/5
SA16-12491	**PTIIIA 25**	100%	7/7	25%	2/8	0%	0/7
SA16-12880	**PTIIIA 26**	100%	10/10	73%	8/11	11%	1/9
SA16-1961	**PTIIIA 27**	100%	8/8	70%	7/10	0%	0/10
SA16-2194	**PTIIIA 28**	100%	10/10	50%	5/10	50%	5/10
SA16-30116	**PTIIIA 29**	0%	0/9	0%	0/7	0%	0/6
CR16-0008	**PTIIIB 12**	0%	0/8	8%	1/12	0%	0/12
CR16-0035	**PTIIIB 13**	0%	0/9	0%	0/11	0%	0/7
CR16-0042	**PTIIIB 14**	0%	0/11	89%	8/9	33%	3/9
CR16-0053	**PTIIIB 15**	0%	0/11	30%	3/10	10%	1/10
CR16-0067	**PTIIIB 16**	0%	0/10	0%	0/9	38%	3/8
CR16-0155	**PTIIIB 17**	100%	7/7	89%	8/9	11%	1/9
U16-323153	**PTIIIB 18**	100%	11/11	67%	6/9	13%	1/8
U16-323177	**PTIIIB 19**	67%	4/6	13%	1/8	0%	0/8
U16-324189	**PTIIIB 20**	100%	10/10	89%	8/9	30%	3/10
U16-325193	**PTIIIB 21**	0%	0/8	0%	0/9	0%	0/9
U16-326197	**PTIIIB 22**	88%	7/8	78%	7/9	89%	8/9
U17-602177	**PTIIIB 23**	92%	11/12	64%	7/11	38%	3/8
U17-602199	**PTIIIB 24**	0%	0/11	11%	1/9	18%	2/11

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
LG15-4491	**PTIIIA 13**	36%	4/11	80%	8/10	80%	8/10
LG16-2547	**PTIIIA 14**	33%	3/9	100%	12/12	91%	10/11
LG16-3733	**PTIIIA 15**	73%	8/11	100%	9/9	100%	8/8
LG17-5436	**PTIIIA 16**	20%	2/10	0%	0/9	0%	0/9
LG17-5672	**PTIIIA 17**	44%	4/9	86%	6/7	86%	6/7
LG17-5674	**PTIIIA 18**	78%	7/9	0%	0/9	89%	8/9
LG17-5693	**PTIIIA 19**	0%	0/9	0%	0/11	0%	0/11
LG17-5869	**PTIIIA 20**	70%	7/10	90%	9/10	100%	10/10
SA16-10349	**PTIIIA 21**	44%	4/9	78%	7/9	86%	6/7
SA16-11831	**PTIIIA 22**	80%	8/10	38%	3/8	80%	8/10
SA16-12014	**PTIIIA 23**	20%	2/10	30%	3/10	100%	10/10
SA16-12472	**PTIIIA 24**	55%	6/11	100%	6/6	100%	6/6
SA16-12491	**PTIIIA 25**	11%	1/9	83%	5/6	100%	7/7
SA16-12880	**PTIIIA 26**	22%	2/9	89%	8/9	100%	9/9
SA16-1961	**PTIIIA 27**	67%	6/9	73%	8/11	100%	8/8
SA16-2194	**PTIIIA 28**	13%	1/8	58%	7/12	100%	11/11
SA16-30116	**PTIIIA 29**	11%	1/9	14%	1/7	67%	6/9
CR16-0008	**PTIIIB 12**	25%	3/12	73%	8/11	0%	0/9
CR16-0035	**PTIIIB 13**	0%	0/8	9%	1/11	100%	11/11
CR16-0042	**PTIIIB 14**	60%	6/10	0%	0/9	100%	12/12
CR16-0053	**PTIIIB 15**	38%	3/8	0%	0/10	91%	10/11
CR16-0067	**PTIIIB 16**	0%	0/8	0%	0/11	100%	8/8
CR16-0155	**PTIIIB 17**	70%	7/10	80%	4/5	90%	9/10
U16-323153	**PTIIIB 18**	60%	6/10	64%	7/11	100%	9/9
U16-323177	**PTIIIB 19**	22%	2/9	27%	3/11	100%	12/12
U16-324189	**PTIIIB 20**	100%	7/7	100%	10/10	100%	9/9
U16-325193	**PTIIIB 21**	18%	2/11	8%	1/12	100%	12/12
U16-326197	**PTIIIB 22**	100%	10/10	82%	9/11	100%	9/9
U17-602177	**PTIIIB 23**	75%	9/12	83%	10/12	90%	9/10
U17-602199	**PTIIIB 24**	9%	1/11	0%	0/11	88%	7/8

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
U17-602213	**PTIIIB 25**	89%	8/9	55%	6/11	17%	2/12
U17-603165	**PTIIIB 26**	55%	6/11	14%	1/7	0%	0/7
U17-606129	**PTIIIB 27**	100%	8/8	0%	0/5	25%	2/8
U17-607173	**PTIIIB 28**	29%	2/7	14%	1/7	0%	0/8
U17-608196	**PTIIIB 29**	55%	6/11	8%	1/12	0%	0/10
U17-611078	**PTIIIB 30**	89%	8/9	50%	5/10	60%	6/10
U17-616162	**PTIIIB 31**	44%	4/9	10%	1/10	33%	3/9
U17-929069	**PTIIIB 32**	0%	0/6	86%	6/7	67%	6/9
LD06-7620 (IV)	**UTIV 1**	100%	8/8	100%	10/10	13%	1/8
LD00-2817 (L)	**UTIV 2**	100%	8/8	100%	9/9	73%	8/11
LD07-3395bf (SCN) (E)	**UTIV 3**	100%	11/11	100%	10/10	45%	5/11
CR15-0616	**UTIV 4**	92%	11/12	100%	8/8	36%	4/11
CR15-0619	**UTIV 5**	91%	10/11	100%	11/11	8%	1/12
CR15-1369	**UTIV 6**	100%	8/8	100%	9/9	22%	2/9
CR15-1382	**UTIV 7**	100%	11/11	100%	10/10	27%	3/11
LD15-3818	**UTIV 9**	11%	1/9	100%	9/9	36%	4/11
LG15-4348	**UTIV 10**	0%	0/7	100%	6/6	27%	3/11
LG16-4634	**UTIV 11**	0%	0/6	100%	8/8	33%	3/9
LG16-4642	**UTIV 12**	100%	9/9	83%	5/6	100%	12/12
LG16-4644	**UTIV 13**	0%	0/10	100%	10/10	91%	10/11
LG16-4655	**UTIV 14**	100%	11/11	100%	12/12	78%	7/9
S13-2743C	**UTIV 15**	0%	0/7	91%	10/11	60%	6/10
S15-10879C	**UTIV 16**	100%	7/7	100%	7/7	63%	5/8
S16-14161C	**UTIV 17**	0%	0/6	0%	0/10	78%	7/9
S16-9784C	**UTIV 18**	100%	8/8	88%	7/8	44%	4/9
SA14-5854	**UTIV 19**	100%	6/6	100%	8/8	25%	2/8
AG3832	**UTIVTM 4**	0%	0/6	0%	0/4	17%	1/6
AG4034	**UTIVTM 5**	0%	0/8	0%	0/4	33%	2/6
AG4232	**UTIVTM 6**	33%	2/6	67%	2/3	13%	1/8
CR16-0011	**UTIVTM 7**	0%	0/9	27%	3/11	0%	0/11

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
U17-602213	**PTIIIB 25**	82%	9/11	55%	6/11	100%	10/10
U17-603165	**PTIIIB 26**	88%	7/8	78%	7/9	17%	2/12
U17-606129	**PTIIIB 27**	100%	10/10	75%	6/8	89%	8/9
U17-607173	**PTIIIB 28**	100%	12/12	100%	9/9	10%	1/10
U17-608196	**PTIIIB 29**	91%	10/11	90%	9/10	11%	1/9
U17-611078	**PTIIIB 30**	100%	9/9	50%	5/10	89%	8/9
U17-616162	**PTIIIB 31**	100%	9/9	100%	9/9	20%	2/10
U17-929069	**PTIIIB 32**	n/a	n/a	0%	0/10	100%	10/10
LD06-7620 (IV)	**UTIV 1**	100%	10/10	67%	8/12	89%	8/9
LD00-2817 (L)	**UTIV 2**	100%	9/9	20%	2/10	92%	11/12
LD07-3395bf (SCN) (E)	**UTIV 3**	100%	9/9	91%	10/11	83%	10/12
CR15-0616	**UTIV 4**	100%	12/12	91%	10/11	92%	11/12
CR15-0619	**UTIV 5**	100%	12/12	91%	10/11	100%	11/11
CR15-1369	**UTIV 6**	100%	11/11	73%	8/11	100%	11/11
CR15-1382	**UTIV 7**	100%	9/9	92%	11/12	100%	12/12
LD15-3818	**UTIV 9**	100%	12/12	10%	1/10	100%	11/11
LG15-4348	**UTIV 10**	100%	7/7	0%	0/9	100%	10/10
LG16-4634	**UTIV 11**	83%	5/6	0%	0/9	100%	10/10
LG16-4642	**UTIV 12**	100%	7/7	89%	8/9	100%	8/8
LG16-4644	**UTIV 13**	100%	10/10	0%	0/10	100%	10/10
LG16-4655	**UTIV 14**	100%	10/10	100%	11/11	100%	11/11
S13-2743C	**UTIV 15**	80%	8/10	0%	0/10	100%	12/12
S15-10879C	**UTIV 16**	100%	9/9	100%	9/9	78%	7/9
S16-14161C	**UTIV 17**	0%	0/9	0%	0/9	88%	7/8
S16-9784C	**UTIV 18**	100%	9/9	58%	7/12	67%	8/12
SA14-5854	**UTIV 19**	100%	5/5	100%	8/8	100%	8/8
AG3832	**UTIVTM 4**	n/a	n/a	0%	0/2	100%	3/3
AG4034	**UTIVTM 5**	0/4%	0/4%	0%	0/8	100%	4/4
AG4232	**UTIVTM 6**	50%	1/2	0%	0/3	50%	1/2
CR16-0011	**UTIVTM 7**	100%	11/11	100%	11/11	8%	1/12

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
CR16-0014	**UTIVTM 8**	20%	2/10	11%	1/9	20%	2/10
CR16-0016	**UTIVTM 9**	100%	8/8	50%	5/10	73%	8/11
CR16-0030	**UTIVTM 10**	100%	8/8	93%	14/15	55%	6/11
CR16-0031	**UTIVTM 11**	0%	0/10	30%	3/10	0%	0/11
CR16-0037	**UTIVTM 12**	100%	9/9	88%	7/8	64%	7/11
CR16-0106	**UTIVTM 13**	11%	1/9	0%	0/8	0%	0/10
CR16-0107	**UTIVTM 14**	100%	10/10	70%	7/10	63%	5/8
CR16-0110	**UTIVTM 15**	100%	9/9	90%	9/10	67%	6/9
CR16-0112	**UTIVTM 16**	100%	10/10	89%	8/9	83%	10/12
CR16-0113	**UTIVTM 17**	0%	0/10	11%	1/9	0%	0/9
CR16-0116	**UTIVTM 18**	100%	9/9	100%	11/11	91%	10/11
CR16-0117	**UTIVTM 19**	40%	4/10	42%	5/12	55%	6/11
CR16-0120	**UTIVTM 20**	100%	11/11	75%	6/8	50%	4/8
CR16-0124	**UTIVTM 21**	100%	8/8	67%	6/9	56%	5/9
CR16-0125	**UTIVTM 22**	100%	7/7	40%	4/10	67%	8/12
LD17-12352	**UTIVTM 24**	100%	6/6	78%	7/9	44%	4/9
LD17-12668	**UTIVTM 25**	100%	12/12	89%	8/9	100%	9/9
S15-6047R	**UTIVTM 26**	100%	7/7	44%	7/16	40%	2/5
SA17-5483	**UTIVTM 27**	64%	7/11	60%	6/10	50%	5/10
SA17-5523	**UTIVTM 28**	100%	8/8	100%	8/8	91%	10/11
SA17-5563	**UTIVTM 29**	33%	2/6	50%	4/8	14%	1/7
SA17-5568	**UTIVTM 30**	100%	11/11	100%	9/9	78%	7/9
SA17-5569	**UTIVTM 31**	75%	3/4	13%	1/8	0%	0/9
SA17-5585	**UTIVTM 32**	100%	5/5	91%	10/11	33%	3/9
SA17-8882	**UTIVTM 33**	100%	11/11	100%	7/7	71%	5/7
CR16-0032	**PTIV 4**	100%	9/9	100%	9/9	90%	9/10
CR16-0129	**PTIV 5**	89%	8/9	100%	10/10	33%	4/12
CR16-0130	**PTIV 6**	100%	10/10	100%	10/10	50%	5/10
CR16-0153	**PTIV 7**	0%	0/11	100%	11/11	100%	10/10
CR16-0154	**PTIV 8**	20%	2/10	90%	9/10	100%	11/11

	Isolate	Dorrance Race 7 (1a, 3a, 6,7)		Dorrance Race 17 (1b,1d, 3a, 6, 7)		Dorrance Race 25 (1a, 1b, 1c, 1k, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
CR16-0014	**UTIVTM 8**	100%	8/8	100%	12/12	9%	1/11
CR16-0016	**UTIVTM 9**	100%	11/11	73%	8/11	80%	8/10
CR16-0030	**UTIVTM 10**	100%	8/8	82%	9/11	45%	5/11
CR16-0031	**UTIVTM 11**	0%	0/10	0%	0/9	50%	6/12
CR16-0037	**UTIVTM 12**	100%	10/10	100%	8/8	78%	7/9
CR16-0106	**UTIVTM 13**	100%	9/9	70%	7/10	0%	0/9
CR16-0107	**UTIVTM 14**	71%	5/7	80%	8/10	44%	4/9
CR16-0110	**UTIVTM 15**	100%	5/5	80%	8/10	22%	2/9
CR16-0112	**UTIVTM 16**	91%	10/11	82%	9/11	80%	8/10
CR16-0113	**UTIVTM 17**	25%	2/8	0%	0/7	40%	4/10
CR16-0116	**UTIVTM 18**	100%	8/8	100%	10/10	80%	8/10
CR16-0117	**UTIVTM 19**	86%	6/7	67%	6/9	60%	6/10
CR16-0120	**UTIVTM 20**	100%	8/8	78%	7/9	38%	3/8
CR16-0124	**UTIVTM 21**	100%	12/12	83%	5/6	50%	5/10
CR16-0125	**UTIVTM 22**	86%	6/7	83%	10/12	13%	1/8
LD17-12352	**UTIVTM 24**	100%	7/7	100%	8/8	56%	5/9
LD17-12668	**UTIVTM 25**	100%	10/10	91%	10/11	100%	12/12
S15-6047R	**UTIVTM 26**	80%	8/10	100%	6/6	90%	9/10
SA17-5483	**UTIVTM 27**	0%	0/5	89%	8/9	100%	9/9
SA17-5523	**UTIVTM 28**	100%	6/6	100%	7/7	100%	10/10
SA17-5563	**UTIVTM 29**	33%	3/9	100%	6/6	100%	6/6
SA17-5568	**UTIVTM 30**	100%	11/11	91%	10/11	86%	6/7
SA17-5569	**UTIVTM 31**	0%	0/8	88%	7/8	100%	9/9
SA17-5585	**UTIVTM 32**	20%	1/5	78%	7/9	100%	12/12
SA17-8882	**UTIVTM 33**	86%	6/7	100%	10/10	100%	11/11
CR16-0032	**PTIV 4**	90%	9/10	100%	9/9	90%	9/10
CR16-0129	**PTIV 5**	75%	6/8	86%	6/7	89%	8/9
CR16-0130	**PTIV 6**	38%	3/8	90%	9/10	86%	6/7
CR16-0153	**PTIV 7**	100%	10/10	0%	0/11	100%	12/12
CR16-0154	**PTIV 8**	100%	9/9	18%	2/11	100%	11/11

	Isolate	ISA 124 C-1 Race 1 (7)		Dorrance Race 3 (1a, 7)		P1754 Race 4 (1a, 1c, 7)	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	11/11	100%	10/10	100%	9/9
Union	**1a**	0%	0/9	100%	12/12	100%	7/7
L77-1863	**1b**	22%	2/9	40%	4/10	0%	0/11
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/11	45%	5/11
PI 103091	**1d**	45%	5/11	92%	11/12	83%	5/6
Williams 82	**1k**	0%	0/5	100%	10/10	0%	0/10
L76-1988	**2**	8%	1/12	71%	5/7	10%	1/10
PI 171442	**3a**	0%	0/10	13%	1/8	0%	0/12
PRX 146-36	**3b**	0%	0/10	18%	2/11	0%	0/11
PRX 145-48	**3c**	22%	2/9	70%	7/10	17%	2/12
L85-2352	**4**	0%	0/12	27%	3/11	17%	2/12
L85-3059	**5**	0%	0/4	90%	9/10	0%	0/10
L89-1581	**6**	0%	0/10	20%	2/10	0%	0/10
L93-3258	**7**	100%	9/9	100%	12/12	91%	10/11
PI 399073	**8**	0%	0/5	60%	3/5	0%	0/9
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
CR16-0156	**PTIV 9**	0%	0/10	89%	8/9	73%	8/11
LG16-4808	**PTIV 17**	9%	1/11	14%	1/7	29%	2/7
LG17-8693	**PTIV 18**	100%	9/9	100%	11/11	22%	2/9
LG17-8880	**PTIV 19**	0%	0/10	100%	10/10	55%	6/11
LG17-8885	**PTIV 20**	0%	0/8	89%	8/9	45%	5/11
LG17-8888	**PTIV 21**	0%	0/11	80%	8/10	64%	7/11
SA16-10735	**PTIV 22**	0%	0/10	22%	2/9	11%	1/9
SA16-11227	**PTIV 23**	100%	5/5	89%	8/9	57%	4/7
SA16-12348	**PTIV 24**	100%	9/9	100%	7/7	25%	2/8

	Isolate	**Dorrance Race 7 (1a, 3a, 6,7)**		**Dorrance Race 17 (1b,1d, 3a, 6, 7)**		**Dorrance Race 25 (1a, 1b, 1c, 1k, 7)**	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	100%	10/10	100%	11/11	80%	8/10
Union	**1a**	100%	11/11	0%	0/10	44%	4/9
L77-1863	**1b**	38%	3/8	100%	11/11	75%	9/12
L75-3735/Williams 79	**1c**	0%	0/11	0%	0/12	64%	7/11
PI 103091	**1d**	83%	10/12	92%	11/12	0%	0/11
Williams 82	**1k**	0%	0/5	0%	0/10	75%	9/12
L76-1988	**2**	100%	11/11	92%	11/12	0%	0/12
PI 171442	**3a**	100%	10/10	100%	12/12	0%	0/11
PRX 146-36	**3b**	0%	0/10	73%	8/11	0%	0/7
PRX 145-48	**3c**	100%	10/10	92%	11/12	0%	0/12
L85-2352	**4**	100%	8/8	75%	9/12	0%	0/10
L85-3059	**5**	100%	6/6	86%	6/7	0%	0/7
L89-1581	**6**	100%	10/10	80%	8/10	0%	0/11
L93-3258	**7**	100%	10/10	100%	11/11	73%	8/11
PI 399073	**8**	low germ	low germ	17%	1/6	0%	0/4
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
CR16-0156	**PTIV 9**	100%	9/9	0%	0/10	100%	12/12
LG16-4808	**PTIV 17**	17%	2/12	0%	0/7	100%	10/10
LG17-8693	**PTIV 18**	71%	5/7	100%	6/6	100%	10/10
LG17-8880	**PTIV 19**	83%	5/6	0%	0/7	91%	10/11
LG17-8885	**PTIV 20**	63%	5/8	0%	0/10	90%	9/10
LG17-8888	**PTIV 21**	80%	8/10	0%	0/12	100%	11/11
SA16-10735	**PTIV 22**	92%	11/12	73%	8/11	9%	1/11
SA16-11227	**PTIV 23**	88%	7/8	100%	11/11	90%	9/10
SA16-12348	**PTIV 24**	75%	6/8	75%	6/8	58%	7/12

Uniform and Preliminary Test Locations, 2019

Location		Tests Conducted By:	UT						PT				UTTM					
			00	0	I	II	III	IV	I	II	III	IV	00	0	I	II	III	IV
IA	Ames	A. Singh/B. Scott			X	X	X		X	X	X							
IL	Arthur	B. Diers/ T. Cary					X										X[1]	
	Flora	B. Diers/ T. Cary						X										X[1]
	Ivesdale	D. Walker/C. Heimann						X				X						
	Pontiac	B. Diers/ T. Cary				X										X[1]		
	Urbana	B. Diers/ T. Cary				X	X	X		X	X	X				X[1]	X[1]	X[1]
IN	Romney	K. Rainey/D. Schlueter															X[1]	X[1]
	Wanatah	G. Cai/G. Nowling			X	X	X								X[1]	X[1]	X[1]	
	West Lafayette	G. Cai/G. Nowling			X	X	X	X	X	X	X	X			X[1]	X[1]	X[1]	X[1]
KS	Manhattan	W. Schapaugh Jr.						X				X						
	Ottawa-KS	W. Schapaugh Jr.					X	X			X	X						
	Riley	W. Schapaugh Jr.						X				X						
MI	Britton	D. Wang/R. Laurenz				X										X		
	East Lansing	D. Wang/R. Laurenz			X	X			X	X					X[1]	X[1]		
	Saginaw	D. Wang/R. Laurenz			X										X			
MN	Crookston	A. Lorenz/D. Weston	X	X														
	Danvers	A. Lorenz/D. Weston			X										X[1]			
	Morris	A. Lorenz/D. Weston			X				X						X[1]			
	Roseau	A. Lorenz/D. Weston	X										X					
	Rosemount	A. Lorenz/D. Weston			X				X						X[1]			
	Shelly	A. Lorenz/D. Weston		X										X[1]				
	Thief River Falls	A. Lorenz/D. Weston	X										X					
MO	Albany	A. Scaboo/X. Niu					X	X			X	X					X[1]	X[1]
	Columbia	A. Scaboo/X. Niu					X	X									X[1]	X[1]
	Portageville (Clay)	P. Chen/M. Clubb						X										X[1]
	Portageville (Loam)	P. Chen/M. Clubb						X										X[1]
ND	Casselton	T. Helms/D. Hanson	X	X									X	X				
NE	Cotesfield	G. Graef/T. Frederick			X	X			X	X								
	Mead	G. Graef/T. Frederick			X	X			X	X								
	Phillips	G. Graef/T. Frederick			X	X	X		X	X	X					X[1]	X[1]	
	Wymore	G. Graef/T. Frederick					X				X							
OH	Wooster	L. McHale/S. McIntyre														X[1]	X[1]	

Uniform and Preliminary Test Locations, 2019

Location		Tests Conducted By:	UT						PT				UTTM					
			00	0	I	II	III	IV	I	II	III	IV	00	0	I	II	III	IV
ONT	Chatham	M. Eskandari/J. Kobler				X				X								
	Elora	I. Rajcan/C. Templeton	X	X														
	Ottawa-ONT	E. Cober/S. Lackey	X	X														
	Palmyra	M. Eskandari/J. Kobler			X				X									
	St. Pauls	I. Rajcan/C. Templeton			X				X									
	Woodstock	I. Rajcan/C. Templeton		X	X				X									
QUE	La Pocatiere	J. Auclair/M. Claude	X										X					
	Saint Hyacinthe	J. Auclair/M. Claude			X				X									
	St. Mathieu de Beloeil	L. O'Donoughue	X	X														
	X Locations With Agronomic Data:		8	7	15	11	10	11	12	8	7	7	4	2	7	8	9	8
	X Locations With Protein & Oil Data:		5	6	8	6	5	4	8	6	5	4	3	2	4	5	4	3
	X[1] Locations With Fatty Acid Data:													1	6	7	8	8
	X Locations With Sugar Data:																9	8

Uniform and Preliminary Test Locations Monthly Rainfall Data, 2019

Location		Monthly Rainfall					
		May	June	July	August	September	October
IA	Ames	4.8	5.0	4.8	4.8	3.3	2.6
IL	Arthur	4.0	3.8	3.3	2.9	2.8	2.8
	Flora	4.3	4.3	3.9	3.4	3.2	3.0
	Ivesdale	6.0	3.1	3.1	2.6	3.3	4.6
	Pontiac	3.9	3.7	4.1	3.7	3.0	3.0
	Urbana	4.9	4.3	4.7	3.9	3.2	3.3
IN	Romney	5.1	3.8	2.9	3.3	2.4	3.3
	Wanatah	3.9	4.3	4.3	4.1	3.4	3.4
	West Lafayette	4.8	4.1	4.2	3.6	2.8	3.0
KS	Manhattan	5.1	5.7	4.4	4.1	3.4	2.7
	Ottawa-KS	5.4	5.6	4.1	4.1	4.1	3.3
	Riley	4.5	5.1	3.8	3.6	3.6	2.7
MI	Britton	5.3	4.7	1.7	5.3	4.2	4.1
	East Lansing	2.7	3.1	3.0	3.4	3.4	2.4
	Saginaw	3.3	3.5	3.1	3.2	3.9	2.8
MN	Crookston	2.9	3.8	3.0	3.3	2.4	2.1
	Danvers	6.2	1.8	4.8	3.8	6.3	3.7
	Morris	2.8	4.0	3.9	3.4	2.9	2.5
	Roseau	2.2	3.7	3.4	3.1	2.6	1.5
	Rosemount	4.1	4.7	4.5	4.7	3.6	2.9
	Shelly	2.7	3.7	4.7	4.7	4.2	4.1
	Thief River Falls	2.6	3.4	3.4	3.2	2.4	1.7
MO	Albany	5.2	5.1	5.1	4.1	4.0	2.9
	Columbia	5.0	4.5	4.4	4.4	3.9	3.3
	Portageville (Clay)	4.9	4.4	3.6	3.0	3.2	3.6
	Portageville (Loam)	4.9	4.4	3.6	3.0	3.2	3.6
ND	Casselton	3.0	3.9	3.5	2.6	2.6	2.4
NE	Cotesfield	6.3	4.1	4.6	12.2	1.0	2.9
	Mead	4.3	4.6	3.5	3.7	3.2	2.1
	Phillips	6.7	3.8	4.5	13.4	1.5	1.5
	Wymore	4.6	4.7	4.2	3.8	3.4	2.3
OH	Wooster	4.5	4.5	4.3	3.9	3.4	3.1
ONT	Chatham	2.9	2.6	2.8	2.5	2.6	2.4
	Elora	3.5	2.4	2.0	1.0	3.8	11.6
	Ottawa-ONT	3.4	3.6	3.3	3.3	3.6	3.4
	Palmyra	3.0	3.2	3.7	4.1	3.7	2.2
	St. Pauls	7.0	1.4	0.0	0.4	1.7	9.6
	Woodstock	3.5	3.3	4.1	3.2	3.6	3.1
QUE	La Pocatiere	3.5	3.2	3.3	3.7	3.3	3.0
	Saint Hyacinthe	2.9	3.3	3.3	3.3	3.3	3.1
	St. Mathieu de Beloeil	2.8	3.2	3.1	3.0	3.1	3.0

http://climate.weather.gc.ca/prods_servs/cdn_climate_summary_e.html

http://theweathercollector.com/

	Northern Regional Uniform Test					
	Uniform Test 00, 2019					
			Seed	Previous	Gen.	Unique
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits
1	MN0083 (00)	M97-121138 x MN0091	Lorenz	1	F5	Rps6
2	MN0095 (L)	M92-270029 x M93-313185	Lorenz	11	F5	Rps1
3	ND Rolette	M00-30755 x ND05-17649	Helms	4	F4	
4	M10-207102			3		
5	M12-439036	Sheyenne x PI639637	Lorenz	1	F4	Diversity
6	ND16-2745	ND10-3459 x ND07-2205	Helms	Initial	F4	
7	ND16-3107	ND10-3459 x ND10-2763	Helms	Initial	F4	
8	ND16-4031	ND10-3495 x ND Stutsman	Helms	Initial	F4	
9	ND16-5352	ND07-3761 x ND10-2522	Helms	Initial	F4	
10	ND16-6045	ND07-2303 x M05-363022	Helms	Initial	F4	
11	ND16-6908	ND10-2763 x ND10-2522	Helms	Initial	F4	
12	ND16-7274	AR191018 x ND07-2205	Helms	Initial	F4	
13	ND16-7895	ND10-3495 x ND Stutsman	Helms	Initial	F4	
14	ND16-7896	ND10-3495 x ND Stutsman	Helms	Initial	F4	
15	ND16-7913	ND10-3495 x ND Stutsman	Helms	Initial	F4	
16	ND16-8064	ND10-3460 x ND10-3323	Helms	Initial	F4	
17	ND16-8305	ND10-2479 x ND10-2522	Helms	Initial	F4	
18	ND16-8873	ND07-3761 x ND10-2522	Helms	Initial	F4	
19	ND16-8909	ND10-2763 x ND07-3761	Helms	Initial	F4	

UNIFORM TEST 00, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score		Shattering Score	Green Stem Score	Leaf Shape
		Crookston	Roseau	Man-hattan	St Mathieu de Beloeil	Elora
MN0083 (00)	WTBSYGI	1.3	1.3	1.0	1.0	Ovate
MN0095	PGTSYIbI	1.3	1.3	2.0	1.0	Ovate
ND Rolette	PGTSYLBrI	1.5	1.5	2.0	1.0	Ovate
M10-207102	PGBSYGBfI	2.2	2.2	1.0	1.0	Ovate
M12-439036	PGTSYGI	2.5	2.5	1.0	1.0	Ovate
ND16-2745	PGTSYBrI	2.5	2.5	1.0	1.3	Ovate
ND16-3107	WGBSYYI	2.7	2.7	1.0	1.0	Ovate
ND16-4031	PGTSYYI	1.5	1.5	1.0	1.0	Ovate
ND16-5352	WGTDYYI	1.8	1.8	1.0	1.0	Ovate
ND16-6045	PGTSYGI	2.7	2.7	1.0	1.0	Ovate
ND16-6908	WGBSYYI	3.8	3.8	1.0	1.3	Ovate
ND16-7274	PGBSYGI	3.0	3.0	2.0	1.0	Ovate
ND16-7895	PGTDYYI	2.7	2.7	1.0	1.0	Ovate
ND16-7896	WGBDYLBrI	1.8	1.8	2.0	2.0	Ovate
ND16-7913	PGTSYYI	2.0	2.0	2.0	1.0	Ovate
ND16-8064	PGTSYYI	4.5	4.5	1.0	1.0	Ovate
ND16-8305	WGTSYYI	4.7	4.7	1.0	2.3	Ovate
ND16-8873	WGTSYYI	2.3	2.3	1.0	1.0	Ovate
ND16-8909	WGTSYYI	4.3	4.3	1.0	1.0	Ovate

UNIFORM TEST 00, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 7 bu/a	Rank 7 No.	Maturity 8 Date	Lodging 6 Score	Plant Height 5 In	Seed Size 8 g/100	Seed Quality 7 Score	Composition Protein 5 %	 Oil 5 %
MN0083 (00)	45.6	11	9/16	1.1	29	14.7	1.4	35.6	17.6
MN0095	44.4	16	2.9	1.1	27	13.3	1.5	35.2	17.8
ND Rolette	46.0	9	2.9	1.0	28	14.1	1.7	35.6	17.5
M10-207102	42.5	18	4.7	1.0	23	16.6	1.6	37.9	16.0
M12-439036	44.0	17	5.3	1.0	26	15.1	1.3	36.4	16.8
ND16-2745	45.7	10	8.5	1.0	25	15.8	2.0	33.9	18.8
ND16-3107	46.3	8	6.5	1.0	26	14.7	1.5	34.7	18.6
ND16-4031	47.4	6	6.7	1.1	27	14.2	1.6	33.8	17.4
ND16-5352	44.9	13	3.7	1.0	26	15.5	1.7	33.8	18.6
ND16-6045	53.9	1	3.9	1.2	28	18.6	1.7	35.9	17.2
ND16-6908	44.8	14	7.4	1.0	27	16.1	1.8	33.8	18.2
ND16-7274	53.9	1	7.2	1.0	29	17.6	1.4	33.4	18.7
ND16-7895	48.1	5	7.1	1.1	28	15.1	1.8	35.6	17.4
ND16-7896	44.7	15	13.4	1.0	27	15.9	1.7	35.9	17.6
ND16-7913	46.4	7	7.6	1.1	26	15.2	1.6	35.0	17.9
ND16-8064	52.6	3	7.8	1.1	30	14.8	2.0	34.4	17.9
ND16-8305	42.4	19	9.4	1.0	24	16.5	1.6	33.8	18.3
ND16-8873	48.4	4	7.0	1.0	28	15.3	1.4	33.8	18.2
ND16-8909	45.3	12	5.6	1.0	25	16.2	1.9	33.4	18.4
Mean	45.0			1.0	23.5	15.5	1.8		
C.V. (%)	16.7			11.9	7.1	4.3	31.5		
L.S.D. (5%)	4.1			0.1	1.3	0.5	0.4		

113.4 Days After Planting

UNIFORM TEST 00, 2019

2018-2019 2-YEAR MEAN

No. of Tests Strain	Yield 12 bu/a	Rank 12 No.	Maturity 14 Date	Lodging 14 Score	Plant Height 12 In.	Seed Size 14 g/100	Seed Quality 12 Score	Composition Protein 8 %	 Oil 8 %
MN0083 (00)	43.9	5	9/6	1.0	28	14.6	1.5	35.3	18.2
MN0095	46.8	1	2.8	1.0	26	13.4	1.4	34.7	18.6
ND Rolette	46.0	2	2.9	1.0	26	13.7	1.6	34.8	18.3
M10-207102	44.0	4	3.8	1.0	23	16.7	1.5	37.7	16.3
M12-439036	44.6	3	4.3	1.1	25	14.9	1.7	36.0	17.3

111.4 Days After Planting

2017-2019 3-YEAR MEAN

No. of Tests Strain	19	19	22	19	18	22	19	14	14
MN0095	47.8	2	9/15	1.1	27	13.2	1.3	34.4	18.4
ND Rolette	50.0	1	3.4	1.1	28	13.6	1.5	34.5	18.3
M10-207102	46.2	3	4.4	1.1	25	16.7	1.5	37.6	16.3

112.6 Days After Planting

UNIFORM TEST 00, 2019

YIELD (bu/a)

Strain	Mean 7 Tests	Crook-ston MN	Roseau MN	Thief River Falls MN	Cassel-ton* ND	Elora ONT	Ottawa ONT	La Pocatiere QUE	St Mathieu de Beloeil QUE
MN0083 (00)	45.6	68.7	48.6	45.8	24.0	36.5	33.1	53.7	32.9
MN0095	44.4	70.2	57.0	40.6	8.6	29.0	33.7	51.9	28.3
ND Rolette	46.0	62.3	64.7	49.5	16.9	32.9	35.6	53.4	23.4
M10-207102	42.5	43.2	64.2	43.2	13.8	29.1	34.8	45.0	38.4
M12-439036	44.0	63.4	51.1	45.2	17.5	33.6	39.3	47.5	28.1
ND16-2745	45.7	60.2	52.9	51.6	28.9	31.6	40.3	45.4	38.2
ND16-3107	46.3	52.0	57.7	46.6	22.0	32.6	36.6	62.4	35.9
ND16-4031	47.4	64.7	54.2	48.8	9.7	37.3	35.3	57.5	33.7
ND16-5352	44.9	54.6	50.9	51.5	19.3	32.1	35.0	55.5	35.0
ND16-6045	53.9	72.2	55.7	52.1	17.5	36.2	39.1	76.3	45.6
ND16-6908	44.8	38.0	52.2	48.7	15.7	30.0	40.8	61.1	42.7
ND16-7274	53.9	63.1	57.3	46.1	21.1	39.8	40.7	79.9	50.4
ND16-7895	48.1	61.4	66.2	42.6	18.9	37.6	38.4	50.5	40.1
ND16-7896	44.7	68.0	57.3	40.3	37.7	30.8	34.5	44.4	37.5
ND16-7913	46.4	58.5	58.8	47.2	16.9	35.1	38.3	48.8	38.3
ND16-8064	52.6	69.4	64.1	47.5	25.5	33.5	39.7	70.8	43.4
ND16-8305	42.4	51.7	53.6	43.3	13.9	27.9	34.0	46.8	39.4
ND16-8873	48.4	75.0	51.4	50.0	24.9	39.3	39.1	46.8	36.8
ND16-8909	45.3	49.7	56.1	50.4	19.7	28.2	34.4	60.1	38.4
Location Mean		60.3	56.5	46.9	19.6	33.3	37.0	55.7	37.2
C.V. (%)		14.0	12.3	14.6	30.5	11.1	6.0	1.6	9.7
L.S.D. (5%)		13.7	11.3	11.3	9.7	6.2	4.4	3.1	5.0
Row Sp. (In.)		10	10	10	30	14	23.6	5.9	7
Rows/Plot		8	8	8	4	4	4	7	5
Reps		3	3	3	3	3	3	3	3

*Data not included in mean.

UNIFORM TEST 00, 2019

YIELD RANK

Strain	Yield Rank	Crook-ston MN	Roseau MN	Thief River Falls MN	Cassel-ton ND	Elora ONT	Ottawa ONT	La Pocatiere QUE	St Mathieu de Beloeil QUE
MN0083 (00)	11	5	19	13	6	5	19	9	16
MN0095	16	3	9	18	20	17	18	11	17
ND Rolette	9	10	2	6	14	10	11	10	19
M10-207102	18	18	3	16	18	16	14	18	7
M12-439036	17	8	17	14	12	8	5	14	18
ND16-2745	10	12	14	2	2	13	3	17	10
ND16-3107	8	15	6	11	7	11	10	4	13
ND16-4031	6	7	12	7	19	4	12	7	15
ND16-5352	13	14	18	3	10	12	13	8	14
ND16-6045	1	2	11	1	12	6	6	2	2
ND16-6908	14	19	15	8	16	15	1	5	4
ND16-7274	1	9	8	12	8	1	2	1	1
ND16-7895	5	11	1	17	11	3	8	12	5
ND16-7896	15	6	7	19	1	14	15	19	11
ND16-7913	7	13	5	10	14	7	9	13	9
ND16-8064	3	4	4	9	4	9	4	3	3
ND16-8305	19	16	13	15	17	19	17	15	6
ND16-8873	4	1	16	5	5	2	7	16	12
ND16-8909	12	17	10	4	9	18	16	6	8

UNIFORM TEST 00, 2019

MATURITY (date)

Strain	Mean 8 Tests	Crook-ston MN	Roseau MN	Thief River Falls MN	Cassel-ton ND	Elora ONT	Ottawa ONT	La Pocatiere QUE	St Mathieu de Beloeil QUE
MN0083 (00)	9/16	9/11	9/18	9/19	9/17	9/20	8/31	9/28	9/15
MN0095	3	3	2	3	0	2	4	7	3
ND Rolette	3	7	1	3	4	2	3	0	3
M10-207102	5	10	3	5	-1	4	5	8	4
M12-439036	5	14	5	5	2	2	6	7	2
ND16-2745	8	15	7	7	7	4	13	7	8
ND16-3107	7	15	6	6	4	3	8	7	3
ND16-4031	7	13	8	5	6	2	6	6	7
ND16-5352	4	10	3	0	3	2	2	7	2
ND16-6045	4	7	1	4	2	1	7	7	2
ND16-6908	7	15	8	5	4	2	10	9	7
ND16-7274	7	15	5	6	5	6	8	6	7
ND16-7895	7	9	5	9	6	4	5	11	7
ND16-7896	13	16	10	17	11	11	16	17	9
ND16-7913	8	13	4	10	6	4	10	6	7
ND16-8064	8	9	3	8	8	10	12	6	6
ND16-8305	9	17	12	8	6	3	12	9	9
ND16-8873	7	9	6	7	6	4	10	7	7
ND16-8909	6	12	5	3	4	1	8	6	6
Date Planted	5/25	5/17	5/18	5/18	5/17	6/7	5/22	6/6	6/7
Days to Mature	113.4	117	123	124	123	105	101	114	100

UNIFORM TEST 00, 2019

LODGING (score)

Strain	Mean 6 Tests	Crook-ston MN	Roseau MN	Thief River Falls MN	Cassel-ton ND	Elora ONT	Ottawa ONT	La Pocatiere QUE	St Mathieu de Beloeil QUE
MN0083 (00)	1.1			1.0	1.0	1.3	1.0	1.0	1.0
MN0095	1.1			1.0	1.0	1.0	1.0	1.3	1.0
ND Rolette	1.0			1.0	1.0	1.0	1.0	1.0	1.0
M10-207102	1.0			1.0	1.0	1.0	1.0	1.0	1.0
M12-439036	1.0			1.0	1.0	1.2	1.0	1.0	1.0
ND16-2745	1.0			1.0	1.0	1.0	1.0	1.0	1.0
ND16-3107	1.0			1.0	1.0	1.0	1.0	1.0	1.0
ND16-4031	1.1			1.0	1.0	1.0	1.0	1.3	1.0
ND16-5352	1.0			1.0	1.0	1.2	1.0	1.0	1.0
ND16-6045	1.2			1.0	1.0	1.3	1.0	1.7	1.0
ND16-6908	1.0			1.0	1.0	1.0	1.0	1.0	1.0
ND16-7274	1.0			1.0	1.0	1.0	1.0	1.0	1.0
ND16-7895	1.1			1.0	1.0	1.0	1.0	1.7	1.0
ND16-7896	1.0			1.0	1.0	1.0	1.0	1.0	1.0
ND16-7913	1.1			1.0	1.0	1.0	1.3	1.0	1.0
ND16-8064	1.1			1.0	1.0	1.0	1.0	1.3	1.0
ND16-8305	1.0			1.0	1.0	1.0	1.0	1.0	1.0
ND16-8873	1.0			1.0	1.0	1.2	1.0	1.0	1.0
ND16-8909	1.0			1.0	1.0	1.0	1.0	1.0	1.0

UNIFORM TEST 00, 2019

PLANT HEIGHT (inches)

Strain	Mean 5 Tests	Crook-ston MN	Roseau MN	Thief River Falls MN	Cassel-ton ND	Elora ONT	Ottawa ONT	La Pocatiere QUE	St Mathieu de Beloeil QUE
MN0083 (00)	29			35		27	24	34	26
MN0095	27			33		22	22	33	25
ND Rolette	28			34		25	23	31	25
M10-207102	23			24		20	20	29	22
M12-439036	26			28		24	24	29	24
ND16-2745	25			29		22	20	30	23
ND16-3107	26			31		23	20	30	25
ND16-4031	27			32		25	22	31	23
ND16-5352	26			32		21	22	31	24
ND16-6045	28			33		26	22	31	26
ND16-6908	27			31		24	22	33	24
ND16-7274	29			30		27	25	34	27
ND16-7895	28			32		24	24	34	27
ND16-7896	27			34		22	21	34	25
ND16-7913	26			30		23	23	31	24
ND16-8064	30			35		28	24	34	27
ND16-8305	24			30		19	19	28	22
ND16-8873	28			32		25	22	34	26
ND16-8909	25			30		20	19	29	24

UNIFORM TEST 00, 2019

SEED SIZE (g/100)

Strain	Mean 8 Tests	Crookston MN	Roseau MN	Thief River Falls MN	Castelton ND	Elora ONT	Ottawa ONT	La Pocatiere QUE	St Mathieu de Beloeil QUE
MN0083 (00)	14.7	14.6	14.6	15.1	17.0	14.2	13.3	15.1	13.5
MN0095	13.3	13.4	12.9	14.0	14.2	12.5	12.6	13.2	13.4
ND Rolette	14.1	16.0	13.3	14.1	16.1	13.1	13.0	13.5	13.6
M10-207102	16.6	16.2	17.5	16.8	17.7	15.7	16.7	16.0	16.4
M12-439036	15.1	15.2	14.6	15.6	15.0	15.6	15.2	15.0	14.5
ND16-2745	15.8	15.9	15.3	15.5	16.1	16.1	15.9	15.4	16.5
ND16-3107	14.7	15.9	14.7	14.4	14.2	14.7	14.8	14.1	14.8
ND16-4031	14.2	16.0	13.2	13.8	14.1	14.7	13.2	14.0	14.5
ND16-5352	15.5	17.8	15.3	15.8	15.2	16.2	14.0	14.9	14.9
ND16-6045	18.6	17.4	18.1	18.9	18.4	17.9	19.4	20.0	18.3
ND16-6908	16.1	16.8	16.3	15.3	16.2	15.7	15.5	17.4	15.9
ND16-7274	17.6	17.9	17.4	16.8	17.4	17.1	17.1	18.8	18.1
ND16-7895	15.1	15.9	15.7	14.1	14.8	14.5	15.1	14.6	15.8
ND16-7896	15.9	16.4	16.2	15.6	15.3	15.3	16.3	15.6	16.8
ND16-7913	15.2	16.0	15.8	14.4	15.4	14.5	14.9	14.4	15.9
ND16-8064	14.8	17.5	14.7	14.2	14.6	14.3	14.5	13.9	14.9
ND16-8305	16.5	16.0	17.3	15.9	16.6	16.6	15.8	16.4	17.1
ND16-8873	15.3	16.0	14.0	16.2	15.4	16.2	14.5	14.5	15.7
ND16-8909	16.2	17.7	15.8	16.8	16.7	14.8	15.5	16.0	16.0

UNIFORM TEST 00, 2019

SEED QUALITY (score)

Strain	Mean 7 Tests	Crookston MN	Roseau MN	Thief River Falls MN	Castelton ND	Elora ONT	Ottawa ONT	La Pocatiere QUE	St Mathieu de Beloeil QUE
MN0083 (00)	1.4	1.0	1.0	1.0	1.0	2.0	2.3		1.3
MN0095	1.5	1.0	1.0	1.0	1.0	3.0	2.3		1.0
ND Rolette	1.7	1.0	1.0	1.0	1.0	4.0	2.7		1.3
M10-207102	1.6	2.0	2.0	1.0	1.0	1.5	2.0		1.7
M12-439036	1.3	1.0	1.0	1.0	1.0	1.5	2.3		1.3
ND16-2745	2.0	2.0	2.0	2.0	1.0	4.0	2.0		1.3
ND16-3107	1.5	1.0	1.0	1.0	1.0	2.5	2.0		2.0
ND16-4031	1.6	2.0	1.0	1.0	1.0	3.0	2.0		1.3
ND16-5352	1.7	2.0	1.0	1.0	1.0	3.0	2.7		1.3
ND16-6045	1.7	2.0	1.0	1.0	1.0	2.5	3.0		1.7
ND16-6908	1.8	1.0	2.0	1.0	1.0	4.0	2.3		1.3
ND16-7274	1.4	1.0	1.0	1.0	1.0	2.0	2.7		1.3
ND16-7895	1.8	1.0	2.0	1.0	1.0	3.5	2.3		1.7
ND16-7896	1.7	2.0	2.0	2.0	1.0	2.5	1.0		1.7
ND16-7913	1.6	3.0	1.0	1.0	1.0	2.5	2.0		1.0
ND16-8064	2.0	2.0	1.0	1.0	1.0	4.0	2.7		2.0
ND16-8305	1.6	1.0	1.0	1.0	1.0	3.5	2.0		1.7
ND16-8873	1.4	1.0	1.0	1.0	1.0	2.5	2.0		1.3
ND16-8909	1.9	1.0	1.0	2.0	1.0	4.5	2.7		1.0

UNIFORM TEST 00, 2019

PROTEIN (%)

Strain	Mean 5 Tests	Thief River Falls MN	Casselton ND	Elora* ONT	Ottawa ONT	St Mathieu de Beloeil* QUE
MN0083 (00)	35.6	36.9	35.8	36.9	33.7	34.7
MN0095	35.2	37.4	33.8	36.8	34.0	34.3
ND Rolette	35.6	37.1	35.9	36.7	34.7	33.6
M10-207102	37.9	39.6	38.8	37.9	37.2	36.1
M12-439036	36.4	38.0	36.1	37.5	35.3	35.0
ND16-2745	33.9	35.6	32.8	36.3	31.9	33.1
ND16-3107	34.7	36.2	34.0	35.7	33.9	33.7
ND16-4031	33.8	35.1	33.6	35.0	32.3	33.2
ND16-5352	33.8	35.0	31.3	36.4	33.6	32.8
ND16-6045	35.9	37.8	36.3	36.7	33.7	35.0
ND16-6908	33.8	35.1	34.2	35.6	32.1	32.1
ND16-7274	33.4	34.6	32.8	34.8	32.3	32.4
ND16-7895	35.6	36.7	35.6	36.0	35.4	34.5
ND16-7896	35.9	36.8	34.5	36.1	36.7	35.3
ND16-7913	35.0	36.8	34.9	35.9	33.7	33.9
ND16-8064	34.4	36.4	32.9	36.1	33.5	33.1
ND16-8305	33.8	35.8	33.4	35.1	32.2	32.8
ND16-8873	33.8	35.6	32.3	35.5	32.8	32.8
ND16-8909	33.4	35.4	33.6	34.8	31.4	31.8

*Data corrected to 13% moisture

UNIFORM TEST 00, 2019

OIL (%)

Strain	Mean 5 Tests	Thief River Falls MN	Casselton ND	Elora* ONT	Ottawa ONT	St Mathieu de Beloeil* QUE
MN0083 (00)	17.6	16.1	16.9	17.7	18.7	18.3
MN0095	17.8	16.2	18.0	17.3	19.1	18.7
ND Rolette	17.5	16.0	16.7	17.9	18.5	18.5
M10-207102	16.0	14.7	15.6	15.8	17.1	16.9
M12-439036	16.8	15.3	16.8	16.2	17.9	17.6
ND16-2745	18.8	17.6	18.4	18.2	20.7	19.3
ND16-3107	18.6	17.1	18.4	18.4	19.5	19.5
ND16-4031	17.4	16.1	17.1	17.2	18.7	18.1
ND16-5352	18.6	17.4	19.1	17.9	19.3	19.3
ND16-6045	17.2	16.0	16.9	17.1	18.3	17.8
ND16-6908	18.2	17.1	17.7	18.1	19.6	18.5
ND16-7274	18.7	17.6	18.3	18.4	20.3	19.2
ND16-7895	17.4	16.2	16.9	17.3	18.5	18.0
ND16-7896	17.6	16.4	17.7	17.2	18.4	18.2
ND16-7913	17.9	16.6	16.8	18.1	19.7	18.6
ND16-8064	17.9	16.6	17.7	17.2	19.3	18.8
ND16-8305	18.3	16.9	17.9	18.2	19.7	18.8
ND16-8873	18.2	16.8	17.6	17.8	19.9	18.7
ND16-8909	18.4	17.2	17.7	17.9	20.2	19.2

*Data corrected to 13% moisture

	Northern Regional Uniform Test						
	Uniform Test 0, 2019						
			Seed	Previous	Gen.	Unique	
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits	
1	ND Stutsman (0)	Sheyenne x [LaMoure(2)Rag1]	Helms	6	F4	PI 88788, Rps1c	
2	MN0095 (E)	M92-270029 x M93-313185	Lorenz	8	F5	Rps1	
3	MN0404CN (SCN)	MN0902CN x MN0304	Lorenz	2		SCN, Rpsk1, PLT	
4	MN1410 (L)	Unknown	Lorenz	11	F5		
5	M08-362045L	MN0606CN x U03-100612	Lorenz	3	F5	SCN, PI 88788, Peking	
6	M11-245026	M02-385091 x Deuel	Lorenz	2	F5	SCN	
7	M11-271059	MN0504 X MN0606CN	Lorenz	1	F5	SCN	
8	M12-416003	M06-297013 x M02-383166	Lorenz	PT0	F5		
9	M13-104022	M07-260028 x M05-353086	Lorenz	Intial	F5	SCN	
10	M13-106018	M03-172059 x A09-754003	Lorenz	Intial	F5		
11	M13-190024	Hefeng 50 x M08-154093	Lorenz	Intial	F5	Diversity	
12	M13-198033	PI639633A x PI639554	Lorenz	Intial	F5	Diversity	
13	M13-204003	M03-158071 x PI612739	Lorenz	Intial	F5	Diversity	
14	M13-236028	SD06-393 x M07-375020	Lorenz	Intial	F5	OIL	
15	M13-236029	SD06-393 x M07-375020	Lorenz	Intial	F5	OIL	
16	M13-247009	M03-158071 x MN1606SP	Lorenz	Intial	F5		
17	M13-250051	M06-288190 x AR09-191018	Lorenz	Intial	F5	SCN	
18	ND13-4508	P. 91M10 x Sheyenne	Helms	2	F4	Race 3 Resist.	
19	ND13-4810	P.91M10 x ProSoy	Helms	Intial	F4		
20	ND13-7510	ND04-10046 x P.91M10	Helms	Intial	F4		
21	ND15-19739	M03-172059 x ND08-9141	Helms	PT0	F4		
22	ND16-2739	ND10-3459 x ND07-2205	Helms	Intial	F4		
23	ND16-3035	ND10-2763 x ND10-2522	Helms	Intial	F4		
24	ND16-5639	ND10-3413 x ND Bison	Helms	Intial	F4		
25	ND16-6769	ND10-3495 x M05-363022	Helms	Intial	F4		
26	ND16-7155	AR191018 x Ashtabula	Helms	Intial	F4		
27	ND16-7175	AR191018 x Ashtabula	Helms	Intial	F4		
28	ND16-7176	AR191018 x Ashtabula	Helms	Intial	F4		
29	ND16-7291	AR191018 x ND07-2205	Helms	Intial	F4		
30	ND16-7704	ND10-3413 x ND10-3048	Helms	Intial	F4		
31	ND16-7744	ND10-3048 x M05-363022	Helms	Intial	F4		
32	ND16-8257	ND10-3459 x ND10-2479	Helms	Intial	F4		
33	ND16-8821	Sheyenne x ND10-3600	Helms	Intial	F4		
34	ND16-8865	ND07-3761 x ND10-2522	Helms	Intial	F4		
35	ND16-9606	ND10-2763 x M05-363022	Helms	Intial	F4		
36	OAC 14-16C-SCN	OAC Lakeview x S18-R6	Rajcan	Intial	F5		
37	OAC 17-14C	OAC 07-26C x SeCan 11-12C	Rajcan	Intial	F5		
38	OAC 17-56C	Saska x DH530	Rajcan	Intial	F5		

UNIFORM TEST 0, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score Crooks-ton	IDC Score Shelly	Shattering Score Man-hattan	Green Stem Score Crooks-ton	Green Stem Score St Mathieu de Beloeil	Leaf Shape Elora	Leaf Shape Wood stock
ND Stutsman (0)	PGTSYYI	3.0	2.7	1.0	2.7	1.0	Ovate	Ovate
MN0095 (E)	PGTSYIbI	1.3	1.3	1.0	1.3	1.0	Ovate	Ovate
MN0404CN (SCN)	PTBSYIbI	2.3	2.2	1.0	2.2	1.0	Ovate	Ovate
MN1410 (L)	WGTSYBrI	2.3	2.2	1.0	2.2	1.0	Ovate	Ovate
M08-362045L	WGBDYIbI	2.5	2.5	1.0	2.5	1.0	Ovate	Ovate
M11-245026	PTBSYGrGBfYI	1.2	1.2	2.0	1.2	1.0	Ovate	Ovate
M11-271059	WTBDYGrBI	2.0	1.8	1.0	1.8	1.0	Ovate	Ovate
M12-416003	PGBDYYI	1.2	1.2	1.0	1.2	1.0	Ovate	Ovate
M13-104022	P+WGTSYYGI	1.2	1.2	1.0	1.2	1.0	Ovate	Ovate
M13-106018	P+WG+TBDYGBI	1.5	1.3	1.0	1.3	1.0	Ovate	Ovate
M13-190024	PGBDYGI	1.8	1.7	1.0	1.7	1.0	Narrow	Narrow
M13-198033	WGBDYYI	2.5	2.3	1.0	2.3	1.0	Ovate	Ovate
M13-204003	WGTDYGI	2.0	1.8	1.0	1.8	1.0	Ovate	Ovate
M13-236028	PTBDYBrIbI	2.0	1.7	1.0	1.7	1.0	Ovate	Ovate
M13-236029	PTBDYLBrI	1.2	1.2	1.0	1.2	1.0	Ovate	Ovate
M13-247009	P+WGBSYYI	1.7	2.0	1.0	2.0	1.0	Ovate	Ovate
M13-250051	WGBDYLBrI	1.5	1.7	1.0	1.7	1.0	Ovate	Ovate
ND13-4508	PGTSYYI	2.0	2.0	1.0	2.0	1.0	Ovate	Ovate
ND13-4810	PGTDYYI	1.8	2.0	2.0	2.0	1.0	Ovate	Ovate
ND13-7510	PGBSYYI	1.5	1.5	1.0	1.5	1.0	Ovate	Ovate
ND15-19739	WGTSYBfI	1.2	1.2	1.0	1.2	1.0	Ovate	Ovate
ND16-2739	WGTSYYI	1.7	1.8	1.0	1.8	1.0	Ovate	Ovate
ND16-3035	WGTSYYI	2.5	2.7	1.0	2.7	1.0	Ovate	Ovate
ND16-5639	PGTSYYI	1.5	1.5	1.0	1.5	1.0	Ovate	Ovate
ND16-6769	PGBSYBrI	1.7	1.7	1.0	1.7	1.0	Ovate	Ovate
ND16-7155	PGBDYBrI	1.3	1.7	1.0	1.7	1.0	Ovate	Ovate
ND16-7175	PTBSYBrI	1.7	1.8	1.0	1.8	1.0	Ovate	Ovate
ND16-7176	PTBSYBrI	1.7	1.5	1.0	1.5	1.0	Ovate	Ovate
ND16-7291	WGTDYBfI	2.3	2.3	1.0	2.3	1.0	Ovate	Ovate
ND16-7704	PGBSYYI	2.2	2.3	1.0	2.3	1.0	Ovate	Ovate
ND16-7744	PGBSYYI	1.3	1.3	1.0	1.3	1.0	Ovate	Ovate
ND16-8257	WGTSYBfI	1.5	1.5	2.0	1.5	1.0	Ovate	Ovate
ND16-8821	PGTDYBrI	1.7	1.5	2.0	1.5	1.0	Ovate	Ovate
ND16-8865	WGBDYYI	1.3	1.3	1.0	1.3	1.0	Mixed	Ovate
ND16-9606	WGTSYYI	2.0	2.2	1.0	2.2	1.0	Ovate	Ovate
OAC 14-16C-SCN	PGBSYYI	1.5	1.5	1.0	1.5	1.0	Ovate	Ovate
OAC 17-14C	PTBSYGI	2.0	2.0	1.0	2.0	1.0	Ovate	Ovate
OAC 17-56C	PTBSYGI	1.2	1.3	1.0	1.3	1.0	Ovate	Ovate

UNIFORM TEST 0, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 4 bu/a	Rank 4 No.	Maturity 5 Date	Lodging 6 Score	Plant Height 6 In.	Seed Size 7 g/100	Seed Quality 7 Score	Composition Protein 6 %	 Oil 6 %
ND Stutsman (0)	48.2	9	9/25	1.1	26	15.2	1.1	33.7	18.7
MN0095 (E)	34.3	38	-9.2	1.0	22	13.0	1.3	34.5	18.9
MN0404CN (SCN)	43.2	27	-5.8	1.6	26	14.3	1.2	34.2	18.7
MN1410 (L)	47.9	11	5.8	1.1	29	17.1	1.1	34.6	18.9
M08-362045L	44.7	25	1.0	1.0	23	15.7	1.2	34.3	19.1
M11-245026	44.8	24	1.2	1.4	29	14.8	1.3	34.3	18.4
M11-271059	41.5	31	-6.2	1.0	24	15.5	1.2	32.8	18.7
M12-416003	48.2	9	3.8	1.1	27	15.9	1.2	33.2	18.3
M13-104022	51.1	2	7.0	1.1	29	18.7	1.1	33.8	17.5
M13-106018	50.5	3	0.4	1.0	26	17.3	1.4	33.8	18.6
M13-190024	40.6	34	-0.4	1.0	25	18.2	1.3	33.6	17.9
M13-198033	41.4	32	-1.0	1.1	26	17.2	1.1	33.4	18.1
M13-204003	39.8	36	-2.4	1.0	22	15.9	1.3	34.7	17.8
M13-236028	49.7	5	0.0	1.2	24	16.3	1.2	33.2	19.2
M13-236029	49.9	4	2.2	1.1	25	16.1	1.3	33.4	18.8
M13-247009	43.9	26	-0.6	1.1	27	18.2	1.2	33.1	18.6
M13-250051	49.3	6	4.2	1.1	28	16.7	1.3	33.7	18.0
ND13-4508	49.1	7	1.8	1.1	26	17.2	1.1	34.0	17.9
ND13-4810	45.7	18	1.0	1.1	25	17.9	1.4	35.0	18.0
ND13-7510	46.5	14	0.0	1.1	27	17.9	1.1	34.6	17.2
ND15-19739	45.6	19	-0.2	1.1	25	15.7	1.1	32.9	18.5
ND16-2739	42.1	29	-3.8	1.1	22	15.2	1.2	32.5	18.6
ND16-3035	40.8	33	-5.0	1.0	21	14.9	1.3	32.4	18.6
ND16-5639	42.7	28	-2.6	1.0	24	14.8	1.4	33.5	18.0
ND16-6769	45.2	22	-1.0	1.1	24	16.1	1.2	33.9	17.6
ND16-7155	47.5	12	-1.2	1.0	24	15.2	1.2	33.8	17.4
ND16-7175	45.4	21	-1.0	1.0	24	15.1	1.2	33.1	17.8
ND16-7176	46.4	16	-2.2	1.0	24	14.9	1.2	33.4	17.7
ND16-7291	45.5	20	-0.4	1.1	25	15.9	1.2	32.9	18.6
ND16-7704	41.6	30	-2.6	1.0	22	15.3	2.1	33.4	18.3
ND16-7744	48.8	8	-1.0	1.1	24	15.2	1.1	33.2	18.1
ND16-8257	46.3	17	-0.4	1.1	26	15.0	1.1	34.4	17.3
ND16-8821	44.9	23	-1.0	1.0	22	13.5	1.2	33.5	17.6
ND16-8865	39.5	37	-2.6	1.1	24	13.9	1.4	33.1	18.7
ND16-9606	40.2	35	-6.2	1.0	21	15.5	1.4	32.4	18.8
OAC 14-16C-SCN	53.3	1	2.2	1.2	26	17.9	1.5	33.2	18.4
OAC 17-14C	46.5	14	0.0	1.4	32	17.6	1.2	35.0	17.6
OAC 17-56C	46.8	13	2.8	1.1	27	17.6	1.3	34.0	18.0
Mean	45.2			1.1	25.9	16.8	1.3		
C.V. (%)	13.0			21.6	8.0	4.2	23.5		
L.S.D. (5%)	4.0			0.2	1.4	0.6	0.2		

116.2 Days After Planting

UNIFORM TEST 0, 2019

2018-2019 2-YEAR MEAN

No. of Tests Strain	Yield 10 bu/a	Rank 10 No.	Maturity 11 Date	Lodging 12 Score	Plant Height 11 In.	Seed Size 12 g/100	Seed Quality 12 Score	Composition Protein 10 %	 Oil 10 %
ND Stutsman (0)	52.8	3	9/22	1.1	28	16.4	1.7	33.5	18.7
MN0095 (E)	40.2	8	-8.9	1.2	24	13.7	1.5	34.4	18.8
MN0404CN (SCN)	45.1	6	-7.6	1.7	28	15.0	1.3	33.7	18.8
MN1410 (L)	54.9	1	6.4	1.2	32	18.6	1.4	34.3	18.8
M08-362045L	50.4	4	-0.2	1.1	25	16.4	1.4	34.1	18.9
M11-245026	48.9	5	-0.7	1.5	32	15.6	1.6	34.2	18.4
M11-271059	44.9	7	-6.7	1.3	26	16.4	1.4	33.2	18.9
ND13-4508	53.2	2	0.3	1.1	28	17.9	1.3	33.8	18.2

118.8 Days After Planting

2017-2019 3-YEAR MEAN

No. of Tests Strain	15	15	18	19	18	19	19	17	17
ND Stutsman (0)	57.5	2	9/22	1.2	30	16.1	1.5	33.7	18.3
MN0095 (E)	42.5	7	-7.8	1.2	24	13.4	1.4	34.7	18.5
MN0404CN (SCN)	47.6	6	-6.4	1.6	29	14.9	1.4	33.9	18.5
MN1410 (L)	57.7	1	6.5	1.3	32	17.9	1.4	34.6	18.5
M08-362045L	53.2	4	1.0	1.2	28	16.0	1.4	34.4	18.6
M11-245026	51.7	5	-0.1	1.4	32	15.3	1.6	34.6	18.1
ND13-4508	57.3	3	-0.1	1.2	29	17.5	1.3	34.2	17.8

120.4 Days After Planting

UNIFORM TEST 0, 2019

YIELD (bu/a)

Strain	Mean 4 Tests	Crookston* MN	Shelly* MN	Casselton* ND	Ottawa ONT
ND Stutsman (0)	48.2	56.3	22.5	3.9	38.4
MN0095 (E)	34.3	65.1	12.1	8.4	28.6
MN0404CN (SCN)	43.2	59.4	31.7	5.1	36.9
MN1410 (L)	47.9	25.3	54.5	28.7	35.3
M08-362045L	44.7	62.6	33.5	21.9	37.5
M11-245026	44.8	67.7	33.5	17.5	33.9
M11-271059	41.5	62.0	17.7	10.5	32.0
M12-416003	48.2	66.7	17.8	6.4	39.4
M13-104022	51.1	63.1	40.9	30.2	38.8
M13-106018	50.5	55.7	20.9	21.3	41.1
M13-190024	40.6	61.2	11.2	13.1	22.5
M13-198033	41.4	52.8	28.0	12.6	30.2
M13-204003	39.8	60.1	28.3	27.1	31.7
M13-236028	49.7	41.4	10.9	24.9	37.1
M13-236029	49.9	60.4	11.3	23.0	39.4
M13-247009	43.9	37.5	17.6	12.5	32.1
M13-250051	49.3	61.2	22.5	19.1	37.8
ND13-4508	49.1	66.4	31.8	8.3	34.4
ND13-4810	45.7	64.1	21.9	24.2	31.2
ND13-7510	46.5	65.2	23.6	24.7	33.2
ND15-19739	45.6	51.8	29.4	20.8	40.8
ND16-2739	42.1	64.8	16.2	9.6	32.4
ND16-3035	40.8	34.5	7.4	19.5	35.8
ND16-5639	42.7	26.2	22.7	11.7	38.2
ND16-6769	45.2	53.9	34.4	25.2	36.1
ND16-7155	47.5	49.1	33.8	32.2	38.0
ND16-7175	45.4	49.7	38.7	42.6	34.0
ND16-7176	46.4	67.6	32.9	36.1	39.4
ND16-7291	45.5	47.6	31.8	27.7	37.0
ND16-7704	41.6	30.3	30.8	8.7	36.7
ND16-7744	48.8	55.4	16.7	8.2	40.4
ND16-8257	46.3	76.3	36.1	21.2	34.0
ND16-8821	44.9	68.9	21.1	12.3	34.7
ND16-8865	39.5	49.7	10.6	17.5	31.8
ND16-9606	40.2	35.9	20.7	7.6	33.8
OAC 14-16C-SCN	53.3	62.2	29.5	20.9	43.7
OAC 17-14C	46.5	36.2	22.6	20.3	38.2
OAC 17-56C	46.8	51.2	30.6	23.5	38.2
Location Mean		54.3	25.2	18.7	35.7
C.V. (%)		30.4	36.1	34.1	11.8
L.S.D. (5%)		27.0	14.8	10.6	8.2
Row Sp. (In.)		10	10	30	23.6
Rows/Plot		8	8	4	4
Reps		3	3	3	3

*Data not included in mean.

UNIFORM TEST 0, 2019

YIELD (bu/a)

Strain	Elora ONT	Wood-stock ONT	St Mathieu de Beloeil QUE
ND Stutsman (0)	56.3	43.7	54.3
MN0095 (E)	46.9	31.5	30.2
MN0404CN (SCN)	48.1	44.3	43.4
MN1410 (L)	50.5	45.6	60.3
M08-362045L	52.3	39.9	48.9
M11-245026	54.9	43.5	47.0
M11-271059	53.0	39.5	41.6
M12-416003	53.4	46.8	53.2
M13-104022	54.9	54.3	56.3
M13-106018	56.9	54.2	49.6
M13-190024	44.9	50.1	45.0
M13-198033	51.4	40.1	43.7
M13-204003	51.9	31.3	44.2
M13-236028	59.8	49.0	53.0
M13-236029	61.0	49.9	49.1
M13-247009	49.7	43.2	50.4
M13-250051	55.1	55.0	49.1
ND13-4508	56.4	55.8	49.6
ND13-4810	58.0	43.2	50.3
ND13-7510	54.3	46.7	51.6
ND15-19739	50.6	39.3	51.6
ND16-2739	49.9	44.3	41.9
ND16-3035	44.3	40.8	42.1
ND16-5639	48.9	35.4	48.1
ND16-6769	56.5	46.0	42.2
ND16-7155	54.4	48.1	49.5
ND16-7175	54.9	46.9	45.9
ND16-7176	53.9	46.5	45.7
ND16-7291	49.5	45.2	50.2
ND16-7704	47.9	33.8	48.0
ND16-7744	50.9	49.0	54.7
ND16-8257	55.7	46.1	49.3
ND16-8821	56.3	45.3	43.1
ND16-8865	45.9	40.2	40.0
ND16-9606	45.4	41.8	39.6
OAC 14-16C-SCN	60.0	57.7	51.9
OAC 17-14C	53.0	46.9	47.8
OAC 17-56C	52.4	44.2	52.3
Location Mean	52.6	44.9	47.8
C.V. (%)	5.7	14.2	9.7
L.S.D. (5%)	4.9	10.4	6.3
Row Sp. (In.)	14	14	7
Rows/Plot	4	4	5
Reps	3	3	3

UNIFORM TEST 0, 2019

YIELD RANK

Strain	Yield Rank	Crookston MN	Shelly MN	Casselton ND	Ottawa ONT
ND Stutsman (0)	9	20	23	39	9
MN0095 (E)	38	8	33	33	38
MN0404CN (SCN)	27	19	12	38	18
MN1410 (L)	11	38	1	5	22
M08-362045L	25	12	7	15	15
M11-245026	24	3	8	23	27
M11-271059	31	14	29	30	33
M12-416003	9	5	28	37	5
M13-104022	2	11	2	4	8
M13-106018	3	21	26	16	2
M13-190024	34	16	35	25	30
M13-198033	32	24	18	26	37
M13-204003	36	18	17	7	35
M13-236028	5	31	36	10	16
M13-236029	4	17	34	14	7
M13-247009	26	32	30	27	32
M13-250051	6	15	22	22	14
ND13-4508	7	6	11	34	24
ND13-4810	18	10	24	12	36
ND13-7510	14	7	19	11	29
ND15-19739	19	25	16	19	3
ND16-2739	29	9	32	31	31
ND16-3035	33	35	38	21	21
ND16-5639	28	37	20	29	11
ND16-6769	22	23	5	9	20
ND16-7155	12	29	6	3	13
ND16-7175	21	27	3	1	26
ND16-7176	16	4	9	2	6
ND16-7291	20	30	10	6	17
ND16-7704	30	36	13	32	19
ND16-7744	8	22	31	35	4
ND16-8257	17	1	4	17	25
ND16-8821	23	2	25	28	23
ND16-8865	37	28	37	23	34
ND16-9606	35	34	27	36	28
OAC 14-16C-SCN	1	13	15	18	1
OAC 17-14C	14	33	21	20	10
OAC 17-56C	13	26	14	13	12

UNIFORM TEST 0, 2019

YIELD RANK

Strain	Elora ONT	Wood-stock ONT	St Mathieu de Beloeil QUE
ND Stutsman (0)	8	24	4
MN0095 (E)	34	37	38
MN0404CN (SCN)	32	21	30
MN1410 (L)	27	18	1
M08-362045L	22	32	20
M11-245026	12	25	24
M11-271059	19	33	35
M12-416003	18	13	5
M13-104022	12	4	2
M13-106018	5	5	14
M13-190024	37	6	27
M13-198033	24	31	29
M13-204003	23	38	28
M13-236028	3	8	6
M13-236029	1	7	18
M13-247009	29	26	11
M13-250051	11	3	19
ND13-4508	7	2	15
ND13-4810	4	26	12
ND13-7510	16	14	9
ND15-19739	26	34	10
ND16-2739	28	21	34
ND16-3035	38	29	33
ND16-5639	31	35	21
ND16-6769	6	17	32
ND16-7155	15	10	16
ND16-7175	12	11	25
ND16-7176	17	15	26
ND16-7291	30	20	13
ND16-7704	33	36	22
ND16-7744	25	8	3
ND16-8257	10	16	17
ND16-8821	8	19	31
ND16-8865	35	30	36
ND16-9606	36	28	37
OAC 14-16C-SCN	2	1	8
OAC 17-14C	19	11	23
OAC 17-56C	21	23	7

UNIFORM TEST 0, 2019

MATURITY (date)

Strain	Mean 5 Tests	Crookston MN	Shelly MN	Casselton ND	Ottawa ONT
ND Stutsman (0)	9/25			10/1	9/14
MN0095 (E)	-9			-15	-9
MN0404CN (SCN)	-6			-12	-5
MN1410 (L)	6			8	7
M08-362045L	1			1	4
M11-245026	1			-5	7
M11-271059	-6			-9	-7
M12-416003	4			6	3
M13-104022	7			8	9
M13-106018	0			-3	0
M13-190024	-0			-3	2
M13-198033	-1			-3	0
M13-204003	-2			-7	0
M13-236028	0			-3	2
M13-236029	2			-3	5
M13-247009	-1			-3	1
M13-250051	4			-1	4
ND13-4508	2			3	4
ND13-4810	1			1	3
ND13-7510	0			-2	1
ND15-19739	-0			-1	1
ND16-2739	-4			-3	-2
ND16-3035	-5			-6	-4
ND16-5639	-3			-3	0
ND16-6769	-1			-1	1
ND16-7155	-1			-4	0
ND16-7175	-1			-4	1
ND16-7176	-2			-4	0
ND16-7291	-0			-1	4
ND16-7704	-3			-3	0
ND16-7744	-1			0	1
ND16-8257	-0			1	1
ND16-8821	-1			-3	0
ND16-8865	-3			-3	0
ND16-9606	-6			-7	-6
OAC 14-16C-SCN	2			5	5
OAC 17-14C	0			-2	1
OAC 17-56C	3			2	2
Date Planted	6/1			5/17	5/22
Days to Mature	116			137	115

UNIFORM TEST 0, 2019

MATURITY (date)

Strain	Elora ONT	Wood-stock ONT	St Mathieu de Beloeil QUE
	9/28	9/28	9/25
ND Stutsman (0)	-7	-8	-7
MN0095 (E)	-2	-6	-4
MN0404CN (SCN)	4	6	4
MN1410 (L)	2	-2	0
M08-362045L	5	1	-2
M11-245026	-4	-6	-5
M11-271059	5	2	3
M12-416003	7	8	3
M13-104022	5	0	0
M13-106018	0	-1	0
M13-190024	0	-1	-1
M13-198033	2	-4	-3
M13-204003	3	-2	0
M13-236028	4	3	2
M13-236029	0	-1	0
M13-247009	9	8	1
M13-250051	1	0	1
ND13-4508	3	-1	-1
ND13-4810	3	-1	-1
ND13-7510	0	-1	0
ND15-19739	-8	-3	-3
ND16-2739	-7	-4	-4
ND16-3035	-4	-4	-2
ND16-5639	-2	-3	0
ND16-6769	1	-3	0
ND16-7155	-1	-2	1
ND16-7175	-2	-3	-2
ND16-7176	-3	-3	1
ND16-7291	-6	-3	-1
ND16-7704	-4	-1	-1
ND16-7744	-2	0	-2
ND16-8257	1	-3	0
ND16-8821	-4	-3	-3
ND16-8865	-7	-6	-5
ND16-9606	3	0	-2
OAC 14-16C-SCN	1	1	-1
OAC 17-14C	8	2	0
Date Planted	6/7	6/14	6/7
Days to Mature	113	106	110

UNIFORM TEST 0, 2019

LODGING (score)

Strain	Mean 6 Tests	Crookston MN	Shelly MN	Casselton ND	Ottawa ONT
ND Stutsman (0)	1.1	1.0		1.0	1.0
MN0095 (E)	1.0	1.0		1.0	1.0
MN0404CN (SCN)	1.6	1.0		1.0	1.0
MN1410 (L)	1.1	1.0		1.0	1.0
M08-362045L	1.0	1.0		1.0	1.0
M11-245026	1.4	3.0		1.0	1.0
M11-271059	1.0	1.0		1.0	1.0
M12-416003	1.1	1.0		1.0	1.0
M13-104022	1.1	1.0		1.0	1.0
M13-106018	1.0	1.0		1.0	1.0
M13-190024	1.0	1.0		1.0	1.0
M13-198033	1.1	1.0		1.0	1.0
M13-204003	1.0	1.0		1.0	1.0
M13-236028	1.2	1.0		1.0	1.0
M13-236029	1.1	1.0		1.0	1.0
M13-247009	1.1	1.0		1.0	1.0
M13-250051	1.1	1.0		1.0	1.0
ND13-4508	1.1	1.0		1.0	1.0
ND13-4810	1.1	1.0		1.0	1.0
ND13-7510	1.1	1.0		1.0	1.0
ND15-19739	1.1	1.0		1.0	1.0
ND16-2739	1.1	1.0		1.0	1.0
ND16-3035	1.0	1.0		1.0	1.0
ND16-5639	1.0	1.0		1.0	1.0
ND16-6769	1.1	1.0		1.0	1.0
ND16-7155	1.0	1.0		1.0	1.0
ND16-7175	1.0	1.0		1.0	1.0
ND16-7176	1.0	1.0		1.0	1.0
ND16-7291	1.1	1.0		1.0	1.0
ND16-7704	1.0	1.0		1.0	1.0
ND16-7744	1.1	1.0		1.0	1.0
ND16-8257	1.1	1.0		1.0	1.0
ND16-8821	1.0	1.0		1.0	1.0
ND16-8865	1.1	1.0		1.0	1.0
ND16-9606	1.0	1.0		1.0	1.0
OAC 14-16C-SCN	1.2	1.0		1.0	1.0
OAC 17-14C	1.4	1.0		1.0	1.0
OAC 17-56C	1.1	1.0		1.0	1.0

UNIFORM TEST 0, 2019

LODGING (score)

Strain	Elora ONT	Wood-stock ONT	St Mathieu de Beloeil QUE
ND Stutsman (0)	1.2	1.1	1.0
MN0095 (E)	1.0	1.0	1.0
MN0404CN (SCN)	1.9	2.7	2.0
MN1410 (L)	1.1	1.4	1.0
M08-362045L	1.1	1.1	1.0
M11-245026	1.2	1.0	1.0
M11-271059	1.0	1.0	1.0
M12-416003	1.3	1.5	1.0
M13-104022	1.1	1.3	1.0
M13-106018	1.1	1.0	1.0
M13-190024	1.0	1.2	1.0
M13-198033	1.1	1.3	1.0
M13-204003	1.0	1.1	1.0
M13-236028	1.2	1.7	1.0
M13-236029	1.2	1.5	1.0
M13-247009	1.0	1.5	1.0
M13-250051	1.3	1.1	1.3
ND13-4508	1.2	1.4	1.0
ND13-4810	1.0	1.5	1.0
ND13-7510	1.0	1.4	1.0
ND15-19739	1.3	1.2	1.0
ND16-2739	1.0	1.5	1.0
ND16-3035	1.0	1.0	1.0
ND16-5639	1.0	1.1	1.0
ND16-6769	1.1	1.3	1.0
ND16-7155	1.0	1.2	1.0
ND16-7175	1.0	1.1	1.0
ND16-7176	1.0	1.2	1.0
ND16-7291	1.0	1.3	1.0
ND16-7704	1.0	1.0	1.0
ND16-7744	1.0	1.2	1.3
ND16-8257	1.1	1.5	1.0
ND16-8821	1.0	1.1	1.0
ND16-8865	1.2	1.5	1.0
ND16-9606	1.0	1.1	1.0
OAC 14-16C-SCN	1.3	1.6	1.0
OAC 17-14C	1.7	1.6	2.0
OAC 17-56C	1.0	1.4	1.3

UNIFORM TEST 0, 2019

PLANT HEIGHT (inches)

Strain	Mean 6 Tests	Crookston MN	Shelly MN	Casselton ND	Ottawa ONT
ND Stutsman (0)	26	20	23		24
MN0095 (E)	22	16	22		18
MN0404CN (SCN)	26	22	26		27
MN1410 (L)	29	27	32		23
M08-362045L	23	20	26		19
M11-245026	29	25	31		26
M11-271059	24	19	24		22
M12-416003	27	23	26		25
M13-104022	29	26	31		25
M13-106018	26	23	27		22
M13-190024	25	20	20		22
M13-198033	26	21	26		22
M13-204003	22	20	22		19
M13-236028	24	21	25		21
M13-236029	25	20	24		23
M13-247009	27	20	24		25
M13-250051	28	23	27		23
ND13-4508	26	22	25		21
ND13-4810	25	21	25		20
ND13-7510	27	23	26		24
ND15-19739	25	22	28		21
ND16-2739	22	19	22		18
ND16-3035	21	16	17		19
ND16-5639	24	21	24		21
ND16-6769	24	23	26		20
ND16-7155	24	23	26		19
ND16-7175	24	24	28		17
ND16-7176	24	24	28		20
ND16-7291	25	25	30		19
ND16-7704	22	19	23		19
ND16-7744	24	19	21		24
ND16-8257	26	24	28		20
ND16-8821	22	20	23		18
ND16-8865	24	21	26		20
ND16-9606	21	19	22		19
OAC 14-16C-SCN	26	22	22		24
OAC 17-14C	32	26	29		29
OAC 17-56C	27	24	29		24

UNIFORM TEST 0, 2019

PLANT HEIGHT (inches)

Strain	Elora ONT	Wood-stock ONT	St Mathieu de Beloeil QUE
ND Stutsman (0)	30	27	32
MN0095 (E)	24	25	25
MN0404CN (SCN)	28	24	31
MN1410 (L)	31	29	31
M08-362045L	23	23	25
M11-245026	32	29	32
M11-271059	27	26	26
M12-416003	28	29	29
M13-104022	30	30	30
M13-106018	29	29	24
M13-190024	30	29	28
M13-198033	31	29	28
M13-204003	23	22	25
M13-236028	27	26	26
M13-236029	29	29	27
M13-247009	32	30	32
M13-250051	31	32	30
ND13-4508	28	30	28
ND13-4810	31	26	30
ND13-7510	30	29	29
ND15-19739	26	27	27
ND16-2739	23	21	26
ND16-3035	22	25	27
ND16-5639	25	25	27
ND16-6769	25	26	24
ND16-7155	25	28	25
ND16-7175	25	27	23
ND16-7176	25	26	24
ND16-7291	23	27	26
ND16-7704	24	22	26
ND16-7744	27	25	30
ND16-8257	27	27	30
ND16-8821	23	24	26
ND16-8865	26	23	27
ND16-9606	21	22	24
OAC 14-16C-SCN	31	27	28
OAC 17-14C	39	35	35
OAC 17-56C	31	27	30

UNIFORM TEST 0, 2019

SEED SIZE (g/100)

Strain	Mean 7 Tests	Crookston MN	Shelly MN	Casselton ND	Ottawa ONT
ND Stutsman (0)	15.2	13.8	12.9	16.2	15.7
MN0095 (E)	13.0	12.6	11.7	14.4	11.9
MN0404CN (SCN)	14.3	14.4	12.7	15.0	13.8
MN1410 (L)	17.1	15.2	15.2	17.6	18.3
M08-362045L	15.7	13.6	11.9	16.4	17.0
M11-245026	14.8	14.1	12.2	14.2	15.0
M11-271059	15.5	14.8	13.6	16.2	13.9
M12-416003	15.9	14.9	13.7	16.7	15.7
M13-104022	18.7	16.4	15.0	18.9	20.2
M13-106018	17.3	15.6	13.8	17.5	17.9
M13-190024	18.2	15.9	14.9	17.8	17.8
M13-198033	17.2	16.2	14.5	17.8	15.7
M13-204003	15.9	14.7	13.5	14.9	16.1
M13-236028	16.3	14.4	12.3	17.0	17.0
M13-236029	16.1	14.2	12.3	15.9	16.6
M13-247009	18.2	16.3	15.1	20.3	17.9
M13-250051	16.7	14.8	13.6	16.4	17.6
ND13-4508	17.2	15.4	14.7	18.1	18.1
ND13-4810	17.9	16.0	14.3	19.2	18.5
ND13-7510	17.9	16.2	14.3	17.9	18.0
ND15-19739	15.7	14.4	13.0	15.2	15.9
ND16-2739	15.2	12.9	12.6	16.9	14.8
ND16-3035	14.9	13.4	13.1	16.5	15.0
ND16-5639	14.8	12.7	12.7	15.8	15.2
ND16-6769	16.1	15.2	14.0	15.8	16.2
ND16-7155	15.2	13.9	12.5	15.7	15.7
ND16-7175	15.1	14.6	12.8	15.4	15.5
ND16-7176	14.9	13.9	12.5	15.0	15.6
ND16-7291	15.9	14.7	13.7	16.7	16.6
ND16-7704	15.3	14.5	13.3	16.1	15.0
ND16-7744	15.2	13.8	13.1	16.8	15.2
ND16-8257	15.0	14.1	12.9	15.0	15.0
ND16-8821	13.5	12.2	11.1	13.9	14.2
ND16-8865	13.9	12.7	11.5	15.7	13.2
ND16-9606	15.5	14.7	13.7	17.1	15.1
OAC 14-16C-SCN	17.9	15.9	14.3	18.9	19.0
OAC 17-14C	17.6	15.4	14.1	18.8	18.4
OAC 17-56C	17.6	16.0	14.2	18.2	17.9

UNIFORM TEST 0, 2019

SEED SIZE (g/100)

Strain	Elora ONT	Wood-stock ONT	St Mathieu de Beloeil QUE
ND Stutsman (0)	14.7	16.9	16.3
MN0095 (E)	12.7	14.1	13.5
MN0404CN (SCN)	14.0	15.4	15.1
MN1410 (L)	15.3	19.0	19.2
M08-362045L	16.0	18.2	17.1
M11-245026	16.4	16.4	15.2
M11-271059	16.9	17.8	15.3
M12-416003	16.2	17.3	16.5
M13-104022	18.5	21.6	20.0
M13-106018	18.0	20.2	17.9
M13-190024	19.2	22.5	19.6
M13-198033	18.9	19.7	17.9
M13-204003	16.8	17.8	17.2
M13-236028	17.1	18.7	17.3
M13-236029	17.6	18.4	17.5
M13-247009	17.9	20.2	19.5
M13-250051	17.3	19.2	17.8
ND13-4508	17.1	18.3	18.9
ND13-4810	17.9	19.8	19.3
ND13-7510	19.6	19.3	19.7
ND15-19739	17.1	16.9	17.1
ND16-2739	15.4	17.5	16.4
ND16-3035	14.8	16.0	15.7
ND16-5639	15.3	15.6	16.3
ND16-6769	16.7	17.5	17.1
ND16-7155	16.1	16.1	16.6
ND16-7175	16.4	15.0	16.2
ND16-7176	15.5	15.4	16.5
ND16-7291	15.3	16.9	17.5
ND16-7704	15.9	16.3	16.3
ND16-7744	15.5	16.1	16.2
ND16-8257	15.6	15.7	16.9
ND16-8821	14.5	13.4	15.0
ND16-8865	14.8	15.1	14.4
ND16-9606	15.8	16.6	15.7
OAC 14-16C-SCN	19.1	19.5	18.8
OAC 17-14C	20.3	17.8	18.4
OAC 17-56C	18.8	18.4	19.4

UNIFORM TEST 0, 2019

SEED QUALITY (score)

Strain	Mean 7 Tests	Crookston MN	Shelly MN	Casselton ND	Ottawa ONT
ND Stutsman (0)	1.1	1.0	1.0	1.0	1.0
MN0095 (E)	1.3	1.0	1.0	1.0	1.3
MN0404CN (SCN)	1.2	1.0	1.0	1.0	1.3
MN1410 (L)	1.1	1.0	1.0	1.0	1.0
M08-362045L	1.2	1.0	1.0	1.0	1.7
M11-245026	1.3	1.5	1.0	1.0	1.7
M11-271059	1.2	1.0	1.0	1.0	1.3
M12-416003	1.2	1.5	1.0	1.0	1.0
M13-104022	1.1	1.5	1.0	1.0	1.0
M13-106018	1.4	1.5	1.0	1.0	2.0
M13-190024	1.3	1.0	1.0	1.0	2.0
M13-198033	1.1	1.0	1.0	1.0	1.0
M13-204003	1.3	1.0	1.0	1.0	2.0
M13-236028	1.2	1.5	1.0	1.0	1.0
M13-236029	1.3	2.0	1.0	1.0	1.3
M13-247009	1.2	1.5	1.0	1.0	1.0
M13-250051	1.3	1.0	1.0	1.0	2.0
ND13-4508	1.1	1.0	1.0	1.0	1.0
ND13-4810	1.4	1.0	1.0	1.0	2.0
ND13-7510	1.1	1.0	1.0	1.0	1.0
ND15-19739	1.1	1.0	1.0	1.0	1.0
ND16-2739	1.2	1.0	1.0	1.0	1.3
ND16-3035	1.3	1.0	1.0	1.0	1.3
ND16-5639	1.4	1.0	1.0	1.0	2.0
ND16-6769	1.2	1.5	1.0	1.0	1.0
ND16-7155	1.2	1.5	1.0	1.0	1.0
ND16-7175	1.2	1.5	1.0	1.0	1.3
ND16-7176	1.2	1.5	1.0	1.0	1.0
ND16-7291	1.2	1.5	1.0	1.0	1.0
ND16-7704	2.1	2.0	1.0	3.0	2.0
ND16-7744	1.1	1.0	1.0	1.0	1.0
ND16-8257	1.1	1.0	1.0	1.0	1.0
ND16-8821	1.2	1.5	1.0	1.0	1.0
ND16-8865	1.4	1.0	1.0	2.0	1.0
ND16-9606	1.4	2.0	1.0	1.0	1.3
OAC 14-16C-SCN	1.5	2.0	1.0	1.0	1.7
OAC 17-14C	1.2	1.5	1.0	1.0	1.0
OAC 17-56C	1.3	1.5	1.0	1.0	1.3

UNIFORM TEST 0, 2019

SEED QUALITY (score)

Strain	Elora ONT	Wood-stock ONT	St Mathieu de Beloeil QUE
ND Stutsman (0)	1.5	1.5	1.0
MN0095 (E)	2.5	1.5	1.0
MN0404CN (SCN)	1.5	1.5	1.0
MN1410 (L)	1.5	1.0	1.0
M08-362045L	1.5	1.5	1.0
M11-245026	1.5	1.5	1.0
M11-271059	1.5	1.5	1.0
M12-416003	1.5	1.5	1.0
M13-104022	1.5	1.0	1.0
M13-106018	1.5	1.5	1.0
M13-190024	1.5	1.5	1.3
M13-198033	1.5	1.0	1.0
M13-204003	1.5	1.5	1.0
M13-236028	1.5	1.5	1.0
M13-236029	1.5	1.5	1.0
M13-247009	1.5	1.5	1.0
M13-250051	1.5	1.5	1.0
ND13-4508	1.5	1.5	1.0
ND13-4810	2.0	1.5	1.0
ND13-7510	1.5	1.5	1.0
ND15-19739	1.5	1.5	1.0
ND16-2739	1.5	1.5	1.0
ND16-3035	2.5	1.5	1.0
ND16-5639	2.5	1.5	1.0
ND16-6769	1.5	1.5	1.0
ND16-7155	1.5	1.5	1.0
ND16-7175	1.0	1.5	1.0
ND16-7176	1.5	1.5	1.0
ND16-7291	1.5	1.5	1.0
ND16-7704	2.5	3.0	1.0
ND16-7744	1.5	1.5	1.0
ND16-8257	1.5	1.5	1.0
ND16-8821	1.5	1.5	1.0
ND16-8865	2.0	1.5	1.0
ND16-9606	2.0	1.5	1.0
OAC 14-16C-SCN	2.5	1.0	1.0
OAC 17-14C	1.5	1.5	1.0
OAC 17-56C	1.5	1.5	1.0

UNIFORM TEST 0, 2019

PROTEIN (%)

Strain	Mean 6 Tests	Shelly MN	Casselton ND	Elora* ONT	Ottawa ONT	Wood stock* ONT	St Mathieu de Beloeil* QUE
ND Stutsman (0)	33.7	34.7	34.1	35.7	31.4	34.0	32.4
MN0095 (E)	34.5	34.0	34.0	36.1	33.5	35.7	34.0
MN0404CN (SCN)	34.2	34.3	34.4	34.7	32.8	35.6	33.4
MN1410 (L)	34.6	34.3	34.4	35.3	33.8	35.3	34.4
M08-362045L	34.3	34.3	34.4	35.7	33.4	34.6	33.5
M11-245026	34.3	32.7	34.7	35.5	33.6	35.8	33.3
M11-271059	32.8	29.2	33.3	36.2	32.4	34.0	32.0
M12-416003	33.2	30.5	33.2	34.9	31.9	35.7	33.3
M13-104022	33.8	29.0	35.1	35.9	33.2	34.9	34.7
M13-106018	33.8	29.4	35.2	35.7	33.2	35.2	33.8
M13-190024	33.6	28.1	34.3	36.1	33.0	35.5	34.6
M13-198033	33.4	28.8	35.3	36.2	33.3	34.4	32.6
M13-204003	34.7	29.6	36.4	36.1	34.6	35.5	35.9
M13-236028	33.2	29.9	32.8	35.4	32.3	34.6	34.0
M13-236029	33.4	30.4	33.2	35.2	33.0	34.7	34.0
M13-247009	33.1	27.4	36.2	34.6	32.4	34.5	33.6
M13-250051	33.7	29.6	35.1	35.5	33.2	34.9	33.9
ND13-4508	34.0	30.8	34.6	36.3	33.3	35.1	33.6
ND13-4810	35.0	31.5	36.4	35.6	35.4	35.7	35.1
ND13-7510	34.6	26.2	37.2	36.8	36.9	36.1	34.6
ND15-19739	32.9	25.8	35.0	35.6	33.0	34.0	33.7
ND16-2739	32.5	29.3	33.0	35.3	31.3	34.1	32.2
ND16-3035	32.4	28.3	33.1	34.4	32.8	34.0	32.1
ND16-5639	33.5	30.8	35.1	34.7	32.5	35.0	33.2
ND16-6769	33.9	29.2	35.2	35.2	34.2	35.4	33.9
ND16-7155	33.8	30.1	34.8	36.1	33.3	34.5	33.8
ND16-7175	33.1	28.1	34.4	35.4	32.8	34.8	33.2
ND16-7176	33.4	28.3	34.7	35.9	33.4	35.0	33.4
ND16-7291	32.9	28.3	33.8	34.1	33.0	34.5	33.6
ND16-7704	33.4	30.0	35.4	34.6	33.0	34.2	33.0
ND16-7744	33.2	30.5	34.4	35.3	31.1	35.1	33.0
ND16-8257	34.4	28.9	35.6	36.4	34.5	35.7	35.2
ND16-8821	33.5	29.2	34.6	35.6	32.9	34.8	33.9
ND16-8865	33.1	29.1	33.9	36.0	32.6	34.0	32.7
ND16-9606	32.4	29.3	34.0	33.7	32.5	33.4	31.7
OAC 14-16C-SCN	33.2	30.4	34.3	35.1	32.8	34.0	33.0
OAC 17-14C	35.0	28.9	36.2	38.3	34.8	36.4	35.3
OAC 17-56C	34.0	30.9	34.5	36.2	33.3	35.1	33.8

*Data corrected to 13% moisture

UNIFORM TEST 0, 2019

OIL (%)

Strain	Mean 6 Tests	Shelly MN	Casselton ND	Elora* ONT	Ottawa ONT	Wood stock* ONT	St Mathieu de Beloeil* QUE
ND Stutsman (0)	18.7	22.0	17.3	16.7	19.9	17.9	18.4
MN0095 (E)	18.9	23.2	18.1	15.8	19.6	17.8	18.6
MN0404CN (SCN)	18.7	22.5	17.4	16.7	19.0	18.2	18.2
MN1410 (L)	18.9	22.8	18.4	17.2	19.6	17.8	17.7
M08-362045L	19.1	23.0	17.9	17.7	19.3	18.3	18.3
M11-245026	18.4	22.1	17.7	16.8	18.6	17.9	17.6
M11-271059	18.7	19.4	18.4	17.6	19.9	17.9	19.2
M12-416003	18.3	19.6	17.7	17.4	19.5	17.5	18.1
M13-104022	17.5	19.8	16.8	16.4	18.2	17.0	16.7
M13-106018	18.6	20.2	17.4	17.6	19.8	17.9	18.4
M13-190024	17.9	20.5	17.1	17.0	18.9	17.3	16.9
M13-198033	18.1	19.6	17.4	16.9	19.1	17.6	17.8
M13-204003	17.8	19.6	17.1	16.5	18.6	17.3	17.5
M13-236028	19.2	19.1	19.3	17.7	20.5	19.1	19.3
M13-236029	18.8	18.1	19.0	17.9	20.0	18.8	18.9
M13-247009	18.6	20.5	17.5	17.4	20.0	17.8	18.6
M13-250051	18.0	19.1	17.0	17.3	19.0	18.0	17.5
ND13-4508	17.9	19.1	17.3	17.2	18.6	17.5	17.5
ND13-4810	18.0	18.7	17.5	17.6	18.4	17.9	17.9
ND13-7510	17.2	21.4	15.5	16.0	16.9	16.2	17.0
ND15-19739	18.5	21.3	17.4	17.5	19.0	18.2	17.9
ND16-2739	18.6	20.4	17.9	17.3	19.9	18.0	18.4
ND16-3035	18.6	19.8	18.4	17.4	19.3	18.3	18.4
ND16-5639	18.0	18.3	17.3	17.6	19.4	16.9	18.4
ND16-6769	17.6	19.6	16.6	16.2	18.5	17.2	17.4
ND16-7155	17.4	18.0	16.8	16.2	19.1	16.9	17.6
ND16-7175	17.8	19.9	17.1	16.7	19.3	16.6	17.4
ND16-7176	17.7	19.9	16.7	17.2	18.8	16.3	17.6
ND16-7291	18.6	20.2	18.4	17.5	19.5	17.3	18.6
ND16-7704	18.3	19.2	17.0	18.2	19.2	17.7	18.6
ND16-7744	18.1	18.0	17.0	18.1	19.7	17.3	18.5
ND16-8257	17.3	18.7	16.6	16.4	18.3	16.5	17.4
ND16-8821	17.6	18.3	16.9	16.9	19.1	16.7	17.8
ND16-8865	18.7	18.3	18.1	17.4	20.3	18.8	19.4
ND16-9606	18.8	20.0	17.8	17.7	19.7	18.6	19.1
OAC 14-16C-SCN	18.4	19.5	17.1	17.7	19.8	18.1	18.4
OAC 17-14C	17.6	19.3	17.5	16.3	18.6	16.9	17.2
OAC 17-56C	18.0	18.7	17.8	17.2	18.9	17.9	17.5

*Data corrected to 13% moisture

	Northern Regional Uniform Test						
	Uniform Test I, 2019						
			Seed	Previous	Gen.	Unique	
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits	
1	MN1410 (I)	Unknown	Lorenz	14	F5		
2	ND Stutsman (E)	Sheyenne x [LaMoure(2)Rag1]	Helms	6	F4	PI 88788, Rps1c	
3	U11-917032 (SCN)	LD02-4485 x U03-100612	Graef	5	F6	SCN, HR, MR, IDC	
4	U14-103015	LG07-2249 x LG07-6944	Graef	2	F5	Diversity	
5	E15338	E09088 x E12901	Wang	1	F5	SCN Resist?	
6	E16099	PI 550729 x IA2102	Wang	PTI	F5		
7	E16346	PI 540453 x LD02-4485	Wang	PTI	F5	SCN	
8	M11-241015	M03-347183 x LD06-16721	Lorenz	1	F5	SCN	
9	M11-358032	Kenfeng 16 x ChC1-RIL-039	Lorenz	1	F5	Diversity	
10	M12-421024	M03-347004 x M06-235039	Lorenz	PTI	F5	SDS	
11	M12-437045	M02-495076 x M06-381077	Lorenz	PTI	F5	Diversity	
12	U14-108007	U11-926035 x U09-105007	Graef	1	F5	IDC, Rps	
13	U14-110036	U11-926035 x U09-105007	Graef	1	F5	IDC, Rps	
14	U14-111010	U11-935093 x U09-105007	Graef	1	F5	IDC, Rps	

UNIFORM TEST I, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score			Shattering Score	Leaf Shape	
		Danvers	Morris	Rose mount	Man-hattan	St. Pauls	Wood stock
MN1410 (I)	WGTSYBrI	1.8	1.8	1.8	1.0	Ovate	Ovate
ND Stutsman (E)	PGTSYYI	1.7	1.7	1.7	1.0	Ovate	Ovate
U11-917032 (SCN) (L)	PTBSYBIbI	3.3	3.3	3.3	1.0	Ovate	Ovate
U14-103015	PGBSYBI	2.2	2.2	2.2	1.0	Ovate	Ovate
E15338	PGTSYBrI	2.3	2.3	2.3	1.0	Ovate	Ovate
E16099	PGBSYBrI	2.3	2.3	2.3	1.0	Ovate	Ovate
E16346	PTBDYBIbI	1.7	1.7	1.7	1.0	Ovate	Ovate
M11-241015	PTBDYGrIbI	1.8	1.8	1.8	1.0	Ovate	Ovate
M11-358032	PGBDYBrI	1.8	1.8	1.8	1.0	Ovate	Ovate
M12-421024	P+WGTDYYI	2.2	2.2	2.2	1.0	Ovate	Ovate
M12-437045	WT+GB+TDYYGI	4.2	4.2	4.2	1.0	Ovate	Ovate
U14-108007	PTBSYBrI	3.2	3.2	3.2	1.0	Ovate	Ovate
U14-110036	PTBDYBrI	1.8	1.8	1.8	1.0	Ovate	Ovate
U14-111010	PTBSYBI	2.7	2.7	2.7	1.0	Ovate	Ovate

UNIFORM TEST I, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 15 bu/a	Rank 15 No.	Maturity 14 Date	Lodging 11 Score	Plant Height 13 In.	Seed Size 14 g/100	Seed Quality 13 Score	Composition Protein 8 %	 Oil 8 %
MN1410 (I)	48.9	9	9/19	1.2	29	16.7	1.4	35.3	18.4
ND Stutsman (E)	45.5	14	-2.2	1.2	27	15.7	1.6	33.9	18.8
U11-917032 (SCN) (L)	55.8	5	6.4	1.2	28	15.8	1.7	33.0	19.2
U14-103015	55.5	6	4.9	1.4	29	16.5	1.5	35.1	18.9
E15338	57.8	2	4.0	1.3	30	16.6	1.5	33.7	18.3
E16099	56.8	4	5.4	1.3	30	15.4	1.5	34.5	17.9
E16346	57.2	3	6.5	1.4	29	14.1	1.6	32.9	18.7
M11-241015	48.3	11	0.7	1.1	27	16.9	1.4	34.6	18.9
M11-358032	48.6	10	-0.7	1.1	27	17.3	1.5	34.9	18.8
M12-421024	46.6	12	0.8	1.2	29	18.6	1.8	35.5	18.4
M12-437045	46.1	13	2.1	1.3	29	17.6	1.5	36.0	17.8
U14-108007	58.4	1	5.3	1.2	30	17.1	1.5	33.3	19.5
U14-110036	54.1	8	2.4	1.2	27	15.0	1.3	33.1	19.2
U14-111010	55.0	7	6.6	1.2	29	15.6	1.7	35.0	18.8
Mean	51.4			1.2	27.7	16.0	1.5		
C.V. (%)	12.8			29.8	9.0	4.6	35.2		
L.S.D. (5%)	2.6			0.2	1.1	0.4	0.3		

111.0 Days After Planting

UNIFORM TEST I, 2019

2018-2019 2-YEAR MEAN

No. of Tests Strain	Yield 27 bu/a	Rank 27 No.	Maturity 26 Date	Lodging 24 Score	Plant Height 26 In.	Seed Size 24 g/100	Seed Quality 23 Score	Composition Protein 15 %	 Oil 15 %
MN1410 (I)	52.4	7	9/18	1.7	33	17.1	1.5	35.4	18.7
ND Stutsman (E)	47.7	10	-3.8	1.4	30	16.4	2.0	34.3	19.0
U11-917032 (SCN) (L)	57.0	6	5.3	1.8	31	16.1	1.7	33.0	19.6
U14-103015	59.0	2	3.8	1.6	32	17.1	1.5	35.1	19.2
E15338	58.9	3	3.6	1.8	33	17.0	1.5	33.8	18.6
M11-241015	51.9	9	0.5	1.2	30	17.3	1.4	33.7	19.0
M11-358032	52.4	7	-1.7	1.3	30	17.8	1.5	34.6	19.2
U14-108007	59.9	1	4.5	1.4	33	17.3	1.5	33.1	19.9
U14-110036	57.2	5	3.4	1.6	31	15.7	1.5	33.7	19.5
U14-111010	58.4	4	4.1	1.4	31	15.7	1.5	34.3	19.2

113.8 Days After Planting

UNIFORM TEST I, 2019

YIELD (bu/a)

Strain	Mean 15 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN
MN1410 (I)	48.9	51.1	37.0	32.6	31.4	50.7	54.5	49.8
ND Stutsman (E)	45.5	43.1	40.3	35.6	33.2	46.6	53.7	40.5
U11-917032 (SCN) (L)	55.8	58.0	47.3	47.8	35.7	58.6	57.8	51.3
U14-103015	55.5	58.2	46.8	48.4	36.0	50.4	57.4	48.9
E15338	57.8	53.5	52.7	53.8	40.3	56.6	63.6	54.7
E16099	56.8	61.3	48.5	48.0	35.4	54.4	56.7	48.6
E16346	57.2	64.3	47.4	49.9	36.1	56.0	58.3	55.0
M11-241015	48.3	52.1	39.7	42.6	35.6	48.5	54.7	53.7
M11-358032	48.6	51.0	37.4	37.4	28.1	46.9	57.2	48.7
M12-421024	46.6	49.8	42.3	32.8	34.0	49.0	56.7	47.9
M12-437045	46.1	47.7	39.3	38.0	32.7	43.6	52.3	46.0
U14-108007	58.4	52.1	50.8	49.3	35.7	50.2	59.7	51.3
U14-110036	54.1	55.3	42.1	50.4	35.4	49.8	53.8	40.6
U14-111010	55.0	54.3	46.1	48.8	37.5	48.7	56.2	47.7
Location Mean		53.7	44.1	44.0	34.8	50.7	56.6	48.9
C.V. (%)		8.2	6.3	6.7	8.4	6.7	8.5	13.2
L.S.D. (5%)		9.5	4.9	5.2	5.9	6.4	7.8	10.6
Row Sp. (In.)		30	30	30	15	15	30	30
Rows/Plot		4	4	4	6	6	4	4
Reps		2	2	2	3	3	3	3

UNIFORM TEST I, 2019

YIELD (bu/a)

Strain	Rose mount MN	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood-Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	55.7	65.9	52.0	53.3	35.2	65.6	30.7	67.3
ND Stutsman (E)	57.0	48.0	47.5	26.0	26.4	69.1	41.8	73.8
U11-917032 (SCN) (L)	56.5	63.1	71.6	74.1	35.6	69.5	44.5	65.8
U14-103015	56.2	79.6	61.1	67.3	37.7	69.8	45.3	69.4
E15338	61.4	63.4	70.2	69.9	40.4	73.7	43.6	68.8
E16099	62.9	70.1	66.7	73.5	39.9	76.4	40.3	69.4
E16346	58.7	66.9	70.2	67.8	47.7	72.4	43.2	64.1
M11-241015	49.3	63.2	47.6	48.4	38.9	60.2	31.3	58.8
M11-358032	56.6	62.1	56.9	65.3	24.0	57.6	40.8	59.8
M12-421024	51.9	55.5	37.3	48.4	34.6	64.1	37.6	57.4
M12-437045	52.9	50.3	50.4	48.2	29.6	63.2	39.2	57.6
U14-108007	57.4	76.6	80.1	81.8	42.0	72.4	48.8	68.5
U14-110036	60.1	81.8	66.3	61.4	31.0	70.4	41.5	71.6
U14-111010	59.0	73.1	75.6	71.8	31.9	69.0	43.0	62.8
Location Mean	56.8	65.7	61.0	61.2	35.3	68.1	40.8	65.4
C.V. (%)	8.7	12.4	6.7	11.1	13.8	7.0	13.4	0.9
L.S.D. (5%)	8.1	17.5	8.8	14.7	5.7	8.0	9.5	1.9
Row Sp. (In.)	30	30	30	30	17	14	14	15
Rows/Plot	4	4	4	4	5	4	4	4
Reps	3	2	2	2	2	3	3	3

UNIFORM TEST I, 2019

YIELD RANK

Strain	Yield Rank	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN
MN1410 (I)	9	10	14	14	13	5	11	6
ND Stutsman (E)	14	14	10	12	11	13	13	14
U11-917032 (SCN) (L)	5	4	5	8	5	1	4	4
U14-103015	6	3	6	6	4	6	5	7
E15338	2	7	1	1	1	2	1	2
E16099	4	2	3	7	9	4	7	9
E16346	3	1	4	3	3	3	3	1
M11-241015	11	8	11	9	7	11	10	3
M11-358032	10	11	13	11	14	12	6	8
M12-421024	12	12	8	13	10	9	8	10
M12-437045	13	13	12	10	12	14	14	12
U14-108007	1	8	2	4	6	7	2	5
U14-110036	8	5	9	2	8	8	12	13
U14-111010	7	6	7	5	2	10	9	11

UNIFORM TEST I, 2019

MATURITY (date)

Strain	Mean 14 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN
MN1410 (I)	9/19	9/15	9/17	9/12	9/10	9/18	9/25	
ND Stutsman (E)	-2	0	-2	1	1	-1	-3	
U11-917032 (SCN) (L)	6	1	7	9	8	7	6	
U14-103015	5	0	5	8	7	7	4	
E15338	4	0	5	8	4	4	3	
E16099	5	0	4	9	6	7	7	
E16346	6	2	6	11	8	8	4	
M11-241015	1	1	2	4	5	3	-1	
M11-358032	-1	0	-1	4	1	2	-1	
M12-421024	1	0	2	3	2	3	-2	
M12-437045	2	0	0	5	4	3	2	
U14-108007	5	0	5	10	9	6	4	
U14-110036	2	1	3	7	4	3	-1	
U14-111010	7	4	5	10	10	7	6	
Date Planted	5/31	5/23	6/3	6/5	5/29	6/8	5/28	
Days to Mature	111	115	106	99	104	102	120	

UNIFORM TEST I, 2019

YIELD RANK

Strain	Rose mount MN	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood-Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	11	7	10	10	8	10	14	7
ND Stutsman (E)	7	14	13	14	13	8	7	1
U11-917032 (SCN) (L)	9	10	3	2	7	7	3	8
U14-103015	10	2	8	7	6	6	2	4
E15338	2	8	4	5	3	2	4	5
E16099	1	5	6	3	4	1	10	3
E16346	5	6	5	6	1	3	5	9
M11-241015	14	9	12	12	5	13	13	12
M11-358032	8	11	9	8	14	14	9	11
M12-421024	13	12	14	11	9	11	12	14
M12-437045	12	13	11	13	12	12	11	13
U14-108007	6	3	1	1	2	3	1	6
U14-110036	3	1	7	9	11	5	8	2
U14-111010	4	4	2	4	10	9	6	10

UNIFORM TEST I, 2019

MATURITY (date)

Strain	Rose mount MN	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood-Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	9/22		9/8	9/19	9/23	9/28	9/27	10/4
ND Stutsman (E)	-5		-2	-6	-4	-3	-1	-4
U11-917032 (SCN) (L)	5		5	7	4	10	12	3
U14-103015	1		2	2	4	9	13	2
E15338	3		1	3	5	6	12	0
E16099	4		2	2	4	10	11	5
E16346	7		4	6	4	10	11	3
M11-241015	-4		-1	0	1	2	2	-4
M11-358032	-3		-3	-2	-1	-2	-2	-1
M12-421024	-3		-2	1	1	3	4	0
M12-437045	-1		-1	3	4	2	3	5
U14-108007	1		4	6	4	10	11	0
U14-110036	-1		2	5	1	2	8	-1
U14-111010	6		3	6	4	10	12	3
Date Planted	5/26		5/16	5/18	6/19	6/9	6/12	6/1
Days to Mature	119		115	124	96	111	107	125

UNIFORM TEST I, 2019

LODGING (score)

Strain	Mean 11 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN
MN1410 (I)	1.2	2.5	1.0	1.0	1.0	1.0		
ND Stutsman (E)	1.2	2.0	1.0	1.0	1.0	1.0		
U11-917032 (SCN) (L)	1.2	1.5	1.0	1.0	1.0	1.0		
U14-103015	1.4	1.5	1.0	1.0	1.0	1.0		
E15338	1.3	2.0	1.0	1.0	1.0	1.0		
E16099	1.3	2.0	1.0	1.0	1.0	1.0		
E16346	1.4	1.5	1.0	1.0	1.0	1.0		
M11-241015	1.1	1.0	1.0	1.0	1.0	1.0		
M11-358032	1.1	1.0	1.0	1.0	1.0	1.0		
M12-421024	1.2	1.5	1.0	1.0	1.0	1.0		
M12-437045	1.3	2.0	1.0	1.0	1.0	1.0		
U14-108007	1.2	1.5	1.0	1.0	1.0	1.0		
U14-110036	1.2	1.0	1.0	1.0	1.0	1.0		
U14-111010	1.2	1.0	1.0	1.0	1.0	1.0		

UNIFORM TEST I, 2019

PLANT HEIGHT (inches)

Strain	Mean 13 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN
MN1410 (I)	29	30	22	20	22	30	41	
ND Stutsman (E)	27	29	22	22	23	28	36	
U11-917032 (SCN) (L)	28	30	22	27	22	28	33	
U14-103015	29	31	24	25	22	30	36	
E15338	30	31	26	27	24	31	38	
E16099	30	32	26	28	23	30	37	
E16346	29	29	24	26	21	30	35	
M11-241015	27	27	23	24	19	26	34	
M11-358032	27	29	25	22	17	27	38	
M12-421024	29	29	28	23	20	28	41	
M12-437045	29	28	26	25	21	28	36	
U14-108007	30	30	26	30	23	29	36	
U14-110036	27	28	23	26	19	27	33	
U14-111010	29	30	27	27	20	28	34	

UNIFORM TEST I, 2019

LODGING (score)

Strain	Rose mount MN	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood-Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	1.0		1.0	2.0	1.0	1.2	1.0	
ND Stutsman (E)	1.0		1.0	2.0	1.0	1.0	1.0	
U11-917032 (SCN) (L)	1.0		1.0	2.0	1.0	1.2	1.0	
U14-103015	3.0		1.5	2.0	1.0	1.3	1.0	
E15338	1.0		1.5	2.0	1.0	1.2	1.2	
E16099	1.0		1.5	2.0	1.0	1.5	1.0	
E16346	3.0		1.0	2.5	1.0	1.0	1.0	
M11-241015	1.0		1.0	2.0	1.0	1.0	1.0	
M11-358032	1.0		1.0	2.0	1.0	1.0	1.0	
M12-421024	1.0		1.5	2.0	1.0	1.3	1.0	
M12-437045	1.0		1.5	2.0	1.0	1.3	1.0	
U14-108007	1.0		1.0	2.0	1.0	1.2	1.0	
U14-110036	1.0		1.0	3.0	1.0	1.0	1.0	
U14-111010	1.0		2.0	2.0	1.0	1.0	1.0	

UNIFORM TEST I, 2019

PLANT HEIGHT (inches)

Strain	Rose mount MN	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood-Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	35		30	24	30	33	25	39
ND Stutsman (E)	31		31	16	21	30	27	37
U11-917032 (SCN) (L)	34		29	25	23	28	26	33
U14-103015	35		29	28	28	30	28	35
E15338	36		32	25	26	31	28	36
E16099	35		32	24	26	35	26	39
E16346	40		31	27	28	30	26	35
M11-241015	34		29	25	28	26	21	33
M11-358032	36		26	24	23	27	22	34
M12-421024	38		32	21	29	32	25	36
M12-437045	40		32	24	24	31	24	37
U14-108007	34		33	26	28	30	27	36
U14-110036	37		30	22	25	28	25	32
U14-111010	36		31	25	28	30	25	35

UNIFORM TEST I, 2019

SEED SIZE (g/100)

Strain	Mean 14 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN
MN1410 (I)	16.7	15.5	17.6	15.3	13.9		18.0	18.0
ND Stutsman (E)	15.7	16.5	16.4	15.3	14.3		16.4	15.3
U11-917032 (SCN) (L)	15.8	15.4	15.3	15.5	14.4		17.6	17.4
U14-103015	16.5	16.7	16.2	15.1	14.4		17.3	17.0
E15338	16.6	16.6	16.7	17.2	14.3		17.3	17.6
E16099	15.4	15.3	15.6	15.6	13.4		16.2	15.6
E16346	14.1	13.8	13.7	14.0	13.5		15.0	15.0
M11-241015	16.9	17.4	15.8	16.6	15.2		17.0	18.3
M11-358032	17.3	16.9	17.3	16.5	14.3		19.0	18.8
M12-421024	18.6	18.5	18.9	18.5	15.6		19.5	19.6
M12-437045	17.6	17.3	18.1	17.0	14.9		18.9	19.7
U14-108007	17.1	16.5	17.2	16.7	15.5		18.4	18.6
U14-110036	15.0	14.9	14.2	14.5	13.5		15.8	16.3
U14-111010	15.6	14.5	14.7	16.1	14.4		17.0	17.1

UNIFORM TEST I, 2019

SEED QUALITY (score)

Strain	Mean 13 Tests	Ames IA	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN
MN1410 (I)	1.4	1.0	1.0	1.0	2.0		1.0	1.0
ND Stutsman (E)	1.6	1.0	1.0	1.0	2.0		1.0	1.0
U11-917032 (SCN) (L)	1.7	1.0	1.0	1.0	2.0		2.0	4.0
U14-103015	1.5	1.0	1.0	1.0	2.0		2.0	2.0
E15338	1.5	1.0	1.0	1.0	2.0		1.0	2.0
E16099	1.5	1.5	1.0	1.0	1.0		1.0	3.0
E16346	1.6	1.0	1.0	1.0	2.0		2.0	3.0
M11-241015	1.4	1.0	1.0	1.0	2.0		1.0	2.0
M11-358032	1.5	1.0	1.0	1.0	2.0		1.0	1.0
M12-421024	1.8	2.0	1.0	1.0	2.0		1.0	2.0
M12-437045	1.5	1.0	1.0	1.0	2.0		2.0	1.0
U14-108007	1.5	1.0	1.0	1.0	2.0		2.0	2.0
U14-110036	1.3	1.0	1.0	1.0	1.0		2.0	1.0
U14-111010	1.7	1.0	1.0	1.0	2.0		2.0	4.0

UNIFORM TEST I, 2019

SEED SIZE (g/100)

Strain	Rose mount MN	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood-Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	16.3	18.3	15.0	16.0	14.3	19.2	17.3	18.5
ND Stutsman (E)	15.1	15.4	15.2	16.3	13.7	17.4	15.5	17.6
U11-917032 (SCN) (L)	14.9	16.0	14.3	15.8	14.0	18.0	16.7	16.6
U14-103015	15.9	18.7	14.7	18.2	14.0	18.9	16.5	17.6
E15338	16.5	18.2	14.0	17.6	14.2	18.9	16.1	17.7
E16099	14.9	16.0	14.7	15.1	13.5	17.7	15.9	16.3
E16346	13.3	15.0	12.4	13.7	13.2	15.6	14.7	14.2
M11-241015	16.4	17.9	14.7	16.7	16.3	18.9	17.7	18.1
M11-358032	16.3	19.2	17.0	18.2	14.7	18.0	17.2	18.5
M12-421024	18.3	18.3	16.2	19.3	17.2	21.0	19.2	20.5
M12-437045	17.7	17.8	16.6	17.9	15.2	18.9	17.6	18.7
U14-108007	15.6	17.0	16.2	17.9	15.2	18.8	18.0	18.4
U14-110036	13.0	16.5	14.3	15.2	13.2	17.3	16.0	15.7
U14-111010	14.5	17.5	13.6	16.3	13.6	17.2	15.9	16.5

UNIFORM TEST I, 2019

SEED QUALITY (score)

Strain	Rose mount MN	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St. Pauls ONT	Wood-Stock ONT	Saint Hyacinthe QUE
MN1410 (I)	1.0	2.0	1.0	1.5		1.5	1.0	2.7
ND Stutsman (E)	1.0	2.5	2.0	3.5		2.0	1.0	2.3
U11-917032 (SCN) (L)	1.0	2.0	1.0	1.0		1.5	1.5	3.0
U14-103015	1.0	1.0	1.0	1.5		2.0	1.5	3.0
E15338	1.0	1.5	1.0	1.5		1.5	1.5	3.0
E16099	1.0	1.5	1.0	1.5		1.5	1.5	3.0
E16346	1.0	1.5	1.0	1.0		2.0	1.5	3.0
M11-241015	1.0	1.5	1.0	1.5		1.5	1.0	3.0
M11-358032	1.0	2.0	1.0	1.5		2.0	1.5	3.0
M12-421024	1.0	3.0	1.5	2.5		2.5	1.0	3.0
M12-437045	1.0	2.0	1.5	2.5		1.5	1.0	2.3
U14-108007	1.0	1.0	1.0	1.0		2.0	1.5	2.7
U14-110036	1.0	1.0	1.0	1.0		2.0	1.5	3.0
U14-111010	1.0	1.0	1.5	1.0		2.0	1.5	3.0

UNIFORM TEST I, 2019

PROTEIN (%)

Strain	Mean 8 Tests	Ames IA	West Lafayette IN	Phillips MN	East Lansing MI	Palmyra ONT	St. Pauls* ONT	Wood stock* ONT	Saint Hyacinthe* QUE
MN1410 (I)	35.3	34.8	33.6	35.3	34.7	38.3	35.8	34.5	35.8
ND Stutsman (E)	33.9	33.2	32.8	34.8	33.0	36.6	33.3	34.8	33.0
U11-917032 (SCN) (L)	33.0	32.9	31.4	33.5	32.6	34.1	33.5	33.0	33.2
U14-103015	35.1	36.4	34.0	35.3	35.3	37.0	35.0	33.5	34.2
E15338	33.7	33.6	33.0	33.2	32.9	35.8	34.7	33.1	33.5
E16099	34.5	34.8	33.5	34.8	33.7	36.6	34.6	33.4	34.5
E16346	32.9	32.0	32.3	33.4	31.1	34.4	33.9	33.8	32.8
M11-241015	34.6	34.4	34.1	34.5	33.9	37.2	34.9	34.1	33.8
M11-358032	34.9	34.5	33.9	34.0	34.3	38.6	34.5	34.8	34.7
M12-421024	35.5	35.1	35.0	35.3	35.1	37.3	36.7	34.8	35.1
M12-437045	36.0	35.7	35.2	35.7	34.1	39.1	36.7	35.2	36.3
U14-108007	33.3	33.4	31.3	33.3	32.3	35.7	33.5	33.9	32.9
U14-110036	33.1	32.5	32.3	33.0	32.2	36.3	33.1	33.6	32.3
U14-111010	35.0	35.0	33.8	34.2	33.7	39.1	35.0	34.1	35.3

*Data corrected to 13% moisture

UNIFORM TEST I, 2019

OIL (%)

Strain	Mean 8 Tests	Ames IA	West Lafayette IN	Phillips MN	East Lansing MI	Palmyra ONT	St. Pauls* ONT	Wood stock* ONT	Saint Hyacinthe* QUE
MN1410 (I)	18.4	19.0	20.3	19.1	19.3	18.6	16.4	18.3	16.4
ND Stutsman (E)	18.8	19.9	20.0	19.0	19.9	19.2	17.1	18.3	16.8
U11-917032 (SCN) (L)	19.2	19.9	21.1	19.5	19.8	19.5	18.0	19.3	16.7
U14-103015	18.9	19.5	20.3	19.6	19.4	18.9	17.8	18.9	16.5
E15338	18.3	18.9	19.6	18.9	18.8	19.0	16.9	18.2	16.4
E16099	17.9	18.5	19.7	18.3	18.7	18.8	16.1	18.1	15.4
E16346	18.7	19.6	20.0	18.9	19.9	19.1	16.7	18.8	16.3
M11-241015	18.9	19.4	19.5	19.1	19.5	19.2	18.4	18.9	17.5
M11-358032	18.8	19.5	19.8	19.5	19.3	19.5	18.3	18.4	16.2
M12-421024	18.4	19.5	19.4	18.7	19.0	18.6	17.0	17.9	16.7
M12-437045	17.8	18.9	19.5	19.3	18.9	18.0	15.4	17.7	15.1
U14-108007	19.5	19.9	21.4	19.9	20.5	20.0	17.9	19.1	17.6
U14-110036	19.2	20.0	20.8	19.8	20.3	19.0	17.6	18.7	17.1
U14-111010	18.8	19.2	20.4	19.9	20.2	18.4	17.4	18.2	16.9

*Data corrected to 13% moisture

	Northern Regional Uniform Test					
	Preliminary Test I, 2019					
			Seed	Gen.	Unique	
Ent.	Strain	Parentage	Source	Comp.	Traits	
1	MN1410 (I)	Unknown	Lorenz	F5		
2	ND Stutsman (E)	Sheyenne x [LaMoure(2)Rag1]	Helms	F4	PI 88788, Rps1c	
3	U11-917032 (SCN)	LD02-4485 x U03-100612	Graef	F6	SCN, HR, MR, IDC	
4	U14-103015	LG07-2249 x LG07-6944	Graef	F5	Diversity	
5	AR18-181030	U11-614119 x AR12-228007	Cianzio	F4		
6	AR18-181072	U09-129007 x AR11-314026	Cianzio	F4		
7	AR18-181073	AR09-192019 x U09-105007	Cianzio	F4	BSR	
8	AR18-181075	AR09-192019 x U09-105007	Cianzio	F4	BSR	
9	AR18-181087	U09-129007 x AR12-228007	Cianzio	F4		
10	AR18-281057	U11-616086 x AR12-127008	Cianzio	F4		
11	AR18-281062	U09-129007 x AR11-214001	Cianzio	F4		
12	AR18-281096	U09-129007 x AR12-228007	Cianzio	F4		
13	LD17-4967a	E11128T x LD14-8030	Diers	F5	Rag1+2+3	
14	LD17-5169a	LD10-10198 x LD14-8035	Diers	F5	Rag1+2+3	
15	M13-106002	M03-172059 x A09-754003	Lorenz	F5		
16	M13-106007	M03-172059 x A09-754003	Lorenz	F5		
17	M13-106015	M03-172059 x A09-754003	Lorenz	F5		
18	M13-106022	M03-172059 x A09-754003	Lorenz	F5		
19	M13-106037	M03-172059 x A09-754003	Lorenz	F5		
20	M13-194009	M06-381085 x Hefeng 50	Lorenz	F5	Diversity	
21	M13-194018	M06-381085 x Hefeng 50	Lorenz	F5	Diversity	
22	M13-194022	M06-381085 x Hefeng 50	Lorenz	F5	Diversity	
23	M13-194051	M06-381085 x Hefeng 50	Lorenz	F5	Diversity	
24	M13-252001	M07-294030 x EO7051	Lorenz	F5	SCN	
25	M13-252032	M07-294030 x EO7051	Lorenz	F5	SCN	
26	M13-264022	LD10-5903a x KATO	Lorenz	F5	Rag1	
27	M13-264055	LD10-5903a x KATO	Lorenz	F5	Rag1	
28	OAC 13-87C-SCN	SC Starfield (SCN) x OAC Wallace	Rajcan	F5	SCN	
29	OAC 14-37C-SCN	OAC Lakeview x S18-R6	Rajcan	F5		
30	OAC 17-112C	DH618 x OAC 11-51C	Rajcan	F5		
31	OAC 17-93C	SeCan 09-42C x Saska	Rajcan	F5		
32	U16-125610	U02-242055-0165 x U09-105007-174	Graef		Rps	
33	U16-126608	U02-242055-0187 x U09-105007-174	Graef		Rps	
34	U16-126662	U02-242055-0165 x U09-105007-174	Graef		Rps	
35	U16-127010	U09-105007-174 x AR09-191018	Graef		Rps, SCN(HR,HR) Peking	
36	U16-128648	U09-105007-174 x U11-919011	Graef		SCN(LR,LR), Seg Rps1k	
37	U16-129655	U11-932025 x U13-602106	Graef		Rps3a, IDC	
38	U17-920008	U11-619102 x U11-932025	Graef		Rps3a, IDC	
39	U17-924011	U11-619102 x U11-932025	Graef		Rps3a, IDC	

PRELIMINARY TEST I, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score		Seed Treatment	Shattering Score	Leaf Shape	
		Morris	Rose mount		Man-hattan	St. Pauls	Wood stock
MN1410 (I)	WGTSYBrI	3.5	3.5		1.0	Ovate	Ovate
ND Stutsman (E)	PGTSYYI	2.8	2.8		2.0	Ovate	Ovate
U11-917032 (SCN) (L)	PTBSYBIbI	4.2	4.2		1.0	Ovate	Ovate
U14-103015	PGBSYBI	2.8	2.8		1.0	Ovate	Ovate
AR18-181030	P+WGTDYBI	2.7	2.7	CruiserMaxx Vibrance	1.0		
AR18-181072	WPhillipsYGI	4.5	4.5	CruiserMaxx Vibrance	1.0		
AR18-181073	WGTDYBI	3.3	3.3	CruiserMaxx Vibrance	1.0		
AR18-181075	WGTDYBI	3.8	3.8	CruiserMaxx Vibrance	1.0		
AR18-181087	PGTDYBI	4.0	4.0	CruiserMaxx Vibrance	2.0		
AR18-281057	P+WGTSYBI	3.8	3.8	CruiserMaxx Vibrance	1.0		
AR18-281062	P+WGTSYGI	4.7	4.7	CruiserMaxx Vibrance	1.0		
AR18-281096	PGTSYGI	4.2	4.2	CruiserMaxx Vibrance	1.0		
LD17-4967a	PTBSYGI	3.7	3.7		1.0	Ovate	Ovate
LD17-5169a	PGTSYGI	3.3	3.3		1.0	Ovate	Ovate
M13-106002	PTB+TSYLgGI	4.0	4.0		1.0	Ovate	Ovate
M13-106007	P+WPhillipsYBI	2.5	2.5		1.0	Ovate	Ovate
M13-106015	P+WG+TB+GSYYGBI	3.5	3.5		1.0	Ovate	Ovate
M13-106022	PTB+TSYYBrI	2.5	2.5		1.0	Ovate	Ovate
M13-106037	PGTSYYI	1.7	1.7		2.0	Ovate	Ovate
M13-194009	PGTSYYI	3.5	3.5		2.0	Ovate	Ovate
M13-194018	PTBSYGI	4.2	4.2		1.0	Ovate	Ovate
M13-194022	PPhillipsYLgGI	2.3	2.3		2.0	Ovate	Ovate
M13-194051	PPhillipsYLgGI	4.8	4.8		1.0	Ovate	Ovate
M13-252001	WGTDYYGI	4.8	4.8		2.0	Ovate	Ovate
M13-252032	WGTDYGI	4.7	4.7		1.0	Ovate	Ovate
M13-264022	PTB+TDYBI	1.7	1.7		1.0	Ovate	Ovate
M13-264055	PGTSYGIbI	3.3	3.3		1.0	Ovate	Ovate
OAC 13-87C-SCN	WTBSYLBrI	2.5	2.5		1.0	Ovate	Ovate
OAC 14-37C-SCN	PGTSYLgYI	2.8	2.8		2.0	Ovate	Ovate
OAC 17-112C	PTBSYLgGI	4.3	4.3		1.0	Ovate	Ovate
OAC 17-93C	WGBSGGI	2.2	2.2		2.0	Ovate	Ovate
U16-125610	PGBSYBI	3.5	3.5		1.0	Ovate	Ovate
U16-126608	WGBSLgGI	4.7	4.7		1.0	Ovate	Ovate
U16-126662	PGBDYYBrI	3.3	3.3		1.0	Ovate	Ovate
U16-127010	PGBDYBrI	4.2	4.2		1.0	Ovate	Ovate
U16-128648	PGBSYBI	4.2	4.2		1.0	Ovate	Ovate
U16-129655	WGBSYBI	3.3	3.3		1.0	Ovate	Ovate
U17-920008	WGBSYIbGI	3.3	3.3		1.0	Ovate	Ovate
U17-924011	WGBSYBI	4.2	4.2		1.0	Ovate	Ovate

PRELIMINARY TEST I, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 12 bu/a	Rank 12 No.	Maturity 10 Date	Lodging 9 Score	Plant Height 10 In.	Seed Size 12 g/100	Seed Quality 11 Score	Composition Protein 8 %	 Oil 8 %
MN1410 (I)	50.3	30	9/19	1.6	29	16.9	1.5	35.5	18.4
ND Stutsman (E)	45.4	37	-2.3	1.4	28	15.9	2.1	34.3	18.7
U11-917032 (SCN) (L)	56.7	12	5.1	1.2	28	15.9	1.9	32.9	19.3
U14-103015	55.3	14	5.5	1.3	30	16.6	1.6	34.6	18.9
AR18-181030	58.8	4	8.5	1.1	30	17.0	1.9	34.7	18.3
AR18-181072	55.4	13	7.9	1.2	30	15.0	1.8	33.9	18.5
AR18-181073	60.0	2	7.2	1.2	28	15.8	1.7	34.0	18.5
AR18-181075	62.0	1	6.3	1.1	30	17.3	1.6	33.4	19.0
AR18-181087	57.9	8	7.4	1.5	29	17.7	1.6	33.9	19.3
AR18-281057	60.0	2	7.9	1.3	30	16.4	1.9	33.3	18.8
AR18-281062	57.7	10	7.0	1.4	29	17.1	1.7	33.0	19.1
AR18-281096	57.9	8	6.1	1.2	32	15.7	1.6	34.2	19.1
LD17-4967a	55.1	15	6.0	1.5	29	18.6	1.9	33.6	18.8
LD17-5169a	53.1	20	3.8	1.2	29	16.0	1.9	34.0	18.3
M13-106002	50.7	29	2.9	1.2	28	17.3	1.7	34.2	18.5
M13-106007	51.7	27	3.3	1.2	29	15.8	1.7	34.8	17.9
M13-106015	54.9	16	5.6	1.3	31	16.0	1.5	34.8	18.0
M13-106022	58.4	6	4.5	1.3	30	17.7	1.9	34.6	18.1
M13-106037	49.0	32	0.7	1.2	27	17.1	1.5	34.2	19.1
M13-194009	52.6	24	3.7	1.4	31	16.4	1.8	34.3	18.9
M13-194018	52.2	25	5.2	1.5	33	18.0	1.6	34.8	18.5
M13-194022	48.4	34	-0.2	1.5	28	18.3	1.9	35.5	18.3
M13-194051	48.6	33	0.8	1.2	25	18.3	1.8	35.9	18.1
M13-252001	52.7	23	5.4	1.2	30	16.3	1.9	34.8	17.8
M13-252032	54.5	18	5.9	1.1	31	16.9	1.7	33.9	19.1
M13-264022	52.2	25	4.7	1.3	33	19.8	1.6	36.5	17.9
M13-264055	53.1	20	4.8	1.2	32	18.0	1.6	36.0	17.9
OAC 13-87C-SCN	44.9	38	1.4	1.3	31	18.2	1.6	33.6	19.3
OAC 14-37C-SCN	42.5	39	1.8	1.4	31	18.8	1.6	34.1	18.5
OAC 17-112C	46.8	36	-1.3	1.2	29	19.5	1.8	36.6	17.8
OAC 17-93C	47.8	35	-0.1	1.3	31	16.5	1.7	35.3	17.3
U16-125610	58.1	7	6.3	1.1	28	16.2	1.5	32.9	19.4
U16-126608	57.1	11	6.3	1.3	31	17.4	1.5	33.2	19.5
U16-126662	49.4	31	4.3	1.1	24	16.7	1.5	33.5	19.3
U16-127010	54.8	17	2.9	1.1	29	15.8	1.4	34.0	19.2
U16-128648	51.2	28	2.2	1.2	27	16.9	1.5	34.3	18.9
U16-129655	53.8	19	6.0	1.1	28	14.8	1.4	34.1	18.7
U17-920008	53.1	20	7.1	1.3	27	15.6	1.7	34.6	18.0
U17-924011	58.6	5	8.4	1.2	28	14.4	1.6	33.6	18.1
Mean	52.2			1.2	27.9	16.7	1.5		
C.V. (%)	14.8			27.8	9.7	4.7	37.7		
L.S.D. (5%)	3.8			0.2	1.5	0.4	0.4		

113.4 Days After Planting

PRELIMINARY TEST I, 2019

YIELD (bu/a)

Strain	Mean 12 Tests	Ames IA	West Lafayette IN	East Lansing MI	Morris MN	Rosemount MN
MN1410 (I)	50.3	54.3	33.3	32.6	56.1	54.2
ND Stutsman (E)	45.4	39.5	36.6	38.7	39.9	55.8
U11-917032 (SCN) (L)	56.7	59.3	48.9	37.6	49.9	47.4
U14-103015	55.3	57.9	49.1	39.6	49.0	54.3
AR18-181030	58.8	64.8	54.6	42.0	45.9	62.5
AR18-181072	55.4	60.0	47.2	34.7	49.0	52.7
AR18-181073	60.0	61.0	50.1	40.7	39.4	59.7
AR18-181075	62.0	61.8	51.7	45.0	47.0	66.6
AR18-181087	57.9	63.5	51.5	40.8	44.7	59.2
AR18-281057	60.0	67.5	52.6	41.9	41.6	59.7
AR18-281062	57.7	64.3	53.0	38.1	31.1	55.8
AR18-281096	57.9	64.8	51.9	37.6	51.3	57.7
LD17-4967a	55.1	59.0	48.5	41.3	57.9	59.9
LD17-5169a	53.1	53.6	43.0	40.7	52.1	55.6
M13-106002	50.7	54.5	42.2	33.8	36.1	54.6
M13-106007	51.7	52.9	41.8	33.1	45.4	54.6
M13-106015	54.9	57.0	48.9	41.0	50.9	55.0
M13-106022	58.4	56.1	49.6	40.8	52.4	57.6
M13-106037	49.0	51.7	40.2	40.8	45.4	53.3
M13-194009	52.6	51.9	44.7	37.2	47.4	58.6
M13-194018	52.2	51.1	44.0	38.4	46.7	49.9
M13-194022	48.4	56.0	40.0	32.3	45.2	56.6
M13-194051	48.6	58.8	42.0	30.1	45.6	53.9
M13-252001	52.7	53.3	43.7	38.2	48.2	56.9
M13-252032	54.5	55.4	50.8	38.5	47.9	53.0
M13-264022	52.2	52.4	44.2	38.4	41.3	54.6
M13-264055	53.1	55.2	41.3	33.4	43.4	60.5
OAC 13-87C-SCN	44.9	43.9	46.4	30.4	37.4	50.8
OAC 14-37C-SCN	42.5	48.0	41.7	33.3	46.6	57.5
OAC 17-112C	46.8	50.5	41.1	38.8	38.2	51.1
OAC 17-93C	47.8	49.3	37.4	36.6	35.7	52.2
U16-125610	58.1	55.2	49.7	36.9	42.5	60.2
U16-126608	57.1	60.3	49.8	39.0	34.2	54.1
U16-126662	49.4	50.3	38.2	32.8	36.1	55.4
U16-127010	54.8	50.1	45.3	39.3	37.5	62.6
U16-128648	51.2	48.0	41.1	36.6	42.8	60.5
U16-129655	53.8	59.1	43.6	36.3	41.5	61.7
U17-920008	53.1	52.0	42.7	39.6	37.2	57.2
U17-924011	58.6	59.5	49.4	39.1	43.4	62.7
Location Mean		55.5	45.4	37.6	44.2	56.6
C.V. (%)		7.0	6.7	10.6	14.8	11.6
L.S.D. (5%)		7.9	5.1	9.7	10.7	10.6
Row Sp. (In.)		30	30	15	30	30
Rows/Plot		4	4	6	4	4
Reps		2	2	2	3	3

PRELIMINARY TEST I, 2019

YIELD (bu/a)

Strain	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St Pauls ONT	Wood stock ONT	Saint Hacinthe QUE
MN1410 (I)	53.4	60.9	58.8	36.1	69.0	30.0	65.3
ND Stutsman (E)	59.5	46.6	22.0	28.6	73.2	30.9	73.2
U11-917032 (SCN) (L)	69.7	68.0	76.9	40.5	76.2	37.1	68.6
U14-103015	70.3	64.8	70.8	32.4	74.8	32.8	68.0
AR18-181030	76.9	73.1	73.7	33.2			61.1
AR18-181072	71.8	72.2	75.1	26.9			64.2
AR18-181073	79.4	76.9	83.8	42.4			66.3
AR18-181075	78.4	78.7	82.7	47.2			61.0
AR18-181087	69.8	73.7	81.0	34.2			61.1
AR18-281057	63.4	81.5	84.6	43.1			64.3
AR18-281062	74.8	80.9	78.2	40.7			60.6
AR18-281096	67.2	71.9	77.2	38.3			61.2
LD17-4967a	71.8	67.5	69.8	30.4	67.7	28.5	59.0
LD17-5169a	60.6	65.5	58.1	35.0	69.1	42.3	62.0
M13-106002	67.4	63.4	58.5	34.0	67.8	34.7	61.5
M13-106007	60.0	62.4	59.6	30.6	75.4	42.6	61.5
M13-106015	59.3	65.7	70.0	42.4	73.8	33.8	60.4
M13-106022	67.0	79.5	71.9	44.9	73.9	43.9	63.0
M13-106037	56.8	56.0	48.1	28.5	68.2	37.9	60.6
M13-194009	58.2	64.6	57.4	43.0	73.1	37.0	57.8
M13-194018	55.8	58.0	60.2	38.8	86.0	40.8	56.8
M13-194022	58.5	49.2	48.6	36.2	63.2	37.1	57.5
M13-194051	62.2	53.1	42.4	38.0	65.9	33.2	57.9
M13-252001	59.4	74.0	62.4	28.5	68.8	32.8	66.2
M13-252032	66.2	67.2	66.0	41.0	76.2	37.2	54.2
M13-264022	59.0	69.6	67.3	33.9	71.8	36.7	57.5
M13-264055	67.3	67.8	63.6	35.1	72.1	38.1	59.0
OAC 13-87C-SCN	46.8	47.3	32.6	24.0	74.8	47.0	57.8
OAC 14-37C-SCN	51.6	45.3	41.6	36.0	47.7	0.5	60.3
OAC 17-112C	55.5	46.2	35.4	38.5	73.1	29.3	63.7
OAC 17-93C	51.1	54.1	49.2	33.8	70.8	35.9	67.2
U16-125610	84.6	83.1	76.5	32.8	78.8	27.8	69.3
U16-126608	75.1	78.9	79.9	38.5	77.1	34.7	64.0
U16-126662	68.1	66.7	60.3	25.0	75.8	23.7	59.8
U16-127010	80.6	61.4	69.9	39.0	72.1	36.4	63.4
U16-128648	63.3	61.8	62.5	28.1	71.9	32.9	65.1
U16-129655	60.2	73.4	72.3	26.7	74.2	32.3	64.8
U17-920008	60.9	81.0	78.2	25.8	70.9	27.3	64.5
U17-924011	71.0	76.2	85.0	39.0	81.8	33.9	61.8
Location Mean	64.9	66.4	64.4	35.1	72.1	33.8	62.3
C.V. (%)	10.1	6.4	7.7	12.6	4.2	12.0	1.6
L.S.D. (5%)	13.6	8.6	10.3	4.5	6.2	8.7	3.4
Row Sp. (In.)	30	30	30	17	14	14	15
Rows/Plot	4	4	4	5	4	4	4
Reps	2	2	2	2	2	3	3

PRELIMINARY TEST I, 2019

YIELD RANK

Strain	Yield Rank	Ames IA	West Lafayette IN	Ingham County MI	Morris MN	Rosemount MN
MN1410 (I)	30	23	39	36	2	29
ND Stutsman (E)	37	39	38	17	29	20
U11-917032 (SCN) (L)	12	11	14	24	7	39
U14-103015	14	15	13	11	8	28
AR18-181030	4	2	1	2	16	4
AR18-181072	13	9	17	30	9	34
AR18-181073	2	7	8	10	30	10
AR18-181075	1	6	5	1	13	1
AR18-181087	8	5	6	6	21	12
AR18-281057	2	1	3	3	26	10
AR18-281062	10	4	2	22	39	21
AR18-281096	8	2	4	23	5	14
LD17-4967a	15	13	16	4	1	9
LD17-5169a	20	24	25	9	4	22
M13-106002	29	22	27	31	35	27
M13-106007	27	26	29	34	18	25
M13-106015	16	16	14	5	6	24
M13-106022	6	17	11	7	3	15
M13-106037	32	30	34	8	19	32
M13-194009	24	29	20	25	12	13
M13-194018	25	31	22	19	14	38
M13-194022	34	18	35	37	20	19
M13-194051	33	14	28	39	17	31
M13-252001	23	25	23	21	10	18
M13-252032	18	19	7	18	11	33
M13-264022	25	27	21	20	28	26
M13-264055	20	20	31	32	22	7
OAC 13-87C-SCN	38	38	18	38	33	37
OAC 14-37C-SCN	39	36	30	33	15	16
OAC 17-112C	36	32	32	16	31	36
OAC 17-93C	35	35	37	27	37	35
U16-125610	7	20	10	26	25	8
U16-126608	11	8	9	15	38	30
U16-126662	31	33	36	35	35	23
U16-127010	17	34	19	13	32	3
U16-128648	28	36	32	28	24	6
U16-129655	19	12	24	29	27	5
U17-920008	20	28	26	12	34	17
U17-924011	5	10	12	14	23	2

PRELIMINARY TEST I, 2019

YIELD RANK

Strain	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St Pauls ONT	Wood stock ONT	Saint Hacinthe QUE
MN1410 (I)	36	30	28	18	24	25	8
ND Stutsman (E)	27	37	39	31	14	24	1
U11-917032 (SCN) (L)	13	17	10	9	5	9	3
U14-103015	11	24	16	28	9	21	4
AR18-181030	5	13	13	26			25
AR18-181072	9	14	12	35			13
AR18-181073	3	8	3	5			6
AR18-181075	4	7	4	1			26
AR18-181087	12	11	5	22			24
AR18-281057	20	2	2	3			12
AR18-281062	7	4	8	8			27
AR18-281096	17	15	9	15			23
LD17-4967a	8	19	19	30	28	27	32
LD17-5169a	24	23	30	21	23	4	19
M13-106002	15	26	29	23	27	15	21
M13-106007	26	27	27	29	8	3	22
M13-106015	29	22	17	6	13	18	29
M13-106022	18	5	15	2	12	2	18
M13-106037	33	32	34	33	26	7	28
M13-194009	32	25	31	4	15	11	35
M13-194018	34	31	26	12	1	5	39
M13-194022	31	35	33	17	30	9	38
M13-194051	22	34	35	16	29	19	34
M13-252001	28	10	24	32	25	21	7
M13-252032	19	20	21	7	5	8	40
M13-264022	30	16	20	24	20	12	37
M13-264055	16	18	22	20	17	6	33
OAC 13-87C-SCN	39	36	38	39	9	1	36
OAC 14-37C-SCN	37	39	36	19	31	31	30
OAC 17-112C	35	38	37	13	15	26	16
OAC 17-93C	38	33	32	25	22	14	5
U16-125610	1	1	11	27	3	28	2
U16-126608	6	6	6	14	4	15	14
U16-126662	14	21	25	38	7	30	31
U16-127010	2	29	18	10	17	13	17
U16-128648	21	28	23	34	19	20	9
U16-129655	25	12	14	36	11	23	10
U17-920008	23	3	7	37	21	29	11
U17-924011	10	9	1	11	2	17	20

PRELIMINARY TEST I, 2019

MATURITY (date)

Strain	Mean 10 Tests	Ames IA	West Lafayette IN	East Lansing MI	Morris MN	Rosemount MN
MN1410 (I)	9/19	9/15	9/11	9/12		9/21
ND Stutsman (E)	-2	-1	2	-2		0
U11-917032 (SCN) (L)	5	2	7	7		-2
U14-103015	5	2	8	8		7
AR18-181030	9	9	13	9		4
AR18-181072	8	8	12	7		6
AR18-181073	7	8	11	8		6
AR18-181075	6	5	12	10		1
AR18-181087	7	6	13	10		5
AR18-281057	8	7	11	10		2
AR18-281062	7	4	12	10		5
AR18-281096	6	3	13	9		-1
LD17-4967a	6	1	7	7		6
LD17-5169a	4	0	6	5		4
M13-106002	3	1	8	3		-0
M13-106007	3	0	7	3		2
M13-106015	6	2	11	7		4
M13-106022	4	1	8	7		3
M13-106037	1	1	9	2		-1
M13-194009	4	0	5	3		0
M13-194018	5	1	9	8		-1
M13-194022	-0	0	6	1		3
M13-194051	1	1	6	-1		3
M13-252001	5	1	9	7		3
M13-252032	6	0	10	7		1
M13-264022	5	2	6	4		1
M13-264055	5	0	6	4		5
OAC 13-87C-SCN	1	1	9	4		1
OAC 14-37C-SCN	2	0	3	2		-3
OAC 17-112C	-1	1	4	0		2
OAC 17-93C	-0	-1	5	3		2
U16-125610	6	3	12	6		1
U16-126608	6	4	10	7		1
U16-126662	4	0	9	4		4
U16-127010	3	1	9	4		-1
U16-128648	2	2	9	2		-1
U16-129655	6	3	8	8		1
U17-920008	7	1	12	8		3
U17-924011	8	5	11	10		7
Date Planted	5/29	5/23	6/5	5/29		5/26
Days to Mature	113	115	98	106		118

PRELIMINARY TEST I, 2019

MATURITY (date)

Strain	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St Pauls ONT	Wood stock ONT	Saint Hacinthe QUE
MN1410 (I)		9/8	9/18		10/2	9/26	10/6
ND Stutsman (E)		-3	-5		-4	1	-9
U11-917032 (SCN) (L)		6	6		7	14	0
U14-103015		2	5		9	9	0
AR18-181030		9	11				6
AR18-181072		10	8				5
AR18-181073		8	6				4
AR18-181075		7	7				3
AR18-181087		7	6				5
AR18-281057		8	11				6
AR18-281062		8	6				5
AR18-281096		7	7				5
LD17-4967a		4	7		9	11	2
LD17-5169a		2	-1		5	13	0
M13-106002		2	2		7	7	-2
M13-106007		1	2		7	10	-2
M13-106015		2	5		7	11	3
M13-106022		3	3		7	8	1
M13-106037		-1	0		4	-1	-5
M13-194009		2	1		8	12	3
M13-194018		3	2		8	14	3
M13-194022		-3	-1		-4	3	-6
M13-194051		-2	1		-1	4	-3
M13-252001		3	3		9	11	3
M13-252032		4	5		9	12	5
M13-264022		4	6		8	10	2
M13-264055		4	6		6	12	1
OAC 13-87C-SCN		-1	-1		-2	5	-3
OAC 14-37C-SCN		-5	1		5	16	-3
OAC 17-112C		-2	-2		-4	0	-10
OAC 17-93C		-2	1		-6	0	-3
U16-125610		10	6		6	12	1
U16-126608		3	7		10	14	2
U16-126662		2	5		7	10	-2
U16-127010		2	3		4	8	-3
U16-128648		3	2		-3	7	-1
U16-129655		6	7		8	12	2
U17-920008		8	7		7	16	2
U17-924011		8	7		10	15	4
Date Planted		5/16	5/18		6/9	6/14	6/1
Days to Mature		115	123		115	104	127

PRELIMINARY TEST I, 2019

LODGING (score)

Strain	Mean 9 Tests	Ames IA	West Lafayette IN	East Lansing MI	Morris MN	Rosemount MN
MN1410 (I)	1.6	2.0	1.0	1.0		3.0
ND Stutsman (E)	1.4	1.5	1.0	1.0		3.0
U11-917032 (SCN) (L)	1.2	2.0	1.0	1.0		1.0
U14-103015	1.3	1.0	1.0	1.0		3.0
AR18-181030	1.1	1.0	1.0	1.0		1.0
AR18-181072	1.2	1.0	1.0	1.0		1.0
AR18-181073	1.2	1.5	1.0	1.0		1.0
AR18-181075	1.1	1.0	1.0	1.0		1.0
AR18-181087	1.5	1.5	1.0	1.0		3.0
AR18-281057	1.3	2.0	1.0	1.0		1.0
AR18-281062	1.4	1.0	1.0	1.0		3.0
AR18-281096	1.2	1.5	1.0	1.0		1.0
LD17-4967a	1.5	2.0	1.0	1.0		3.0
LD17-5169a	1.2	1.5	1.0	1.0		1.0
M13-106002	1.2	2.0	1.0	1.0		1.0
M13-106007	1.2	1.5	1.0	1.0		1.0
M13-106015	1.3	3.0	1.0	1.0		1.0
M13-106022	1.3	2.0	1.0	1.0		1.0
M13-106037	1.2	1.5	1.0	1.0		1.0
M13-194009	1.4	2.5	1.0	1.0		1.0
M13-194018	1.5	2.5	1.0	1.0		3.0
M13-194022	1.5	2.5	1.0	1.0		3.0
M13-194051	1.2	2.0	1.0	1.0		1.0
M13-252001	1.2	2.0	1.0	1.0		1.0
M13-252032	1.1	1.0	1.0	1.0		1.0
M13-264022	1.3	2.0	1.0	1.0		1.0
M13-264055	1.2	2.0	1.0	1.0		1.0
OAC 13-87C-SCN	1.3	2.0	1.0	1.5		1.0
OAC 14-37C-SCN	1.4	2.0	1.0	1.0		1.0
OAC 17-112C	1.2	1.5	1.0	1.0		1.0
OAC 17-93C	1.3	2.0	1.0	1.0		1.0
U16-125610	1.1	1.0	1.0	1.0		1.0
U16-126608	1.3	2.5	1.0	1.0		1.0
U16-126662	1.1	1.0	1.0	1.0		1.0
U16-127010	1.1	1.0	1.0	1.0		1.0
U16-128648	1.2	1.5	1.0	1.0		1.0
U16-129655	1.1	1.0	1.0	1.0		1.0
U17-920008	1.3	2.0	1.0	1.0		1.0
U17-924011	1.2	1.5	1.0	1.0		1.0

PRELIMINARY TEST I, 2019

LODGING (score)

Strain	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St Pauls ONT	Wood stock ONT	Saint Hacinthe QUE
MN1410 (I)		1.0	3.0	1.0	1.0	1.1	
ND Stutsman (E)		1.0	2.0	1.0	1.0	1.0	
U11-917032 (SCN) (L)		1.0	2.0	1.0	1.0	1.0	
U14-103015		1.0	2.0	1.0	1.1	1.0	
AR18-181030		1.0	2.0	1.0			
AR18-181072		1.0	2.5	1.0			
AR18-181073		1.0	2.0	1.0			
AR18-181075		1.0	2.0	1.0			
AR18-181087		1.0	2.0	1.0			
AR18-281057		1.0	2.0	1.0			
AR18-281062		1.0	2.0	1.0			
AR18-281096		1.0	2.0	1.0			
LD17-4967a		1.0	2.0	1.0	1.1	1.0	
LD17-5169a		1.0	2.0	1.0	1.1	1.0	
M13-106002		1.0	2.0	1.0	1.0	1.0	
M13-106007		1.0	2.0	1.0	1.0	1.0	
M13-106015		1.0	2.0	1.0	1.0	1.1	
M13-106022		2.0	2.0	1.0	1.0	1.0	
M13-106037		1.0	2.0	1.0	1.0	1.1	
M13-194009		1.5	2.5	1.0	1.5	1.0	
M13-194018		1.0	2.0	1.0	1.4	1.0	
M13-194022		1.0	2.0	1.0	1.0	1.0	
M13-194051		1.0	2.0	1.0	1.0	1.0	
M13-252001		1.0	2.0	1.0	1.0	1.0	
M13-252032		1.0	2.0	1.0	1.0	1.1	
M13-264022		1.0	2.0	1.0	1.3	1.0	
M13-264055		1.0	2.0	1.0	1.0	1.0	
OAC 13-87C-SCN		1.0	2.0	1.0	1.0	1.0	
OAC 14-37C-SCN		1.5	2.5	1.0	1.3	1.0	
OAC 17-112C		1.0	2.0	1.0	1.1	1.0	
OAC 17-93C		1.0	2.0	1.0	1.2	1.2	
U16-125610		1.0	2.0	1.0	1.0	1.0	
U16-126608		1.0	2.5	1.0	1.0	1.0	
U16-126662		1.0	2.0	1.0	1.0	1.0	
U16-127010		1.0	2.0	1.0	1.0	1.0	
U16-128648		1.0	2.0	1.0	1.0	1.0	
U16-129655		1.0	2.0	1.0	1.1	1.0	
U17-920008		1.0	2.5	1.0	1.1	1.0	
U17-924011		1.0	2.0	1.0	1.0	1.0	

PRELIMINARY TEST I, 2019

PLANT HEIGHT (inches)

Strain	Mean 10 Tests	Ames IA	West Lafayette IN	East Lansing MI	Morris MN	Rosemount MN
MN1410 (I)	29	29	24	24		36
ND Stutsman (E)	28	26	24	22		36
U11-917032 (SCN) (L)	28	29	27	21		31
U14-103015	30	28	28	22		34
AR18-181030	30	28	30	26		37
AR18-181072	30	30	26	23		35
AR18-181073	28	27	26	19		34
AR18-181075	30	30	29	25		36
AR18-181087	29	31	27	23		34
AR18-281057	30	29	26	22		35
AR18-281062	29	28	27	22		34
AR18-281096	32	32	29	25		36
LD17-4967a	29	32	28	23		33
LD17-5169a	29	29	26	25		39
M13-106002	28	28	25	19		37
M13-106007	29	25	27	21		36
M13-106015	31	31	28	25		37
M13-106022	30	29	26	26		38
M13-106037	27	25	25	19		37
M13-194009	31	33	27	22		37
M13-194018	33	33	27	27		40
M13-194022	28	29	25	21		40
M13-194051	25	28	20	16		33
M13-252001	30	30	27	23		30
M13-252032	31	30	30	24		40
M13-264022	33	32	29	26		34
M13-264055	32	31	26	22		37
OAC 13-87C-SCN	31	30	33	26		34
OAC 14-37C-SCN	31	31	28	25		37
OAC 17-112C	29	30	29	21		38
OAC 17-93C	31	31	33	21		39
U16-125610	28	28	23	23		33
U16-126608	31	31	26	24		34
U16-126662	24	26	25	19		31
U16-127010	29	27	27	23		36
U16-128648	27	28	27	21		33
U16-129655	28	28	28	20		38
U17-920008	27	27	25	20		36
U17-924011	28	27	27	22		34

PRELIMINARY TEST I, 2019

PLANT HEIGHT (inches)

Strain	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St Pauls ONT	Wood stock ONT	Saint Hacinthe QUE
MN1410 (I)		31	25	30	35	23	38
ND Stutsman (E)		28	21	26	35	23	38
U11-917032 (SCN) (L)		29	27	27	29	25	33
U14-103015		33	26	29	34	28	35
AR18-181030		31	25	29			37
AR18-181072		34	29	27			37
AR18-181073		30	27	27			33
AR18-181075		32	27	30			34
AR18-181087		30	27	26			35
AR18-281057		36	26	26			37
AR18-281062		33	25	28			35
AR18-281096		34	31	31			40
LD17-4967a		32	27	28	30	25	35
LD17-5169a		31	27	24	30	29	35
M13-106002		29	26	27	29	25	34
M13-106007		31	26	28	31	27	36
M13-106015		33	27	29	36	26	38
M13-106022		32	27	30	32	26	37
M13-106037		27	23	28	28	26	32
M13-194009		34	27	27	38	29	42
M13-194018		29	27	30	43	30	42
M13-194022		27	21	27	29	24	34
M13-194051		24	20	27	26	25	32
M13-252001		35	26	26	34	28	37
M13-252032		33	28	29	37	26	38
M13-264022		38	27	28	41	29	42
M13-264055		36	30	29	36	29	42
OAC 13-87C-SCN		31	22	25	40	30	39
OAC 14-37C-SCN		33	22	30	37	26	43
OAC 17-112C		28	19	32	35	26	37
OAC 17-93C		28	22	28	36	30	41
U16-125610		32	26	26	32	25	34
U16-126608		36	30	28	35	29	39
U16-126662		26	22	22	24	21	29
U16-127010		31	26	27	28	27	34
U16-128648		30	24	24	30	26	32
U16-129655		32	24	26	30	27	34
U17-920008		29	27	24	24	23	35
U17-924011		29	26	28	31	24	36

PRELIMINARY TEST I, 2019

SEED SIZE (g/100)

Strain	Mean 12 Tests	Ames IA	West Lafayette IN	East Lansing MI	Morris MN	Rosemount MN
MN1410 (I)	16.9	16.6	14.5	14.5	16.8	17.0
ND Stutsman (E)	15.9	15.7	14.2	14.4	15.4	15.9
U11-917032 (SCN) (L)	15.9	14.9	13.7	13.5	17.2	15.3
U14-103015	16.6	15.9	16.5	14.3	16.7	16.8
AR18-181030	17.0	17.3	17.4	15.2	16.6	17.2
AR18-181072	15.0	15.2	13.6	13.5	16.4	14.1
AR18-181073	15.8	16.0	15.1	15.1	16.5	15.7
AR18-181075	17.3	17.2	17.5	16.3	18.0	17.0
AR18-181087	17.7	17.8	18.4	16.4	17.0	17.9
AR18-281057	16.4	16.8	17.0	16.2	15.0	15.9
AR18-281062	17.1	17.0	17.0	16.8	16.3	17.4
AR18-281096	15.7	15.9	16.9	14.2	16.1	15.3
LD17-4967a	18.6	18.0	18.3	16.8	18.4	18.4
LD17-5169a	16.0	16.5	15.9	13.9	16.3	15.7
M13-106002	17.3	16.9	17.1	15.0	17.1	17.6
M13-106007	15.8	15.1	15.1	14.7	15.7	16.2
M13-106015	16.0	15.3	15.9	14.7	15.2	16.3
M13-106022	17.7	16.5	18.4	15.5	17.8	17.4
M13-106037	17.1	16.9	17.5	15.4	15.5	15.8
M13-194009	16.4	15.5	15.8	13.4	15.6	16.5
M13-194018	18.0	17.3	17.5	16.6	17.8	18.9
M13-194022	18.3	18.0	17.6	14.7	17.8	18.6
M13-194051	18.3	17.7	18.9	15.0	15.9	19.4
M13-252001	16.3	16.5	16.3	14.9	16.3	16.0
M13-252032	16.9	16.9	16.4	14.8	17.4	16.1
M13-264022	19.8	19.1	17.7	17.2	20.4	20.9
M13-264055	18.0	17.3	17.4	15.1	19.4	18.6
OAC 13-87C-SCN	18.2	16.4	19.2	16.3	17.7	18.5
OAC 14-37C-SCN	18.8	17.8	17.6	16.2	18.5	19.1
OAC 17-112C	19.5	19.6	19.0	17.5	18.3	20.0
OAC 17-93C	16.5	16.3	15.1	14.3	16.0	17.0
U16-125610	16.2	16.3	15.7	14.9	16.0	15.6
U16-126608	17.4	17.3	15.7	15.4	18.2	17.0
U16-126662	16.7	15.8	15.5	14.0	17.1	16.6
U16-127010	15.8	15.1	14.1	14.2	15.7	15.5
U16-128648	16.9	15.9	16.6	14.5	16.6	17.6
U16-129655	14.8	14.5	13.9	13.5	15.3	13.9
U17-920008	15.6	14.6	13.8	14.6	15.3	15.2
U17-924011	14.4	13.5	14.1	13.9	15.0	14.0

PRELIMINARY TEST I, 2019

SEED SIZE (g/100)

Strain	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St Pauls ONT	Wood stock ONT	Saint Hacinthe QUE
MN1410 (I)	17.8	16.6	16.2	16.1	20.5	16.6	19.4
ND Stutsman (E)	15.8	17.0	16.2	14.4	18.3	15.7	17.5
U11-917032 (SCN) (L)	17.2	14.5	16.3	15.4	19.1	16.8	16.7
U14-103015	18.3	16.0	17.0	14.7	20.2	15.2	18.0
AR18-181030	18.7	16.0	17.7	15.8			18.6
AR18-181072	17.0	13.5	15.3	14.1			17.0
AR18-181073	17.1	14.6	16.0	15.2			17.1
AR18-181075	18.9	16.3	16.8	17.1			18.4
AR18-181087	19.3	17.0	17.8	16.0			19.3
AR18-281057	18.4	14.9	17.6	15.6			16.6
AR18-281062	20.4	16.1	17.4	15.1			17.7
AR18-281096	17.0	14.6	16.5	14.5			16.0
LD17-4967a	20.0	17.5	17.7	18.4	21.7	18.9	18.9
LD17-5169a	16.4	15.8	14.3	15.7	17.9	16.6	16.9
M13-106002	18.0	17.5	16.5	16.0	20.0	18.4	17.6
M13-106007	16.3	15.3	14.8	14.7	18.3	17.6	16.1
M13-106015	18.2	15.2	15.8	15.0	16.8	17.0	16.2
M13-106022	19.0	16.6	16.0	16.9	20.0	19.5	18.7
M13-106037	17.8	16.9	15.9	16.3	20.0	18.6	18.6
M13-194009	17.4	15.5	16.5	15.3	20.3	17.4	17.1
M13-194018	19.1	15.8	16.9	16.7	21.5	19.1	19.2
M13-194022	19.2	17.2	17.0	17.0	21.6	20.4	20.2
M13-194051	20.8	16.5	17.2	17.7	21.8	20.1	18.8
M13-252001	17.3	16.3	16.6	14.2	17.7	17.3	16.8
M13-252032	18.8	16.0	18.3	15.2	18.6	17.3	17.4
M13-264022	20.9	18.6	18.7	18.5	24.1	20.9	21.0
M13-264055	20.0	15.7	18.1	17.0	20.7	17.6	19.0
OAC 13-87C-SCN	17.3	16.3	16.6	17.0	23.1	20.0	20.5
OAC 14-37C-SCN	19.8	16.3	18.1	17.4	22.5	21.7	20.1
OAC 17-112C	18.9	18.9	18.4	18.3	23.8	19.8	22.0
OAC 17-93C	16.9	16.2	16.9	14.7	18.9	17.5	17.8
U16-125610	17.9	16.3	16.3	14.3	19.0	15.5	16.5
U16-126608	19.0	17.1	18.2	16.0	20.3	16.5	18.7
U16-126662	17.5	15.7	16.2	16.3	20.4	16.4	18.7
U16-127010	16.9	14.3	15.0	15.3	18.8	17.2	17.2
U16-128648	17.6	15.6	16.5	15.9	20.8	16.1	18.6
U16-129655	16.3	14.0	15.0	13.7	17.3	14.9	15.5
U17-920008	17.3	15.2	16.1	14.4	17.9	15.7	16.6
U17-924011	15.9	12.4	14.4	13.0	17.6	14.1	14.8

PRELIMINARY TEST I, 2019

SEED QUALITY (score)

Strain	Mean 11 Tests	Ames IA	West Lafayette IN	East Lansing MI	Morris MN	Rosemount MN
MN1410 (I)	1.5	1.0	1.0	2.0	1.0	1.0
ND Stutsman (E)	2.1	1.0	1.0	2.0	2.0	2.0
U11-917032 (SCN) (L)	1.9	1.0	1.0	2.0	4.0	1.0
U14-103015	1.6	1.0	1.0	2.0	3.0	1.0
AR18-181030	1.9	1.0	1.0	1.0	5.0	2.0
AR18-181072	1.8	1.0	1.0	2.0	4.0	2.0
AR18-181073	1.7	1.0	1.0	2.0	3.0	1.0
AR18-181075	1.6	1.0	1.0	2.0	3.0	1.0
AR18-181087	1.6	1.0	1.0	2.0	3.0	1.0
AR18-281057	1.9	1.0	1.0	2.0	4.0	3.0
AR18-281062	1.7	1.0	1.0	3.0	3.0	1.0
AR18-281096	1.6	1.0	1.0	2.0	3.0	1.0
LD17-4967a	1.9	1.0	1.0	2.0	2.0	1.0
LD17-5169a	1.9	1.0	1.0	2.0	2.0	1.0
M13-106002	1.7	1.0	1.0	2.0	2.0	1.0
M13-106007	1.7	1.0	1.0	2.0	1.0	1.0
M13-106015	1.5	1.0	1.0	2.0	2.0	1.0
M13-106022	1.9	1.0	1.0	2.0	1.0	1.0
M13-106037	1.5	1.0	1.0	2.0	1.0	1.0
M13-194009	1.8	1.0	1.0	2.0	1.0	1.0
M13-194018	1.6	1.0	1.0	2.0	1.0	2.0
M13-194022	1.9	1.5	1.0	2.0	1.0	1.0
M13-194051	1.8	1.0	1.0	3.0	1.0	1.0
M13-252001	1.9	1.0	1.0	2.0	1.0	1.0
M13-252032	1.7	1.0	1.0	2.0	1.0	1.0
M13-264022	1.6	1.0	1.0	3.0	1.0	2.0
M13-264055	1.6	1.0	1.0	2.0	1.0	2.0
OAC 13-87C-SCN	1.6	1.0	1.0	2.0	1.0	1.0
OAC 14-37C-SCN	1.6	1.0	1.0	2.0	1.0	1.0
OAC 17-112C	1.8	1.0	1.0	3.0	2.0	1.0
OAC 17-93C	1.7	1.0	1.0	2.0	1.0	2.0
U16-125610	1.5	1.0	1.0	3.0	1.0	1.0
U16-126608	1.5	1.0	1.0	2.0	2.0	1.0
U16-126662	1.5	1.0	1.0	2.0	1.0	2.0
U16-127010	1.4	1.0	1.0	2.0	1.0	1.0
U16-128648	1.5	1.0	1.0	2.0	1.0	2.0
U16-129655	1.4	1.0	1.0	2.0	1.0	1.0
U17-920008	1.7	1.0	1.0	1.0	2.0	2.0
U17-924011	1.6	1.0	1.0	2.0	4.0	1.0

PRELIMINARY TEST I, 2019

SEED QUALITY (score)

Strain	Cotes-field NE	Mead NE	Phillips NE	Palmyra ONT	St Pauls ONT	Wood stock ONT	Saint Hacinthe QUE
MN1410 (I)	1.5	1.5	1.5		1.0	1.5	3.0
ND Stutsman (E)	3.0	2.5	3.0		2.0	1.5	3.0
U11-917032 (SCN) (L)	2.5	1.5	1.5		1.5	1.5	3.0
U14-103015	1.5	1.5	1.0		1.5	1.5	3.0
AR18-181030	1.0	2.0	1.5				3.0
AR18-181072	1.0	1.0	1.0				3.0
AR18-181073	1.0	1.5	1.5				3.0
AR18-181075	1.5	1.0	1.0				3.0
AR18-181087	1.0	1.5	1.5				2.7
AR18-281057	1.0	1.0	1.0				3.3
AR18-281062	1.0	1.0	1.0				3.0
AR18-281096	1.0	1.0	1.5				3.0
LD17-4967a	2.5	2.5	3.0		1.5	1.5	3.3
LD17-5169a	2.5	3.0	2.5		1.5	1.5	3.0
M13-106002	1.5	1.5	2.0		2.0	1.5	3.3
M13-106007	2.0	1.5	2.5		2.0	1.5	3.0
M13-106015	1.5	1.0	1.5		1.5	1.5	3.0
M13-106022	3.5	2.5	2.0		2.5	1.5	3.3
M13-106037	1.0	1.5	1.5		1.5	1.5	3.0
M13-194009	2.5	2.0	3.0		2.0	1.5	3.0
M13-194018	1.0	1.0	2.0		2.0	1.5	3.0
M13-194022	2.5	2.0	3.0		2.0	1.5	3.0
M13-194051	2.0	2.0	2.5		1.5	1.5	3.0
M13-252001	3.0	2.0	3.0		2.5	1.5	3.0
M13-252032	3.0	1.0	2.0		2.0	1.5	3.0
M13-264022	1.5	1.5	1.0		1.5	1.5	3.0
M13-264055	2.0	1.0	1.5		1.5	1.5	3.0
OAC 13-87C-SCN	2.0	1.0	2.5		1.5	1.5	3.0
OAC 14-37C-SCN	2.0	1.0	2.0		2.0	1.5	3.0
OAC 17-112C	2.0	2.0	2.0		2.0	1.5	2.7
OAC 17-93C	2.0	1.5	2.5		1.5	1.5	3.0
U16-125610	1.0	1.0	1.0		1.5	1.5	3.0
U16-126608	1.5	1.0	1.0		1.5	1.5	3.3
U16-126662	1.0	1.5	1.5		1.5	1.5	3.0
U16-127010	1.0	1.0	1.0		1.5	2.0	3.0
U16-128648	1.0	1.0	1.0		1.5	2.0	3.0
U16-129655	1.0	1.0	1.5		1.5	1.5	3.0
U17-920008	1.5	1.5	1.0		2.0	2.0	3.3
U17-924011	1.0	1.0	1.0		1.5	1.5	3.0

PRELIMINARY TEST I, 2019

PROTEIN (%)

Strain	Mean 8 Tests	Ames IA	West Lafayette IN	East Lansing MI	Phillips MN	Palmyra ONT	St. Pauls* ONT	Wood stock* ONT	Saint Hacinthe* QUE
MN1410 (I)	35.5	35.4	34.4	34.3	36.3	37.6	35.1	35.0	35.9
ND Stutsman (E)	34.3	33.8	32.8	33.1	35.3	36.1	35.5	34.3	33.5
U11-917032 (SCN) (L)	32.9	32.8	29.4	31.7	33.7	35.5	33.9	32.8	33.2
U14-103015	34.6	34.7	33.9	34.9	33.3	35.5	35.5	34.3	34.5
AR18-181030	34.7	34.9	33.9	33.6	34.9	35.2			35.6
AR18-181072	33.9	33.8	32.0	33.1	34.5	35.7			34.4
AR18-181073	34.0	34.4	31.7	33.3	34.9	35.2			34.5
AR18-181075	33.4	33.3	33.1	32.2	33.7	34.8			33.6
AR18-181087	33.9	33.5	33.1	32.3	33.6	36.0			34.9
AR18-281057	33.3	33.0	32.7	32.9	34.3	34.6			32.5
AR18-281062	33.0	31.9	32.1	31.3	33.6	34.6			34.3
AR18-281096	34.2	33.6	34.0	32.2	35.0	35.9			34.5
LD17-4967a	33.6	33.9	31.7	31.9	32.9	35.5	34.9	33.8	34.5
LD17-5169a	34.0	34.1	34.1	32.9	34.4	36.0	33.8	32.8	33.7
M13-106002	34.2	34.4	34.2	33.6	33.3	34.5	35.3	34.3	34.1
M13-106007	34.8	34.8	33.4	34.4	35.2	34.6	35.0	35.4	35.8
M13-106015	34.8	35.0	34.6	35.1	34.3	35.8	34.5	34.6	34.9
M13-106022	34.6	33.6	34.8	33.8	34.2	35.5	35.7	34.3	35.2
M13-106037	34.2	33.8	32.9	33.3	34.7	34.7	34.6	34.4	35.0
M13-194009	34.3	35.1	33.3	33.3	33.9	35.7	35.4	33.5	34.3
M13-194018	34.8	35.5	33.3	34.2	34.4	36.0	35.4	34.1	35.3
M13-194022	35.5	35.3	35.4	35.6	35.2	36.8	35.8	34.9	35.2
M13-194051	35.9	35.1	36.4	36.5	34.8	36.8	36.1	35.0	36.1
M13-252001	34.8	34.5	33.8	33.9	35.8	37.1	35.4	34.5	33.8
M13-252032	33.9	33.8	32.9	33.4	33.5	35.4	35.1	33.9	33.1
M13-264022	36.5	36.6	33.9	35.9	36.3	38.8	37.3	36.2	36.7
M13-264055	36.0	35.9	34.7	34.5	36.3	38.6	36.1	34.9	36.7
OAC 13-87C-SCN	33.6	32.3	32.5	32.1	34.1	35.0	35.2	34.3	33.4
OAC 14-37C-SCN	34.1	34.2	32.5	33.5	33.9	35.8	34.2	34.6	34.3
OAC 17-112C	36.6	35.5	35.9	36.6	35.3	39.8	36.9	36.3	36.5
OAC 17-93C	35.3	35.8	33.1	34.8	35.4	37.4	35.7	35.0	34.9
U16-125610	32.9	32.2	31.2	32.1	33.4	35.0	33.6	33.6	32.1
U16-126608	33.2	32.8	31.3	32.6	32.9	35.2	34.0	33.7	33.3
U16-126662	33.5	33.0	30.1	33.0	33.8	35.4	34.7	34.5	33.2
U16-127010	34.0	34.0	32.6	32.9	33.3	36.2	35.0	34.3	33.7
U16-128648	34.3	33.8	33.1	33.3	34.1	35.6	35.7	35.1	34.0
U16-129655	34.1	34.7	32.6	33.8	34.0	36.6	32.8	34.6	33.9
U17-920008	34.6	35.6	32.1	34.8	33.4	36.8	35.2	34.8	34.5
U17-924011	33.6	34.0	30.7	34.0	32.6	35.6	34.2	34.5	33.3

*Data corrected to 13% moisture

PRELIMINARY TEST I, 2019

OIL (%)

Strain	Mean 8 Tests	Ames IA	West Lafayette IN	East Lansing MI	Phillips MN	Palmyra ONT	St. Pauls* ONT	Wood stock* ONT	Saint Hacinthe* QUE
MN1410 (I)	18.4	19.2	19.6	19.4	18.7	18.5	17.7	17.9	16.4
ND Stutsman (E)	18.7	19.5	19.9	19.3	18.9	19.2	17.6	18.2	16.7
U11-917032 (SCN) (L)	19.3	20.0	21.8	20.0	19.4	19.2	18.1	19.1	16.8
U14-103015	18.9	19.5	20.3	19.0	20.2	19.8	17.5	18.4	16.7
AR18-181030	18.3	18.7	19.5	18.8	18.6	19.2			15.1
AR18-181072	18.5	18.5	20.2	19.0	18.5	18.6			16.2
AR18-181073	18.5	18.9	20.2	19.0	18.3	18.8			16.2
AR18-181075	19.0	19.4	20.1	19.6	19.4	18.8			16.4
AR18-181087	19.3	19.9	20.3	19.8	19.6	20.1			16.3
AR18-281057	18.8	19.7	19.7	19.3	18.4	18.9			16.6
AR18-281062	19.1	19.7	20.4	19.5	19.7	19.4			15.7
AR18-281096	19.1	20.0	20.1	20.2	19.2	19.5			15.9
LD17-4967a	18.8	19.4	20.4	19.8	19.5	19.1	17.2	18.9	15.9
LD17-5169a	18.3	18.7	20.1	18.7	18.9	18.6	17.2	18.7	15.9
M13-106002	18.5	19.5	19.3	19.1	19.3	18.8	17.2	18.5	16.3
M13-106007	17.9	18.7	19.6	18.9	18.3	19.1	15.8	17.7	15.2
M13-106015	18.0	18.6	18.8	18.7	18.7	18.3	16.4	18.0	16.5
M13-106022	18.1	19.2	19.0	18.9	18.9	18.3	16.5	18.0	15.9
M13-106037	19.1	20.1	20.8	19.7	19.9	19.6	17.3	18.6	16.5
M13-194009	18.9	19.3	20.5	19.9	19.7	19.5	17.1	19.0	16.6
M13-194018	18.5	18.9	20.3	18.9	19.5	18.9	16.6	18.4	16.6
M13-194022	18.3	19.0	18.9	18.7	19.0	18.8	17.2	18.1	16.7
M13-194051	18.1	18.8	18.7	18.4	18.9	18.8	16.9	18.3	16.1
M13-252001	17.8	18.4	19.3	18.6	17.7	17.8	16.7	17.8	16.2
M13-252032	19.1	19.6	20.6	20.1	19.8	19.2	17.3	18.9	17.0
M13-264022	17.9	18.5	19.7	18.6	17.9	17.9	16.3	18.0	16.0
M13-264055	17.9	18.6	19.2	18.7	18.3	17.8	17.0	18.2	15.6
OAC 13-87C-SCN	19.3	20.7	20.6	20.5	20.0	19.6	17.2	18.3	17.3
OAC 14-37C-SCN	18.5	19.4	20.1	19.1	19.7	19.1	16.0	18.0	16.8
OAC 17-112C	17.8	18.7	18.7	18.5	18.8	17.4	15.9	18.0	16.2
OAC 17-93C	17.3	17.8	19.0	18.1	17.5	17.3	16.2	17.4	15.4
U16-125610	19.4	20.4	21.2	20.3	20.0	19.8	18.3	17.6	17.3
U16-126608	19.5	20.6	21.2	20.0	20.7	19.8	17.9	18.9	16.7
U16-126662	19.3	19.9	20.6	19.7	19.8	19.7	18.2	18.6	18.0
U16-127010	19.2	19.9	20.3	19.8	19.9	19.1	18.1	19.1	17.4
U16-128648	18.9	19.8	20.3	19.7	19.2	19.6	17.4	18.3	17.1
U16-129655	18.7	18.9	20.2	19.2	19.5	19.5	16.9	18.3	17.0
U17-920008	18.0	17.9	20.4	18.4	18.8	18.6	16.2	17.9	16.3
U17-924011	18.1	18.2	20.2	18.6	18.8	18.8	16.3	17.9	16.2

*Data corrected to 13% moisture

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	Northern Regional Uniform Test					
	Uniform Test II, 2019					
			Seed	Previous	Gen.	Unique
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits
1	IA2102 (II)	A04-545045 x AgriPro 98180-A01-0613	Cai	8	F4	
2	LD02-4485 (SCN)	M90-184111 x IA3010	Diers	7	F5	SCN
3	U11-917032 (SCN) (E)	LD02-4485 x U03-100612	Graef	5	F6	SCN, HR, MR, IDC
4	U14-910097 (SCN) (L)	U09-105007 x LD07-3419	Graef	2	F5	Rps, SCN (HR, HR)
5	CR14-7814	LG05-4229 x U03-300134	Rainey	1		ACC, Diversity
6	CR15-0899	PI556839 x LD00-3309	Rainey	PTIIB	F5	
7	CR15-2189	CL05-3314 x PI556875	Rainey	PTIIB	F5	
8	E15339	IA2102 x LD02-4485	Wang	1	F5	SCN Resist
9	E15345	IA2102 x LD02-4485	Wang	1	F5	SCN Resist
10	E15347	IA2102 x E07051	Wang	1	F5	SCN Resist
11	E15349	IA2102 x E07051	Wang	1	F5	SCN Resist
12	E15351	IA2102 x E07051	Wang	1	F5	SCN Resist
13	E15390	E07048 x E06186	Wang	1	F5	SCN Resist?
14	E16030	06NB204846 x LG08-3009	Wang	PTIIA	F5	
15	E16031	06NB204846 x LG08-3009	Wang	PTIIA	F5	
16	E16265	E13902 x E07051	Wang	PTIIA	F5	Aphid, SCN
17	E16380	E07051 x E10174	Wang	PTIIA	F5	SCN, Rps1
18	E16398	E10175 x E07051	Wang	PTIIA	F5	SCN, Rps1
19	E16410	E06240 x E10174	Wang	PTIIA	F5	
20	E16411	E06240 x E11291	Wang	PTIIA	F5	
21	LD15-544	HM09-W084 x LD10-10226	Diers	PTIIB	F5	SCN
22	LD16-4471a	AR10-205011 x LDX11050a	Diers	PTIIB	F5	SCN, Rag 1+2
23	U14-206326	U11-926035 x U09-215057	Graef	1	F5	IDC, Rps, Dt
24	U14-216260	U11-921041 x U09-210051	Graef	1	F5	Rsv4, Rps
25	U15-917133	U09-133005 x U11-614093	Graef	1	F5	SCN, Rps1K, Rps
26	U16-609059	U11-932025 x U09-105007-174	Graef	PTIIB	F5	IDC, Rps
27	U16-904053	U09-105007-174 x U11-919011	Graef	PTI	F5	Rps, SCN, Rps1k
28	U16-905030	U11-919011 x U09-133021	Graef	PTI	F5	SCN, Rps1k
29	U16-907052	U11-614093 x U11-396029	Graef	PTI	F5	Rps1k
30	U16-909058	U11-614093 x U11-610107	Graef	PTIIB	F5	Rps1k, SCN
31	U16-909085	U11-614093 x U11-610107	Graef	PTIIB	F5	Rps1k, SCN
32	U16-929043	U11-932025 x U11-919011	Graef	PTI	F5	IDC, SCN, Rps1k
33	U16-929142	U11-410122 x U11-614093	Graef	PTIIB	F5	Rps1k
34	U16-932015	U11-932025 x U09-105007-174	Graef	PTI	F5	IDC, Rps
35	U16-934075	U11-410122 x U11-614093	Graef	PTIIB	F5	Rps1k

UNIFORM TEST II, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Shattering Score
		Manhattan
IA2102 (II)	WGTDYYBfI	1.0
LD02-4485 (SCN)	PGTDYBfI	1.0
U11-917032 (SCN) (E)	PTBSYBIbI	1.0
U14-910097 (SCN) (L)	PGTSYBfI	1.0
CR14-7814	PPhillipsYIbI	1.0
CR15-0899	PPhillipsYBrI	1.0
CR15-2189	PTTSYBfI	1.0
E15339	WGTSYBfI	1.0
E15345	PTBSYYBfI	1.0
E15347	WGBDYBfI	1.0
E15349	PT+GTDYYI	1.0
E15351	WGTSYBrI	1.0
E15390	PGTSYBrI	1.0
E16030	WGBSYBI	1.0
E16031	WGBSYBI	2.0
E16265	PGTSYBBrI	1.0
E16380	WGTSYBrI	2.0
E16398	PGTSYIbI	1.0
E16410	P+WGTSYYI	1.0
E16411	PTBSYBI	1.0
LD15-544	WTBSYBI	1.0
LD16-4471a	PGTDYIbI	1.0
U14-206326	WGTDYIbDt	1.0
U14-216260	PTTDYIbI	1.0
U15-917133	PTBSYBI	1.0
U16-609059	WTBSYBrI	1.0
U16-904053	PGBSYIbI	1.0
U16-905030	P+WT+GBDYIbI	1.0
U16-907052	P+WT+GBSYIbI	1.0
U16-909058	PGTDYBI	1.0
U16-909085	PGTDYBI	1.0
U16-929043	PPhillipsYBI	1.0
U16-929142	P+WT+GTDYBIbI	1.0
U16-932015	P+WT+GBDYIbI	1.0
U16-934075	PTTDYIbI	1.0

UNIFORM TEST II, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 10 bu/a	Rank 10 No.	Maturity 10 Date	Lodging 10 Score	Plant Height 10 In.	Seed Size 10 g/100	Seed Quality 9 Score	Composition Protein 6 %	 Oil 6 %
IA2102 (II)	49.8	35	9/24	1.6	30	17.2	1.6	33.8	19.3
LD02-4485 (SCN)	63.8	8	1.6	1.3	30	16.1	1.9	32.3	19.9
U11-917032 (SCN) (E)	55.5	33	-2.9	1.4	28	15.7	1.6	32.1	20.5
U14-910097 (SCN) (L)	66.6	1	5.9	1.4	30	16.4	1.3	32.5	20.6
CR14-7814	63.3	12	6.1	1.1	31	16.1	1.3	33.5	19.6
CR15-0899	51.6	34	5.3	1.2	31	16.1	1.5	34.9	18.8
CR15-2189	60.9	23	2.0	1.2	28	16.0	1.4	32.1	20.6
E15339	61.6	19	1.1	1.9	32	16.3	2.0	32.4	20.3
E15345	64.0	7	4.1	1.5	32	16.3	1.8	33.0	19.5
E15347	62.3	17	-0.2	1.2	30	18.3	1.6	33.3	19.2
E15349	62.5	16	-0.4	1.6	32	17.1	1.8	34.3	19.2
E15351	64.6	5	0.9	1.3	31	17.5	2.2	33.7	19.1
E15390	60.6	26	1.3	1.6	31	20.2	1.5	35.3	19.0
E16030	64.1	6	4.4	1.2	33	18.2	1.4	34.5	18.8
E16031	62.8	15	3.8	1.1	33	18.4	1.6	34.9	18.8
E16265	59.6	29	4.8	1.1	30	20.4	1.9	35.7	18.5
E16380	66.5	2	4.9	1.1	30	21.0	1.5	33.7	19.4
E16398	61.2	21	5.8	1.3	33	20.5	1.8	34.5	20.1
E16410	63.8	10	5.3	1.1	32	19.2	1.7	33.5	20.2
E16411	59.5	30	3.7	1.2	31	18.6	1.6	34.2	18.8
LD15-544	63.8	8	2.2	1.1	31	17.8	1.4	33.6	19.7
LD16-4471a	61.6	19	2.5	1.1	29	17.9	1.7	35.3	19.3
U14-206326	58.3	31	1.5	1.2	31	16.3	1.1	33.0	19.8
U14-216260	62.0	18	4.1	1.3	31	19.0	1.4	32.2	20.3
U15-917133	64.8	4	4.2	1.1	33	17.6	1.4	33.1	20.1
U16-609059	63.0	14	4.5	1.1	32	17.5	1.9	33.6	19.7
U16-904053	61.1	22	-1.0	1.1	29	15.5	1.3	33.5	19.5
U16-905030	57.6	32	-1.3	1.2	30	14.6	1.3	33.5	19.6
U16-907052	59.9	27	-1.2	1.1	29	16.5	1.3	34.2	19.7
U16-909058	65.3	3	4.7	1.2	32	16.3	1.6	33.9	18.8
U16-909085	60.9	23	5.3	1.1	29	17.3	1.5	33.1	20.5
U16-929043	59.7	28	-0.6	1.2	30	16.3	1.9	33.8	19.2
U16-929142	60.9	23	3.5	1.1	28	16.3	1.5	34.5	19.1
U16-932015	63.1	13	-1.7	1.1	29	18.5	1.8	34.0	19.9
U16-934075	63.5	11	3.2	1.1	31	18.7	1.4	35.3	19.0
Mean	60.3			1.2	30.1	17.2	1.6		
C.V. (%)	12.5			27.3	8.6	4.4	31.5		
L.S.D. (5%)	3.7			0.2	1.4	0.5	0.3		

115.1 Days After Planting

UNIFORM TEST II, 2019

2018-2019 2-YEAR MEAN

	Yield	Rank	Maturity	Lodging	Plant Height	Seed Size	Seed Quality	Composition Protein	Composition Oil
No. of Tests	23	23	23	23	23	19	18	14	14
Strain	bu/a	No.	Date	Score	In.	g/100	Score	%	%
IA2102 (II)	57.6	13	9/22	1.8	32	16.5	1.4	34.0	19.1
LD02-4485 (SCN)	65.3	5	1.4	1.6	33	14.9	1.5	32.3	19.7
U14-910097 (SCN) (L)	68.9	1	6.0	1.7	32	15.4	1.4	32.5	20.4
CR14-7814	64.7	7	7.0	1.3	33	15.3	1.3	33.3	19.7
E15339	63.5	11	1.4	2.1	33	15.8	1.8	32.6	20.1
E15345	65.4	4	4.3	1.9	33	15.5	1.7	32.8	19.5
E15347	64.4	8	0.6	1.3	31	17.4	1.5	33.4	19.1
E15349	65.3	5	0.5	1.8	33	16.3	1.7	34.4	19.1
E15351	66.0	3	0.4	1.6	33	16.5	1.8	33.6	18.9
E15390	64.0	10	3.0	1.8	33	19.7	1.5	35.3	19.0
U14-206326	63.0	12	1.4	1.4	34	15.5	1.1	33.1	19.6
U14-216260	64.1	9	3.3	1.4	33	18.0	1.4	32.3	20.3
U15-917133	67.0	2	4.5	1.3	35	16.8	1.5	33.0	20.1

118.0 Days After Planting

UNIFORM TEST II, 2019

YIELD (bu/a)

Strain	Mean 10 Tests	Ames* IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	49.8	50.0	56.2	43.6	38.6	50.8
LD02-4485 (SCN)	63.8	63.2	69.0	55.8	43.6	52.8
U11-917032 (SCN) (E)	55.5	58.1	61.0	44.3	36.2	48.3
U14-910097 (SCN) (L)	66.6	61.7	74.5	61.5	40.2	58.5
CR14-7814	63.3	51.7	63.7	49.4	38.6	60.8
CR15-0899	51.6	56.0	52.7	45.8	36.8	49.5
CR15-2189	60.9	59.0	67.4	46.5	34.6	52.5
E15339	61.6	63.5	66.8	53.9	46.0	55.8
E15345	64.0	60.6	65.5	54.0	45.5	61.9
E15347	62.3	61.8	65.7	50.3	43.8	49.6
E15349	62.5	60.3	66.9	50.3	38.7	54.5
E15351	64.6	59.2	67.3	55.3	45.3	54.7
E15390	60.6	53.7	69.6	52.6	36.6	52.6
E16030	64.1	54.4	71.9	57.3	44.9	59.8
E16031	62.8	56.9	66.8	54.4	43.8	57.2
E16265	59.6	59.7	68.6	52.1	38.8	50.6
E16380	66.5	61.2	68.2	52.5	44.0	58.6
E16398	61.2	55.7	73.0	53.6	42.6	52.7
E16410	63.8	58.1	67.4	54.5	47.6	58.2
E16411	59.5	52.2	57.4	47.6	43.1	55.5
LD15-544	63.8	58.7	70.2	50.2	40.2	54.7
LD16-4471a	61.6	60.7	59.3	55.6	40.1	55.6
U14-206326	58.3	46.2	59.5	46.3	38.9	49.2
U14-216260	62.0	54.6	64.7	46.7	44.4	57.8
U15-917133	64.8	59.4	69.4	52.2	41.5	57.4
U16-609059	63.0	58.5	69.3	50.0	40.8	54.2
U16-904053	61.1	50.8	64.3	48.7	40.3	56.7
U16-905030	57.6	47.9	61.6	52.2	40.7	55.3
U16-907052	59.9	46.3	66.1	46.6	37.7	46.0
U16-909058	65.3	54.7	73.1	58.5	43.6	60.9
U16-909085	60.9	48.9	69.0	50.8	36.5	48.8
U16-929043	59.7	44.1	63.4	49.5	43.3	49.8
U16-929142	60.9	50.5	65.7	44.8	36.9	59.0
U16-932015	63.1	43.6	67.6	51.1	43.8	54.5
U16-934075	63.5	50.5	74.9	52.7	36.3	55.9
Location Mean		55.2	66.2	51.2	41.0	54.6
C.V. (%)		16.6	4.3	6.7	6.6	5.8
L.S.D. (5%)		18.4	5.8	6.9	4.6	5.3
Row Sp. (In.)		30	30	30	30	30
Rows/Plot		4	4	4	4	4
Reps		2	2	2	2	2

*Data not included in mean.

UNIFORM TEST II, 2019

YIELD (bu/a)

Strain	Britton MI	East Lansing MI	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	54.0	33.0	57.0	35.8	68.5	61.0
LD02-4485 (SCN)	63.5	45.1	70.3	77.0	83.7	77.1
U11-917032 (SCN) (E)	53.6	37.7	76.0	53.0	82.9	61.8
U14-910097 (SCN) (L)	68.7	46.5	85.2	74.9	85.7	70.2
CR14-7814	46.0	37.8	85.0	91.1	91.2	69.9
CR15-0899	47.6	30.3	67.4	66.2	60.3	59.4
CR15-2189	55.4	40.6	72.9	73.2	86.3	80.0
E15339	57.9	54.7	58.7	69.7	77.6	75.3
E15345	70.2	50.4	72.6	67.6	74.2	77.7
E15347	60.3	46.6	78.7	67.3	80.8	79.7
E15349	58.9	39.0	77.6	71.0	94.6	74.0
E15351	68.9	41.9	82.5	65.0	79.9	85.0
E15390	55.4	40.0	70.0	77.1	84.9	67.5
E16030	55.8	41.3	75.9	79.3	93.9	60.5
E16031	55.0	44.6	72.9	74.5	94.1	64.5
E16265	59.8	33.5	74.6	66.4	79.8	71.4
E16380	51.6	48.3	86.4	83.6	95.9	75.7
E16398	47.7	42.5	72.8	79.7	81.4	66.1
E16410	50.0	43.4	79.6	81.9	85.5	69.8
E16411	45.6	47.9	77.5	74.9	88.7	57.2
LD15-544	55.6	51.9	85.1	76.7	89.2	64.4
LD16-4471a	61.7	48.4	73.7	73.3	82.2	66.6
U14-206326	47.7	40.1	76.0	76.0	80.3	68.7
U14-216260	48.9	50.1	81.5	78.3	85.7	62.0
U15-917133	57.7	47.7	86.4	73.0	92.6	69.9
U16-609059	53.4	45.0	82.9	75.7	92.9	66.2
U16-904053	51.1	41.1	83.5	77.0	89.9	58.0
U16-905030	45.7	37.7	72.2	69.9	82.7	58.5
U16-907052	54.8	42.0	78.1	72.7	86.3	68.7
U16-909058	48.9	47.6	76.4	86.4	93.5	64.6
U16-909085	44.1	42.8	78.0	81.4	87.9	69.9
U16-929043	51.0	40.3	75.4	73.8	86.0	64.4
U16-929142	53.5	39.5	80.4	76.9	85.8	66.6
U16-932015	60.5	39.9	83.7	76.4	92.7	61.3
U16-934075	49.0	46.7	83.9	81.7	89.3	64.9
Location Mean	54.6	43.0	76.9	73.7	85.3	67.9
C.V. (%)	1.4	11.6	7.7	8.9	5.8	8.6
L.S.D. (5%)	7.5	9.7	12.1	13.4	10.3	5.8
Row Sp. (In.)	15	15	30	30	30	17
Rows/Plot	6	6	4	4	4	5
Reps	3	3	2	2	2	2

UNIFORM TEST II, 2019

YIELD RANK

Strain	Yield Rank	Ames IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	35	29	34	35	26	27
LD02-4485 (SCN)	8	2	10	4	11	23
U11-917032 (SCN) (E)	33	15	30	34	34	34
U14-910097 (SCN) (L)	1	4	2	1	20	7
CR14-7814	12	25	27	25	26	3
CR15-0899	34	18	35	32	30	31
CR15-2189	23	12	15	30	35	26
E15339	19	1	19	10	2	14
E15345	7	7	24	9	3	1
E15347	17	3	22	20	8	30
E15349	16	8	18	20	25	20
E15351	5	11	17	6	4	18
E15390	26	23	7	13	31	25
E16030	6	22	5	3	5	4
E16031	15	17	19	8	8	11
E16265	29	9	12	17	24	28
E16380	2	5	13	14	7	6
E16398	21	19	4	11	15	24
E16410	10	15	15	7	1	8
E16411	30	24	33	27	14	16
LD15-544	8	13	6	22	20	18
LD16-4471a	19	6	32	5	22	15
U14-206326	31	33	31	31	23	32
U14-216260	18	21	25	28	6	9
U15-917133	4	10	8	15	16	10
U16-609059	14	14	9	23	17	22
U16-904053	22	26	26	26	19	12
U16-905030	32	31	29	15	18	17
U16-907052	27	32	21	29	28	35
U16-909058	3	20	3	2	11	2
U16-909085	23	30	10	19	32	33
U16-929043	28	34	28	24	13	29
U16-929142	23	27	23	33	29	5
U16-932015	13	35	14	18	8	20
U16-934075	11	27	1	12	33	13

UNIFORM TEST II, 2019

YIELD RANK

Strain	Britton MI	East Lansing MI	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	18	34	35	35	34	30
LD02-4485 (SCN)	4	13	31	11	23	5
U11-917032 (SCN) (E)	19	32	21	34	24	28
U14-910097 (SCN) (L)	3	12	3	19	20	10
CR14-7814	32	30	5	1	9	12
CR15-0899	31	35	33	32	35	32
CR15-2189	15	23	27	23	15	2
E15339	10	1	34	28	32	7
E15345	1	3	29	29	33	4
E15347	7	11	14	30	28	3
E15349	9	29	17	26	2	8
E15351	2	20	10	33	30	1
E15390	14	26	32	10	22	17
E16030	12	21	22	8	4	31
E16031	16	15	26	20	3	24
E16265	8	33	24	31	31	9
E16380	22	6	1	3	1	6
E16398	30	18	28	7	27	21
E16410	25	16	13	4	21	14
E16411	34	7	18	18	13	35
LD15-544	13	2	4	14	12	25
LD16-4471a	5	5	25	22	26	18
U14-206326	29	25	20	16	29	15
U14-216260	28	4	11	9	19	27
U15-917133	11	8	2	24	8	13
U16-609059	21	14	9	17	6	20
U16-904053	23	22	8	12	10	34
U16-905030	33	31	30	27	25	33
U16-907052	17	19	15	25	16	16
U16-909058	27	9	19	2	5	23
U16-909085	35	17	16	6	14	11
U16-929043	24	24	23	21	17	26
U16-929142	20	28	12	13	18	19
U16-932015	6	27	7	15	7	29
U16-934075	26	10	6	5	11	22

UNIFORM TEST II, 2019

MATURITY (date)

Strain	Mean 10 Tests	Ames IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	9/24	9/20	9/25	9/21	9/22	9/25
LD02-4485 (SCN)	2	2	3	1	7	5
U11-917032 (SCN) (E)	-3	-4	-3	-3	2	-2
U14-910097 (SCN) (L)	6	5	7	3	10	8
CR14-7814	6	4	9	6	11	9
CR15-0899	5	10	3	6	7	9
CR15-2189	2	2	3	1	6	6
E15339	1	1	2	0	5	4
E15345	4	7	4	5	8	5
E15347	-0	1	0	-1	5	1
E15349	-0	1	1	-1	3	1
E15351	1	1	2	0	6	4
E15390	1	0	3	1	7	4
E16030	4	5	5	5	11	6
E16031	4	6	4	3	9	4
E16265	5	4	6	4	20	11
E16380	5	6	5	5	9	5
E16398	6	7	8	7	10	10
E16410	5	5	6	5	10	10
E16411	4	3	3	4	9	2
LD15-544	2	4	3	2	7	2
LD16-4471a	3	4	3	2	8	4
U14-206326	1	3	1	0	6	0
U14-216260	4	3	6	3	11	6
U15-917133	4	3	5	3	9	7
U16-609059	4	6	5	5	11	5
U16-904053	-1	-2	-1	-2	5	-1
U16-905030	-1	0	-2	-2	7	0
U16-907052	-1	-3	-1	-1	6	0
U16-909058	5	6	5	5	10	9
U16-909085	5	4	6	6	11	10
U16-929043	-1	-2	-1	-1	7	2
U16-929142	4	1	6	3	11	5
U16-932015	-2	-5	-1	0	4	-1
U16-934075	3	3	4	3	10	5
Date Planted	6/1	5/23	6/7	6/5	6/3	6/5
Days to Mature	115	120	110	108	111	112

UNIFORM TEST II, 2019

MATURITY (date)

Strain	Britton MI	East Lansing MI	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	9/27	9/28		9/16	9/29	10/3
LD02-4485 (SCN)	-3	-3		2	2	1
U11-917032 (SCN) (E)	-5	-5		-3	-2	-5
U14-910097 (SCN) (L)	10	1		7	5	4
CR14-7814	3	3		8	5	4
CR15-0899	5	3		3	6	3
CR15-2189	2	-1		3	0	-2
E15339	2	-3		0	0	0
E15345	1	2		6	2	2
E15347	-2	-2		-1	-1	-1
E15349	-2	-3		-1	0	-3
E15351	0	-3		-2	1	0
E15390	-0	-3		2	0	0
E16030	0	-1		5	5	3
E16031	-1	1		4	5	3
E16265	0	-2		3	-1	4
E16380	-1	4		7	6	4
E16398	2	-1		8	4	4
E16410	5	-2		7	5	3
E16411	1	2		5	6	2
LD15-544	1	-1		2	0	1
LD16-4471a	1	-2		1	3	2
U14-206326	1	1		2	0	1
U14-216260	2	1		5	3	2
U15-917133	3	3		5	4	1
U16-609059	4	2		5	1	1
U16-904053	0	-3		-1	-1	-6
U16-905030	-4	-3		0	-4	-5
U16-907052	-3	-3		0	-3	-5
U16-909058	-1	1		4	7	2
U16-909085	-1	5		7	4	1
U16-929043	-4	-3		1	-1	-5
U16-929142	0	-1		7	0	3
U16-932015	-3	-3		-1	-3	-5
U16-934075	0	-2		3	5	1
Date Planted	6/9	5/29		5/16	5/18	6/24
Days to Mature	110	122		123	134	101

UNIFORM TEST II, 2019

LODGING (score)

Strain	Mean 10 Tests	Ames IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	1.6	2.0	2.3	1.5	1.0	1.0
LD02-4485 (SCN)	1.3	2.0	1.8	1.0	1.0	1.0
U11-917032 (SCN) (E)	1.4	2.0	1.8	1.0	1.0	1.0
U14-910097 (SCN) (L)	1.4	2.0	2.3	1.0	1.0	1.0
CR14-7814	1.1	1.0	1.0	1.0	1.0	1.0
CR15-0899	1.2	1.0	1.0	1.0	1.0	1.0
CR15-2189	1.2	1.0	1.5	1.0	1.0	1.0
E15339	1.9	3.0	2.3	2.0	1.0	1.0
E15345	1.5	2.0	2.3	1.5	1.0	1.3
E15347	1.2	1.0	1.0	1.0	1.0	1.0
E15349	1.6	2.0	2.5	1.5	1.0	1.0
E15351	1.3	2.0	1.8	1.0	1.0	1.0
E15390	1.6	2.0	2.0	1.5	1.0	1.3
E16030	1.2	2.0	1.5	1.0	1.0	1.0
E16031	1.1	2.0	1.3	1.0	1.0	1.0
E16265	1.1	1.0	1.0	1.0	1.0	1.0
E16380	1.1	1.0	1.0	1.0	1.0	1.0
E16398	1.3	2.5	1.8	1.0	1.0	1.0
E16410	1.1	2.0	1.0	1.0	1.0	1.0
E16411	1.2	1.0	1.5	1.0	1.0	1.0
LD15-544	1.1	1.0	1.0	1.0	1.0	1.0
LD16-4471a	1.1	1.5	1.0	1.0	1.0	1.0
U14-206326	1.2	1.0	1.3	1.0	1.0	1.0
U14-216260	1.3	1.0	1.5	1.0	1.0	1.0
U15-917133	1.1	1.0	1.0	1.0	1.0	1.0
U16-609059	1.1	2.0	1.3	1.0	1.0	1.0
U16-904053	1.1	1.0	1.0	1.0	1.0	1.0
U16-905030	1.2	1.0	1.0	1.0	1.0	1.0
U16-907052	1.1	1.5	1.0	1.0	1.0	1.0
U16-909058	1.2	1.5	1.8	1.0	1.0	1.0
U16-909085	1.1	1.0	1.0	1.0	1.0	1.0
U16-929043	1.2	1.5	1.8	1.0	1.0	1.0
U16-929142	1.1	1.0	1.3	1.0	1.0	1.0
U16-932015	1.1	1.5	1.3	1.0	1.0	1.0
U16-934075	1.1	1.0	1.0	1.0	1.0	1.0

UNIFORM TEST II, 2019

LODGING (score)

Strain	Britton MI	East Lansing MI	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	1.3	1.0		2.0	3.0	1.0
LD02-4485 (SCN)	1.3	1.0		1.5	2.0	1.0
U11-917032 (SCN) (E)	1.3	1.0		2.0	2.5	1.0
U14-910097 (SCN) (L)	1.7	1.0		1.0	2.5	1.0
CR14-7814	1.0	1.0		1.0	2.0	1.0
CR15-0899	1.0	1.0		1.0	2.5	1.0
CR15-2189	1.3	1.0		1.0	2.0	1.0
E15339	2.3	1.0		3.5	3.0	1.0
E15345	1.3	1.0		2.0	2.0	1.0
E15347	1.7	1.0		1.5	2.0	1.0
E15349	2.0	1.0		2.0	2.5	1.0
E15351	1.3	1.0		2.0	1.5	1.0
E15390	2.3	1.0		1.5	3.0	1.0
E16030	1.3	1.0		1.0	2.0	1.0
E16031	1.0	1.0		1.0	2.0	1.0
E16265	1.0	1.0		1.0	2.0	1.0
E16380	1.0	1.0		1.0	2.0	1.0
E16398	1.0	1.0		1.0	2.5	1.0
E16410	1.0	1.0		1.0	2.0	1.0
E16411	1.7	1.0		1.0	2.0	1.0
LD15-544	1.0	1.0		1.0	1.5	1.0
LD16-4471a	1.0	1.0		1.0	2.0	1.0
U14-206326	1.3	1.0		1.0	2.5	1.0
U14-216260	1.7	1.3		1.0	2.0	1.0
U15-917133	1.0	1.0		1.0	2.0	1.0
U16-609059	1.0	1.0		1.0	2.0	1.0
U16-904053	1.0	1.0		1.0	2.0	1.0
U16-905030	1.3	1.0		1.5	2.0	1.0
U16-907052	1.0	1.0		1.0	2.0	1.0
U16-909058	1.0	1.0		1.0	2.0	1.0
U16-909085	1.0	1.0		1.0	2.0	1.0
U16-929043	1.0	1.0		1.0	2.0	1.0
U16-929142	1.0	1.0		1.0	2.0	1.0
U16-932015	1.0	1.0		1.5	1.5	1.0
U16-934075	1.0	1.0		1.0	2.0	1.0

UNIFORM TEST II, 2019

PLANT HEIGHT (inches)

Strain	Mean 10 Tests	Ames IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	30	29	33	31	29	31
LD02-4485 (SCN)	30	30	33	34	26	30
U11-917032 (SCN) (E)	28	30	30	28	25	26
U14-910097 (SCN) (L)	30	33	33	31	29	29
CR14-7814	31	31	34	31	28	31
CR15-0899	31	32	34	32	29	27
CR15-2189	28	28	31	27	26	26
E15339	32	34	35	36	33	30
E15345	32	33	35	35	31	32
E15347	30	32	32	31	26	28
E15349	32	32	36	32	33	30
E15351	31	33	36	31	28	31
E15390	31	32	34	31	26	35
E16030	33	33	36	36	31	28
E16031	33	34	36	33	33	32
E16265	30	30	34	31	27	26
E16380	30	33	33	32	26	30
E16398	33	34	37	34	34	36
E16410	32	31	35	32	35	34
E16411	31	29	33	30	26	39
LD15-544	31	30	36	30	29	32
LD16-4471a	29	32	33	31	27	29
U14-206326	31	30	33	31	28	31
U14-216260	31	31	34	31	26	31
U15-917133	33	33	36	34	31	30
U16-609059	32	34	36	31	32	31
U16-904053	29	32	33	31	27	28
U16-905030	30	33	32	31	31	29
U16-907052	29	29	32	30	25	28
U16-909058	32	33	36	34	31	27
U16-909085	29	30	33	30	27	29
U16-929043	30	31	34	31	30	29
U16-929142	28	31	32	29	25	29
U16-932015	29	30	33	30	25	30
U16-934075	31	31	36	32	30	32

UNIFORM TEST II, 2019

PLANT HEIGHT (inches)

Strain	Britton MI	East Lansing MI	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	32	25		33	33	29
LD02-4485 (SCN)	30	23		33	29	36
U11-917032 (SCN) (E)	26	22		31	30	32
U14-910097 (SCN) (L)	29	23		33	30	32
CR14-7814	27	23		36	33	35
CR15-0899	32	25		36	32	32
CR15-2189	25	20		31	31	36
E15339	32	26		33	28	35
E15345	28	28		31	33	36
E15347	28	25		31	29	38
E15349	31	25		36	31	30
E15351	30	24		30	31	36
E15390	31	26		32	27	35
E16030	30	29		38	33	32
E16031	28	28		38	32	36
E16265	27	25		35	30	31
E16380	28	22		33	32	34
E16398	33	23		36	34	35
E16410	30	22		35	31	35
E16411	30	27		32	29	30
LD15-544	29	26		34	35	32
LD16-4471a	29	22		30	29	35
U14-206326	28	23		35	32	38
U14-216260	30	25		37	32	30
U15-917133	33	27		38	29	35
U16-609059	28	26		37	31	37
U16-904053	24	24		34	29	29
U16-905030	27	23		35	32	32
U16-907052	28	22		33	29	34
U16-909058	30	25		36	33	32
U16-909085	26	22		33	31	32
U16-929043	27	23		33	31	36
U16-929142	25	19		31	31	32
U16-932015	29	25		34	30	29
U16-934075	29	25		34	32	32

UNIFORM TEST II, 2019

SEED SIZE (g/100)

Strain	Mean 10 Tests	Ames IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	17.2	16.7	17.2	17.5	18.6	18.6
LD02-4485 (SCN)	16.1	14.9	17.5	16.5	15.8	15.8
U11-917032 (SCN) (E)	15.7	14.6	17.0	14.8	15.1	15.1
U14-910097 (SCN) (L)	16.4	14.9	17.1	15.8	17.1	17.1
CR14-7814	16.1	14.4	16.7	15.2	16.2	16.2
CR15-0899	16.1	15.9	16.4	15.8	16.0	16.0
CR15-2189	16.0	15.1	16.9	15.0	15.6	15.6
E15339	16.3	16.6	17.3	16.3	16.9	16.9
E15345	16.3	15.9	17.0	16.7	17.2	17.2
E15347	18.3	17.2	19.4	17.8	19.5	19.5
E15349	17.1	15.2	17.9	16.7	18.3	18.3
E15351	17.5	16.2	18.5	18.1	18.7	18.7
E15390	20.2	19.4	21.5	20.2	20.8	20.8
E16030	18.2	16.9	19.9	18.6	18.1	18.1
E16031	18.4	17.3	19.7	18.8	17.8	17.8
E16265	20.4	19.9	22.0	20.7	20.9	20.9
E16380	21.0	20.5	21.2	21.4	21.1	21.1
E16398	20.5	19.0	21.5	20.7	20.8	20.8
E16410	19.2	17.5	19.9	19.0	20.4	20.4
E16411	18.6	16.2	19.1	18.1	19.3	19.3
LD15-544	17.8	17.6	19.2	18.0	17.0	17.0
LD16-4471a	17.9	16.6	18.3	18.5	18.6	18.6
U14-206326	16.3	15.7	17.4	15.9	15.8	15.8
U14-216260	19.0	18.1	20.0	18.4	19.6	19.6
U15-917133	17.6	17.0	18.6	17.0	17.5	17.5
U16-609059	17.5	16.5	18.5	16.9	16.5	16.5
U16-904053	15.5	13.5	16.4	15.3	15.3	15.3
U16-905030	14.6	14.0	14.5	13.9	15.0	15.0
U16-907052	16.5	15.1	17.3	15.9	16.5	16.5
U16-909058	16.3	15.5	17.1	16.8	16.2	16.2
U16-909085	17.3	15.5	18.8	17.5	17.2	17.2
U16-929043	16.3	13.5	17.1	15.9	16.4	16.4
U16-929142	16.3	14.8	17.3	16.0	16.4	16.4
U16-932015	18.5	16.7	19.5	18.4	17.4	17.4
U16-934075	18.7	16.9	20.3	18.7	18.1	18.1

UNIFORM TEST II, 2019

SEED SIZE (g/100)

Strain	Britton MI	East Lansing MI	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)		16.3	17.5	15.3	18.4	15.1
LD02-4485 (SCN)		15.0	17.1	14.8	15.6	16.6
U11-917032 (SCN) (E)		14.0	17.8	15.0	16.8	16.1
U14-910097 (SCN) (L)		16.1	17.1	14.6	16.3	16.2
CR14-7814		14.9	17.6	14.1	16.5	17.3
CR15-0899		16.3	17.3	14.3	16.6	15.9
CR15-2189		14.9	17.3	15.3	17.3	15.9
E15339		15.2	17.1	14.7	16.1	16.0
E15345		15.4	17.3	14.4	14.7	17.1
E15347		17.2	19.1	15.7	16.8	19.5
E15349		15.2	18.4	15.6	17.4	16.1
E15351		15.1	18.3	15.2	16.3	18.6
E15390		17.8	22.1	19.0	20.3	19.3
E16030		17.4	20.0	16.6	17.5	17.4
E16031		17.9	19.9	17.3	17.4	18.9
E16265		19.6	20.7	18.4	19.4	21.1
E16380		20.6	22.5	19.3	20.8	21.4
E16398		20.2	22.0	18.5	20.1	20.2
E16410		17.7	20.9	17.6	18.1	19.3
E16411		17.2	20.1	17.3	19.9	17.4
LD15-544		17.7	19.1	16.6	18.3	17.8
LD16-4471a		16.7	18.8	16.0	17.2	18.3
U14-206326		15.7	18.9	15.7	15.6	16.1
U14-216260		18.3	20.4	16.9	19.0	18.8
U15-917133		17.3	19.3	15.7	18.3	17.1
U16-609059		16.8	19.3	16.9	18.0	17.8
U16-904053		14.4	16.7	14.8	16.3	14.9
U16-905030		14.5	15.8	13.7	14.8	14.3
U16-907052		15.0	17.1	15.5	17.4	17.1
U16-909058		16.5	16.9	15.0	15.7	16.0
U16-909085		17.1	18.3	15.7	17.0	16.9
U16-929043		15.0	17.9	16.2	16.7	15.5
U16-929142		16.1	17.4	14.7	15.7	16.8
U16-932015		16.9	20.8	18.0	20.1	18.0
U16-934075		17.8	20.2	18.5	18.5	18.5

UNIFORM TEST II, 2019

SEED QUALITY (score)

Strain	Mean 9 Tests	Ames IA	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN
IA2102 (II)	1.6	1.0	2.0	2.0	1.0	1.0
LD02-4485 (SCN)	1.9	1.0	2.0	2.0	1.0	1.0
U11-917032 (SCN) (E)	1.6	1.0	1.0	2.0	1.0	1.0
U14-910097 (SCN) (L)	1.3	1.0	2.0	1.0	1.0	1.0
CR14-7814	1.3	1.0	2.0	1.0	1.0	1.0
CR15-0899	1.5	1.5	2.0	2.0	1.0	1.0
CR15-2189	1.4	1.0	2.0	2.0	1.0	1.0
E15339	2.0	1.0	2.0	2.0	1.0	1.0
E15345	1.8	1.0	2.0	3.0	1.0	1.0
E15347	1.6	1.0	2.0	2.0	1.0	1.0
E15349	1.8	1.0	2.0	3.0	1.0	1.0
E15351	2.2	1.0	3.0	3.0	1.0	1.0
E15390	1.5	1.0	1.0	2.0	1.0	1.0
E16030	1.4	1.5	2.0	2.0	1.0	1.0
E16031	1.6	1.5	3.0	2.0	1.0	1.0
E16265	1.9	1.5	2.0	3.0	1.0	1.0
E16380	1.5	1.5	2.0	2.0	1.0	1.0
E16398	1.8	1.0	3.0	3.0	1.0	1.0
E16410	1.7	1.0	2.0	3.0	1.0	1.0
E16411	1.6	1.0	2.0	2.0	1.0	1.0
LD15-544	1.4	1.0	2.0	2.0	1.0	1.0
LD16-4471a	1.7	1.0	3.0	3.0	1.0	1.0
U14-206326	1.1	1.0	1.0	1.0	1.0	1.0
U14-216260	1.4	1.0	2.0	2.0	1.0	1.0
U15-917133	1.4	1.5	1.0	2.0	1.0	1.0
U16-609059	1.9	1.0	2.0	3.0	1.0	1.0
U16-904053	1.3	1.0	1.0	2.0	1.0	1.0
U16-905030	1.3	1.0	2.0	2.0	1.0	1.0
U16-907052	1.3	1.0	1.0	2.0	1.0	1.0
U16-909058	1.6	1.0	3.0	2.0	1.0	1.0
U16-909085	1.5	1.5	2.0	2.0	1.0	1.0
U16-929043	1.9	1.0	2.0	3.0	1.0	1.0
U16-929142	1.5	1.5	2.0	2.0	1.0	1.0
U16-932015	1.8	1.5	2.0	2.0	1.0	1.0
U16-934075	1.4	1.0	2.0	2.0	1.0	1.0

UNIFORM TEST II, 2019

SEED QUALITY (score)

Strain	Britton MI	East Lansing MI	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)		2.0	2.0	1.5	1.5	
LD02-4485 (SCN)		2.0	3.5	2.0	2.0	
U11-917032 (SCN) (E)		2.0	2.0	1.0	2.5	
U14-910097 (SCN) (L)		2.0	1.0	1.0	1.0	
CR14-7814		2.0	1.0	1.5	1.0	
CR15-0899		2.0	1.5	1.5	1.0	
CR15-2189		2.0	1.5	1.0	1.0	
E15339		2.0	3.0	3.0	2.0	
E15345		2.0	2.0	1.5	2.0	
E15347		2.0	2.0	1.5	1.0	
E15349		3.0	2.0	1.0	1.0	
E15351		2.0	3.0	2.5	2.0	
E15390		3.0	2.0	1.0	1.0	
E16030		1.0	2.0	1.5	1.0	
E16031		2.0	1.5	1.0	1.5	
E16265		3.0	2.5	2.0	1.0	
E16380		2.0	1.5	1.5	1.0	
E16398		2.0	2.0	1.5	1.0	
E16410		2.0	1.5	1.5	1.5	
E16411		3.0	1.5	1.0	1.5	
LD15-544		2.0	1.0	1.0	1.0	
LD16-4471a		2.0	1.5	1.0	1.0	
U14-206326		1.0	1.0	1.0	1.5	
U14-216260		2.0	1.0	1.0	1.5	
U15-917133		2.0	1.5	1.5	1.5	
U16-609059		2.0	2.5	1.5	2.0	
U16-904053		1.0	1.0	1.5	1.5	
U16-905030		1.0	1.0	1.0	1.0	
U16-907052		2.0	1.0	1.0	1.0	
U16-909058		2.0	1.5	1.0	1.5	
U16-909085		2.0	1.5	1.0	1.5	
U16-929043		3.0	2.0	1.5	1.5	
U16-929142		2.0	1.0	1.0	2.0	
U16-932015		2.0	2.5	1.5	2.5	
U16-934075		1.0	1.0	1.5	2.0	

UNIFORM TEST II, 2019

PROTEIN (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI	Mead NE	Chatham ONT
IA2102 (II)	33.8	34.2	33.2	34.3	33.5	32.7	35.2
LD02-4485 (SCN)	32.3	32.2	32.9	32.0	31.6	31.2	33.8
U11-917032 (SCN) (E)	32.1	32.0	31.4	31.3	32.2	30.7	34.8
U14-910097 (SCN) (L)	32.5	32.1	32.8	33.0	31.6	31.2	34.1
CR14-7814	33.5	33.6	32.6	33.3	32.7	32.4	36.3
CR15-0899	34.9	35.4	35.4	35.8	33.9	33.4	35.7
CR15-2189	32.1	32.5	32.0	31.4	31.2	30.7	34.8
E15339	32.4	32.6	32.3	32.7	31.6	31.6	33.3
E15345	33.0	33.7	32.8	32.9	32.6	31.6	34.6
E15347	33.3	32.8	32.5	34.3	32.4	33.0	34.7
E15349	34.3	34.5	33.7	35.3	34.1	32.6	35.7
E15351	33.7	33.7	34.4	33.9	32.9	32.0	35.3
E15390	35.3	36.1	35.6	34.5	35.9	32.7	37.1
E16030	34.5	35.0	34.2	35.0	34.8	32.3	35.7
E16031	34.9	35.5	35.4	35.0	34.4	32.2	36.8
E16265	35.7	35.2	36.1	36.1	34.5	34.5	37.6
E16380	33.7	31.9	34.5	35.4	33.2	32.5	34.9
E16398	34.5	35.1	35.8	34.3	33.4	32.9	35.9
E16410	33.5	33.7	34.0	34.0	32.0	31.6	35.3
E16411	34.2	33.7	34.8	33.6	34.7	33.1	35.2
LD15-544	33.6	34.3	33.2	33.2	33.3	32.2	35.5
LD16-4471a	35.3	35.1	37.9	34.9	33.6	33.6	37.0
U14-206326	33.0	33.1	32.7	32.8	32.3	31.3	35.8
U14-216260	32.2	32.0	31.6	32.2	31.9	31.3	34.5
U15-917133	33.1	33.1	33.7	34.2	32.1	30.4	35.1
U16-609059	33.6	34.0	33.8	33.0	33.5	32.0	35.3
U16-904053	33.5	33.7	34.4	33.4	32.6	31.8	35.1
U16-905030	33.5	33.8	33.9	33.7	33.0	31.2	35.2
U16-907052	34.2	35.6	35.0	33.4	32.3	32.2	36.8
U16-909058	33.9	33.7	34.2	33.7	33.3	32.9	35.4
U16-909085	33.1	33.5	34.0	33.1	32.4	30.8	34.8
U16-929043	33.8	33.4	33.8	34.8	33.4	32.2	35.6
U16-929142	34.5	34.7	34.7	35.6	33.4	32.7	35.7
U16-932015	34.0	34.1	34.7	33.7	33.5	32.6	35.6
U16-934075	35.3	35.2	35.7	35.4	33.9	34.7	37.0

UNIFORM TEST II, 2019

OIL (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI	Mead NE	Chatham ONT
IA2102 (II)	19.3	19.2	20.1	19.0	18.7	20.1	18.7
LD02-4485 (SCN)	19.9	19.9	19.9	20.4	19.7	20.4	18.8
U11-917032 (SCN) (E)	20.5	20.1	21.2	21.0	19.5	21.3	19.8
U14-910097 (SCN) (L)	20.6	20.3	21.0	20.5	20.3	21.0	20.4
CR14-7814	19.6	19.1	20.4	19.9	19.7	20.0	18.9
CR15-0899	18.8	18.3	19.3	18.9	18.5	19.3	18.3
CR15-2189	20.6	20.2	20.9	21.6	20.3	21.2	19.6
E15339	20.3	20.2	20.8	20.6	19.9	20.4	19.7
E15345	19.5	19.2	20.2	19.6	19.3	20.0	18.9
E15347	19.2	19.3	20.3	18.8	19.0	19.1	18.7
E15349	19.2	19.1	19.9	18.9	18.7	20.0	18.5
E15351	19.1	18.5	19.6	19.2	19.0	19.6	18.5
E15390	19.0	18.1	19.5	19.7	18.6	20.2	18.2
E16030	18.8	18.4	19.6	19.1	18.1	19.5	18.3
E16031	18.8	18.2	19.1	18.9	18.5	19.6	18.3
E16265	18.5	18.3	18.6	18.7	18.6	18.9	18.0
E16380	19.4	19.6	19.6	19.5	19.5	20.0	18.6
E16398	20.1	19.6	19.9	20.4	20.0	20.9	19.9
E16410	20.2	19.8	20.3	20.2	20.4	20.8	19.9
E16411	18.8	18.9	19.3	18.9	18.1	19.2	18.5
LD15-544	19.7	19.4	20.4	20.2	19.3	20.1	19.1
LD16-4471a	19.3	19.1	20.4	19.2	19.1	19.6	18.4
U14-206326	19.8	19.7	20.4	20.3	19.4	20.3	18.7
U14-216260	20.3	20.1	21.3	20.5	19.6	20.7	19.6
U15-917133	20.1	19.6	20.4	20.0	19.8	21.1	19.7
U16-609059	19.7	18.8	20.4	20.6	19.5	20.3	18.8
U16-904053	19.5	18.9	19.9	19.8	19.2	20.1	19.0
U16-905030	19.6	18.9	19.8	19.7	19.4	20.6	19.2
U16-907052	19.7	18.6	20.2	20.4	19.9	20.6	18.4
U16-909058	18.8	18.4	18.9	19.0	18.5	19.4	18.8
U16-909085	20.5	19.8	20.9	20.8	20.0	21.4	20.3
U16-929043	19.2	18.7	19.9	19.2	18.9	20.1	18.6
U16-929142	19.1	18.6	19.4	18.9	19.4	19.5	18.8
U16-932015	19.9	19.3	20.6	20.1	19.2	20.6	19.7
U16-934075	19.0	18.8	19.6	19.2	18.2	19.4	19.1

	Northern Regional Uniform Test				
	Preliminary Test IIA, 2019				
			Seed	Gen.	Unique
Ent.	Strain	Parentage	Source	Comp.	Traits
1	IA2102 (II)	A04-545045 x AgriPro 98180-A01-0613	Cai	F4	
2	LD02-4485 (SCN)	M90-184111 x IA3010	Diers	F5	SCN
3	U11-917032 (SCN) (E)	LD02-4485 x U03-100612	Graef	F6	SCN, HR, MR, IDC
4	U14-910097 (SCN) (L)	U09-105007 x LD07-3419	Graef	F5	Rps, SCN (HR, HR)
5	E15901	E11955-4 x E07051	Wang	F5	Aphid, SCN, Rps1
6	E17004	PI 540453 x IA2102	Wang	F5	Rps
7	E17040	E07051 x IA2102	Wang	F5	SCN, Rps1
8	E17054	IA2102 x E07051	Wang	F5	SCN, Rps1
9	E17062	IA2102 x E06240	Wang	F5	
10	E17069	IA2102 x E06240	Wang	F5	
11	E17167	Jilin 20-2 x AR09-191018	Wang	F5	SCN
12	E17184	Jilin 20-2 x LD01-7323	Wang	F5	SCN
13	E17203	E11128T x LD02-4485	Wang	F5	SCN
14	E17227	(E07051 x E11101) x (E07051 x E06380)	Wang	F5	
15	E17269	E13367 x AR09-191018	Wang	F5	Aphid, SCN, Rps1
16	E17274	E13367 x IA2102	Wang	F5	Aphid, SCN, Rps1
17	E17275	E13367 x IA2102	Wang	F5	Aphid, SCN, Rps1
18	E17283	E13367 x E05181-T	Wang	F5	Aphid, SCN, Rps1
19	E17545	(E11101 x E06240) x (E10174 x E06240)	Wang	F5	
20	E17550	(E06240 x E06380) x (E06167 x E06240)	Wang	F5	
21	HM16-W248	HS8-3672 x M09-W153	McHale	F4	
22	LD16-4306a	HM09-W084 x LD09-30224	Diers	F5	Rag 1
23	LD16-4350	HM09-W084 x LD09-30224	Diers	F5	
24	LD16-4385a	HM09-W084 x LD09-30224	Diers	F5	Rag 1
25	LD16-4386a	HM09-W084 x LD09-30224	Diers	F5	Rag 1
26	LD16-4587a	HM09-W084 x LD08-12441a	Diers	F5	Rag 2
27	LD17-5908a	LD12-300 x LD14-8047	Diers	F5	Rag1+2+3
28	LD17-5963a	LD12-300 x LD14-8047	Diers	F5	Rag1+2+3
29	LG15-2779	LG08-5093 x 06NB204846	Walker	F6	Genetic diversity
30	LG15-4648	LG08-3277 x LG06-2866	Walker	F6	Genetic diversity
31	LG17-5670	LG09-8165 x WN0800527	Walker	F6	Genetic diversity
32	LG17-5677	LG09-8165 x WN0800527	Walker	F6	Genetic diversity

PRELIMINARY TEST IIA, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Shattering Score
		Manhattan
IA2102 (II)	WGTDYYBfI	1.0
LD02-4485 (SCN)	PGTDYBfI	1.0
U11-917032 (SCN) (E)	PTBSYBIbI	1.0
U14-910097 (SCN) (L)	PGTSYBfI	1.0
E15901	PGBDYBrI	1.0
E17004	P+WGTDYBfI	1.0
E17040	WGTDYYI	1.0
E17054	PGTDYYI	1.0
E17062	PGTDYGI	1.0
E17069	WGTSYYI	1.0
E17167	PGTSYBfI	2.0
E17184	PGTSYYI	1.0
E17203	PGBDYBrI	1.0
E17227	PGTDYIbI	1.0
E17269	WGTDYLBrI	1.0
E17274	WGTDYYBrI	1.0
E17275	WGTDYLBrI	1.0
E17283	P+WGBSYIbBrI	1.0
E17545	PGBDYGI	1.0
E17550	PGTSYIbI	1.0
HM16-W248	WGBSYBI	1.0
LD16-4306a	WLtTDYBI	1.0
LD16-4350	P+WGTDYLBfIbI	1.0
LD16-4385a	P+WGTDYLBfIbI	1.0
LD16-4386a	PLtBSYBI	1.0
LD16-4587a	PLPhillipsYIbI	1.0
LD17-5908a	PLPhillipsYLBrIbI	1.0
LD17-5963a	PLtBSYBI	1.0
LG15-2779	PGBSYBI	1.0
LG15-4648	WGBSYBI	1.0
LG17-5670	PGBSYBI	1.0
LG17-5677	PGTDYIbI	1.0

PRELIMINARY TEST IIA, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 8 bu/a	Rank 8 No.	Maturity 7 Date	Lodging 7 Score	Plant Height 7 In.	Seed Size 8 g/100	Seed Quality 7 Score	Composition Protein 6 %	 Oil 6 %
IA2102 (II)	50.8	32	9/24	1.5	31	16.8	1.8	34.1	19.1
LD02-4485 (SCN)	61.5	12	1.0	1.5	31	15.5	1.6	31.8	20.1
U11-917032 (SCN) (E)	55.7	28	-3.9	1.4	29	15.5	1.5	32.3	20.3
U14-910097 (SCN) (L)	66.3	2	4.7	1.5	31	15.9	1.3	32.5	20.5
E15901	60.5	17	0.6	1.1	30	16.7	1.7	34.4	18.5
E17004	63.3	5	2.1	1.1	31	18.2	1.6	34.3	19.6
E17040	62.6	7	0.9	2.0	33	16.2	1.9	33.4	19.0
E17054	60.8	15	0.1	1.1	31	18.2	1.8	34.5	19.0
E17062	62.0	10	2.1	1.8	33	17.9	1.5	35.1	19.0
E17069	63.9	3	5.5	2.1	36	19.0	1.7	36.0	18.7
E17167	57.8	24	-1.3	1.7	34	17.6	1.5	34.7	19.9
E17184	63.8	4	-0.4	1.6	34	17.1	1.6	33.6	19.9
E17203	63.1	6	1.4	1.4	31	16.6	2.4	33.5	19.4
E17227	62.3	8	2.4	1.2	31	19.6	1.8	33.3	19.6
E17269	60.7	16	-1.6	1.6	29	15.2	1.6	33.1	19.4
E17274	55.8	26	-3.4	2.1	32	14.2	1.4	33.6	18.5
E17275	62.2	9	-0.4	2.1	31	15.6	1.8	34.0	18.5
E17283	66.5	1	4.4	1.2	30	19.2	2.6	34.5	19.1
E17545	58.8	22	2.4	1.2	30	17.2	1.5	34.0	20.4
E17550	57.9	23	2.0	1.4	33	17.7	1.3	33.0	19.9
HM16-W248	62.0	10	5.2	1.2	34	15.8	1.4	34.6	19.3
LD16-4306a	57.5	25	0.6	1.4	30	17.1	1.4	35.4	18.9
LD16-4350	55.4	29	-0.8	1.4	29	15.7	1.4	33.1	19.7
LD16-4385a	60.1	19	0.4	1.2	29	16.6	1.6	34.8	19.0
LD16-4386a	61.4	14	2.4	1.2	33	16.2	1.4	33.5	19.6
LD16-4587a	55.8	26	-2.6	1.4	28	15.4	1.4	33.3	20.0
LD17-5908a	55.4	29	-0.9	1.2	30	15.7	1.9	31.9	19.6
LD17-5963a	55.3	31	-0.4	1.5	33	16.1	1.4	32.0	19.6
LG15-2779	61.5	12	5.4	1.9	39	15.3	1.3	34.5	18.8
LG15-4648	60.4	18	5.1	1.5	34	16.9	1.3	34.8	19.1
LG17-5670	58.9	21	5.4	1.2	34	17.8	1.5	33.3	19.4
LG17-5677	59.5	20	4.3	1.2	34	17.4	1.5	33.0	19.5
Mean	60.0			1.5	31.7	16.7	1.6		
C.V. (%)	10.6			32.9	8.2	4.9	35.9		
L.S.D. (5%)	3.7			0.2	1.6	0.5	0.4		

117.1 Days After Planting

PRELIMINARY TEST IIA, 2019

YIELD (bu/a)

Strain	Mean 8 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	50.8	52.6	43.4	41.0	35.5
LD02-4485 (SCN)	61.5	64.1	58.8	53.4	41.1
U11-917032 (SCN) (E)	55.7	56.7	45.1	44.5	38.1
U14-910097 (SCN) (L)	66.3	68.3	58.7	55.3	48.7
E15901	60.5	62.2	57.1	47.7	41.2
E17004	63.3	66.9	53.2	51.8	39.8
E17040	62.6	63.5	54.5	55.7	43.0
E17054	60.8	56.7	52.3	59.3	42.2
E17062	62.0	63.7	57.7	55.7	50.3
E17069	63.9	64.0	55.1	54.4	45.2
E17167	57.8	59.6	52.5	52.2	46.7
E17184	63.8	61.7	51.9	54.2	51.1
E17203	63.1	63.8	59.5	52.1	43.1
E17227	62.3	66.8	54.6	57.8	40.9
E17269	60.7	69.2	56.8	52.2	46.5
E17274	55.8	60.3	49.5	43.8	37.5
E17275	62.2	69.5	58.1	45.4	46.7
E17283	66.5	66.3	55.7	63.9	45.8
E17545	58.8	60.5	55.4	59.3	37.6
E17550	57.9	51.6	52.1	55.6	40.6
HM16-W248	62.0	58.1	56.2	59.1	38.2
LD16-4306a	57.5	56.4	53.4	52.4	38.2
LD16-4350	55.4	58.9	51.8	46.0	36.1
LD16-4385a	60.1	54.9	52.2	49.6	41.8
LD16-4386a	61.4	55.8	49.2	53.8	44.0
LD16-4587a	55.8	53.5	49.3	43.5	44.4
LD17-5908a	55.4	54.9	48.5	46.0	47.2
LD17-5963a	55.3	61.0	55.4	46.0	44.9
LG15-2779	61.5	53.5	56.8	50.6	46.0
LG15-4648	60.4	63.3	54.4	54.4	44.3
LG17-5670	58.9	56.1	57.8	41.9	44.0
LG17-5677	59.5	56.2	62.0	49.4	35.9
Location Mean		60.3	54.0	51.5	42.7
C.V. (%)		6.8	6.1	6.4	7.4
L.S.D. (5%)		8.3	6.7	5.6	7.8
Row Sp. (In.)		30	30	30	15
Rows/Plot		4	4	4	6
Reps		2	2	2	2

PRELIMINARY TEST IIA, 2019

YIELD (bu/a)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	72.1	52.5	47.9	61.1
LD02-4485 (SCN)	72.0	73.0	65.6	64.3
U11-917032 (SCN) (E)	72.0	53.6	79.6	56.0
U14-910097 (SCN) (L)	76.7	68.7	81.5	72.8
E15901	73.2	74.5	68.4	59.5
E17004	81.9	66.9	78.9	66.8
E17040	79.4	64.0	75.1	65.5
E17054	67.8	64.7	73.0	70.1
E17062	74.2	59.1	68.5	66.6
E17069	76.6	74.9	80.2	61.1
E17167	60.7	67.0	59.3	64.5
E17184	73.9	75.0	74.7	67.9
E17203	66.8	73.0	79.3	67.3
E17227	74.4	64.4	72.3	67.7
E17269	78.7	52.3	70.0	59.6
E17274	70.0	55.9	66.7	62.6
E17275	83.8	59.3	72.0	63.0
E17283	84.9	78.1	76.1	61.5
E17545	74.2	58.5	68.5	56.4
E17550	77.2	59.6	67.9	58.6
HM16-W248	76.4	71.0	78.8	58.5
LD16-4306a	68.8	58.3	65.2	67.2
LD16-4350	77.1	57.9	73.8	41.9
LD16-4385a	78.0	67.1	80.6	57.0
LD16-4386a	75.6	80.7	76.9	55.3
LD16-4587a	76.2	51.8	68.5	59.3
LD17-5908a	71.6	57.6	66.3	51.1
LD17-5963a	64.6	60.2	51.3	59.4
LG15-2779	75.3	77.0	77.0	55.6
LG15-4648	74.5	64.7	68.8	59.1
LG17-5670	67.1	71.7	71.3	61.5
LG17-5677	72.2	71.4	67.4	61.5
Location Mean	74.0	65.1	71.0	61.2
C.V. (%)	8.0	9.0	8.9	7.9
L.S.D. (5%)	12.1	12.0	12.9	4.9
Row Sp. (In.)	30	30	30	17
Rows/Plot	4	4	4	5
Reps	2	2	2	2

PRELIMINARY TEST IIA, 2019

YIELD RANK

Strain	Yield Rank	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	32	31	32	32	32
LD02-4485 (SCN)	12	7	3	14	21
U11-917032 (SCN) (E)	28	21	31	28	27
U14-910097 (SCN) (L)	2	3	4	9	3
E15901	17	13	8	23	20
E17004	5	4	20	19	24
E17040	7	11	17	6	17
E17054	15	21	22	2	18
E17062	10	10	7	6	2
E17069	3	8	15	10	10
E17167	24	18	21	16	6
E17184	4	14	25	12	1
E17203	6	9	2	18	16
E17227	8	5	16	5	22
E17269	16	2	9	16	7
E17274	26	17	27	29	29
E17275	9	1	5	27	5
E17283	1	6	12	1	9
E17545	22	16	13	2	28
E17550	23	32	24	8	23
HM16-W248	10	20	11	4	25
LD16-4306a	25	23	19	15	26
LD16-4350	29	19	26	24	30
LD16-4385a	19	27	23	21	19
LD16-4386a	14	26	29	13	15
LD16-4587a	26	29	28	30	12
LD17-5908a	29	27	30	24	4
LD17-5963a	31	15	13	24	11
LG15-2779	12	29	9	20	8
LG15-4648	18	12	18	10	13
LG17-5670	21	25	6	31	14
LG17-5677	20	24	1	22	31

PRELIMINARY TEST IIA, 2019

YIELD RANK

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	22	30	32	17
LD02-4485 (SCN)	23	7	28	11
U11-917032 (SCN) (E)	24	29	4	28
U14-910097 (SCN) (L)	9	12	1	1
E15901	20	6	23	20
E17004	3	15	6	7
E17040	4	19	11	9
E17054	28	16	14	2
E17062	18	23	20	8
E17069	10	5	3	18
E17167	32	14	30	10
E17184	19	4	12	3
E17203	30	8	5	5
E17227	16	18	15	4
E17269	5	31	18	19
E17274	26	28	26	13
E17275	2	22	16	12
E17283	1	2	10	15
E17545	17	24	22	27
E17550	7	21	24	24
HM16-W248	11	11	7	25
LD16-4306a	27	25	29	6
LD16-4350	8	26	13	32
LD16-4385a	6	13	2	26
LD16-4386a	13	1	9	30
LD16-4587a	12	32	21	22
LD17-5908a	25	27	27	31
LD17-5963a	31	20	31	21
LG15-2779	14	3	8	29
LG15-4648	15	17	19	23
LG17-5670	29	9	17	14
LG17-5677	21	10	25	16

PRELIMINARY TEST IIA, 2019

MATURITY (date)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	9/24	9/21	9/21	9/30	9/26
LD02-4485 (SCN)	1	3	2	0	-1
U11-917032 (SCN) (E)	-4	-4	-4	-7	-6
U14-910097 (SCN) (L)	5	4	6	5	2
E15901	1	2	2	-1	-2
E17004	2	2	1	4	-2
E17040	1	1	0	6	-2
E17054	0	2	1	4	-3
E17062	2	4	2	4	1
E17069	6	11	7	5	2
E17167	-1	-1	0	-1	-1
E17184	-0	0	0	0	-1
E17203	1	4	1	0	-1
E17227	2	2	5	3	-1
E17269	-2	-2	0	0	-3
E17274	-3	-4	-3	-2	-6
E17275	-0	1	1	0	-2
E17283	4	3	8	3	0
E17545	2	3	2	3	0
E17550	2	2	2	4	-1
HM16-W248	5	5	7	6	4
LD16-4306a	1	2	2	3	-1
LD16-4350	-1	-3	0	4	-4
LD16-4385a	0	-2	-1	4	-1
LD16-4386a	2	3	2	5	1
LD16-4587a	-3	-1	-2	-5	-2
LD17-5908a	-1	-3	0	-2	-4
LD17-5963a	-0	1	1	-1	-2
LG15-2779	5	9	7	4	3
LG15-4648	5	9	7	5	4
LG17-5670	5	13	3	6	1
LG17-5677	4	8	2	6	1
Date Planted	5/30	5/23	6/5	6/5	5/29
Days to Mature	117	121	108	117	120

PRELIMINARY TEST IIA, 2019

MATURITY (date)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)		9/16	9/25	10/3
LD02-4485 (SCN)		1	3	-1
U11-917032 (SCN) (E)		-3	1	-5
U14-910097 (SCN) (L)		4	9	3
E15901		0	3	-1
E17004		2	5	3
E17040		1	0	1
E17054		-1	0	-3
E17062		-1	2	3
E17069		2	9	3
E17167		0	-2	-4
E17184		-1	1	-2
E17203		2	4	-1
E17227		2	4	2
E17269		-2	-1	-3
E17274		-3	-1	-6
E17275		-1	-1	-1
E17283		7	7	3
E17545		3	3	3
E17550		2	4	1
HM16-W248		4	8	3
LD16-4306a		0	-2	0
LD16-4350		-1	1	-3
LD16-4385a		0	3	-1
LD16-4386a		3	3	0
LD16-4587a		-2	-1	-5
LD17-5908a		1	1	0
LD17-5963a		2	-2	-2
LG15-2779		4	8	3
LG15-4648		3	5	3
LG17-5670		4	9	2
LG17-5677		4	7	3
Date Planted		5/16	5/18	6/24
Days to Mature		123	130	101

PRELIMINARY TEST IIA, 2019

LODGING (score)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	1.5	2.0	1.0	1.0	1.0
LD02-4485 (SCN)	1.5	1.5	1.0	1.0	1.0
U11-917032 (SCN) (E)	1.4	2.0	1.0	1.0	1.0
U14-910097 (SCN) (L)	1.5	1.5	1.0	1.0	1.5
E15901	1.1	1.0	1.0	1.0	1.0
E17004	1.1	1.5	1.0	1.0	1.0
E17040	2.0	2.0	2.0	1.3	1.0
E17054	1.1	1.5	1.0	1.0	1.0
E17062	1.8	2.0	1.5	1.0	1.0
E17069	2.1	2.5	2.0	1.3	1.0
E17167	1.7	2.0	1.0	1.0	1.0
E17184	1.6	2.5	1.0	1.0	1.0
E17203	1.4	1.5	1.0	1.0	1.0
E17227	1.2	1.0	1.0	1.0	1.0
E17269	1.6	2.0	1.0	1.0	1.0
E17274	2.1	2.0	1.5	1.0	1.0
E17275	2.1	2.0	1.5	1.0	1.0
E17283	1.2	1.0	1.0	1.0	1.0
E17545	1.2	1.5	1.0	1.0	1.0
E17550	1.4	1.5	1.0	1.0	1.0
HM16-W248	1.2	1.5	1.0	1.0	1.0
LD16-4306a	1.4	1.0	1.0	1.0	1.0
LD16-4350	1.4	1.5	1.0	1.0	1.0
LD16-4385a	1.2	1.0	1.0	1.0	1.0
LD16-4386a	1.2	1.5	1.0	1.0	1.0
LD16-4587a	1.4	1.5	1.0	1.0	1.0
LD17-5908a	1.2	1.5	1.0	1.0	1.0
LD17-5963a	1.5	2.0	1.5	1.0	1.0
LG15-2779	1.9	1.5	2.0	1.0	1.0
LG15-4648	1.5	2.0	1.0	1.0	1.0
LG17-5670	1.2	1.0	1.0	1.0	1.0
LG17-5677	1.2	1.0	1.0	1.0	1.0

PRELIMINARY TEST IIA, 2019

LODGING (score)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)		2.0	2.5	1.0
LD02-4485 (SCN)		2.0	3.0	1.0
U11-917032 (SCN) (E)		2.0	2.0	1.0
U14-910097 (SCN) (L)		1.5	3.0	1.0
E15901		1.0	2.0	1.0
E17004		1.0	1.5	1.0
E17040		3.0	3.5	1.0
E17054		1.5	1.0	1.0
E17062		3.0	3.0	1.0
E17069		3.0	4.0	1.0
E17167		3.5	2.5	1.0
E17184		2.0	2.5	1.0
E17203		1.5	3.0	1.0
E17227		1.5	2.0	1.0
E17269		3.0	2.5	1.0
E17274		4.0	4.5	1.0
E17275		3.5	4.5	1.0
E17283		1.0	2.5	1.0
E17545		1.5	1.5	1.0
E17550		1.5	2.5	1.0
HM16-W248		1.5	1.5	1.0
LD16-4306a		1.5	3.0	1.0
LD16-4350		1.5	2.5	1.0
LD16-4385a		1.5	2.0	1.0
LD16-4386a		1.0	2.0	1.0
LD16-4587a		1.5	2.5	1.0
LD17-5908a		1.0	2.0	1.0
LD17-5963a		1.5	2.5	1.0
LG15-2779		2.5	3.5	1.5
LG15-4648		1.5	3.0	1.0
LG17-5670		1.0	2.5	1.0
LG17-5677		1.0	2.5	1.0

PRELIMINARY TEST IIA, 2019

PLANT HEIGHT (inches)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	31	37	30	28	24
LD02-4485 (SCN)	31	32	31	31	23
U11-917032 (SCN) (E)	29	31	28	26	23
U14-910097 (SCN) (L)	31	33	32	27	25
E15901	30	31	32	26	23
E17004	31	33	32	29	24
E17040	33	33	34	31	28
E17054	31	34	31	30	22
E17062	33	36	33	32	26
E17069	36	40	36	36	35
E17167	34	39	35	30	30
E17184	34	35	31	30	30
E17203	31	32	30	28	22
E17227	31	33	32	27	24
E17269	29	34	29	27	23
E17274	32	34	33	27	27
E17275	31	34	29	26	25
E17283	30	34	29	29	21
E17545	30	34	30	29	23
E17550	33	32	34	31	26
HM16-W248	34	36	35	31	29
LD16-4306a	30	30	30	29	27
LD16-4350	29	30	29	26	19
LD16-4385a	29	29	29	27	22
LD16-4386a	33	35	31	27	26
LD16-4587a	28	30	29	26	21
LD17-5908a	30	31	31	29	26
LD17-5963a	33	34	34	30	31
LG15-2779	39	42	43	36	30
LG15-4648	34	38	35	36	24
LG17-5670	34	35	39	32	26
LG17-5677	34	35	36	32	23

PRELIMINARY TEST IIA, 2019

PLANT HEIGHT (inches)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)		36	32	32
LD02-4485 (SCN)		36	32	31
U11-917032 (SCN) (E)		30	34	30
U14-910097 (SCN) (L)		34	34	33
E15901		33	33	33
E17004		34	35	33
E17040		35	34	34
E17054		32	35	36
E17062		35	34	34
E17069		40	35	32
E17167		39	34	34
E17184		40	34	36
E17203		34	36	34
E17227		35	35	34
E17269		30	32	30
E17274		32	36	36
E17275		32	35	34
E17283		30	34	36
E17545		32	34	32
E17550		35	34	38
HM16-W248		36	33	36
LD16-4306a		31	34	32
LD16-4350		32	36	31
LD16-4385a		31	35	32
LD16-4386a		38	34	39
LD16-4587a		30	33	30
LD17-5908a		32	34	30
LD17-5963a		37	33	34
LG15-2779		48	36	36
LG15-4648		39	35	34
LG17-5670		38	37	34
LG17-5677		39	37	34

PRELIMINARY TEST IIA, 2019

SEED SIZE (g/100)

Strain	Mean 8 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	16.8	17.0	17.4	17.6	16.2
LD02-4485 (SCN)	15.5	15.6	15.9	16.8	15.3
U11-917032 (SCN) (E)	15.5	15.5	14.1	16.2	14.9
U14-910097 (SCN) (L)	15.9	15.6	16.5	16.4	16.4
E15901	16.7	16.7	17.5	17.5	16.2
E17004	18.2	18.3	18.8	19.6	17.0
E17040	16.2	15.3	16.5	17.4	15.6
E17054	18.2	17.9	18.4	20.6	17.8
E17062	17.9	17.4	18.3	19.3	17.9
E17069	19.0	18.7	19.6	19.4	19.9
E17167	17.6	17.0	17.7	20.0	17.9
E17184	17.1	17.6	16.4	16.9	16.9
E17203	16.6	15.8	16.3	17.3	16.8
E17227	19.6	19.3	19.9	22.5	19.4
E17269	15.2	14.9	15.3	16.4	13.9
E17274	14.2	13.4	13.6	14.6	12.9
E17275	15.6	15.2	16.2	17.4	14.7
E17283	19.2	18.9	20.5	21.7	18.7
E17545	17.2	16.8	17.5	19.1	16.4
E17550	17.7	16.5	17.3	18.2	17.6
HM16-W248	15.8	15.1	15.9	16.2	15.7
LD16-4306a	17.1	16.8	16.8	17.8	17.2
LD16-4350	15.7	14.8	16.2	17.1	15.0
LD16-4385a	16.6	16.1	16.3	16.8	16.6
LD16-4386a	16.2	15.8	15.0	17.5	15.9
LD16-4587a	15.4	15.2	14.8	15.0	15.2
LD17-5908a	15.7	15.5	16.7	16.9	15.4
LD17-5963a	16.1	16.5	17.0	17.9	15.5
LG15-2779	15.3	14.9	15.7	15.1	16.2
LG15-4648	16.9	16.4	16.7	17.1	18.3
LG17-5670	17.8	18.3	17.9	18.9	17.7
LG17-5677	17.4	17.5	18.0	19.0	16.4

PRELIMINARY TEST IIA, 2019

SEED SIZE (g/100)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	18.5	15.0	16.2	16.4
LD02-4485 (SCN)	16.8	14.0	14.7	15.1
U11-917032 (SCN) (E)	17.7	14.6	15.2	15.6
U14-910097 (SCN) (L)	16.8	13.3	16.3	16.2
E15901	18.2	14.7	15.8	17.0
E17004	20.2	16.2	18.1	17.5
E17040	18.9	14.3	15.7	16.1
E17054	19.0	16.6	16.9	18.7
E17062	19.9	15.5	17.4	17.5
E17069	20.5	16.6	18.9	18.2
E17167	17.7	17.2	15.2	18.5
E17184	18.9	16.1	15.7	18.5
E17203	18.4	15.1	17.1	15.9
E17227	20.9	16.6	18.4	20.0
E17269	16.5	15.0	14.8	15.1
E17274	15.5	13.3	14.0	16.0
E17275	17.4	14.7	13.4	15.6
E17283	19.8	18.1	17.8	18.5
E17545	19.0	15.8	16.7	16.8
E17550	20.8	16.0	17.8	17.3
HM16-W248	18.5	13.4	16.2	15.1
LD16-4306a	18.8	15.9	16.1	17.2
LD16-4350	18.3	14.5	15.3	14.8
LD16-4385a	19.8	15.5	16.3	15.3
LD16-4386a	18.2	15.6	16.0	15.9
LD16-4587a	17.6	14.6	16.3	14.7
LD17-5908a	17.5	15.3	13.8	14.7
LD17-5963a	17.5	14.8	13.8	15.8
LG15-2779	17.1	12.9	16.0	14.6
LG15-4648	18.9	14.6	16.2	16.9
LG17-5670	19.3	16.0	17.4	16.8
LG17-5677	18.8	16.3	16.9	16.1

PRELIMINARY TEST IIA, 2019

SEED QUALITY (score)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	1.8	1.0	2.0	1.0	2.0
LD02-4485 (SCN)	1.6	1.0	3.0	1.0	2.0
U11-917032 (SCN) (E)	1.5	1.0	2.0	1.0	2.0
U14-910097 (SCN) (L)	1.3	1.0	2.0	1.0	2.0
E15901	1.7	1.0	3.0	1.0	1.0
E17004	1.6	1.0	2.0	1.0	2.0
E17040	1.9	1.0	2.0	1.0	2.0
E17054	1.8	1.0	2.0	1.0	2.0
E17062	1.5	1.0	2.0	1.0	2.0
E17069	1.7	1.5	2.0	1.0	2.0
E17167	1.5	1.0	2.0	1.0	2.0
E17184	1.6	1.0	2.0	1.0	2.0
E17203	2.4	1.0	3.0	1.0	2.0
E17227	1.8	1.0	2.0	1.0	2.0
E17269	1.6	1.0	2.0	1.0	1.0
E17274	1.4	1.0	2.0	1.0	1.0
E17275	1.8	1.0	2.0	1.0	2.0
E17283	2.6	1.0	4.0	1.0	3.0
E17545	1.5	1.5	2.0	1.0	2.0
E17550	1.3	1.0	2.0	1.0	2.0
HM16-W248	1.4	1.0	2.0	1.0	2.0
LD16-4306a	1.4	1.0	2.0	1.0	2.0
LD16-4350	1.4	1.5	2.0	1.0	2.0
LD16-4385a	1.6	1.0	2.0	1.0	1.0
LD16-4386a	1.4	1.0	2.0	1.0	2.0
LD16-4587a	1.4	1.5	2.0	1.0	2.0
LD17-5908a	1.9	1.5	3.0	1.0	3.0
LD17-5963a	1.4	1.0	2.0	1.0	2.0
LG15-2779	1.3	1.0	2.0	1.0	2.0
LG15-4648	1.3	1.0	2.0	1.0	2.0
LG17-5670	1.5	1.0	2.0	1.0	2.0
LG17-5677	1.5	1.0	2.0	1.0	2.0

PRELIMINARY TEST IIA, 2019

SEED QUALITY (score)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	3.0	2.0	1.5	
LD02-4485 (SCN)	2.0	1.5	1.0	
U11-917032 (SCN) (E)	2.0	1.5	1.0	
U14-910097 (SCN) (L)	1.0	1.0	1.0	
E15901	3.0	1.0	2.0	
E17004	2.0	1.5	1.5	
E17040	4.0	2.0	1.5	
E17054	3.0	2.0	1.5	
E17062	2.5	1.0	1.0	
E17069	3.0	1.0	1.5	
E17167	1.5	2.0	1.0	
E17184	2.0	2.0	1.0	
E17203	3.5	2.0	4.0	
E17227	3.0	1.5	2.0	
E17269	2.0	2.5	1.5	
E17274	1.5	2.0	1.0	
E17275	3.0	2.0	1.5	
E17283	4.0	2.5	2.5	
E17545	1.5	1.0	1.5	
E17550	1.0	1.0	1.0	
HM16-W248	1.0	1.0	1.5	
LD16-4306a	1.5	1.5	1.0	
LD16-4350	1.0	1.5	1.0	
LD16-4385a	3.0	1.5	2.0	
LD16-4386a	1.5	1.5	1.0	
LD16-4587a	1.5	1.0	1.0	
LD17-5908a	1.5	2.0	1.0	
LD17-5963a	1.0	2.0	1.0	
LG15-2779	1.0	1.0	1.0	
LG15-4648	1.0	1.0	1.0	
LG17-5670	1.5	1.5	1.5	
LG17-5677	1.0	2.5	1.0	

PRELIMINARY TEST IIA, 2019

PROTEIN (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI	Mead NE	Chatham ONT
IA2102 (II)	34.1	34.2	41.0*	35.0	33.8	32.3	35.2
LD02-4485 (SCN)	31.8	31.5	32.0	32.6	31.7	30.2	32.5
U11-917032 (SCN) (E)	32.3	32.7	30.4	32.2	33.1	31.1	34.3
U14-910097 (SCN) (L)	32.5	32.1	32.4	32.3	32.3	31.2	34.4
E15901	34.4	33.4	35.2	35.6	33.2	34.5	34.5
E17004	34.3	34.2	33.8	35.1	34.5	33.1	35.2
E17040	33.4	33.6	32.5	33.9	33.5	32.0	34.8
E17054	34.5	34.1	34.8	35.0	33.9	33.3	35.9
E17062	35.1	34.9	35.9	35.1	34.3	34.2	35.9
E17069	36.0	36.3	34.5	37.1	35.5	35.2	37.6
E17167	34.7	35.0	34.0	35.0	34.6	33.1	36.3
E17184	33.6	34.6	32.8	32.9	34.0	32.2	35.2
E17203	33.5	33.2	33.9	33.9	33.5	32.4	34.4
E17227	33.3	32.6	32.1	35.0	33.1	31.6	35.3
E17269	33.1	33.3	31.7	34.3	32.3	32.7	34.3
E17274	33.6	34.1	32.5	33.8	33.4	33.1	34.6
E17275	34.0	33.8	35.4	34.5	33.3	32.4	34.6
E17283	34.5	35.0	33.2	35.8	33.5	34.1	35.1
E17545	34.0	34.0	32.2	35.2	33.8	33.1	35.8
E17550	33.0	32.2	34.9	32.8	32.5	31.8	34.2
HM16-W248	34.6	35.8	34.4	34.2	33.8	33.7	35.8
LD16-4306a	35.4	36.0	32.3	36.1	36.3	33.8	37.9
LD16-4350	33.1	33.9	34.5	33.4	33.6	31.1	32.0
LD16-4385a	34.8	36.7	32.3	35.6	34.6	34.0	35.5
LD16-4386a	33.5	33.6	31.1	35.2	32.9	33.4	34.9
LD16-4587a	33.3	33.9	33.1	33.3	32.4	31.9	35.0
LD17-5908a	31.9	32.5	31.0	32.6	31.5	30.5	33.1
LD17-5963a	32.0	30.3	34.8	32.4	31.0	30.0	33.3
LG15-2779	34.5	35.1	34.4	34.5	34.4	32.9	35.9
LG15-4648	34.8	35.5	33.8	34.7	35.0	33.0	36.7
LG17-5670	33.3	34.0	33.4	33.9	32.1	31.4	34.9
LG17-5677	33.0	32.5	33.0	35.5	32.4	30.8	33.9

*Data record not included in mean.

PRELIMINARY TEST IIA, 2019

OIL (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI	Mead NE	Chatham ONT
IA2102 (II)	19.1	18.9	12.0*	19.0	19.0	20.0	18.7
LD02-4485 (SCN)	20.1	20.8	20.2	19.9	19.5	20.7	19.4
U11-917032 (SCN) (E)	20.3	19.9	21.3	20.6	19.7	20.9	19.6
U14-910097 (SCN) (L)	20.5	20.2	21.1	20.9	20.2	21.0	19.8
E15901	18.5	18.9	18.9	18.2	18.7	18.5	17.8
E17004	19.6	18.9	20.6	19.8	19.4	19.8	19.0
E17040	19.0	18.4	19.6	19.4	18.6	19.4	18.6
E17054	19.0	19.1	19.7	18.8	18.6	19.5	18.1
E17062	19.0	18.6	19.4	19.1	19.1	19.4	18.7
E17069	18.7	17.9	20.3	19.2	18.1	18.8	18.1
E17167	19.9	19.7	20.8	19.9	19.7	20.8	18.9
E17184	19.9	19.7	19.8	20.6	19.3	20.7	19.5
E17203	19.4	19.3	20.1	19.4	19.0	20.1	18.5
E17227	19.6	20.0	20.1	19.5	19.6	20.0	18.7
E17269	19.4	19.1	20.0	19.3	19.5	19.7	18.8
E17274	18.5	17.7	19.6	19.1	18.6	19.1	17.3
E17275	18.5	18.0	19.0	18.9	18.3	19.2	17.9
E17283	19.1	18.5	21.1	18.4	19.1	18.8	18.8
E17545	20.4	20.1	21.0	20.1	20.1	21.0	20.1
E17550	19.9	19.7	19.7	20.4	19.7	20.6	19.4
HM16-W248	19.3	18.7	19.9	19.8	19.2	19.3	18.8
LD16-4306a	18.9	18.4	20.4	19.3	18.0	19.3	17.9
LD16-4350	19.7	19.1	19.4	20.2	19.1	20.4	20.0
LD16-4385a	19.0	18.3	20.5	18.5	18.8	19.2	18.6
LD16-4386a	19.6	19.2	21.2	19.3	19.4	19.4	19.1
LD16-4587a	20.0	19.5	19.5	20.5	20.3	20.9	19.1
LD17-5908a	19.6	19.3	20.5	19.2	19.0	20.4	19.0
LD17-5963a	19.6	20.0	18.9	19.7	19.5	20.5	19.3
LG15-2779	18.8	18.3	20.0	18.6	18.4	19.3	18.1
LG15-4648	19.1	18.6	19.7	19.5	18.8	19.7	18.5
LG17-5670	19.4	19.5	19.6	18.9	19.4	20.4	18.5
LG17-5677	19.5	19.7	19.8	18.6	19.2	20.8	18.8

*Data record not included in mean.

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	Northern Regional Uniform Test				
	Preliminary Test IIB, 2019				
			Seed	Gen.	Unique
Ent.	Strain	Parentage	Source	Comp.	Traits
1	IA2102 (II)	A04-545045 x AgriPro 98180-A01-0613	Cai	F4	
2	LD02-4485 (SCN)	M90-184111 x IA3010	Diers	F5	SCN
3	U11-917032 (SCN) (E)	LD02-4485 x U03-100612	Graef	F6	SCN, HR, MR, IDC
4	U14-910097 (SCN) (L)	U09-105007 x LD07-3419	Graef	F5	Rps, SCN (HR, HR)
5	AR18-181045	U11-616086 x AR12-127008	Cianzio	F4	
6	AR18-181079	AR9BSR x U09-133021	Cianzio	F4	BSR
7	AR18-281021	AR11-214022 x U09-105007	Cianzio	F4	IDC
8	AR18-281022	AR11-214022 x U09-105007	Cianzio	F4	IDC
9	AR18-281056	U11-616086 x AR12-127008	Cianzio	F4	
10	AR18-281072	Golden Harvest H-2632 x U09-133021	Cianzio	F4	
11	AR18-381007	U11-616086 x AR11-214001	Cianzio	F4	BSR
12	AR18-381026	U11-614119 x AR11-214001	Cianzio	F4	
13	AR18-381043	U11-614119 x AR12-228007	Cianzio	F4	
14	CR16-0058	LG09-7341 x LG09-8165	Rainey	F6	
15	CR16-0059	LG09-7341 x LG09-8165	Rainey	F6	
16	CR16-0070	LG09-7871 x LG09-7256	Rainey	F6	
17	CR16-0076	LG09-8165 x LG09-8091	Rainey	F6	
18	ORC 14.150.284	RCAT 1003 x LD-073419	Eskandari	F5	
19	ORC 14.150.305	RCAT 1003 x LD-073419	Eskandari	F5	
20	ORC 14.150.307	RCAT 1003 x LD-073419	Eskandari	F5	
21	U16-127621	U02-242055-0187 x U09-105007-174	Graef		Rps
22	U16-128607	U09-105007-174 x U11-919011	Graef		SCN(LR,LR), Seg Rps1k
23	U16-129612	U09-105007-174 x U11-919011	Graef		RpsSCN(LR,LR), Seg Rps1k
24	U16-129646	U11-932025 x U13-602106	Graef		Rps3a, IDC
25	U16-322148	U11-614093 x U13-602106	Graef		Rps1k
26	U16-322178	U11-614093 x U13-602106	Graef		Rps1k
27	U16-324137	U11-919011 x U11-614093	Graef		SCN(LR,LR), Seg Rps1kRps1k
28	U17-618174	U14-916082 x U14-903100	Graef		
29	U17-905083	U14-916082 x U14-604086	Graef		
30	U17-905087	U14-916082 x U14-604086	Graef		
31	U17-916070	U14-919098 x U14-912075	Graef		
32	U17-919065	U11-932025 x U11-911079	Graef		Rps3a, IDCSCN (HR, HR)
33	U17-920124	U14-919098 x U13-212431	Graef		
34	U17-928093	U14-916082 x U14-903100	Graef		
35	U17-933052	LD09-30224 x U11-932025	Graef		SCN (HR, R), SDS, Rag1;
					PI 88788 ,437654, Rps3a, IDC

PRELIMINARY TEST IIB, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Seed Treatment	Shattering Score Manhattan
IA2102 (II)	WGTDYYBfI		1.0
LD02-4485 (SCN)	PGTDYBfI		1.0
U11-917032 (SCN) (E)	PTBSYBIbI		1.0
U14-910097 (SCN) (L)	PGTSYBfI		1.0
AR18-181045	WGTSYBI	CruiserMaxx Vibrance	1.0
AR18-181079	PPhillipsYBI	CruiserMaxx Vibrance	1.0
AR18-281021	WGBDYBI	CruiserMaxx Vibrance	1.0
AR18-281022	WGBSYBI	CruiserMaxx Vibrance	1.0
AR18-281056	PGTDYBI	CruiserMaxx Vibrance	1.0
AR18-281072	PGBSYBI	CruiserMaxx Vibrance	1.0
AR18-381007	WGBSYBI	CruiserMaxx Vibrance	1.0
AR18-381026	P+WGBSYBI	CruiserMaxx Vibrance	1.0
AR18-381043	WGBDYBI	CruiserMaxx Vibrance	1.0
CR16-0058	PGB+TSYBI		1.0
CR16-0059	PGBSYBI		1.0
CR16-0070	PGBSYBI		1.0
CR16-0076	PGTSYIbI		1.0
ORC 14.150.284	WGTDYYI		1.0
ORC 14.150.305	WGTSYLBrI		1.0
ORC 14.150.307	WGTSYYI		1.0
U16-127621	P+WGBSYBGI		1.0
U16-128607	PGBDYBI		1.0
U16-129612	PGBDYBrI		1.0
U16-129646	P+WGBSYBI		1.0
U16-322148	PGBSYBI		1.0
U16-322178	PGBDYIbI		1.0
U16-324137	PGBSYBI		1.0
U17-618174	PGTDYLBfI		1.0
U17-905083	PGBDYIbI		1.0
U17-905087	PGBDYBI		1.0
U17-916070	PGTSYLBfI		1.0
U17-919065	PGBSYIbI		1.0
U17-920124	PGBDYIbLBrI		1.0
U17-928093	PGTSYLBfI		1.0
U17-933052	WTBSYBI		1.0

PRELIMINARY TEST IIB, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 8 bu/a	Rank 8 No.	Maturity 7 Date	Lodging 7 Score	Plant Height 7 In.	Seed Size 8 g/100	Seed Quality 7 Score	Composition Protein 5 %	 Oil 6 %
IA2102 (II)	53.2	35	9/24	1.6	31	16.9	1.5	34.3	19.5
LD02-4485 (SCN)	64.5	15	1.2	1.4	32	15.7	1.8	32.9	19.9
U11-917032 (SCN) (E)	58.1	34	-4.4	1.5	29	15.8	1.8	33.0	20.6
U14-910097 (SCN) (L)	70.2	1	5.1	1.5	31	16.1	1.3	33.1	20.7
AR18-181045	65.9	12	0.6	1.1	31	17.2	1.4	33.3	19.6
AR18-181079	60.2	33	-0.9	1.6	31	15.5	1.9	34.0	19.7
AR18-281021	60.6	31	0.8	1.2	31	17.1	1.4	33.7	19.7
AR18-281022	63.9	19	0.0	1.2	28	16.0	1.4	35.2	19.2
AR18-281056	65.3	13	0.6	1.4	32	16.0	1.5	33.5	19.6
AR18-281072	64.2	17	0.9	1.6	33	16.0	1.2	33.6	20.0
AR18-381007	61.9	27	4.2	1.3	32	18.8	1.5	34.9	19.4
AR18-381026	63.4	21	3.7	1.1	30	16.6	1.4	34.5	19.6
AR18-381043	67.7	7	3.8	1.1	31	16.0	1.4	34.3	19.5
CR16-0058	61.9	27	5.1	1.4	36	16.3	1.3	36.0	18.4
CR16-0059	63.7	20	4.3	1.6	34	17.5	1.5	35.8	18.6
CR16-0070	63.3	23	4.6	1.4	35	16.5	1.6	35.0	19.0
CR16-0076	61.5	30	8.8	1.6	36	17.7	2.3	34.8	18.7
ORC 14.150.284	63.4	21	10.0	1.7	37	17.5	1.6	32.9	20.6
ORC 14.150.305	68.1	6	9.9	1.5	34	16.1	1.7	32.8	20.1
ORC 14.150.307	67.1	8	8.6	2.1	35	16.9	1.6	33.8	19.8
U16-127621	68.7	3	3.6	1.2	32	18.1	1.4	34.5	20.4
U16-128607	62.4	25	0.4	1.1	31	16.8	1.4	32.9	20.7
U16-129612	64.4	16	0.6	1.1	32	17.0	1.6	33.4	20.7
U16-129646	66.0	10	0.2	1.1	28	15.4	1.1	33.3	19.6
U16-322148	69.7	2	8.4	1.1	33	15.3	1.4	33.8	20.1
U16-322178	68.2	5	6.0	1.1	32	16.7	1.6	33.2	20.7
U16-324137	66.0	10	6.3	1.1	30	16.8	1.4	34.0	19.9
U17-618174	68.2	4	5.4	1.1	33	15.0	1.3	33.3	19.6
U17-905083	64.0	18	4.8	1.1	34	15.8	1.3	35.0	19.2
U17-905087	60.6	31	3.4	1.2	33	16.6	1.5	35.0	19.4
U17-916070	62.8	24	1.6	1.2	32	16.4	1.5	34.0	19.5
U17-919065	62.1	26	0.6	1.1	30	15.0	1.3	34.7	19.4
U17-920124	67.1	8	4.9	1.2	32	15.5	1.3	33.0	20.3
U17-928093	64.8	14	4.0	1.1	32	15.2	1.3	34.2	19.9
U17-933052	61.8	29	4.4	1.4	33	16.2	2.2	34.5	19.4
Mean	64.1			1.3	32.1	16.4	1.5		
C.V. (%)	11.6			27.5	8.3	4.8	34.2		
L.S.D. (5%)	4.3			0.2	1.7	0.5	0.3		

117.4 Days After Planting

PRELIMINARY TEST IIB, 2019

YIELD (bu/a)

Strain	Mean 8 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	53.2	46.5	42.6	47.7	41.4
LD02-4485 (SCN)	64.5	57.7	58.5	58.9	37.9
U11-917032 (SCN) (E)	58.1	59.1	47.4	48.9	32.1
U14-910097 (SCN) (L)	70.2	66.7	63.9	57.7	49.5
AR18-181045	65.9	57.7	55.8	59.3	39.3
AR18-181079	60.2	53.4	51.5	46.8	35.3
AR18-281021	60.6	45.3	53.9	54.0	37.6
AR18-281022	63.9	55.1	54.8	53.1	28.5
AR18-281056	65.3	61.2	59.9	57.8	41.7
AR18-281072	64.2	60.1	53.3	50.3	40.0
AR18-381007	61.9	53.8	56.1	52.9	34.4
AR18-381026	63.4	52.1	54.6	54.0	42.0
AR18-381043	67.7	63.7	57.8	58.0	42.5
CR16-0058	61.9	50.7	57.0	55.5	45.7
CR16-0059	63.7	66.5	55.8	52.6	39.2
CR16-0070	63.3	58.4	55.8	52.5	43.2
CR16-0076	61.5	56.8	57.0	47.8	38.5
ORC 14.150.284	63.4	52.6	55.7	58.7	40.2
ORC 14.150.305	68.1	62.2	58.4	58.5	40.8
ORC 14.150.307	67.1	62.7	55.6	58.3	37.0
U16-127621	68.7	60.7	53.2	51.7	39.3
U16-128607	62.4	36.6	51.0	51.8	33.5
U16-129612	64.4	39.5	50.3	47.4	41.7
U16-129646	66.0	55.7	48.4	49.4	46.2
U16-322148	69.7	59.5	54.0	52.7	42.8
U16-322178	68.2	59.7	58.1	51.5	41.4
U16-324137	66.0	61.4	50.2	47.0	48.1
U17-618174	68.2	53.7	53.8	55.8	57.6
U17-905083	64.0	57.2	54.5	53.6	46.0
U17-905087	60.6	49.1	46.9	49.6	36.8
U17-916070	62.8	42.1	52.7	46.0	42.2
U17-919065	62.1	54.8	50.7	46.9	34.4
U17-920124	67.1	58.3	53.7	56.2	46.0
U17-928093	64.8	55.4	51.8	50.0	40.1
U17-933052	61.8	62.6	56.7	53.0	41.5
Location Mean		55.7	54.0	52.7	40.7
C.V. (%)		14.8	6.7	6.7	11.2
L.S.D. (5%)		16.7	7.3	6.0	11.2
Row Sp. (In.)		30	30	30	15
Rows/Plot		4	4	4	6
Reps		2	2	2	2

PRELIMINARY TEST IIB, 2019

YIELD (bu/a)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	58.2	64.0	56.0	69.0
LD02-4485 (SCN)	71.8	77.2	77.7	76.2
U11-917032 (SCN) (E)	78.4	51.9	74.5	72.5
U14-910097 (SCN) (L)	75.5	83.8	87.9	76.6
AR18-181045	73.3	76.0	86.6	79.2
AR18-181079	74.1	73.6	82.7	64.4
AR18-281021	84.5	61.2	85.2	63.3
AR18-281022	84.9	75.2	92.1	67.9
AR18-281056	77.1	69.2	83.0	72.5
AR18-281072	71.9	82.2	93.6	62.6
AR18-381007	77.8	72.5	86.4	61.1
AR18-381026	70.8	82.2	87.3	64.2
AR18-381043	87.4	63.9	93.8	74.2
CR16-0058	68.3	74.6	83.2	60.5
CR16-0059	70.0	79.8	83.3	62.3
CR16-0070	72.2	76.0	85.6	62.9
CR16-0076	72.4	75.2	86.1	57.8
ORC 14.150.284	70.1	78.0	80.9	71.4
ORC 14.150.305	74.9	79.0	94.1	77.0
ORC 14.150.307	80.4	80.2	89.5	72.7
U16-127621	89.6	88.5	95.3	71.6
U16-128607	86.4	81.5	96.0	62.8
U16-129612	87.6	87.0	92.8	68.5
U16-129646	81.4	79.6	96.0	71.7
U16-322148	89.8	92.8	97.2	68.7
U16-322178	85.5	86.3	92.6	70.4
U16-324137	84.6	81.3	87.5	68.0
U17-618174	87.5	80.0	90.6	66.7
U17-905083	71.2	83.1	80.0	66.5
U17-905087	76.5	85.5	77.3	62.7
U17-916070	87.9	80.7	83.2	67.5
U17-919065	85.9	69.3	85.2	69.9
U17-920124	83.7	89.4	86.9	62.3
U17-928093	76.1	87.0	88.8	69.0
U17-933052	68.5	80.9	67.5	63.8
Location Mean	78.2	78.0	85.9	67.9
C.V. (%)	5.9	10.9	6.6	8.3
L.S.D. (5%)	9.4	17.2	11.4	5.6
Row Sp. (In.)	30	30	30	17
Rows/Plot	4	4	4	5
Reps	2	2	2	2

PRELIMINARY TEST IIB, 2019

YIELD RANK

Strain	Yield Rank	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	35	31	35	30	16
LD02-4485 (SCN)	15	16	3	2	26
U11-917032 (SCN) (E)	34	13	33	28	34
U14-910097 (SCN) (L)	1	1	1	8	2
AR18-181045	12	16	11	1	22
AR18-181079	33	26	27	34	30
AR18-281021	31	32	20	12	27
AR18-281022	19	22	16	15	35
AR18-281056	13	8	2	7	14
AR18-281072	17	10	23	24	21
AR18-381007	27	24	10	17	32
AR18-381026	21	28	17	12	12
AR18-381043	7	3	6	6	10
CR16-0058	27	29	7	11	7
CR16-0059	20	2	11	19	24
CR16-0070	23	14	11	20	8
CR16-0076	30	19	7	29	25
ORC 14.150.284	21	27	14	3	19
ORC 14.150.305	6	6	4	4	18
ORC 14.150.307	8	4	15	5	28
U16-127621	3	9	24	22	23
U16-128607	25	35	28	21	33
U16-129612	16	34	30	31	13
U16-129646	10	20	32	27	4
U16-322148	2	12	19	18	9
U16-322178	5	11	5	23	17
U16-324137	10	7	31	32	3
U17-618174	4	25	21	10	1
U17-905083	18	18	18	14	5
U17-905087	31	30	34	26	29
U17-916070	24	33	25	35	11
U17-919065	26	23	29	33	31
U17-920124	8	15	22	9	6
U17-928093	14	21	26	25	20
U17-933052	29	5	9	16	15

PRELIMINARY TEST IIB, 2019

YIELD RANK

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	35	32	35	14
LD02-4485 (SCN)	28	22	31	4
U11-917032 (SCN) (E)	16	35	33	7
U14-910097 (SCN) (L)	21	8	14	3
AR18-181045	24	24	18	1
AR18-181079	23	28	28	23
AR18-281021	12	34	23	26
AR18-281022	10	26	10	19
AR18-281056	18	31	27	8
AR18-281072	27	10	7	30
AR18-381007	17	29	19	33
AR18-381026	30	11	16	24
AR18-381043	6	33	6	5
CR16-0058	34	27	26	34
CR16-0059	32	18	24	31
CR16-0070	26	23	21	27
CR16-0076	25	25	20	35
ORC 14.150.284	31	21	29	11
ORC 14.150.305	22	20	5	2
ORC 14.150.307	15	16	12	6
U16-127621	2	3	4	10
U16-128607	7	12	2	28
U16-129612	4	5	8	17
U16-129646	14	19	3	9
U16-322148	1	1	1	16
U16-322178	9	6	9	12
U16-324137	11	13	15	18
U17-618174	5	17	11	21
U17-905083	29	9	30	22
U17-905087	19	7	32	29
U17-916070	3	15	25	20
U17-919065	8	30	22	13
U17-920124	13	2	17	32
U17-928093	20	4	13	15
U17-933052	33	14	34	25

PRELIMINARY TEST IIB, 2019

MATURITY (date)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	9/24	9/20	9/22	9/27	9/26
LD02-4485 (SCN)	1	0	2	3	-1
U11-917032 (SCN) (E)	-4	-3	-5	-4	-8
U14-910097 (SCN) (L)	5	7	4	9	3
AR18-181045	1	0	-1	0	1
AR18-181079	-1	0	-2	-3	0
AR18-281021	1	-2	-1	1	0
AR18-281022	0	2	-2	2	0
AR18-281056	1	4	-2	2	2
AR18-281072	1	3	-2	4	-2
AR18-381007	4	6	2	6	2
AR18-381026	4	5	1	7	2
AR18-381043	4	5	0	7	5
CR16-0058	5	7	3	8	1
CR16-0059	4	9	4	6	2
CR16-0070	5	8	5	5	4
CR16-0076	9	14	8	11	5
ORC 14.150.284	10	17	9	9	9
ORC 14.150.305	10	15	10	5	10
ORC 14.150.307	9	14	9	4	7
U16-127621	4	6	3	3	2
U16-128607	0	-2	-1	1	-1
U16-129612	1	-1	0	3	-1
U16-129646	0	1	0	1	0
U16-322148	8	14	7	9	8
U16-322178	6	9	6	7	2
U16-324137	6	9	4	7	6
U17-618174	5	5	5	7	7
U17-905083	5	7	3	5	1
U17-905087	3	4	1	5	3
U17-916070	2	1	-1	3	1
U17-919065	1	1	-2	4	0
U17-920124	5	6	4	7	5
U17-928093	4	5	5	5	-1
U17-933052	4	11	3	6	0
Date Planted	5/30	5/23	6/5	6/5	5/29
Days to Mature	117	120	109	114	120

PRELIMINARY TEST IIB, 2019

MATURITY (date)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)		9/17	9/30	10/2
LD02-4485 (SCN)		1	4	-1
U11-917032 (SCN) (E)		-5	-2	-4
U14-910097 (SCN) (L)		4	5	4
AR18-181045		0	3	1
AR18-181079		1	2	-5
AR18-281021		-1	-3	12
AR18-281022		0	0	-2
AR18-281056		-2	1	-1
AR18-281072		0	4	-2
AR18-381007		6	5	3
AR18-381026		2	6	3
AR18-381043		5	3	2
CR16-0058		6	4	7
CR16-0059		5	5	-1
CR16-0070		3	5	3
CR16-0076		9	8	7
ORC 14.150.284		9	8	9
ORC 14.150.305		7	13	10
ORC 14.150.307		7	12	8
U16-127621		6	3	3
U16-128607		1	2	3
U16-129612		1	1	1
U16-129646		0	1	-2
U16-322148		8	8	6
U16-322178		6	8	4
U16-324137		7	8	3
U17-618174		8	3	3
U17-905083		6	8	4
U17-905087		6	3	2
U17-916070		4	3	1
U17-919065		-1	1	1
U17-920124		7	3	3
U17-928093		8	3	3
U17-933052		3	6	2
Date Planted		5/16	5/18	6/24
Days to Mature		124	135	100

PRELIMINARY TEST IIB, 2019

LODGING (score)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	1.6	1.5	1.5	1.0	1.0
LD02-4485 (SCN)	1.4	1.0	1.0	1.0	1.0
U11-917032 (SCN) (E)	1.5	2.0	1.0	1.0	1.0
U14-910097 (SCN) (L)	1.5	1.5	1.0	1.0	1.0
AR18-181045	1.1	1.0	1.0	1.0	1.0
AR18-181079	1.6	2.0	1.0	1.0	1.0
AR18-281021	1.2	1.0	1.0	1.0	1.0
AR18-281022	1.2	1.0	1.0	1.0	1.0
AR18-281056	1.4	1.0	1.0	1.0	1.0
AR18-281072	1.6	2.0	1.0	1.0	1.0
AR18-381007	1.3	1.5	1.5	1.0	1.0
AR18-381026	1.1	1.0	1.0	1.0	1.0
AR18-381043	1.1	1.0	1.0	1.0	1.0
CR16-0058	1.4	1.0	1.0	1.0	1.0
CR16-0059	1.6	2.0	1.5	1.0	1.0
CR16-0070	1.4	2.0	1.0	1.0	1.0
CR16-0076	1.6	1.5	1.0	1.0	1.5
ORC 14.150.284	1.7	1.5	1.0	1.0	1.0
ORC 14.150.305	1.5	1.5	1.0	1.0	1.0
ORC 14.150.307	2.1	2.0	1.5	1.0	1.0
U16-127621	1.2	1.5	1.0	1.0	1.0
U16-128607	1.1	1.0	1.0	1.0	1.0
U16-129612	1.1	1.0	1.0	1.0	1.0
U16-129646	1.1	1.0	1.0	1.0	1.0
U16-322148	1.1	1.0	1.0	1.0	1.0
U16-322178	1.1	1.0	1.0	1.0	1.0
U16-324137	1.1	1.0	1.0	1.0	1.0
U17-618174	1.1	1.0	1.0	1.0	1.0
U17-905083	1.1	1.0	1.0	1.0	1.0
U17-905087	1.2	1.0	1.0	1.0	1.0
U17-916070	1.2	1.0	1.0	1.0	1.0
U17-919065	1.1	1.0	1.0	1.0	1.0
U17-920124	1.2	1.0	1.0	1.0	1.0
U17-928093	1.1	1.0	1.0	1.0	1.0
U17-933052	1.4	2.0	1.0	1.0	1.0

PRELIMINARY TEST IIB, 2019

LODGING (score)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)		2.0	3.5	1.0
LD02-4485 (SCN)		1.5	3.0	1.0
U11-917032 (SCN) (E)		2.0	2.5	1.0
U14-910097 (SCN) (L)		2.0	3.0	1.0
AR18-181045		1.0	2.0	1.0
AR18-181079		2.0	3.0	1.0
AR18-281021		1.5	2.0	1.0
AR18-281022		1.5	2.0	1.0
AR18-281056		2.5	2.0	1.0
AR18-281072		2.0	3.0	1.0
AR18-381007		1.0	2.0	1.0
AR18-381026		1.0	2.0	1.0
AR18-381043		1.0	2.0	1.0
CR16-0058		2.0	2.0	1.5
CR16-0059		2.0	2.5	1.5
CR16-0070		1.5	2.5	1.0
CR16-0076		1.5	3.0	1.5
ORC 14.150.284		1.5	4.0	2.0
ORC 14.150.305		2.0	2.5	1.5
ORC 14.150.307		2.5	3.5	3.0
U16-127621		1.0	2.0	1.0
U16-128607		1.0	2.0	1.0
U16-129612		1.0	2.0	1.0
U16-129646		1.0	2.0	1.0
U16-322148		1.0	2.0	1.0
U16-322178		1.0	2.0	1.0
U16-324137		1.0	2.0	1.0
U17-618174		1.0	1.5	1.0
U17-905083		1.0	2.0	1.0
U17-905087		1.0	2.5	1.0
U17-916070		1.0	2.5	1.0
U17-919065		1.0	2.0	1.0
U17-920124		1.0	2.5	1.0
U17-928093		1.0	2.0	1.0
U17-933052		1.0	3.0	1.0

PRELIMINARY TEST IIB, 2019

PLANT HEIGHT (inches)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	31	30	31	30	23
LD02-4485 (SCN)	32	30	33	30	22
U11-917032 (SCN) (E)	29	28	27	28	21
U14-910097 (SCN) (L)	31	31	30	30	25
AR18-181045	31	27	30	32	21
AR18-181079	31	34	32	29	21
AR18-281021	31	29	31	31	25
AR18-281022	28	26	27	23	21
AR18-281056	32	30	33	29	27
AR18-281072	33	34	33	32	27
AR18-381007	32	33	33	29	23
AR18-381026	30	28	32	28	23
AR18-381043	31	30	30	28	26
CR16-0058	36	35	39	33	32
CR16-0059	34	35	38	32	26
CR16-0070	35	36	38	30	27
CR16-0076	36	37	39	29	28
ORC 14.150.284	37	38	40	34	23
ORC 14.150.305	34	36	36	31	25
ORC 14.150.307	35	35	37	32	26
U16-127621	32	33	33	26	23
U16-128607	31	30	30	26	22
U16-129612	32	30	31	25	27
U16-129646	28	25	28	23	23
U16-322148	33	33	32	26	25
U16-322178	32	30	33	29	22
U16-324137	30	30	31	27	24
U17-618174	33	34	32	31	27
U17-905083	34	33	35	32	26
U17-905087	33	33	33	30	24
U17-916070	32	31	31	27	28
U17-919065	30	30	30	30	19
U17-920124	32	30	33	29	26
U17-928093	32	32	33	30	22
U17-933052	33	33	34	31	25

PRELIMINARY TEST IIB, 2019

PLANT HEIGHT (inches)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)		36	31	38
LD02-4485 (SCN)		35	33	42
U11-917032 (SCN) (E)		31	29	38
U14-910097 (SCN) (L)		36	33	36
AR18-181045		33	33	42
AR18-181079		35	28	42
AR18-281021		32	32	38
AR18-281022		31	31	38
AR18-281056		35	31	40
AR18-281072		35	31	42
AR18-381007		38	33	38
AR18-381026		35	31	36
AR18-381043		32	31	38
CR16-0058		39	32	42
CR16-0059		37	33	38
CR16-0070		40	32	41
CR16-0076		44	33	42
ORC 14.150.284		44	35	44
ORC 14.150.305		40	31	40
ORC 14.150.307		41	35	40
U16-127621		39	33	38
U16-128607		33	34	40
U16-129612		37	34	40
U16-129646		34	30	36
U16-322148		40	35	38
U16-322178		39	30	40
U16-324137		31	33	38
U17-618174		35	36	40
U17-905083		42	30	41
U17-905087		40	32	40
U17-916070		38	33	38
U17-919065		34	32	36
U17-920124		39	30	38
U17-928093		38	32	38
U17-933052		40	33	38

PRELIMINARY TEST IIB, 2019

SEED SIZE (g/100)

Strain	Mean 8 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	16.9	16.5	16.8	18.3	14.4
LD02-4485 (SCN)	15.7	15.0	16.7	16.6	14.5
U11-917032 (SCN) (E)	15.8	14.9	15.2	16.5	14.2
U14-910097 (SCN) (L)	16.1	15.6	16.2	16.4	16.0
AR18-181045	17.2	15.5	18.0	18.3	16.3
AR18-181079	15.5	14.6	15.9	16.5	13.3
AR18-281021	17.1	14.6	17.5	18.4	15.7
AR18-281022	16.0	14.6	16.2	16.4	15.4
AR18-281056	16.0	15.4	15.7	16.5	15.4
AR18-281072	16.0	15.2	16.1	16.4	14.6
AR18-381007	18.8	17.5	18.4	19.5	17.7
AR18-381026	16.6	15.9	17.2	17.0	16.3
AR18-381043	16.0	14.9	15.8	17.0	15.7
CR16-0058	16.3	15.3	16.9	19.1	15.9
CR16-0059	17.5	17.7	17.7	19.0	17.9
CR16-0070	16.5	15.9	16.0	17.1	17.3
CR16-0076	17.7	17.2	17.8	19.1	17.1
ORC 14.150.284	17.5	17.5	17.2	18.2	17.7
ORC 14.150.305	16.1	15.4	16.1	17.6	15.3
ORC 14.150.307	16.9	16.4	17.3	17.4	16.2
U16-127621	18.1	17.6	17.4	18.0	17.2
U16-128607	16.8	14.6	17.0	18.0	15.5
U16-129612	17.0	14.8	16.4	18.3	15.6
U16-129646	15.4	13.9	14.2	18.3	13.9
U16-322148	15.3	14.7	14.4	15.0	15.2
U16-322178	16.7	16.1	15.7	17.4	16.2
U16-324137	16.8	17.1	16.9	16.9	16.3
U17-618174	15.0	14.1	14.7	15.2	15.4
U17-905083	15.8	14.7	15.9	16.3	16.1
U17-905087	16.6	16.2	16.1	16.7	15.9
U17-916070	16.4	14.6	16.1	15.6	15.4
U17-919065	15.0	14.3	14.7	15.1	13.7
U17-920124	15.5	14.9	15.3	15.4	15.5
U17-928093	15.2	15.0	15.3	15.1	14.5
U17-933052	16.2	16.0	16.3	16.4	16.3

PRELIMINARY TEST IIB, 2019

SEED SIZE (g/100)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	18.3	17.1	17.8	16.1
LD02-4485 (SCN)	17.4	13.7	15.1	17.0
U11-917032 (SCN) (E)	17.8	14.9	15.7	17.4
U14-910097 (SCN) (L)	16.9	14.8	16.3	16.3
AR18-181045	18.5	15.4	17.4	18.5
AR18-181079	17.4	15.9	15.6	15.2
AR18-281021	18.8	17.4	16.8	18.0
AR18-281022	17.8	14.8	15.9	17.2
AR18-281056	17.4	14.8	15.6	17.1
AR18-281072	17.4	15.4	16.5	16.5
AR18-381007	20.5	17.8	20.1	18.6
AR18-381026	17.6	15.3	16.9	16.3
AR18-381043	17.5	15.4	15.6	15.9
CR16-0058	16.8	14.8	15.0	16.7
CR16-0059	18.0	17.0	16.3	16.7
CR16-0070	17.8	15.8	16.2	16.1
CR16-0076	18.6	16.6	18.5	16.8
ORC 14.150.284	18.4	15.9	17.1	17.9
ORC 14.150.305	17.1	14.5	17.3	15.7
ORC 14.150.307	17.5	16.0	17.1	17.2
U16-127621	19.7	17.4	19.3	18.5
U16-128607	18.7	16.7	17.6	16.6
U16-129612	19.2	17.0	17.7	17.1
U16-129646	16.4	14.0	15.4	17.0
U16-322148	16.9	14.2	16.3	15.5
U16-322178	18.2	15.0	17.4	17.4
U16-324137	18.1	15.8	17.1	16.5
U17-618174	16.6	14.5	15.6	14.4
U17-905083	17.3	15.6	14.6	16.3
U17-905087	17.9	16.8	16.2	16.8
U17-916070	18.9	17.2	17.4	16.3
U17-919065	16.8	14.7	14.8	15.7
U17-920124	16.8	15.5	15.2	15.6
U17-928093	17.0	14.5	14.9	15.0
U17-933052	17.7	14.9	15.5	16.9

PRELIMINARY TEST IIB, 2019

SEED QUALITY (score)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI
IA2102 (II)	1.5	1.0	2.0	1.0	1.0
LD02-4485 (SCN)	1.8	1.0	2.0	1.0	2.0
U11-917032 (SCN) (E)	1.8	1.0	2.0	1.0	2.0
U14-910097 (SCN) (L)	1.3	1.0	1.0	1.0	2.0
AR18-181045	1.4	1.0	2.0	1.0	2.0
AR18-181079	1.9	1.0	2.0	1.0	3.0
AR18-281021	1.4	1.5	2.0	1.0	2.0
AR18-281022	1.4	1.0	2.0	1.0	3.0
AR18-281056	1.5	1.0	2.0	1.0	2.0
AR18-281072	1.2	1.0	2.0	1.0	1.0
AR18-381007	1.5	1.0	2.0	1.0	3.0
AR18-381026	1.4	1.0	2.0	1.0	2.0
AR18-381043	1.4	1.0	2.0	1.0	2.0
CR16-0058	1.3	1.0	2.0	1.0	2.0
CR16-0059	1.5	1.0	2.0	1.0	3.0
CR16-0070	1.6	1.0	2.0	1.0	3.0
CR16-0076	2.3	1.0	2.0	1.0	3.0
ORC 14.150.284	1.6	1.0	2.0	1.0	3.0
ORC 14.150.305	1.7	1.0	3.0	1.0	3.0
ORC 14.150.307	1.6	1.0	2.0	1.0	2.0
U16-127621	1.4	1.0	2.0	1.0	2.0
U16-128607	1.4	1.0	2.0	1.0	2.0
U16-129612	1.6	2.0	2.0	1.0	2.0
U16-129646	1.1	1.0	1.0	1.0	1.0
U16-322148	1.4	1.0	2.0	1.0	2.0
U16-322178	1.6	1.5	2.0	1.0	2.0
U16-324137	1.4	1.0	2.0	1.0	2.0
U17-618174	1.3	1.0	2.0	1.0	2.0
U17-905083	1.3	1.0	2.0	1.0	2.0
U17-905087	1.5	1.0	3.0	1.0	2.0
U17-916070	1.5	1.0	3.0	1.0	2.0
U17-919065	1.3	1.0	2.0	1.0	2.0
U17-920124	1.3	1.0	3.0	1.0	1.0
U17-928093	1.3	1.0	2.0	1.0	2.0
U17-933052	2.2	1.0	3.0	1.0	3.0

PRELIMINARY TEST IIB, 2019

SEED QUALITY (score)

Strain	Cotes-field NE	Mead NE	Phillips NE	Chatham ONT
IA2102 (II)	1.5	2.0	2.0	
LD02-4485 (SCN)	2.5	2.0	2.0	
U11-917032 (SCN) (E)	2.5	1.5	2.5	
U14-910097 (SCN) (L)	1.5	1.5	1.0	
AR18-181045	1.0	1.5	1.0	
AR18-181079	1.0	3.5	1.5	
AR18-281021	1.0	1.5	1.0	
AR18-281022	1.0	1.0	1.0	
AR18-281056	1.0	1.5	2.0	
AR18-281072	1.0	1.5	1.0	
AR18-381007	1.0	1.0	1.5	
AR18-381026	1.0	1.0	1.5	
AR18-381043	1.5	1.0	1.5	
CR16-0058	1.0	1.0	1.0	
CR16-0059	1.0	1.5	1.0	
CR16-0070	2.0	1.0	1.0	
CR16-0076	3.5	2.5	3.0	
ORC 14.150.284	1.5	1.0	1.5	
ORC 14.150.305	1.0	1.5	1.5	
ORC 14.150.307	1.5	2.5	1.5	
U16-127621	1.0	1.5	1.0	
U16-128607	1.5	1.0	1.0	
U16-129612	1.5	1.0	1.5	
U16-129646	1.5	1.0	1.0	
U16-322148	1.5	1.5	1.0	
U16-322178	1.5	1.0	2.0	
U16-324137	1.5	1.0	1.0	
U17-618174	1.0	1.0	1.0	
U17-905083	1.0	1.0	1.0	
U17-905087	1.0	1.5	1.0	
U17-916070	1.0	1.0	1.5	
U17-919065	1.0	1.0	1.0	
U17-920124	1.0	1.0	1.0	
U17-928093	1.0	1.0	1.0	
U17-933052	3.0	2.5	2.0	

PRELIMINARY TEST IIB, 2019

PROTEIN (%)

Strain	Mean 5 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI	Mead NE	Chatham ONT
IA2102 (II)	34.3	34.4	32.7	34.4	33.7	32.9	37.5
LD02-4485 (SCN)	32.9	32.2	33.1	32.3	30.8	32.1	36.7
U11-917032 (SCN) (E)	33.0	33.2	31.8	32.6	32.2	31.1	37.2
U14-910097 (SCN) (L)	33.1	31.9	32.4	33.7	31.9	32.1	36.6
AR18-181045	33.3	32.4	33.3	33.0	31.9	32.2	37.0
AR18-181079	34.0	33.1	33.5	34.3	33.1	33.8	36.7
AR18-281021	33.7	32.7	33.4	33.9	32.7	32.4	37.3
AR18-281022	35.2	35.4	34.0	35.4	33.8	33.7	39.2
AR18-281056	33.5	33.1	33.0	34.0	32.5	30.9	37.7
AR18-281072	33.6	33.8	33.7	33.0	31.9	32.2	36.8
AR18-381007	34.9	34.8	34.0	35.3	33.3	33.3	38.5
AR18-381026	34.5	34.0	34.9	33.4	33.4	33.3	38.0
AR18-381043	34.3	33.1	33.7	34.0	32.8	33.1	38.9
CR16-0058	36.0	36.6	36.2	35.7	33.9	34.5	39.2
CR16-0059	35.8	35.6	36.3	34.9	34.4	34.6	38.8
CR16-0070	35.0	33.5	34.6	35.1	33.8	33.8	39.2
CR16-0076	34.8	33.6	34.8	35.1	33.8	33.9	37.9
ORC 14.150.284	32.9	30.4	33.3	33.1	32.6	31.1	36.9
ORC 14.150.305	32.8	31.7	32.2	33.7	31.5	32.1	35.7
ORC 14.150.307	33.8	32.1	33.4	34.1	32.6	32.7	38.2
U16-127621	34.5	34.3	34.0	33.0	35.1	31.9	38.8
U16-128607	32.9	32.7	33.2	32.3	31.3	30.9	36.9
U16-129612	33.4	32.9	31.9	33.6	31.4	32.7	38.0
U16-129646	33.3	32.9	31.9	33.2	32.0	32.0	38.0
U16-322148	33.8	33.4	32.9	33.6	31.8	33.7	37.3
U16-322178	33.2	31.3	33.2	33.6	31.4	32.1	37.4
U16-324137	34.0	33.5	34.7	34.4	32.1	32.5	37.2
U17-618174	33.3	33.2	32.8	33.5	32.8	31.0	36.8
U17-905083	35.0	34.1	34.7	35.6	33.8	34.3	37.3
U17-905087	35.0	33.8	34.3	35.8	33.0	34.6	38.5
U17-916070	34.0	33.9	33.6	34.5	32.6	32.6	36.8
U17-919065	34.7	34.1	34.2	34.6	32.8	33.3	39.1
U17-920124	33.0	32.3	32.7	33.2	31.2	32.3	36.0
U17-928093	34.2	34.1	34.0	34.9	32.7	32.5	36.9
U17-933052	34.5	33.6	34.6	33.4	32.7	34.1	38.5

PRELIMINARY TEST IIB, 2019

OIL (%)

Strain	Mean 6 Tests	Ames IA	Urbana IL	West Lafayette IN	East Lansing MI	Mead NE	Chatham ONT
IA2102 (II)	19.5	19.1	20.3	19.1	19.0	19.7	19.5
LD02-4485 (SCN)	19.9	19.7	20.2	20.2	19.7	19.8	19.8
U11-917032 (SCN) (E)	20.6	19.7	21.1	20.8	20.1	21.1	21.0
U14-910097 (SCN) (L)	20.7	20.7	20.8	20.4	20.5	20.6	21.0
AR18-181045	19.6	19.3	19.6	19.8	19.5	19.3	20.0
AR18-181079	19.7	19.5	20.0	19.4	19.5	19.3	20.3
AR18-281021	19.7	19.4	19.8	19.6	19.2	20.1	20.2
AR18-281022	19.2	18.4	19.6	19.2	19.0	19.3	19.4
AR18-281056	19.6	19.3	19.6	19.4	19.4	20.1	19.8
AR18-281072	20.0	19.1	19.9	20.1	20.0	20.3	20.8
AR18-381007	19.4	18.8	19.9	19.3	19.6	19.6	19.5
AR18-381026	19.6	19.2	19.6	20.1	19.0	19.9	19.9
AR18-381043	19.5	19.6	19.8	19.5	19.1	19.7	19.6
CR16-0058	18.4	17.7	18.5	18.5	18.8	18.2	18.9
CR16-0059	18.6	18.1	18.5	18.5	18.8	18.5	19.5
CR16-0070	19.0	18.7	19.1	18.9	18.5	18.9	19.9
CR16-0076	18.7	18.2	18.6	18.8	17.9	18.3	20.2
ORC 14.150.284	20.6	20.3	20.4	20.4	20.0	21.0	21.3
ORC 14.150.305	20.1	20.1	20.2	19.9	19.6	20.2	20.7
ORC 14.150.307	19.8	19.6	19.9	19.3	19.5	19.7	20.8
U16-127621	20.4	19.6	20.6	20.7	20.4	20.9	20.5
U16-128607	20.7	20.3	20.1	21.0	20.8	21.1	21.1
U16-129612	20.7	20.2	21.4	20.6	20.7	20.7	20.8
U16-129646	19.6	18.7	20.2	20.0	19.4	19.7	19.7
U16-322148	20.1	19.6	20.5	20.4	20.1	19.6	20.4
U16-322178	20.7	20.0	21.0	20.6	20.6	21.0	20.7
U16-324137	19.9	19.8	19.8	19.9	20.0	20.1	19.7
U17-618174	19.6	18.8	19.9	19.4	18.8	20.3	20.2
U17-905083	19.2	19.1	19.3	18.8	18.7	19.4	20.1
U17-905087	19.4	19.0	19.8	19.3	19.2	19.2	20.0
U17-916070	19.5	18.8	19.7	19.4	19.4	19.8	19.9
U17-919065	19.4	19.3	19.8	19.3	18.9	19.7	19.5
U17-920124	20.3	19.9	20.6	20.1	20.0	20.4	21.1
U17-928093	19.9	19.4	19.7	19.6	20.0	19.8	21.1
U17-933052	19.4	19.2	19.6	19.5	19.5	19.2	19.8

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	Northern Regional Uniform Test					
	Uniform Test III, 2019					
			Seed	Previous	Gen.	Unique
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits
1	LD11-2170 (III)	Syngenta 03JR313108 x LD05-3171	Diers	4	F5	SCN
2	IA3048 (SCN)	Dairyland 99540 x IA2068	Cai	11	F4	SCN
3	LD07-3395bf (SCN) (L)	LD07-3395 Reselection	Diers	4	F5	SCN
4	U14-910097 (SCN) (E)	U09-105007 x LD07-3419	Graef	2	F6	Ex Rps Resist
5	CR14-5524	LD04-13296 x U03-300134	Rainey	1		SCN x SCN
6	CR14-6116	LD06-7596 x LS05-3229	Rainey	1		ACC, Diversity
7	CR14-7871	LG06-5920 x U03-100612	Rainey	1		Diversity
8	CR15-0636	CL05-4637 x AR08-286003	Rainey	PTIIIA	F5	
9	CR15-1385	4J10534 x LD06-7620	Rainey	PTIIIA	F5	
10	CR15-2775	LS07-1343 x PI556909	Rainey	PTIIB	F5	
11	LD15-5776793	LD06-7620 x Syngenta 05BR006009	Diers	PTIIIA	F5	SCN
12	LD15-5782791	LD06-7620 x Syngenta 05BR006009	Diers	PTIIIA	F5	SCN
13	LD15-5789800	LD06-7620 x Syngenta 05BR006009	Diers	PTIIIA	F5	SCN
14	LD15-6762	WN0902577 x SD08CV-2102	Diers	PTIIIA	F5	SCN
15	SA13-1385	K07-1633 x LD04-13265	Scaboo	2	F4	
16	SA14-9653	LD07-4477 x LD02-9050	Scaboo	2	F4	
17	U14-211209	U09-407147 x LD02-4485	Graef	2	F5	Rps1K, Rps, SCN
18	U14-605217	U09-215057 x LD07-3419	Graef	2	F5	Rps, Dt, SCN
19	U14-924158	U11-935093 x LD07-3419	Graef	2	F5	IDC, SCN, (HR, R)
20	U15-322139	U09-312115 x U11-614093	Graef	PTIIIB	F5	Rps1k
21	U15-322140	U09-312115 x U11-614093	Graef	PTIIIB	F5	Rps1k
22	U15-606207	LD07-3419 x U09-105007	Graef	2	F5	SCN (HR, HR), Rps
23	U16-609052	U11-932025 x U09-105007-174	Graef	PTIIIB	F5	IDC, Rps
24	U16-610065	U11-932025 x U09-105007-174	Graef	PTIIIB	F5	IDC, Rps
25	U16-902058	U11-919011 x U11-614093	Graef	PTIIIB	F5	SCN, Rps1k
26	U16-903131	U11-614093 x U12-415209	Graef	PTIIB	F5	Rps1k
27	U16-914101	U11-614093 x U11-920017	Graef	PTIIB	F5	Rps1k, SCN
28	U16-928123	U11-410122 x U11-614093	Graef	PTIIIB	F5	Rps1k

UNIFORM TEST III, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Shattering Score
		Manhattan
LD11-2170 (III)	PGTDYBrI	1.0
IA3048 (SCN)	WGTSYYI	1.0
LD07-3395bf (SCN) (L)	WGTSYBfI	1.0
U14-910097 (SCN) (E)	PGTSYBfI	2.0
CR14-5524	PTTSYBI	1.0
CR14-6116	PTBSYBI	1.0
CR14-7871	PT+GTSYBI	1.0
CR15-0636	PGTSYBI	1.0
CR15-1385	WGTDYIbI	1.0
CR15-2775	PTBSYBrI	1.0
LD15-5776793	PTTDYBI	1.0
LD15-5782791	PPhillipsYBI	1.0
LD15-5789800	PTBSYBI	1.0
LD15-6762	PGTSYBfI	1.0
SA13-1385	WGTDYIbI	1.0
SA14-9653	PTBSYBI	1.0
U14-211209	PGTDYIbG I	1.0
U14-605217	WGTDYBrDt	1.0
U14-924158	PTTDYBI	1.0
U15-322139	PTTDYBI	1.0
U15-322140	PTTSYBI	1.0
U15-606207	PGTDYBfI	1.0
U16-609052	P+WPhillipsYBBrI	1.0
U16-610065	WTBSYBBrI	1.0
U16-902058	PPhillipsYBI	1.0
U16-903131	PGBSYBI	1.0
U16-914101	PGBDYBrI	1.0
U16-928123	WTTDYBBrI	1.0

UNIFORM TEST III, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 9 bu/a	Rank 9 No.	Maturity 10 Date	Lodging 10 Score	Plant Height 10 In.	Seed Size 10 g/100	Seed Quality 10 Score	Composition Protein 5 %	 Oil 5 %
LD11-2170 (III)	67.0	4	10/2	1.2	30	16.5	1.6	34.6	20.0
IA3048 (SCN)	61.6	24	1.0	1.8	32	15.9	1.5	34.4	18.9
LD07-3395bf (SCN) (L)	65.6	8	5.2	1.3	30	16.8	1.6	33.0	20.2
U14-910097 (SCN) (E)	66.9	5	0.6	1.8	30	16.3	1.6	33.6	20.3
CR14-5524	65.2	10	0.6	1.5	31	16.4	1.5	34.2	18.9
CR14-6116	57.2	28	0.6	1.3	29	16.9	1.4	34.0	19.4
CR14-7871	59.6	26	2.9	1.5	30	15.9	1.6	35.6	18.7
CR15-0636	60.6	25	7.4	1.3	32	15.4	2.0	34.2	19.8
CR15-1385	63.9	16	5.7	1.3	33	15.7	1.6	33.8	18.8
CR15-2775	57.6	27	1.5	1.4	30	19.6	1.6	33.8	19.7
LD15-5776793	65.2	10	3.8	1.2	30	17.2	1.5	33.7	19.7
LD15-5782791	62.7	20	3.0	1.2	30	18.1	1.5	33.8	19.7
LD15-5789800	66.4	6	5.3	1.2	29	17.6	1.4	34.2	19.4
LD15-6762	67.8	2	1.9	1.5	33	16.6	1.6	35.1	19.7
SA13-1385	64.8	12	5.9	1.4	33	15.2	1.8	33.0	19.6
SA14-9653	69.3	1	5.6	1.9	34	17.8	1.6	35.6	18.8
U14-211209	66.0	7	1.4	1.9	34	16.0	1.7	32.5	19.8
U14-605217	63.0	19	3.9	1.4	32	17.3	1.5	32.9	20.0
U14-924158	62.5	22	0.9	1.2	30	15.4	1.5	31.6	20.6
U15-322139	64.5	14	3.5	1.2	33	16.5	1.6	33.2	20.0
U15-322140	67.4	3	4.2	1.2	31	15.5	1.6	33.8	19.7
U15-606207	64.4	15	2.3	1.3	30	15.9	1.5	33.1	19.9
U16-609052	63.3	17	1.3	1.6	32	16.6	1.7	35.1	19.1
U16-610065	62.7	20	2.9	1.4	32	15.9	1.6	34.4	19.4
U16-902058	64.6	13	1.0	1.3	31	16.6	1.7	33.6	19.4
U16-903131	63.1	18	1.1	1.4	32	17.5	1.4	34.5	19.6
U16-914101	61.9	23	2.5	1.4	31	18.3	1.6	33.1	20.2
U16-928123	65.5	9	2.4	1.3	32	16.6	1.7	34.0	19.6
Mean	64.4			1.4	31.2	16.7	1.6		
C.V. (%)	8.9			26.9	6.6	7.3	25.2		
L.S.D. (5%)	2.9			0.2	1.1	0.9	0.3		

123.4 Days After Planting

UNIFORM TEST III, 2019

2018-2019 2-YEAR MEAN

No. of Tests Strain	Yield 21 bu/a	Rank 21 No.	Maturity 22 Date	Lodging 23 Score	Plant Height 22 In.	Seed Size 18 g/100	Seed Quality 18 Score	Composition Protein 11 %	 Oil 11 %
LD11-2170 (III)	72.1	1	9/25	1.4	33	15.7	1.7	34.1	20.1
IA3048 (SCN)	64.3	10	0.4	1.9	35	15.0	1.6	34.1	19.0
LD07-3395bf (SCN) (L)	68.0	7	5.3	1.5	33	15.9	1.8	32.7	20.2
CR14-5524	68.3	6	0.3	1.9	34	15.5	1.6	34.1	18.9
CR14-6116	60.7	12	0.8	1.4	34	16.1	1.6	34.1	19.4
CR14-7871	61.1	11	1.0	1.4	34	14.4	1.7	34.9	19.0
SA13-1385	69.0	4	7.7	1.6	36	14.6	1.6	33.4	19.2
SA14-9653	69.2	3	6.1	1.9	37	17.0	1.6	35.3	19.0
U14-211209	68.7	5	1.8	1.9	37	15.3	1.7	32.3	19.9
U14-605217	67.9	8	2.7	1.5	35	16.5	1.8	32.5	20.1
U14-924158	67.4	9	-0.2	1.3	33	14.6	1.6	31.4	20.6
U15-606207	70.7	2	2.5	1.4	33	15.6	1.6	32.7	20.0

123.2 Days After Planting

2017-2019 3-YEAR MEAN

No. of Tests Strain	34	34	35	36	35	32	32	20	20
LD11-2170 (III)	71.5	1	9/25	1.3	33	16.0	1.6	34.1	20.0
IA3048 (SCN)	65.0	6	0.3	1.8	35	15.3	1.5	34.1	18.8
LD07-3395bf (SCN) (L)	68.1	5	5.3	1.5	32	16.1	1.7	32.4	20.3
SA13-1385	69.5	2	7.1	1.6	36	14.9	1.5	33.3	19.2
U14-605217	68.8	4	2.6	1.5	35	16.8	1.6	32.4	20.0
U14-924158	69.1	3	-0.2	1.3	33	14.7	1.5	31.2	20.5

123.4 Days After Planting

UNIFORM TEST III, 2019

YIELD (bu/a)

Strain	Mean 9 Tests	Ames* IA	Arthur IL	Urbana IL	Wanatah IN	West Lafayette IN
LD11-2170 (III)	67.0	69.1	78.0	60.3	44.7	57.4
IA3048 (SCN)	61.6	61.4	71.2	56.1	45.2	51.9
LD07-3395bf (SCN) (L)	65.6	59.6	79.6	58.1	48.0	53.7
U14-910097 (SCN) (E)	66.9	70.0	81.8	59.5	46.2	53.9
CR14-5524	65.2	58.2	71.7	60.6	39.0	57.6
CR14-6116	57.2	66.1	67.2	41.0	41.2	55.4
CR14-7871	59.6	61.9	76.2	45.7	44.9	46.2
CR15-0636	60.6	59.7	77.3	54.1	43.2	51.2
CR15-1385	63.9	70.5	65.2	56.0	47.5	52.0
CR15-2775	57.6	61.2	66.3	51.5	40.1	52.1
LD15-5776793	65.2	74.1	75.8	49.1	46.8	55.4
LD15-5782791	62.7	63.5	70.4	47.0	48.9	50.6
LD15-5789800	66.4	44.6	78.3	47.4	51.2	56.4
LD15-6762	67.8	70.4	81.0	59.8	52.4	54.7
SA13-1385	64.8	41.0	69.8	55.9	49.1	60.8
SA14-9653	69.3	48.4	80.6	63.8	46.4	63.1
U14-211209	66.0	73.8	79.6	53.2	39.2	56.2
U14-605217	63.0	64.1	69.2	56.7	40.1	54.7
U14-924158	62.5	70.4	75.1	45.5	40.2	40.2
U15-322139	64.5	66.2	72.8	49.3	42.2	52.9
U15-322140	67.4	66.2	75.4	47.4	47.2	58.3
U15-606207	64.4	69.7	77.0	52.7	45.7	58.4
U16-609052	63.3	64.1	71.5	50.7	43.4	58.8
U16-610065	62.7	66.0	68.9	55.0	44.2	57.1
U16-902058	64.6	69.8	72.8	50.5	43.4	58.4
U16-903131	63.1	63.8	64.2	50.8	44.8	55.8
U16-914101	61.9	59.9	62.7	42.6	43.0	49.9
U16-928123	65.5	65.1	75.7	43.0	40.4	56.9
Location Mean		63.5	73.4	52.3	44.6	54.6
C.V. (%)		16.0	6.2	8.5	6.1	5.8
L.S.D. (5%)		20.9	9.3	9.1	4.6	5.4
Row Sp. (In.)		30	30	30	30	30
Rows/Plot		4	4	4	4	4
Reps		2	2	2	2	2

*Data not included in mean.

UNIFORM TEST III, 2019

YIELD (bu/a)

Strain	Ottawa KS	Albany MO	Columbia MO	Phillips NE	Wymore NE
LD11-2170 (III)	61.8	77.7	68.8	83.8	70.2
IA3048 (SCN)	58.4	71.0	57.9	73.1	69.9
LD07-3395bf (SCN) (L)	59.7	76.0	73.8	80.6	60.6
U14-910097 (SCN) (E)	61.8	76.0	72.8	79.7	69.9
CR14-5524	59.3	75.6	74.0	88.3	60.9
CR14-6116	52.4	64.1	64.7	73.2	55.8
CR14-7871	56.1	70.9	62.8	69.9	63.8
CR15-0636	55.0	70.9	61.4	71.4	60.6
CR15-1385	65.1	78.8	69.0	79.7	62.1
CR15-2775	53.9	58.4	59.9	78.5	57.6
LD15-5776793	57.3	81.4	69.7	81.9	69.7
LD15-5782791	53.7	78.4	71.3	77.7	66.0
LD15-5789800	57.5	79.4	73.5	83.1	70.6
LD15-6762	62.4	72.7	72.0	83.0	72.1
SA13-1385	57.8	72.1	68.4	83.7	65.8
SA14-9653	63.7	80.0	76.1	80.8	69.2
U14-211209	59.7	83.3	69.5	81.7	71.8
U14-605217	66.1	75.1	69.6	76.2	59.4
U14-924158	60.5	77.5	65.5	92.7	65.4
U15-322139	61.9	70.8	68.2	95.0	67.8
U15-322140	62.3	84.0	71.2	91.9	69.3
U15-606207	60.0	64.9	75.2	91.3	54.6
U16-609052	52.2	71.5	64.9	91.9	64.5
U16-610065	54.9	77.1	59.8	91.3	56.4
U16-902058	54.5	77.2	68.1	88.3	68.3
U16-903131	54.7	76.9	62.8	90.2	67.4
U16-914101	55.0	69.5	72.2	94.8	67.6
U16-928123	57.3	86.1	71.4	91.0	68.0
Location Mean	58.4	74.9	68.4	83.7	65.2
C.V. (%)	3.8	7.8	8.8	6.2	6.9
L.S.D. (5%)	3.6	9.6	9.8	10.6	9.2
Row Sp. (In.)	30	30	30	30	30
Rows/Plot	4	4	4	4	4
Reps	3	3	3	2	2

UNIFORM TEST III, 2019

YIELD RANK

Strain	Yield Rank	Ames IA	Arthur IL	Urbana IL	Wanatah IN	West Lafayette IN
LD11-2170 (III)	4	9	7	3	15	8
IA3048 (SCN)	24	20	19	8	12	23
LD07-3395bf (SCN) (L)	8	24	4	6	5	19
U14-910097 (SCN) (E)	5	6	1	5	10	18
CR14-5524	10	25	17	2	28	7
CR14-6116	28	12	24	28	22	14
CR14-7871	26	19	10	24	13	27
CR15-0636	25	23	8	12	19	24
CR15-1385	16	3	26	9	6	22
CR15-2775	27	21	25	15	25	21
LD15-5776793	10	1	11	20	8	14
LD15-5782791	20	18	20	23	4	25
LD15-5789800	6	27	6	21	2	11
LD15-6762	2	4	2	4	1	16
SA13-1385	12	28	21	10	3	2
SA14-9653	1	26	3	1	9	1
U14-211209	7	2	4	13	27	12
U14-605217	19	15	22	7	25	16
U14-924158	22	4	14	25	24	28
U15-322139	14	10	15	19	21	20
U15-322140	3	10	13	21	7	6
U15-606207	15	8	9	14	11	4
U16-609052	17	15	18	17	17	3
U16-610065	20	13	23	11	16	9
U16-902058	13	7	15	18	17	4
U16-903131	18	17	27	16	14	13
U16-914101	23	22	28	27	20	26
U16-928123	9	14	12	26	23	10

UNIFORM TEST III, 2019

YIELD RANK

Strain	Ottawa KS	Albany MO	Columbia MO	Phillips NE	Wymore NE
LD11-2170 (III)	7	9	16	12	4
IA3048 (SCN)	14	21	28	26	6
LD07-3395bf (SCN) (L)	11	14	4	19	23
U14-910097 (SCN) (E)	7	14	6	20	5
CR14-5524	13	16	3	10	21
CR14-6116	27	27	22	25	27
CR14-7871	19	22	23	28	19
CR15-0636	20	22	25	27	22
CR15-1385	2	7	15	21	20
CR15-2775	25	28	26	22	25
LD15-5776793	17	4	12	16	7
LD15-5782791	26	8	10	23	15
LD15-5789800	16	6	5	14	3
LD15-6762	4	18	8	15	1
SA13-1385	15	19	17	13	16
SA14-9653	3	5	1	18	9
U14-211209	11	3	14	17	2
U14-605217	1	17	13	24	24
U14-924158	9	10	20	3	17
U15-322139	6	24	18	1	12
U15-322140	5	2	11	5	8
U15-606207	10	26	2	7	28
U16-609052	28	20	21	4	18
U16-610065	22	12	27	6	26
U16-902058	24	11	19	11	10
U16-903131	23	13	23	9	14
U16-914101	20	25	7	2	13
U16-928123	17	1	9	8	11

UNIFORM TEST III, 2019

MATURITY (date)

Strain	Mean 10 Tests	Ames IA	Arthur IL	Urbana IL	Wanatah IN	West Lafayette IN
LD11-2170 (III)	10/2	10/1	10/3	9/27	10/1	10/3
IA3048 (SCN)	1	3	-1	3	1	-1
LD07-3395bf (SCN) (L)	5	7	1	5	5	6
U14-910097 (SCN) (E)	1	-2	0	0	-2	2
CR14-5524	1	0	-1	-1	1	0
CR14-6116	1	3	-2	-2	0	1
CR14-7871	3	6	1	4	3	1
CR15-0636	7	10	6	9	5	9
CR15-1385	6	8	3	5	4	8
CR15-2775	2	-2	-1	1	2	2
LD15-5776793	4	7	1	3	2	4
LD15-5782791	3	5	1	1	1	1
LD15-5789800	5	9	0	3	5	7
LD15-6762	2	6	-1	1	2	6
SA13-1385	6	8	3	6	6	7
SA14-9653	6	8	4	8	5	8
U14-211209	1	3	-1	3	2	1
U14-605217	4	5	0	4	4	7
U14-924158	1	-3	0	2	0	3
U15-322139	4	4	-1	3	6	7
U15-322140	4	1	1	5	5	5
U15-606207	2	2	1	1	3	5
U16-609052	1	4	-4	-1	2	0
U16-610065	3	5	-1	2	5	1
U16-902058	1	1	-1	2	4	1
U16-903131	1	1	-2	0	3	1
U16-914101	3	1	-3	0	6	0
U16-928123	2	-1	-1	3	4	0
Date Planted	6/1	5/23	6/4	6/5	6/3	6/5
Days to Mature	123	131	121	114	120	120

UNIFORM TEST III, 2019

MATURITY (date)

Strain	Ottawa KS	Albany MO	Columbia MO	Phillips NE	Wymore NE
LD11-2170 (III)	9/26	10/3	10/24	10/4	9/27
IA3048 (SCN)	0	5	-1	1	0
LD07-3395bf (SCN) (L)	6	9	5	5	3
U14-910097 (SCN) (E)	1	4	1	1	0
CR14-5524	0	4	1	1	1
CR14-6116	0	3	0	2	1
CR14-7871	2	7	2	-1	4
CR15-0636	4	9	8	8	6
CR15-1385	8	9	5	4	3
CR15-2775	4	0	2	3	4
LD15-5776793	4	9	3	2	3
LD15-5782791	5	8	3	3	2
LD15-5789800	4	9	6	5	5
LD15-6762	1	5	1	-2	0
SA13-1385	4	9	5	7	4
SA14-9653	3	8	6	3	3
U14-211209	0	3	1	1	1
U14-605217	4	9	5	2	-1
U14-924158	0	4	2	2	-1
U15-322139	4	5	3	3	1
U15-322140	4	8	4	6	3
U15-606207	4	6	4	1	-4
U16-609052	3	5	1	4	-1
U16-610065	2	5	1	6	3
U16-902058	-1	4	1	-2	1
U16-903131	-1	4	-1	4	2
U16-914101	1	7	3	8	2
U16-928123	2	6	4	4	2
Date Planted	6/3	6/7	6/4	5/18	6/5
Days to Mature	115	118	142	139	114

UNIFORM TEST III, 2019

LODGING (score)

Strain	Mean 10 Tests	Ames IA	Arthur IL	Urbana IL	Wanatah IN	West Lafayette IN
LD11-2170 (III)	1.2	1.0	1.5	1.0	1.0	1.0
IA3048 (SCN)	1.8	1.5	1.8	1.0	1.0	1.0
LD07-3395bf (SCN) (L)	1.3	1.0	1.0	1.0	1.0	1.0
U14-910097 (SCN) (E)	1.8	1.5	2.5	1.0	1.0	1.0
CR14-5524	1.5	1.5	1.5	1.0	1.0	1.0
CR14-6116	1.3	1.0	1.0	1.0	1.0	1.0
CR14-7871	1.5	1.0	1.3	1.0	1.0	1.0
CR15-0636	1.3	1.0	1.0	1.0	1.0	1.0
CR15-1385	1.3	1.0	1.0	1.0	1.0	1.0
CR15-2775	1.4	1.0	1.3	1.0	1.0	1.0
LD15-5776793	1.2	1.0	1.0	1.0	1.0	1.0
LD15-5782791	1.2	1.0	1.0	1.0	1.0	1.0
LD15-5789800	1.2	1.0	1.0	1.0	1.0	1.0
LD15-6762	1.5	1.0	1.8	1.0	1.0	1.0
SA13-1385	1.4	1.0	1.3	1.0	1.0	1.0
SA14-9653	1.9	1.0	2.8	1.0	1.0	1.0
U14-211209	1.9	1.0	2.3	1.0	1.0	1.0
U14-605217	1.4	1.0	1.0	1.0	1.0	1.0
U14-924158	1.2	1.0	1.0	1.0	1.0	1.0
U15-322139	1.2	1.0	1.0	1.0	1.0	1.0
U15-322140	1.2	1.0	1.0	1.0	1.0	1.0
U15-606207	1.3	1.0	1.5	1.0	1.0	1.0
U16-609052	1.6	2.0	1.3	1.0	1.0	1.0
U16-610065	1.4	1.0	1.0	1.0	1.0	1.0
U16-902058	1.3	1.0	1.0	1.0	1.0	1.0
U16-903131	1.4	1.5	1.0	1.0	1.0	1.0
U16-914101	1.4	1.5	1.0	1.0	1.0	1.0
U16-928123	1.3	1.0	1.3	1.0	1.0	1.0

UNIFORM TEST III, 2019

LODGING (score)

Strain	Ottawa KS	Albany MO	Columbia MO	Phillips NE	Wymore NE
LD11-2170 (III)	1.0	1.5	1.3	2.0	1.0
IA3048 (SCN)	1.7	1.8	1.2	4.0	2.5
LD07-3395bf (SCN) (L)	1.0	1.7	1.5	2.0	1.5
U14-910097 (SCN) (E)	1.0	2.8	1.3	3.5	2.0
CR14-5524	1.3	1.5	1.0	2.5	2.5
CR14-6116	1.0	1.8	1.2	2.5	1.0
CR14-7871	1.0	2.0	1.2	4.0	1.0
CR15-0636	1.0	1.2	1.5	3.5	1.0
CR15-1385	1.0	1.5	1.3	2.5	1.5
CR15-2775	1.0	2.0	1.2	2.5	1.5
LD15-5776793	1.0	1.3	1.3	2.0	1.0
LD15-5782791	1.0	1.5	1.2	2.0	1.0
LD15-5789800	1.0	1.8	1.2	1.5	1.0
LD15-6762	1.0	1.7	1.3	3.5	2.0
SA13-1385	1.0	1.8	1.3	3.5	1.0
SA14-9653	1.7	2.2	1.8	4.0	2.0
U14-211209	1.7	2.0	1.5	4.0	3.0
U14-605217	1.0	1.8	1.5	2.5	2.0
U14-924158	1.0	1.8	1.0	2.0	1.0
U15-322139	1.0	1.5	1.2	2.0	1.5
U15-322140	1.0	1.3	1.5	2.0	1.0
U15-606207	1.0	1.7	1.7	2.0	1.0
U16-609052	1.0	2.2	1.3	3.0	2.5
U16-610065	1.0	1.8	1.5	2.5	2.5
U16-902058	1.0	1.8	1.3	2.5	1.5
U16-903131	1.0	1.8	1.2	2.0	2.0
U16-914101	1.0	2.0	1.5	2.0	2.0
U16-928123	1.0	1.8	1.7	2.0	1.0

UNIFORM TEST III, 2019

PLANT HEIGHT (inches)

Strain	Mean 10 Tests	Ames IA	Arthur IL	Urbana IL	Wanatah IN	West Lafayette IN
LD11-2170 (III)	30	33	30	31	27	27
IA3048 (SCN)	32	33	29	35	29	29
LD07-3395bf (SCN) (L)	30	31	31	29	27	27
U14-910097 (SCN) (E)	30	32	28	30	27	28
CR14-5524	31	32	29	30	26	29
CR14-6116	29	31	29	27	25	26
CR14-7871	30	33	32	27	26	26
CR15-0636	32	35	33	30	26	28
CR15-1385	33	35	31	33	30	29
CR15-2775	30	32	28	30	28	30
LD15-5776793	30	32	29	28	26	28
LD15-5782791	30	32	29	27	27	24
LD15-5789800	29	30	28	27	28	25
LD15-6762	33	35	34	35	30	29
SA13-1385	33	35	32	34	30	31
SA14-9653	34	35	36	34	29	31
U14-211209	34	35	34	33	29	30
U14-605217	32	33	32	33	32	30
U14-924158	30	32	30	30	28	24
U15-322139	33	35	30	32	28	29
U15-322140	31	35	29	26	29	29
U15-606207	30	31	30	27	28	26
U16-609052	32	33	29	28	28	39
U16-610065	32	35	31	29	29	29
U16-902058	31	32	31	29	28	32
U16-903131	32	34	27	30	29	30
U16-914101	31	32	27	28	31	30
U16-928123	32	33	31	26	29	30

UNIFORM TEST III, 2019

PLANT HEIGHT (inches)

Strain	Ottawa KS	Albany MO	Columbia MO	Phillips NE	Wymore NE
LD11-2170 (III)	31	31	29	35	29
IA3048 (SCN)	36	30	31	36	33
LD07-3395bf (SCN) (L)	30	30	30	35	30
U14-910097 (SCN) (E)	29	30	31	34	27
CR14-5524	30	34	32	35	33
CR14-6116	31	30	30	37	30
CR14-7871	31	32	32	38	28
CR15-0636	35	34	29	39	35
CR15-1385	33	34	34	38	30
CR15-2775	31	31	30	37	28
LD15-5776793	30	30	28	37	30
LD15-5782791	29	30	30	37	31
LD15-5789800	33	29	27	36	29
LD15-6762	34	35	35	36	33
SA13-1385	33	34	31	35	33
SA14-9653	36	37	35	36	34
U14-211209	35	38	36	35	34
U14-605217	31	33	31	37	32
U14-924158	31	33	32	35	30
U15-322139	35	35	33	37	36
U15-322140	32	31	33	36	32
U15-606207	30	31	33	35	31
U16-609052	33	33	31	37	31
U16-610065	33	35	31	38	33
U16-902058	30	34	31	35	32
U16-903131	32	35	31	36	33
U16-914101	33	34	33	36	32
U16-928123	34	35	31	38	30

UNIFORM TEST III, 2019

SEED SIZE (g/100)

Strain	Mean 10 Tests	Ames IA	Arthur IL	Urbana IL	Wanatah IN	West Lafayette IN
LD11-2170 (III)	16.5	16.5	18.2	16.6	15.2	17.9
IA3048 (SCN)	15.9	15.2	18.1	16.1	15.3	16.4
LD07-3395bf (SCN) (L)	16.8	16.1	18.8	16.0	14.9	17.2
U14-910097 (SCN) (E)	16.3	15.8	18.0	15.5	13.9	16.7
CR14-5524	16.4	15.1	16.3	16.4	14.3	15.9
CR14-6116	16.9	17.4	18.5	16.4	15.1	17.8
CR14-7871	15.9	17.1	17.4	15.1	14.7	17.0
CR15-0636	15.4	16.9	17.2	15.0	12.8	16.0
CR15-1385	15.7	15.3	15.4	15.3	13.0	16.7
CR15-2775	19.6	18.4	20.6	18.5	15.1	19.1
LD15-5776793	17.2	18.5	17.6	16.3	14.5	18.0
LD15-5782791	18.1	18.7	18.3	16.3	15.2	19.6
LD15-5789800	17.6	18.8	18.7	16.6	16.0	19.1
LD15-6762	16.6	17.2	18.2	15.8	14.5	18.0
SA13-1385	15.2	16.3	16.1	15.5	13.7	16.3
SA14-9653	17.8	19.0	19.9	17.7	16.3	18.8
U14-211209	16.0	15.5	16.6	15.5	13.7	16.1
U14-605217	17.3	16.6	17.7	17.7	15.4	19.3
U14-924158	15.4	14.9	17.0	14.8	13.6	17.1
U15-322139	16.5	17.0	17.3	16.3	13.5	16.4
U15-322140	15.5	15.4	16.2	14.6	14.0	17.8
U15-606207	15.9	16.0	17.6	15.4	14.0	17.1
U16-609052	16.6	16.2	16.6	16.0	15.3	17.0
U16-610065	15.9	16.9	16.3	15.2	14.3	15.5
U16-902058	16.6	16.8	17.5	15.6	15.2	18.1
U16-903131	17.5	17.5	18.1	16.9	16.1	18.4
U16-914101	18.3	17.5	19.4	16.8	15.9	18.2
U16-928123	16.6	17.5	16.9	16.5	16.2	17.7

UNIFORM TEST III, 2019

SEED SIZE (g/100)

Strain	Ottawa KS	Albany MO	Columbia MO	Phillips NE	Wymore NE
LD11-2170 (III)	16.2	16.8	15.5	16.0	16.2
IA3048 (SCN)	15.1	17.0	14.1	16.2	15.5
LD07-3395bf (SCN) (L)	18.6	18.7	15.2	16.7	15.8
U14-910097 (SCN) (E)	17.8	16.7	15.1	17.6	16.5
CR14-5524	16.6	16.3	16.3	20.3	16.5
CR14-6116	16.4	17.5	15.7	18.8	15.3
CR14-7871	14.3	16.4	14.1	18.1	14.8
CR15-0636	14.1	16.7	13.7	18.0	14.0
CR15-1385	15.9	16.1	14.2	20.7	14.2
CR15-2775	21.0	19.3	17.1	27.7	18.9
LD15-5776793	16.3	19.5	15.3	18.5	17.0
LD15-5782791	19.0	18.8	17.0	20.3	17.9
LD15-5789800	17.5	19.4	17.6	15.7	16.8
LD15-6762	18.5	17.7	15.1	15.5	15.5
SA13-1385	14.5	16.3	14.1	14.6	15.0
SA14-9653	16.3	19.5	16.4	17.0	16.9
U14-211209	16.9	17.6	15.4	16.1	16.8
U14-605217	17.6	18.8	17.0	16.6	16.6
U14-924158	16.1	14.9	14.4	15.9	15.7
U15-322139	18.6	17.3	15.0	17.6	15.6
U15-322140	14.8	17.7	13.7	16.1	14.4
U15-606207	16.0	16.4	16.5	15.5	14.9
U16-609052	18.6	16.5	16.3	16.9	16.2
U16-610065	17.0	16.1	14.5	17.8	15.5
U16-902058	15.8	18.3	15.9	15.7	16.6
U16-903131	19.4	17.7	15.3	18.4	17.3
U16-914101	20.3	20.4	18.0	18.4	17.7
U16-928123	16.1	18.3	15.0	16.3	16.0

UNIFORM TEST III, 2019

SEED QUALITY (score)

Strain	Mean 10 Tests	Ames IA	Arthur IL	Urbana IL	Wanatah IN	West Lafayette IN
LD11-2170 (III)	1.6	1.0	2.0	2.0	1.0	1.0
IA3048 (SCN)	1.5	1.0	2.0	2.0	1.0	1.0
LD07-3395bf (SCN) (L)	1.6	1.0	2.0	2.0	1.0	1.0
U14-910097 (SCN) (E)	1.6	1.0	2.0	2.0	1.0	1.0
CR14-5524	1.5	1.0	2.0	1.0	1.0	1.0
CR14-6116	1.4	1.0	2.0	1.0	1.0	1.0
CR14-7871	1.6	1.5	2.0	2.0	1.0	1.0
CR15-0636	2.0	4.5	2.0	3.0	1.0	1.0
CR15-1385	1.6	1.0	3.0	2.0	1.0	1.0
CR15-2775	1.6	1.0	2.0	2.0	1.0	1.0
LD15-5776793	1.5	1.0	1.0	2.0	1.0	1.0
LD15-5782791	1.5	1.0	2.0	1.0	1.0	1.0
LD15-5789800	1.4	1.0	1.0	1.0	1.0	1.0
LD15-6762	1.6	1.0	2.0	1.0	1.0	1.0
SA13-1385	1.8	1.0	2.0	2.0	1.0	1.0
SA14-9653	1.6	1.0	2.0	2.0	1.0	1.0
U14-211209	1.7	1.0	3.0	2.0	1.0	1.0
U14-605217	1.5	1.0	2.0	2.0	1.0	1.0
U14-924158	1.5	1.0	2.0	2.0	1.0	1.0
U15-322139	1.6	1.0	2.0	2.0	1.0	1.0
U15-322140	1.6	1.0	2.0	2.0	1.0	1.0
U15-606207	1.5	1.0	1.0	2.0	1.0	1.0
U16-609052	1.7	1.0	2.0	2.0	1.0	1.0
U16-610065	1.6	1.0	2.0	2.0	1.0	1.0
U16-902058	1.7	1.0	2.0	2.0	1.0	1.0
U16-903131	1.4	1.0	2.0	1.0	1.0	1.0
U16-914101	1.6	1.0	2.0	1.0	1.0	1.0
U16-928123	1.7	1.0	2.0	2.0	1.0	1.0

UNIFORM TEST III, 2019

SEED QUALITY (score)

Strain	Ottawa KS	Albany MO	Columbia MO	Phillips NE	Wymore NE
LD11-2170 (III)	3.0	2.0	1.5	1.0	1.5
IA3048 (SCN)	2.0	2.0	1.5	1.5	1.0
LD07-3395bf (SCN) (L)	3.0	2.0	1.5	1.0	1.5
U14-910097 (SCN) (E)	3.0	1.5	1.5	1.0	1.5
CR14-5524	3.0	1.5	1.5	1.0	2.0
CR14-6116	2.0	1.5	1.5	1.0	1.5
CR14-7871	3.0	1.5	1.5	1.0	1.0
CR15-0636	2.0	1.5	1.5	1.5	2.0
CR15-1385	2.0	2.0	1.5	1.5	1.0
CR15-2775	3.0	2.0	1.5	1.0	1.5
LD15-5776793	3.0	2.0	1.5	1.0	1.0
LD15-5782791	3.0	1.5	1.5	1.0	2.0
LD15-5789800	3.0	1.5	1.5	1.0	1.5
LD15-6762	3.0	2.0	1.5	2.0	1.0
SA13-1385	3.0	2.5	1.5	1.5	2.0
SA14-9653	2.0	2.0	2.0	1.0	2.0
U14-211209	2.0	2.0	1.5	2.0	1.5
U14-605217	2.0	1.5	1.5	1.5	1.0
U14-924158	2.0	2.0	1.5	1.0	1.5
U15-322139	3.0	1.5	2.0	1.5	1.0
U15-322140	3.0	2.0	1.5	1.5	1.0
U15-606207	3.0	1.5	1.5	1.5	1.5
U16-609052	3.0	2.0	1.5	2.0	1.0
U16-610065	3.0	1.5	1.5	1.0	1.5
U16-902058	3.0	2.0	2.0	1.0	1.5
U16-903131	2.0	2.0	1.5	1.0	1.0
U16-914101	3.0	2.0	1.5	2.0	1.0
U16-928123	3.0	1.5	2.0	1.0	2.0

UNIFORM TEST III, 2019

PROTEIN (%)

Strain	Mean 5 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS	Phillips NE
LD11-2170 (III)	34.6	33.4	33.8	36.4	34.3	35.1
IA3048 (SCN)	34.4	34.0	34.6	35.5	34.7	33.3
LD07-3395bf (SCN) (L)	33.0	32.2	31.6	33.5	34.8	32.7
U14-910097 (SCN) (E)	33.6	32.5	32.1	33.6	36.3	33.5
CR14-5524	34.2	33.6	32.5	34.2	36.2	34.6
CR14-6116	34.0	33.1	32.0	34.1	36.4	34.4
CR14-7871	35.6	36.5	33.9	36.0	36.1	35.8
CR15-0636	34.2	33.2	33.2	34.7	35.5	34.2
CR15-1385	33.8	33.2	32.8	34.0	35.9	33.4
CR15-2775	33.8	32.3	31.8	34.0	36.1	34.7
LD15-5776793	33.7	33.8	33.1	34.5	34.3	33.0
LD15-5782791	33.8	32.1	32.2	34.3	36.2	34.0
LD15-5789800	34.2	34.0	33.6	33.9	35.6	34.1
LD15-6762	35.1	34.5	33.5	36.2	37.2	34.4
SA13-1385	33.0	32.7	31.8	33.5	34.0	33.2
SA14-9653	35.6	35.0	34.9	36.0	36.8	35.3
U14-211209	32.5	31.3	32.1	32.1	33.9	32.9
U14-605217	32.9	32.2	32.6	33.1	33.0	33.6
U14-924158	31.6	29.7	30.6	32.5	34.4	31.1
U15-322139	33.2	33.1	30.0	33.8	36.1	33.1
U15-322140	33.8	33.9	32.6	33.7	34.3	34.3
U15-606207	33.1	31.4	31.5	34.5	35.4	32.6
U16-609052	35.1	35.1	33.9	33.5	37.8	35.2
U16-610065	34.4	35.3	33.1	32.9	36.6	34.2
U16-902058	33.6	32.5	33.1	34.5	34.7	33.2
U16-903131	34.5	33.8	32.8	34.4	37.3	34.3
U16-914101	33.1	32.4	32.1	33.8	33.8	33.4
U16-928123	34.0	33.1	33.2	34.4	36.1	33.0

UNIFORM TEST III, 2019

OIL (%)

Strain	Mean 5 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS	Phillips NE
LD11-2170 (III)	20.0	19.9	20.7	19.3	20.6	19.8
IA3048 (SCN)	18.9	18.3	19.1	18.8	19.1	19.2
LD07-3395bf (SCN) (L)	20.2	20.0	21.0	20.1	20.2	19.8
U14-910097 (SCN) (E)	20.3	19.9	21.1	20.5	20.0	20.0
CR14-5524	18.9	18.4	19.8	18.8	18.7	18.9
CR14-6116	19.4	19.0	20.9	19.2	19.2	18.9
CR14-7871	18.7	17.9	19.8	18.5	18.8	18.3
CR15-0636	19.8	19.6	20.6	19.7	20.0	19.4
CR15-1385	18.8	18.4	19.4	19.3	18.5	18.5
CR15-2775	19.7	19.4	20.9	19.7	19.6	19.0
LD15-5776793	19.7	19.1	20.3	19.6	20.2	19.3
LD15-5782791	19.7	19.7	21.0	19.8	19.1	18.8
LD15-5789800	19.4	18.7	20.2	19.6	19.7	18.7
LD15-6762	19.7	19.6	20.5	19.5	19.2	19.4
SA13-1385	19.6	19.2	20.1	19.6	20.1	19.1
SA14-9653	18.8	18.2	19.4	18.9	18.9	18.7
U14-211209	19.8	19.2	20.4	20.1	20.2	19.2
U14-605217	20.0	19.5	20.5	20.3	20.5	19.1
U14-924158	20.6	20.3	21.5	20.8	20.1	20.0
U15-322139	20.0	19.7	21.1	19.6	20.0	19.5
U15-322140	19.7	18.9	20.3	20.7	19.9	18.8
U15-606207	19.9	20.1	21.0	19.5	19.5	19.6
U16-609052	19.1	18.4	19.9	19.9	18.6	18.5
U16-610065	19.4	18.9	20.2	19.8	19.2	19.0
U16-902058	19.4	19.5	20.0	18.9	19.4	19.2
U16-903131	19.6	19.3	20.9	19.8	18.8	19.3
U16-914101	20.2	19.8	21.4	20.3	19.5	20.2
U16-928123	19.6	19.7	20.6	19.5	19.1	19.1

	Northern Regional Uniform Test				
	Preliminary Test IIIA, 2019				
			Seed	Gen.	Unique
Ent.	Strain	Parentage	Source	Comp.	Traits
1	LD11-2170 (III)	Syngenta 03JR313108 x LD05-3171	Diers	F5	SCN
2	IA3048 (SCN)	Dairyland 99540 x IA2068	Cai	F4	SCN
3	LD07-3395bf (SCN) (L)	LD07-3395 Reselection	Diers	F5	SCN
4	U14-910097 (SCN) (E)	U09-105007 x LD07-3419	Graef	F6	Ex Rps Resist
5	LD16- 759	LD09-30015 x AR11-214015	Diers	F5	SCN
6	LD16-2636	LS09-2655 x LD10-9409	Diers	F5	SCN
7	LD16-2751	LD08- 1592 x LD10-9434	Diers	F5	SCN
8	LD16-2794	LD08- 1592 x LD10-9434	Diers	F5	SCN
9	LD16-2923	LD07-3395 x LD10-10219	Diers	F5	SCN
10	LD16-2983	LD07-3395 x LD10-10219	Diers	F5	SCN
11	LD16-3589	LD09-30015 x LD10-9434	Diers	F5	SCN
12	LD16-5075a	LD09-30224 x AR11-113050	Diers	F5	SCN, Rag 1
13	LG15-4491	LG06-2354 x LG08-4955	Walker	F6	Genetic diversity
14	LG16-2547	LD02-4485 x LG07-2309	Walker	F6	Genetic diversity
15	LG16-3733	LG09-8165 x HI0800685	Walker	F6	Genetic diversity
16	LG17-5436	LG08-1691 x LG08-3030	Walker	F6	Genetic diversity
17	LG17-5672	LG09-8165 x WN0800527	Walker	F6	Genetic diversity
18	LG17-5674	LG09-8165 x WN0800527	Walker	F6	Genetic diversity
19	LG17-5693	LG10-2688 x LG10-1594	Walker	F6	Genetic diversity
20	LG17-5869	SD08-CV2102 x LG10-12179	Walker	F6	Genetic diversity
21	SA16-10349	Ellis x LD11-10927	Scaboo	F5	SCN
22	SA16-11831	SA12-1530 x LD11-10927	Scaboo	F5	
23	SA16-12014	SA12-1530 x LD10-2477	Scaboo	F5	SCN
24	SA16-12472	LS09-1803 x LD09-10911	Scaboo	F5	
25	SA16-12491	LS09-1803 x LD09-10911	Scaboo	F5	SCN
26	SA16-12880	U11-616086 x LS09-2659	Scaboo	F5	SCN
27	SA16-1961	LG11-6208 x A12-961054	Scaboo	F5	SCN
28	SA16-2194	U11-616086 x A12-961044	Scaboo	F5	SCN
29	SA16-30116	LG04-6000 x AR09-391017	Scaboo	F5	

PRELIMINARY TEST IIIA, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Shattering Score
		Manhattan
LD11-2170 (III)	PGTDYBrI	1.0
IA3048 (SCN)	WGTSYYI	1.0
LD07-3395bf (SCN) (L)	WGTSYBfI	1.0
U14-910097 (SCN) (E)	PGTSYBfI	1.0
LD16- 759	PGTSYLBrI	1.0
LD16-2636	WLPhillipsYIbI	1.0
LD16-2751	PGTDYDBfI	1.0
LD16-2794	PGTDYGI	1.0
LD16-2923	PGTDYDBfI	1.0
LD16-2983	P+WLtBSYIbI	1.0
LD16-3589	WGTDYBfI	1.0
LD16-5075a	PGTDYBrI	1.0
LG15-4491	PGBSYIbI	1.0
LG16-2547	PGTSYIbI	1.0
LG16-3733	PGBDYIbI	1.0
LG17-5436	WGTSYBfI	1.0
LG17-5672	PGBDYBI	1.0
LG17-5674	PGB+TSYBI	1.0
LG17-5693	PGBSYGI	1.0
LG17-5869	PGTSYDBfI	1.0
SA16-10349	PGTSYIbI	1.0
SA16-11831	PGBSYBI	1.0
SA16-12014	WGTSYYI	1.0
SA16-12472	PGTSYIbI	1.0
SA16-12491	PGBSYBrIbI	1.0
SA16-12880	PGTDYIbI	1.0
SA16-1961	WPhillipsYBrI	1.0
SA16-2194	WTBSYBrI	1.0
SA16-30116	WGBSYBI	1.0

PRELIMINARY TEST IIIA, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 6 bu/a	Rank 6 No.	Maturity 7 Date	Lodging 7 Score	Plant Height 7 In.	Seed Size 7 g/100	Seed Quality 7 Score	Composition Protein 5 %	 Oil 5 %
LD11-2170 (III)	69.9	1	10/1	1.3	31	16.8	1.8	35.0	19.9
IA3048 (SCN)	61.4	19	0.2	1.8	31	16.0	1.7	34.3	19.0
LD07-3395bf (SCN) (L)	69.1	2	3.9	1.3	31	16.9	1.6	33.7	19.9
U14-910097 (SCN) (E)	66.7	5	-0.9	1.8	30	16.0	1.4	33.0	20.4
LD16- 759	60.9	26	1.1	1.4	31	16.6	1.7	32.1	20.4
LD16-2636	61.1	24	5.1	1.3	32	18.7	1.9	35.4	19.1
LD16-2751	66.1	6	1.1	1.5	32	16.9	1.6	35.1	19.3
LD16-2794	61.2	22	0.9	1.4	30	15.5	1.6	34.2	19.5
LD16-2923	61.3	21	-1.1	1.0	26	16.1	1.8	32.6	19.5
LD16-2983	61.7	18	1.1	1.2	26	17.4	1.8	34.4	19.8
LD16-3589	63.6	13	0.4	1.4	30	17.0	1.6	34.3	19.7
LD16-5075a	63.0	14	-1.2	1.4	31	17.5	1.6	34.6	19.9
LG15-4491	65.1	8	-1.3	1.4	35	18.3	1.6	34.8	18.7
LG16-2547	67.6	3	3.7	2.0	34	15.9	1.7	34.2	19.0
LG16-3733	65.8	7	1.6	1.2	31	17.1	1.5	35.3	19.1
LG17-5436	62.0	17	1.7	2.6	36	15.7	1.4	34.4	19.4
LG17-5672	60.7	27	2.0	1.7	32	17.3	1.8	33.8	18.7
LG17-5674	67.5	4	3.9	1.8	34	17.1	1.7	33.7	19.3
LG17-5693	63.7	12	1.6	1.8	34	19.3	1.9	35.2	18.3
LG17-5869	60.0	29	0.4	2.1	36	16.6	1.4	33.4	20.0
SA16-10349	61.4	19	4.3	1.5	32	16.9	1.5	36.6	19.1
SA16-11831	62.8	15	2.9	1.6	34	16.2	1.7	35.2	18.5
SA16-12014	64.9	9	3.1	2.2	34	15.8	1.8	35.2	18.2
SA16-12472	64.3	11	2.7	1.5	33	16.5	1.6	34.3	18.7
SA16-12491	62.7	16	3.3	1.8	33	14.8	1.6	33.9	19.1
SA16-12880	61.2	22	3.9	2.1	36	17.1	1.7	35.2	18.7
SA16-1961	61.1	24	2.9	1.8	34	14.9	1.6	36.0	18.7
SA16-2194	64.6	10	3.6	1.4	32	15.8	1.6	34.6	19.6
SA16-30116	60.6	28	4.3	1.8	36	14.6	1.4	34.2	18.7
Mean	63.3			1.7	32.1	16.5	1.7		
C.V. (%)	10.5			30.6	6.8	5.1	24.1		
L.S.D. (5%)	4.5			0.3	1.5	0.7	0.3		

123.4 Days After Planting

PRELIMINARY TEST IIIA, 2019

YIELD (bu/a)

Strain	Mean 6 Tests	Ames* IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	69.9	70.0	56.0	63.9	60.4
IA3048 (SCN)	61.4	62.8	47.0	55.9	54.4
LD07-3395bf (SCN) (L)	69.1	59.7	53.2	59.6	66.9
U14-910097 (SCN) (E)	66.7	71.5	47.4	59.9	61.2
LD16- 759	60.9	39.9	47.6	56.0	47.6
LD16-2636	61.1	72.0	45.8	61.2	52.2
LD16-2751	66.1	69.5	54.8	53.9	58.0
LD16-2794	61.2	68.9	49.6	49.3	56.2
LD16-2923	61.3	63.6	48.7	47.1	65.3
LD16-2983	61.7	65.3	50.9	48.8	58.1
LD16-3589	63.6	65.8	56.8	54.9	52.6
LD16-5075a	63.0	67.5	54.7	57.4	53.9
LG15-4491	65.1	61.2	52.8	56.1	56.6
LG16-2547	67.6	71.3	58.2	61.0	62.1
LG16-3733	65.8	64.6	52.5	58.5	62.2
LG17-5436	62.0	59.7	44.4	55.8	50.5
LG17-5672	60.7	62.2	51.9	51.4	50.2
LG17-5674	67.5	63.6	54.5	68.4	55.2
LG17-5693	63.7	64.9	49.5	58.0	57.3
LG17-5869	60.0	62.0	46.2	60.6	53.6
SA16-10349	61.4	70.5	44.8	58.3	60.7
SA16-11831	62.8	66.1	48.3	54.2	59.0
SA16-12014	64.9	58.3	53.6	53.8	59.5
SA16-12472	64.3	57.7	55.9	65.2	54.3
SA16-12491	62.7	83.5	52.0	54.8	58.8
SA16-12880	61.2	48.0	51.8	57.7	50.5
SA16-1961	61.1	61.5	48.9	52.2	57.3
SA16-2194	64.6	63.8	55.2	61.5	60.4
SA16-30116	60.6	38.8	46.4	51.5	52.4
Location Mean		63.2	51.0	56.8	56.8
C.V. (%)		22.9	11.3	5.4	3.1
L.S.D. (5%)		29.6	11.8	5.2	3.0
Row Sp. (In.)		30	30	30	30
Rows/Plot		4	4	4	4
Reps		2	2	2	2

*Data not included in mean.

PRELIMINARY TEST IIIA, 2019

YIELD (bu/a)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	70.9	94.0	74.4
IA3048 (SCN)	49.0	82.8	79.2
LD07-3395bf (SCN) (L)	69.1	98.1	67.5
U14-910097 (SCN) (E)	71.3	94.0	66.3
LD16- 759	66.8	86.9	60.5
LD16-2636	63.5	79.2	65.0
LD16-2751	72.1	88.7	69.5
LD16-2794	54.4	89.1	68.9
LD16-2923	57.4	93.4	55.8
LD16-2983	58.0	90.0	64.3
LD16-3589	65.2	82.3	69.8
LD16-5075a	58.4	92.0	61.5
LG15-4491	72.1	87.2	65.8
LG16-2547	66.8	89.0	68.5
LG16-3733	61.7	92.1	67.8
LG17-5436	72.1	81.2	67.9
LG17-5672	63.3	85.0	62.6
LG17-5674	64.9	88.0	74.1
LG17-5693	63.7	81.9	72.1
LG17-5869	60.8	77.4	61.6
SA16-10349	69.2	68.8	66.8
SA16-11831	54.1	87.7	73.6
SA16-12014	65.6	82.1	74.8
SA16-12472	69.4	73.8	67.5
SA16-12491	70.5	75.2	64.7
SA16-12880	62.1	79.3	65.9
SA16-1961	63.2	82.8	62.3
SA16-2194	62.7	84.4	63.5
SA16-30116	61.7	86.2	65.4
Location Mean	64.1	85.3	67.2
C.V. (%)	9.3	5.1	8.6
L.S.D. (5%)	12.2	8.9	12.0
Row Sp. (In.)	30	30	30
Rows/Plot	4	4	4
Reps	2	2	2

PRELIMINARY TEST IIIA, 2019

YIELD RANK

Strain	Yield Rank	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	1	6	3	3	7
IA3048 (SCN)	19	18	24	17	19
LD07-3395bf (SCN) (L)	2	23	10	9	1
U14-910097 (SCN) (E)	5	3	23	8	5
LD16- 759	26	28	22	16	29
LD16-2636	24	2	27	5	25
LD16-2751	6	7	6	22	13
LD16-2794	22	8	17	27	17
LD16-2923	21	16	20	29	2
LD16-2983	18	12	16	28	12
LD16-3589	13	11	2	19	23
LD16-5075a	14	9	7	14	21
LG15-4491	8	22	11	15	16
LG16-2547	3	4	1	6	4
LG16-3733	7	14	12	10	3
LG17-5436	17	23	29	18	26
LG17-5672	27	19	14	26	28
LG17-5674	4	16	8	1	18
LG17-5693	12	13	18	12	14
LG17-5869	29	20	26	7	22
SA16-10349	19	5	28	11	6
SA16-11831	15	10	21	21	10
SA16-12014	9	25	9	23	9
SA16-12472	11	26	4	2	20
SA16-12491	16	1	13	20	11
SA16-12880	22	27	15	13	26
SA16-1961	24	21	19	24	14
SA16-2194	10	15	5	4	7
SA16-30116	28	29	25	25	24

PRELIMINARY TEST IIIA, 2019

YIELD RANK

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	5	2	3
IA3048 (SCN)	29	18	1
LD07-3395bf (SCN) (L)	9	1	14
U14-910097 (SCN) (E)	4	3	16
LD16- 759	10	14	28
LD16-2636	16	25	20
LD16-2751	1	10	8
LD16-2794	27	8	9
LD16-2923	26	4	29
LD16-2983	25	7	22
LD16-3589	13	20	7
LD16-5075a	24	6	27
LG15-4491	1	13	18
LG16-2547	10	9	10
LG16-3733	21	5	12
LG17-5436	1	23	11
LG17-5672	17	16	24
LG17-5674	14	11	4
LG17-5693	15	22	6
LG17-5869	23	26	26
SA16-10349	8	29	15
SA16-11831	28	12	5
SA16-12014	12	21	2
SA16-12472	7	28	13
SA16-12491	6	27	21
SA16-12880	20	24	17
SA16-1961	18	19	25
SA16-2194	19	17	23
SA16-30116	21	15	19

PRELIMINARY TEST IIIA, 2019

MATURITY (date)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	10/1	10/3	9/28	10/4	9/25
IA3048 (SCN)	0	1	0	1	0
LD07-3395bf (SCN) (L)	4	4	2	5	6
U14-910097 (SCN) (E)	-1	-1	-3	0	0
LD16- 759	1	2	-1	2	4
LD16-2636	5	7	3	6	6
LD16-2751	1	3	0	1	0
LD16-2794	1	3	0	0	1
LD16-2923	-1	0	-1	3	0
LD16-2983	1	1	-1	3	3
LD16-3589	0	2	0	2	-3
LD16-5075a	-1	-4	-2	2	3
LG15-4491	-1	0	-2	0	-2
LG16-2547	4	6	4	3	5
LG16-3733	2	3	2	2	0
LG17-5436	2	3	-2	5	-1
LG17-5672	2	3	1	6	4
LG17-5674	4	5	1	6	5
LG17-5693	2	2	1	4	5
LG17-5869	0	1	-1	0	3
SA16-10349	4	3	4	6	5
SA16-11831	3	4	1	2	5
SA16-12014	3	4	2	5	4
SA16-12472	3	4	2	3	5
SA16-12491	3	6	1	2	5
SA16-12880	4	6	3	4	5
SA16-1961	3	3	1	3	6
SA16-2194	4	4	3	3	5
SA16-30116	4	6	2	3	6
Date Planted	5/31	5/23	6/5	6/5	6/3
Days to Mature	123	133	115	121	114

PRELIMINARY TEST IIIA, 2019

MATURITY (date)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	10/2	10/10	9/29
IA3048 (SCN)	1	-4	3
LD07-3395bf (SCN) (L)	10	0	0
U14-910097 (SCN) (E)	4	-3	-4
LD16- 759	8	-3	-4
LD16-2636	10	2	2
LD16-2751	7	-1	-2
LD16-2794	3	-3	2
LD16-2923	-1	-3	-6
LD16-2983	5	-2	-1
LD16-3589	2	1	-1
LD16-5075a	-1	-3	-4
LG15-4491	2	-4	-3
LG16-2547	9	-3	2
LG16-3733	2	-1	3
LG17-5436	7	-1	1
LG17-5672	5	-2	-3
LG17-5674	9	1	1
LG17-5693	2	-2	-1
LG17-5869	8	-4	-4
SA16-10349	8	3	1
SA16-11831	6	-1	3
SA16-12014	8	-1	0
SA16-12472	6	-2	1
SA16-12491	9	-1	1
SA16-12880	9	2	-2
SA16-1961	8	-1	1
SA16-2194	7	0	4
SA16-30116	8	3	2
Date Planted	6/7	5/18	6/5
Days to Mature	117	145	116

PRELIMINARY TEST IIIA, 2019

LODGING (score)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	1.3	1.0	1.0	1.0	1.0
IA3048 (SCN)	1.8	2.0	1.0	1.0	1.5
LD07-3395bf (SCN) (L)	1.3	1.0	1.0	1.0	1.0
U14-910097 (SCN) (E)	1.8	1.5	1.0	1.0	1.5
LD16- 759	1.4	1.0	1.0	1.0	1.0
LD16-2636	1.3	1.0	1.0	1.0	1.0
LD16-2751	1.5	1.0	1.0	1.0	1.0
LD16-2794	1.4	1.0	1.0	1.0	1.0
LD16-2923	1.0	1.0	1.0	1.0	1.0
LD16-2983	1.2	1.0	1.0	1.0	1.0
LD16-3589	1.4	1.0	1.0	1.0	1.0
LD16-5075a	1.4	1.5	1.0	1.0	1.0
LG15-4491	1.4	1.5	1.0	1.0	1.0
LG16-2547	2.0	1.5	1.0	1.0	1.5
LG16-3733	1.2	1.0	1.0	1.0	1.0
LG17-5436	2.6	2.5	1.0	1.0	3.0
LG17-5672	1.7	1.0	1.0	1.0	1.5
LG17-5674	1.8	1.5	1.0	1.0	2.0
LG17-5693	1.8	1.5	1.0	1.0	1.0
LG17-5869	2.1	2.0	1.0	1.0	1.0
SA16-10349	1.5	1.0	1.0	1.0	1.0
SA16-11831	1.6	1.5	1.0	1.0	1.0
SA16-12014	2.2	2.0	1.0	1.0	2.0
SA16-12472	1.5	1.0	1.0	1.0	1.0
SA16-12491	1.8	1.5	1.0	1.0	1.5
SA16-12880	2.1	2.0	1.0	1.0	1.5
SA16-1961	1.8	1.0	1.0	1.0	1.0
SA16-2194	1.4	1.5	1.0	1.0	1.0
SA16-30116	1.8	1.5	1.0	1.0	1.5

PRELIMINARY TEST IIIA, 2019

LODGING (score)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	1.8	2.0	1.5
IA3048 (SCN)	1.8	3.0	2.0
LD07-3395bf (SCN) (L)	2.0	2.0	1.0
U14-910097 (SCN) (E)	2.3	3.5	1.5
LD16- 759	2.0	2.0	2.0
LD16-2636	2.0	2.0	1.0
LD16-2751	1.8	3.5	1.0
LD16-2794	1.8	2.5	1.5
LD16-2923	1.3	1.0	1.0
LD16-2983	1.8	1.5	1.0
LD16-3589	1.8	3.0	1.0
LD16-5075a	1.5	2.0	1.5
LG15-4491	1.5	2.0	2.0
LG16-2547	2.3	5.0	2.0
LG16-3733	1.5	2.0	1.0
LG17-5436	2.8	4.5	3.5
LG17-5672	2.0	3.0	2.5
LG17-5674	2.3	3.0	2.0
LG17-5693	1.8	3.5	2.5
LG17-5869	2.3	4.5	3.0
SA16-10349	2.3	3.0	1.0
SA16-11831	2.0	4.0	1.0
SA16-12014	2.8	4.0	2.5
SA16-12472	2.0	2.5	2.0
SA16-12491	2.3	3.0	2.5
SA16-12880	2.3	4.5	2.5
SA16-1961	2.3	4.0	2.0
SA16-2194	2.0	2.0	1.5
SA16-30116	2.0	4.0	1.5

PRELIMINARY TEST IIIA, 2019

PLANT HEIGHT (inches)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	31	34	30	29	30
IA3048 (SCN)	31	32	27	32	33
LD07-3395bf (SCN) (L)	31	31	27	32	31
U14-910097 (SCN) (E)	30	33	26	29	28
LD16- 759	31	33	27	29	31
LD16-2636	32	33	27	29	34
LD16-2751	32	34	30	30	30
LD16-2794	30	32	28	28	31
LD16-2923	26	28	26	21	26
LD16-2983	26	27	27	22	26
LD16-3589	30	31	30	26	29
LD16-5075a	31	34	32	28	31
LG15-4491	35	35	33	34	35
LG16-2547	34	38	31	29	35
LG16-3733	31	32	30	30	30
LG17-5436	36	38	33	35	37
LG17-5672	32	34	27	28	33
LG17-5674	34	35	30	32	34
LG17-5693	34	36	31	33	33
LG17-5869	36	37	31	38	38
SA16-10349	32	32	27	29	36
SA16-11831	34	36	29	32	36
SA16-12014	34	38	33	32	36
SA16-12472	33	35	32	29	31
SA16-12491	33	36	32	31	34
SA16-12880	36	39	33	33	39
SA16-1961	34	35	32	34	35
SA16-2194	32	32	31	28	33
SA16-30116	36	36	34	32	36

PRELIMINARY TEST IIIA, 2019

PLANT HEIGHT (inches)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	29	38	27
IA3048 (SCN)	31	36	29
LD07-3395bf (SCN) (L)	29	38	32
U14-910097 (SCN) (E)	29	37	28
LD16- 759	31	37	28
LD16-2636	32	38	31
LD16-2751	33	37	28
LD16-2794	27	36	29
LD16-2923	24	36	24
LD16-2983	24	36	23
LD16-3589	29	38	29
LD16-5075a	30	34	27
LG15-4491	34	37	36
LG16-2547	34	37	35
LG16-3733	30	37	30
LG17-5436	34	39	35
LG17-5672	32	37	34
LG17-5674	33	39	33
LG17-5693	33	39	34
LG17-5869	34	39	37
SA16-10349	32	39	30
SA16-11831	32	39	34
SA16-12014	35	39	30
SA16-12472	34	38	34
SA16-12491	34	38	31
SA16-12880	36	38	35
SA16-1961	34	38	32
SA16-2194	30	38	30
SA16-30116	35	42	35

PRELIMINARY TEST IIIA, 2019

SEED SIZE (g/100)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	16.8	16.9	16.4	17.9	17.1
IA3048 (SCN)	16.0	15.8	15.6	16.5	14.3
LD07-3395bf (SCN) (L)	16.9	16.0	16.2	17.5	17.9
U14-910097 (SCN) (E)	16.0	16.0	14.6	16.9	15.9
LD16- 759	16.6	16.6	15.7	18.2	14.7
LD16-2636	18.7	19.9	18.0	19.5	18.1
LD16-2751	16.9	17.8	16.2	16.8	17.4
LD16-2794	15.5	15.6	15.2	17.0	14.3
LD16-2923	16.1	16.3	15.8	17.0	16.6
LD16-2983	17.4	18.2	17.2	18.6	16.5
LD16-3589	17.0	17.7	17.3	17.9	15.8
LD16-5075a	17.5	17.3	17.6	18.6	17.0
LG15-4491	18.3	17.7	17.9	18.7	18.7
LG16-2547	15.9	17.0	16.0	17.1	15.4
LG16-3733	17.1	18.7	16.1	18.5	14.9
LG17-5436	15.7	15.2	14.8	16.4	16.2
LG17-5672	17.3	17.9	16.8	18.7	17.1
LG17-5674	17.1	17.6	16.5	18.8	16.7
LG17-5693	19.3	19.3	18.5	20.0	20.1
LG17-5869	16.6	16.6	16.5	17.5	16.8
SA16-10349	16.9	18.0	16.2	18.0	15.9
SA16-11831	16.2	17.4	15.9	17.8	15.8
SA16-12014	15.8	16.6	15.5	16.5	14.9
SA16-12472	16.5	17.8	16.2	17.4	14.9
SA16-12491	14.8	16.4	13.5	15.0	12.4
SA16-12880	17.1	18.8	16.9	17.4	16.1
SA16-1961	14.9	15.8	14.1	15.5	14.2
SA16-2194	15.8	15.8	15.6	16.0	15.4
SA16-30116	14.6	15.9	14.1	14.0	13.7

PRELIMINARY TEST IIIA, 2019

SEED SIZE (g/100)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	16.4	16.9	15.9
IA3048 (SCN)	15.9	15.7	18.3
LD07-3395bf (SCN) (L)	18.1	16.6	16.2
U14-910097 (SCN) (E)	17.2	15.6	16.0
LD16- 759	17.6	16.5	17.0
LD16-2636	19.1	18.9	17.8
LD16-2751	17.7	16.5	15.9
LD16-2794	16.1	14.8	15.5
LD16-2923	16.4	15.5	15.0
LD16-2983	17.0	17.2	16.9
LD16-3589	17.3	16.6	16.5
LD16-5075a	17.1	17.8	17.0
LG15-4491	20.0	17.4	17.5
LG16-2547	15.1	15.3	15.3
LG16-3733	16.2	18.8	16.3
LG17-5436	15.9	16.0	15.6
LG17-5672	18.1	16.2	16.0
LG17-5674	17.4	16.2	16.3
LG17-5693	18.8	19.1	19.3
LG17-5869	17.0	16.0	15.8
SA16-10349	17.8	16.3	15.8
SA16-11831	16.0	15.5	15.3
SA16-12014	15.6	15.5	15.9
SA16-12472	16.6	16.7	16.0
SA16-12491	15.0	14.5	17.1
SA16-12880	16.7	18.0	15.8
SA16-1961	14.2	15.6	15.0
SA16-2194	15.9	16.0	16.0
SA16-30116	15.4	15.3	14.0

PRELIMINARY TEST IIIA, 2019

SEED QUALITY (score)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	1.8	1.0	2.0	1.0	3.0
IA3048 (SCN)	1.7	1.0	1.0	1.0	3.0
LD07-3395bf (SCN) (L)	1.6	1.0	2.0	1.0	3.0
U14-910097 (SCN) (E)	1.4	1.0	1.0	1.0	3.0
LD16- 759	1.7	1.0	2.0	1.0	3.0
LD16-2636	1.9	1.0	3.0	1.0	3.0
LD16-2751	1.6	1.5	2.0	1.0	3.0
LD16-2794	1.6	1.0	2.0	1.0	3.0
LD16-2923	1.8	1.5	2.0	1.0	4.0
LD16-2983	1.8	1.0	2.0	1.0	3.0
LD16-3589	1.6	1.0	2.0	1.0	3.0
LD16-5075a	1.6	1.0	2.0	1.0	3.0
LG15-4491	1.6	1.0	2.0	1.0	3.0
LG16-2547	1.7	1.5	3.0	1.0	3.0
LG16-3733	1.5	1.0	2.0	1.0	3.0
LG17-5436	1.4	1.5	1.0	1.0	3.0
LG17-5672	1.8	1.0	2.0	1.0	3.0
LG17-5674	1.7	1.0	2.0	1.0	3.0
LG17-5693	1.9	1.0	2.0	1.0	3.0
LG17-5869	1.4	1.0	2.0	1.0	3.0
SA16-10349	1.5	1.0	2.0	1.0	3.0
SA16-11831	1.7	1.0	2.0	1.0	2.0
SA16-12014	1.8	1.0	3.0	1.0	3.0
SA16-12472	1.6	1.5	2.0	1.0	3.0
SA16-12491	1.6	2.0	2.0	1.0	3.0
SA16-12880	1.7	1.0	2.0	1.0	3.0
SA16-1961	1.6	1.0	2.0	1.0	3.0
SA16-2194	1.6	1.0	2.0	1.0	3.0
SA16-30116	1.4	1.0	2.0	1.0	3.0

PRELIMINARY TEST IIIA, 2019

SEED QUALITY (score)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	1.5	2.0	2.0
IA3048 (SCN)	2.0	2.0	2.0
LD07-3395bf (SCN) (L)	1.5	1.5	1.5
U14-910097 (SCN) (E)	1.5	1.0	1.5
LD16- 759	2.0	1.0	2.0
LD16-2636	2.0	1.5	2.0
LD16-2751	1.5	1.0	1.5
LD16-2794	2.0	1.5	1.0
LD16-2923	1.5	1.0	1.5
LD16-2983	1.5	2.0	2.0
LD16-3589	1.5	1.5	1.0
LD16-5075a	1.5	2.0	1.0
LG15-4491	1.5	1.5	1.0
LG16-2547	1.5	1.0	1.0
LG16-3733	1.5	1.0	1.0
LG17-5436	1.5	1.0	1.0
LG17-5672	1.5	2.0	2.0
LG17-5674	2.0	2.0	1.0
LG17-5693	2.5	2.0	1.5
LG17-5869	1.0	1.0	1.0
SA16-10349	1.5	1.0	1.0
SA16-11831	2.0	2.0	2.0
SA16-12014	1.5	1.0	2.0
SA16-12472	1.5	1.0	1.0
SA16-12491	1.0	1.0	1.0
SA16-12880	2.0	1.0	2.0
SA16-1961	1.5	1.0	2.0
SA16-2194	1.5	1.0	1.5
SA16-30116	1.0	1.0	1.0

PRELIMINARY TEST IIIA, 2019

PROTEIN (%)

Strain	Mean 5 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS	Phillips NE
LD11-2170 (III)	35.0	33.9	34.4	35.6	36.3	34.7
IA3048 (SCN)	34.3	33.8	34.1	35.7	34.2	33.8
LD07-3395bf (SCN) (L)	33.7	32.2	33.9	33.7	35.2	33.6
U14-910097 (SCN) (E)	33.0	32.3	32.3	33.0	34.4	32.9
LD16- 759	32.1	32.2	31.2	32.6	32.1	32.2
LD16-2636	35.4	35.2	35.7	36.0	34.9	35.3
LD16-2751	35.1	33.8	35.0	34.5	37.5	34.7
LD16-2794	34.2	33.0	33.4	34.3	35.7	34.6
LD16-2923	32.6	31.5	32.7	32.5	33.8	32.7
LD16-2983	34.4	33.1	35.1	34.0	36.0	33.8
LD16-3589	34.3	32.4	34.0	34.0	34.8	36.5
LD16-5075a	34.6	33.5	32.9	34.5	37.3	35.0
LG15-4491	34.8	34.2	34.4	34.9	36.0	34.4
LG16-2547	34.2	35.0	33.3	34.8	34.9	33.4
LG16-3733	35.3	36.3	35.3	36.1	34.7	34.0
LG17-5436	34.4	35.4	33.6	34.4	34.7	34.0
LG17-5672	33.8	32.1	32.9	34.9	37.2	31.7
LG17-5674	33.7	33.1	32.7	35.4	34.7	32.9
LG17-5693	35.2	34.2	35.2	34.9	36.7	35.0
LG17-5869	33.4	33.1	32.4	32.8	35.4	33.1
SA16-10349	36.6	36.9	34.1	37.5	38.1	36.2
SA16-11831	35.2	35.8	36.0	34.8	35.3	34.4
SA16-12014	35.2	35.2	34.0	35.1	36.1	35.4
SA16-12472	34.3	34.6	33.8	34.6	34.5	34.2
SA16-12491	33.9	33.7	33.0	34.7	33.8	34.5
SA16-12880	35.2	35.9	34.9	34.8	36.8	33.6
SA16-1961	36.0	35.5	35.5	36.2	36.9	36.1
SA16-2194	34.6	33.1	34.1	34.9	35.7	35.0
SA16-30116	34.2	33.2	34.0	34.2	35.6	34.2

PRELIMINARY TEST IIIA, 2019

OIL (%)

Strain	Mean 5 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS	Phillips NE
LD11-2170 (III)	19.9	19.7	20.5	19.6	20.1	19.5
IA3048 (SCN)	19.0	18.4	19.5	18.8	19.5	18.8
LD07-3395bf (SCN) (L)	19.9	20.0	19.7	19.9	20.3	19.8
U14-910097 (SCN) (E)	20.4	19.9	21.4	20.6	20.2	19.8
LD16- 759	20.4	19.7	21.2	20.2	21.1	20.0
LD16-2636	19.1	19.0	19.3	19.0	19.4	18.9
LD16-2751	19.3	19.0	20.0	19.6	19.0	19.0
LD16-2794	19.5	19.3	20.3	19.8	19.1	19.0
LD16-2923	19.5	19.3	20.0	19.9	19.4	18.9
LD16-2983	19.8	19.8	20.1	20.2	19.6	19.6
LD16-3589	19.7	19.5	19.8	19.7	19.7	19.8
LD16-5075a	19.9	19.4	23.4	19.5	18.8	18.5
LG15-4491	18.7	18.3	19.2	19.0	18.9	18.3
LG16-2547	19.0	18.2	19.5	18.8	19.6	18.9
LG16-3733	19.1	19.6	19.0	18.6	19.6	18.9
LG17-5436	19.4	18.1	20.4	19.5	20.0	19.1
LG17-5672	18.7	19.0	19.6	18.6	18.2	18.0
LG17-5674	19.3	18.9	19.9	18.9	19.5	19.1
LG17-5693	18.3	17.9	18.8	18.6	18.4	18.0
LG17-5869	20.0	19.6	20.6	20.1	19.9	19.5
SA16-10349	19.1	19.1	21.1	18.4	18.4	18.3
SA16-11831	18.5	17.5	18.8	18.7	18.9	18.5
SA16-12014	18.2	17.5	18.1	18.6	18.7	18.0
SA16-12472	18.7	18.6	19.1	19.0	18.7	18.3
SA16-12491	19.1	18.8	19.4	19.0	19.5	18.8
SA16-12880	18.7	17.8	19.1	19.1	18.9	18.6
SA16-1961	18.7	18.2	19.4	18.7	19.0	18.1
SA16-2194	19.6	19.7	20.2	19.2	19.8	19.1
SA16-30116	18.7	18.4	19.1	19.0	18.6	18.5

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	Northern Regional Uniform Test				
	Preliminary Test IIIB, 2019				
			Seed	Gen.	Unique
Ent.	Strain	Parentage	Source	Comp.	Traits
1	LD11-2170 (III)	Syngenta 03JR313108 x LD05-3171	Diers	F5	SCN
2	IA3048 (SCN)	Dairyland 99540 x IA2068	Cai	F4	SCN
3	LD07-3395bf (SCN) (L)	LD07-3395 Reselection	Diers	F5	SCN
4	U14-910097 (SCN) (E)	U09-105007 x LD07-3419	Graef	F6	Ex Rps Resist
5	AR18-281070	Golden Harvest X33802 x LD02-4485	Cianzio	F4	
6	AR18-381003	U11-614119 x AR11-114002	Cianzio	F4	BSR
7	AR18-381009	U11-616086 x AR11-214001	Cianzio	F4	BSR
8	AR18-381036	U09-133021 x LD02-4485	Cianzio	F4	
9	AR18-381042	U11-614119 x AR12-228007	Cianzio	F4	
10	AR18-381044	U11-614119 x AR12-228007	Cianzio	F4	
11	AR18-381046	U11-614119 x AR11-314026	Cianzio	F4	
12	CR16-0008	CL04-13234 x CL05-20252-2	Rainey	F6	
13	CR16-0035	CL05-3314 x KB10-22-1	Rainey	F6	
14	CR16-0042	LG05-4832 x R05-4114-1	Rainey	F6	
15	CR16-0053	LG09-7341 x LG09-8165	Rainey	F6	
16	CR16-0067	LG09-7871 x LG09-7256	Rainey	F6	
17	CR16-0155	LG09-8165 x HI0800685	Rainey	F6	
18	U16-323153	U11-614093 x U13-602106	Graef		Rps1k
19	U16-323177	U11-614093 x U13-602106	Graef		Rps1k
20	U16-324189	U11-614093 x U13-602106	Graef		Rps1k
21	U16-325193	U11-919011 x U11-614093	Graef		SCN, Rps1k
22	U16-326197	U11-919011 x U11-614093	Graef		SCN, Rps1k
23	U17-602177	U14-912075 x U14-604086	Graef		
24	U17-602199	U14-912075 x U14-604086	Graef		
25	U17-602213	U14-912075 x U13-212431	Graef		
26	U17-603165	U14-919098 x U13-131132	Graef		
27	U17-606129	U13-228304 x U13-220427	Graef		
28	U17-607173	U14-606190 x U14-919098	Graef		
29	U17-608196	U14-919098 x U13-212431	Graef		
30	U17-611078	U14-924149 x U14-918103	Graef		
31	U17-616162	U14-916082 x U14-924149	Graef		
32	U17-929069	U14-916143 x U13-228304	Graef		

PRELIMINARY TEST IIIB, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Seed Treatment	Shattering Score
			Manhattan
LD11-2170 (III)	PGTDYBrI		1.0
IA3048 (SCN)	WGTSYYI		1.0
LD07-3395bf (SCN) (L)	WGTSYBfI		1.0
U14-910097 (SCN) (E)	PGTSYBfI		1.0
AR18-281070	PTBSYBI	CruiserMaxx Vibrance	1.0
AR18-381003	WPhillipsYBI	CruiserMaxx Vibrance	1.0
AR18-381009	WGBDYBI	CruiserMaxx Vibrance	1.0
AR18-381036	PGBSYBI	CruiserMaxx Vibrance	1.0
AR18-381042	WGBDYBI	CruiserMaxx Vibrance	1.0
AR18-381044	WGBDYBI	CruiserMaxx Vibrance	1.0
AR18-381046	PPhillipsYBI	CruiserMaxx Vibrance	1.0
CR16-0008	WTBSYIbI		1.0
CR16-0035	WGBSYGIbI		1.0
CR16-0042	PGTDYIbI		1.0
CR16-0053	PGTSYIbI		1.0
CR16-0067	PGBSYIbI		1.0
CR16-0155	PGBSYIbI		1.0
U16-323153	PGBSYIbI		1.0
U16-323177	PGBSYIbI		1.0
U16-324189	PGBSYIbI		1.0
U16-325193	PGBSYIbI		1.0
U16-326197	PGBDYIbI		1.0
U17-602177	PGB+TDYIbI		1.0
U17-602199	PGTDYBfI		1.0
U17-602213	PGTDYIbI		1.0
U17-603165	PGTDYIbLBrI		1.0
U17-606129	PGBSYBI		1.0
U17-607173	P+WGTDYBfI		1.0
U17-608196	PGB+TSYBI		1.0
U17-611078	P+WGBDYBI		1.0
U17-616162	PGTSYLBfIbI		1.0
U17-929069	PGBDYBI		1.0

PRELIMINARY TEST IIIB, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 6 bu/a	Rank 6 No.	Maturity 7 Date	Lodging 7 Score	Plant Height 7 In.	Seed Size 7 g/100	Seed Quality 7 Score	Composition Protein 5 %	 Oil 5 %
LD11-2170 (III)	68.2	1	10/1	1.3	30	17.0	1.5	35.0	19.7
IA3048 (SCN)	60.9	20	-0.2	1.7	31	15.8	1.4	34.9	18.9
LD07-3395bf (SCN) (L)	67.3	3	4.1	1.4	31	17.0	1.7	32.8	20.4
U14-910097 (SCN) (E)	65.0	9	-0.9	1.9	29	16.0	1.6	33.8	20.0
AR18-281070	56.6	31	0.2	1.5	31	14.2	1.8	33.6	19.9
AR18-381003	56.6	31	-1.6	1.4	30	18.0	1.6	35.3	18.9
AR18-381009	59.7	24	-1.9	1.7	31	18.7	1.6	33.7	19.6
AR18-381036	58.8	29	1.6	2.3	34	17.0	2.3	32.6	20.0
AR18-381042	64.0	12	-1.6	1.2	30	15.2	1.4	33.8	19.5
AR18-381044	65.6	6	-1.1	1.3	29	16.2	1.6	33.4	19.8
AR18-381046	59.5	25	-0.9	1.2	30	15.8	1.5	34.9	18.9
CR16-0008	59.0	28	1.4	1.3	34	17.6	1.7	34.5	18.6
CR16-0035	60.4	21	2.4	1.6	33	17.2	1.4	37.1	18.2
CR16-0042	62.5	16	1.5	1.7	34	17.2	1.4	33.9	18.9
CR16-0053	60.0	23	0.1	1.6	34	17.0	1.5	35.9	18.0
CR16-0067	62.0	17	0.1	1.7	33	15.4	1.7	34.3	19.0
CR16-0155	63.0	14	3.1	1.5	31	17.5	1.7	35.4	18.3
U16-323153	68.2	2	5.5	1.6	34	15.1	2.0	33.9	19.9
U16-323177	65.1	7	2.8	1.4	33	14.9	1.6	34.0	19.6
U16-324189	67.1	4	3.5	1.4	33	16.0	1.7	33.6	20.0
U16-325193	65.1	7	2.2	1.3	30	17.0	1.5	34.2	19.9
U16-326197	61.8	18	-0.4	1.2	29	17.6	1.5	34.0	20.0
U17-602177	63.2	13	5.7	1.3	34	15.2	2.0	33.4	20.3
U17-602199	62.9	15	1.0	1.3	31	14.7	1.4	32.6	19.9
U17-602213	60.2	22	1.1	1.4	31	15.9	1.6	33.0	19.8
U17-603165	64.2	11	-0.9	1.4	32	15.7	1.6	33.5	19.6
U17-606129	64.7	10	1.9	1.3	33	15.1	1.3	33.7	18.9
U17-607173	59.4	26	0.2	1.5	32	17.7	1.5	32.1	20.1
U17-608196	66.0	5	1.1	1.4	34	16.3	1.6	34.8	19.5
U17-611078	61.2	19	-0.5	1.4	33	16.9	1.5	34.1	19.4
U17-616162	58.1	30	-0.1	1.5	30	16.6	1.6	33.8	19.7
U17-929069	59.1	27	-1.1	1.4	32	16.0	1.5	33.7	19.5
Mean	62.3			1.5	31.3	16.3	1.5		
C.V. (%)	10.0			27.0	6.5	5.0	25.0		
L.S.D. (5%)	4.2			0.3	1.4	0.7	0.3		

123.5 Days After Planting

PRELIMINARY TEST IIIB, 2019

YIELD (bu/a)

Strain	Mean 6 Tests	Ames* IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	68.2	70.3	59.2	62.2	51.9
IA3048 (SCN)	60.9	61.7	46.2	54.6	53.3
LD07-3395bf (SCN) (L)	67.3	59.7	50.6	57.9	64.7
U14-910097 (SCN) (E)	65.0	68.7	48.4	59.4	61.9
AR18-281070	56.6	73.0	39.3	49.6	46.6
AR18-381003	56.6	51.7	41.8	46.1	54.6
AR18-381009	59.7	98.4	45.4	53.0	50.4
AR18-381036	58.8	82.0	50.6	63.3	40.9
AR18-381042	64.0	65.9	47.2	55.8	57.2
AR18-381044	65.6	72.6	47.3	62.9	52.0
AR18-381046	59.5	60.1	43.2	50.8	55.9
CR16-0008	59.0	65.5	42.0	51.5	53.9
CR16-0035	60.4	56.2	50.4	54.6	54.8
CR16-0042	62.5	64.8	42.4	54.3	54.9
CR16-0053	60.0	64.5	46.1	52.2	57.5
CR16-0067	62.0	60.5	45.5	63.5	61.1
CR16-0155	63.0	64.7	53.6	56.7	46.6
U16-323153	68.2	38.8	56.1	62.2	59.1
U16-323177	65.1	62.4	52.8	50.8	55.0
U16-324189	67.1	61.1	45.8	61.6	57.1
U16-325193	65.1	66.7	38.2	57.6	55.6
U16-326197	61.8	68.0	36.5	51.5	58.7
U17-602177	63.2	34.3	50.0	53.3	63.4
U17-602199	62.9	65.4	42.3	57.9	54.4
U17-602213	60.2	58.8	36.9	55.5	60.2
U17-603165	64.2	58.9	38.3	58.0	65.2
U17-606129	64.7	61.0	46.4	56.1	54.2
U17-607173	59.4	65.8	39.8	54.8	60.6
U17-608196	66.0	59.1	45.8	61.3	58.4
U17-611078	61.2	65.3	42.2	54.8	53.4
U17-616162	58.1	67.8	34.8	50.9	47.8
U17-929069	59.1	63.6	35.6	53.6	47.7
Location Mean		63.7	45.0	55.9	55.3
C.V. (%)		20.7	10.6	4.7	4.8
L.S.D. (5%)		26.5	9.8	4.5	5.5
Row Sp. (In.)		30	30	30	30
Rows/Plot		4	4	4	4
Reps		2	2	2	2

*Data not included in mean.

PRELIMINARY TEST IIIB, 2019

YIELD (bu/a)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	68.7	95.3	71.8
IA3048 (SCN)	63.1	83.7	64.4
LD07-3395bf (SCN) (L)	74.3	93.5	62.7
U14-910097 (SCN) (E)	64.9	90.8	64.9
AR18-281070	61.2	80.5	62.3
AR18-381003	56.2	82.1	59.1
AR18-381009	63.9	78.5	66.8
AR18-381036	66.8	77.1	54.5
AR18-381042	68.9	97.0	57.7
AR18-381044	69.0	91.8	70.5
AR18-381046	58.2	85.6	63.5
CR16-0008	58.2	79.7	68.6
CR16-0035	66.6	78.9	57.2
CR16-0042	69.6	91.9	62.2
CR16-0053	64.3	83.9	56.2
CR16-0067	51.9	87.7	62.1
CR16-0155	62.1	94.2	65.1
U16-323153	59.6	91.6	80.4
U16-323177	63.9	96.2	72.1
U16-324189	61.3	102.3	74.3
U16-325193	68.2	99.1	72.1
U16-326197	58.5	96.1	69.3
U17-602177	64.2	88.5	60.1
U17-602199	70.7	95.1	57.1
U17-602213	44.4	97.4	66.9
U17-603165	67.2	95.2	61.5
U17-606129	62.2	95.0	74.6
U17-607173	61.6	88.7	50.8
U17-608196	66.9	97.0	66.5
U17-611078	54.1	96.6	66.0
U17-616162	61.3	91.9	61.6
U17-929069	62.7	95.4	59.6
Location Mean	62.9	90.6	64.4
C.V. (%)	10.2	4.9	8.3
L.S.D. (5%)	13.0	9.0	11.0
Row Sp. (In.)	30	30	30
Rows/Plot	4	4	4
Reps	2	2	2

PRELIMINARY TEST IIIB, 2019

YIELD RANK

Strain	Yield Rank	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	1	5	1	4	26
IA3048 (SCN)	20	20	13	19	24
LD07-3395bf (SCN) (L)	3	25	5	10	2
U14-910097 (SCN) (E)	9	6	9	8	4
AR18-281070	31	3	26	31	30
AR18-381003	31	30	24	32	19
AR18-381009	24	1	18	24	27
AR18-381036	29	2	5	2	32
AR18-381042	12	10	11	15	12
AR18-381044	6	4	10	3	25
AR18-381046	25	24	19	29	14
CR16-0008	28	12	23	26	22
CR16-0035	21	29	7	19	18
CR16-0042	16	15	20	21	17
CR16-0053	23	17	14	25	11
CR16-0067	17	23	17	1	5
CR16-0155	14	16	3	13	30
U16-323153	2	31	2	4	8
U16-323177	7	19	4	29	16
U16-324189	4	21	15	6	13
U16-325193	7	9	28	12	15
U16-326197	18	7	30	26	9
U17-602177	13	32	8	23	3
U17-602199	15	13	21	10	20
U17-602213	22	28	29	16	7
U17-603165	11	27	27	9	1
U17-606129	10	22	12	14	21
U17-607173	26	11	25	17	6
U17-608196	5	26	15	7	10
U17-611078	19	14	22	17	23
U17-616162	30	8	32	28	28
U17-929069	27	18	31	22	29

PRELIMINARY TEST IIIB, 2019

YIELD RANK

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	6	10	6
IA3048 (SCN)	17	26	16
LD07-3395bf (SCN) (L)	1	15	18
U14-910097 (SCN) (E)	12	20	15
AR18-281070	24	28	19
AR18-381003	29	27	26
AR18-381009	15	31	11
AR18-381036	10	32	31
AR18-381042	5	5	27
AR18-381044	4	18	7
AR18-381046	27	24	17
CR16-0008	27	29	9
CR16-0035	11	30	28
CR16-0042	3	17	20
CR16-0053	13	25	30
CR16-0067	31	23	21
CR16-0155	20	14	14
U16-323153	25	19	1
U16-323177	15	7	4
U16-324189	22	1	3
U16-325193	7	2	5
U16-326197	26	8	8
U17-602177	14	22	24
U17-602199	2	12	29
U17-602213	32	3	10
U17-603165	8	11	23
U17-606129	19	13	2
U17-607173	21	21	32
U17-608196	9	4	12
U17-611078	30	6	13
U17-616162	22	16	22
U17-929069	18	9	25

PRELIMINARY TEST IIIB, 2019

MATURITY (date)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	10/1	10/4	9/29	10/4	9/28
IA3048 (SCN)	-0	1	0	2	-5
LD07-3395bf (SCN) (L)	4	1	4	7	2
U14-910097 (SCN) (E)	-1	-3	-1	2	-4
AR18-281070	0	1	1	2	0
AR18-381003	-2	-3	-1	1	-7
AR18-381009	-2	-4	0	-1	-7
AR18-381036	2	2	2	-2	0
AR18-381042	-2	0	-3	1	-6
AR18-381044	-1	-2	-1	-1	-1
AR18-381046	-1	-5	-3	1	-1
CR16-0008	1	3	2	-1	-6
CR16-0035	2	2	3	2	-3
CR16-0042	2	2	2	5	-6
CR16-0053	0	1	1	4	-4
CR16-0067	0	1	2	3	-2
CR16-0155	3	2	3	6	1
U16-323153	6	6	7	8	2
U16-323177	3	4	3	5	-1
U16-324189	4	3	4	4	2
U16-325193	2	-1	2	3	0
U16-326197	-0	-1	-1	2	-4
U17-602177	6	4	5	9	4
U17-602199	1	1	1	-1	2
U17-602213	1	-3	3	1	2
U17-603165	-1	-2	0	3	-5
U17-606129	2	1	2	2	-3
U17-607173	0	-3	2	0	1
U17-608196	1	-3	3	-1	1
U17-611078	-1	-2	1	0	-3
U17-616162	-0	1	-1	1	-3
U17-929069	-1	-2	-1	0	-3
Date Planted	5/31	5/23	6/5	6/5	6/3
Days to Mature	124	134	116	121	117

PRELIMINARY TEST IIIB, 2019

MATURITY (date)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	10/2	10/8	9/27
IA3048 (SCN)	2	-2	1
LD07-3395bf (SCN) (L)	10	3	2
U14-910097 (SCN) (E)	2	-2	-1
AR18-281070	0	-1	-1
AR18-381003	1	-2	-1
AR18-381009	0	-4	2
AR18-381036	4	3	2
AR18-381042	-1	-3	1
AR18-381044	-1	-3	1
AR18-381046	0	2	-1
CR16-0008	7	2	3
CR16-0035	8	3	2
CR16-0042	7	0	1
CR16-0053	4	-2	-3
CR16-0067	-3	0	0
CR16-0155	7	0	3
U16-323153	9	2	5
U16-323177	4	3	2
U16-324189	5	3	4
U16-325193	7	2	2
U16-326197	0	1	0
U17-602177	11	6	1
U17-602199	7	-1	-2
U17-602213	3	1	1
U17-603165	4	-2	-4
U17-606129	7	0	4
U17-607173	6	-2	-3
U17-608196	6	1	0
U17-611078	1	1	-2
U17-616162	2	-1	1
U17-929069	1	-2	-1
Date Planted	6/7	5/18	6/5
Days to Mature	117	143	114

PRELIMINARY TEST IIIB, 2019

LODGING (score)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	1.3	1.0	1.0	1.0	1.0
IA3048 (SCN)	1.7	2.0	1.0	1.0	1.0
LD07-3395bf (SCN) (L)	1.4	1.0	1.0	1.0	1.0
U14-910097 (SCN) (E)	1.9	2.0	1.0	1.0	1.0
AR18-281070	1.5	2.0	1.0	1.0	1.0
AR18-381003	1.4	2.0	1.0	1.0	1.0
AR18-381009	1.7	2.0	1.0	1.0	2.0
AR18-381036	2.3	2.0	1.0	1.0	2.0
AR18-381042	1.2	1.0	1.0	1.0	1.0
AR18-381044	1.3	1.0	1.0	1.0	1.0
AR18-381046	1.2	1.0	1.0	1.0	1.0
CR16-0008	1.3	1.0	1.0	1.0	1.0
CR16-0035	1.6	1.5	1.0	1.0	1.0
CR16-0042	1.7	2.0	1.0	1.0	1.0
CR16-0053	1.6	2.0	1.0	1.0	1.0
CR16-0067	1.7	2.0	1.0	1.0	2.0
CR16-0155	1.5	1.0	1.0	1.0	1.0
U16-323153	1.6	1.5	1.0	1.0	1.0
U16-323177	1.4	1.0	1.0	1.0	1.0
U16-324189	1.4	1.0	1.0	1.0	1.0
U16-325193	1.3	1.0	1.0	1.0	1.0
U16-326197	1.2	1.0	1.0	1.0	1.0
U17-602177	1.3	1.0	1.0	1.0	1.0
U17-602199	1.3	1.0	1.0	1.0	1.0
U17-602213	1.4	1.0	1.0	1.0	1.0
U17-603165	1.4	1.0	1.0	1.0	1.0
U17-606129	1.3	1.5	1.0	1.0	1.0
U17-607173	1.5	1.0	1.0	1.0	1.0
U17-608196	1.4	1.0	1.0	1.0	1.0
U17-611078	1.4	1.5	1.0	1.0	1.0
U17-616162	1.5	1.5	1.0	1.0	1.0
U17-929069	1.4	1.5	1.0	1.0	1.0

PRELIMINARY TEST IIIB, 2019

LODGING (score)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	1.5	2.0	1.5
IA3048 (SCN)	2.0	3.5	1.5
LD07-3395bf (SCN) (L)	2.0	2.0	1.5
U14-910097 (SCN) (E)	2.3	4.0	2.0
AR18-281070	2.0	2.0	1.5
AR18-381003	1.5	2.0	1.5
AR18-381009	1.8	2.0	2.0
AR18-381036	2.3	5.0	2.5
AR18-381042	1.5	2.0	1.0
AR18-381044	1.8	2.0	1.0
AR18-381046	1.5	2.0	1.0
CR16-0008	1.8	2.5	1.0
CR16-0035	2.3	3.0	1.5
CR16-0042	2.5	2.5	2.0
CR16-0053	1.5	2.0	2.5
CR16-0067	2.0	2.5	1.5
CR16-0155	2.3	2.5	2.0
U16-323153	2.5	2.5	1.5
U16-323177	1.5	2.0	2.0
U16-324189	2.3	2.0	1.5
U16-325193	1.8	2.0	1.0
U16-326197	1.3	2.0	1.0
U17-602177	1.5	2.0	1.5
U17-602199	1.8	2.0	1.5
U17-602213	1.5	2.0	2.0
U17-603165	1.5	3.0	1.0
U17-606129	1.8	2.0	1.0
U17-607173	2.3	2.0	2.5
U17-608196	2.0	2.0	1.5
U17-611078	1.5	2.0	1.5
U17-616162	1.5	2.0	2.5
U17-929069	2.0	2.0	1.5

PRELIMINARY TEST IIIB, 2019

PLANT HEIGHT (inches)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	30	32	30	26	29
IA3048 (SCN)	31	32	28	29	32
LD07-3395bf (SCN) (L)	31	33	27	33	28
U14-910097 (SCN) (E)	29	32	25	28	29
AR18-281070	31	35	23	30	32
AR18-381003	30	31	26	26	29
AR18-381009	31	33	23	32	31
AR18-381036	34	37	31	33	33
AR18-381042	30	31	26	28	29
AR18-381044	29	29	25	26	29
AR18-381046	30	30	25	28	32
CR16-0008	34	35	30	31	33
CR16-0035	33	36	30	32	30
CR16-0042	34	37	27	33	34
CR16-0053	34	38	28	33	36
CR16-0067	33	35	27	32	36
CR16-0155	31	32	28	26	30
U16-323153	34	36	30	32	35
U16-323177	33	35	30	31	31
U16-324189	33	34	28	34	34
U16-325193	30	32	23	27	28
U16-326197	29	31	25	25	29
U17-602177	34	35	30	31	35
U17-602199	31	32	28	27	27
U17-602213	31	33	25	27	30
U17-603165	32	35	26	33	33
U17-606129	33	36	27	30	32
U17-607173	32	33	26	31	31
U17-608196	34	34	27	33	32
U17-611078	33	34	25	33	33
U17-616162	30	33	23	29	32
U17-929069	32	33	26	31	33

PRELIMINARY TEST IIIB, 2019

PLANT HEIGHT (inches)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	29	37	31
IA3048 (SCN)	31	37	31
LD07-3395bf (SCN) (L)	29	36	35
U14-910097 (SCN) (E)	28	35	29
AR18-281070	31	36	30
AR18-381003	31	37	34
AR18-381009	31	36	29
AR18-381036	34	36	32
AR18-381042	28	34	33
AR18-381044	30	36	28
AR18-381046	30	36	31
CR16-0008	36	37	38
CR16-0035	32	36	36
CR16-0042	36	37	36
CR16-0053	36	35	31
CR16-0067	33	37	34
CR16-0155	30	38	32
U16-323153	33	40	34
U16-323177	33	37	35
U16-324189	34	37	33
U16-325193	32	37	29
U16-326197	28	36	27
U17-602177	34	41	34
U17-602199	31	38	32
U17-602213	31	37	32
U17-603165	33	38	30
U17-606129	34	37	35
U17-607173	33	37	33
U17-608196	34	40	38
U17-611078	32	37	36
U17-616162	31	36	30
U17-929069	31	39	34

PRELIMINARY TEST IIIB, 2019

SEED SIZE (g/100)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	17.0	17.2	16.4	17.8	16.9
IA3048 (SCN)	15.8	15.8	15.4	15.7	15.9
LD07-3395bf (SCN) (L)	17.0	16.9	15.7	17.6	19.3
U14-910097 (SCN) (E)	16.0	15.9	14.9	16.9	16.2
AR18-281070	14.2	14.6	13.8	14.7	13.5
AR18-381003	18.0	18.8	16.7	19.5	18.1
AR18-381009	18.7	19.1	17.3	18.8	18.0
AR18-381036	17.0	16.9	15.8	17.1	17.9
AR18-381042	15.2	15.6	14.0	16.5	15.0
AR18-381044	16.2	15.9	14.4	16.1	17.7
AR18-381046	15.8	15.6	14.5	16.7	16.6
CR16-0008	17.6	18.2	16.2	17.7	18.1
CR16-0035	17.2	18.2	16.9	17.7	16.1
CR16-0042	17.2	17.4	15.9	18.9	16.5
CR16-0053	17.0	17.0	16.3	19.4	17.7
CR16-0067	15.4	14.8	14.2	17.0	15.4
CR16-0155	17.5	17.6	16.4	18.3	18.0
U16-323153	15.1	15.2	13.9	15.5	15.3
U16-323177	14.9	15.3	13.7	15.1	15.5
U16-324189	16.0	15.8	14.4	15.9	16.9
U16-325193	17.0	16.6	15.5	16.6	18.4
U16-326197	17.6	17.7	15.7	18.6	18.7
U17-602177	15.2	14.8	14.0	16.4	15.7
U17-602199	14.7	14.3	12.8	15.1	16.4
U17-602213	15.9	15.1	14.4	16.9	16.7
U17-603165	15.7	15.5	14.1	16.6	16.0
U17-606129	15.1	14.5	13.4	15.7	14.7
U17-607173	17.7	18.4	16.9	17.1	17.6
U17-608196	16.3	15.5	14.9	15.5	18.0
U17-611078	16.9	16.2	15.0	16.4	18.4
U17-616162	16.6	17.2	14.9	16.7	16.5
U17-929069	16.0	17.1	14.3	15.7	17.1

PRELIMINARY TEST IIIB, 2019

SEED SIZE (g/100)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	17.0	16.8	16.9
IA3048 (SCN)	15.5	16.0	16.3
LD07-3395bf (SCN) (L)	17.1	16.6	15.9
U14-910097 (SCN) (E)	17.1	15.8	14.9
AR18-281070	15.3	13.4	14.4
AR18-381003	19.1	17.9	16.1
AR18-381009	20.5	18.7	18.9
AR18-381036	18.2	16.5	16.5
AR18-381042	14.8	14.9	15.9
AR18-381044	17.2	16.2	15.9
AR18-381046	15.6	16.7	14.8
CR16-0008	18.1	17.4	17.2
CR16-0035	17.9	18.7	14.8
CR16-0042	18.0	16.9	16.8
CR16-0053	17.4	15.6	15.7
CR16-0067	15.1	15.9	15.2
CR16-0155	17.8	17.4	17.1
U16-323153	15.4	15.4	14.8
U16-323177	14.8	15.6	14.4
U16-324189	16.4	17.0	15.8
U16-325193	18.3	16.8	17.0
U16-326197	17.4	17.8	17.5
U17-602177	15.6	16.1	14.0
U17-602199	15.5	14.9	13.8
U17-602213	16.6	16.9	15.0
U17-603165	16.1	16.9	14.5
U17-606129	16.4	15.4	15.5
U17-607173	19.4	17.7	16.7
U17-608196	16.1	18.0	16.3
U17-611078	18.2	17.1	16.9
U17-616162	16.8	17.8	16.3
U17-929069	17.3	16.4	14.0

PRELIMINARY TEST IIIB, 2019

SEED QUALITY (score)

Strain	Mean 7 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS
LD11-2170 (III)	1.5	1.0	2.0	1.0	3.0
IA3048 (SCN)	1.4	1.0	2.0	1.0	2.0
LD07-3395bf (SCN) (L)	1.7	1.0	2.0	1.0	3.0
U14-910097 (SCN) (E)	1.6	1.0	2.0	1.0	3.0
AR18-281070	1.8	1.0	2.0	1.0	3.0
AR18-381003	1.6	1.0	2.0	1.0	2.0
AR18-381009	1.6	1.0	2.0	1.0	3.0
AR18-381036	2.3	3.0	3.0	1.0	3.0
AR18-381042	1.4	1.0	2.0	1.0	2.0
AR18-381044	1.6	1.0	2.0	1.0	3.0
AR18-381046	1.5	1.0	2.0	1.0	2.0
CR16-0008	1.7	2.0	2.0	1.0	3.0
CR16-0035	1.4	1.0	1.0	1.0	3.0
CR16-0042	1.4	1.0	2.0	1.0	2.0
CR16-0053	1.5	1.0	2.0	1.0	3.0
CR16-0067	1.7	1.5	2.0	1.0	3.0
CR16-0155	1.7	1.0	2.0	1.0	4.0
U16-323153	2.0	2.5	3.0	1.0	3.0
U16-323177	1.6	1.5	2.0	1.0	3.0
U16-324189	1.7	2.0	2.0	1.0	3.0
U16-325193	1.5	1.0	2.0	1.0	3.0
U16-326197	1.5	1.0	2.0	1.0	2.0
U17-602177	2.0	3.5	2.0	1.0	3.0
U17-602199	1.4	1.0	2.0	1.0	2.0
U17-602213	1.6	1.5	2.0	1.0	3.0
U17-603165	1.6	1.0	2.0	1.0	3.0
U17-606129	1.3	1.0	1.0	1.0	2.0
U17-607173	1.5	1.0	1.0	1.0	3.0
U17-608196	1.6	1.0	2.0	1.0	3.0
U17-611078	1.5	1.0	2.0	1.0	3.0
U17-616162	1.6	1.0	2.0	1.0	3.0
U17-929069	1.5	1.0	2.0	1.0	3.0

PRELIMINARY TEST IIIB, 2019

SEED QUALITY (score)

Strain	Albany MO	Phillips NE	Wymore NE
LD11-2170 (III)	1.5	1.0	1.0
IA3048 (SCN)	2.0	1.0	1.0
LD07-3395bf (SCN) (L)	2.0	1.0	2.0
U14-910097 (SCN) (E)	1.5	2.0	1.0
AR18-281070	2.0	1.5	2.0
AR18-381003	3.0	1.0	1.0
AR18-381009	2.0	1.0	1.0
AR18-381036	2.0	1.5	2.5
AR18-381042	1.5	1.0	1.0
AR18-381044	1.5	1.0	1.5
AR18-381046	2.0	1.0	1.5
CR16-0008	2.0	1.0	1.0
CR16-0035	2.0	1.0	1.0
CR16-0042	1.5	1.0	1.5
CR16-0053	1.5	1.0	1.0
CR16-0067	1.5	2.0	1.0
CR16-0155	2.0	1.0	1.0
U16-323153	1.5	1.5	1.5
U16-323177	1.5	1.0	1.0
U16-324189	1.5	1.0	1.5
U16-325193	1.5	1.0	1.0
U16-326197	1.5	1.5	1.5
U17-602177	1.0	2.0	1.5
U17-602199	1.5	1.0	1.0
U17-602213	1.5	1.0	1.0
U17-603165	2.0	1.0	1.0
U17-606129	1.5	1.0	1.5
U17-607173	1.5	1.5	1.5
U17-608196	2.0	1.0	1.0
U17-611078	1.5	1.0	1.0
U17-616162	1.5	1.0	1.5
U17-929069	1.5	1.0	1.0

PRELIMINARY TEST IIIB, 2019

PROTEIN (%)

Strain	Mean 5 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS	Phillips NE
LD11-2170 (III)	35.0	33.8	35.4	35.5	35.7	34.8
IA3048 (SCN)	34.9	34.9	34.8	35.4	35.3	34.2
LD07-3395bf (SCN) (L)	32.8	32.1	31.1	33.0	36.3	31.8
U14-910097 (SCN) (E)	33.8	32.8	33.1	35.1	35.2	32.9
AR18-281070	33.6	33.0	32.8	33.2	35.6	33.5
AR18-381003	35.3	34.7	34.8	35.3	37.0	34.9
AR18-381009	33.7	33.1	34.0	33.8	34.0	33.8
AR18-381036	32.6	32.4	31.2	32.8	34.7	32.0
AR18-381042	33.8	32.7	32.9	34.5	34.6	34.0
AR18-381044	33.4	33.1	32.1	32.4	35.7	33.8
AR18-381046	34.9	35.3	34.0	34.8	36.1	34.3
CR16-0008	34.5	34.6	34.6	34.0	34.8	34.7
CR16-0035	37.1	36.6	37.7	37.0	37.6	36.5
CR16-0042	33.9	34.2	32.4	34.2	35.2	33.6
CR16-0053	35.9	35.7	35.9	37.3	36.6	34.1
CR16-0067	34.3	34.0	34.0	34.9	35.2	33.6
CR16-0155	35.4	35.1	34.8	35.7	37.2	34.1
U16-323153	33.9	33.2	33.4	34.5	35.3	33.5
U16-323177	34.0	34.0	32.6	33.7	34.9	34.9
U16-324189	33.6	32.5	32.9	32.6	35.5	34.3
U16-325193	34.2	34.2	33.4	33.9	35.5	34.1
U16-326197	34.0	34.0	32.5	33.4	35.5	34.4
U17-602177	33.4	34.0	32.9	32.4	34.5	33.0
U17-602199	32.6	31.6	32.3	32.0	34.9	32.3
U17-602213	33.0	33.0	32.0	32.9	35.0	32.2
U17-603165	33.5	34.0	32.4	33.5	34.9	32.6
U17-606129	33.7	34.7	33.6	33.5	34.3	32.3
U17-607173	32.1	31.1	31.4	31.8	33.1	33.1
U17-608196	34.8	33.9	33.8	34.4	36.7	35.0
U17-611078	34.1	33.6	32.2	34.1	36.1	34.6
U17-616162	33.8	32.8	33.1	33.0	35.9	34.2
U17-929069	33.7	32.7	31.7	34.4	35.9	33.9

PRELIMINARY TEST IIIB, 2019

OIL (%)

Strain	Mean 5 Tests	Ames IA	Urbana IL	West Lafayette IN	Ottawa KS	Phillips NE
LD11-2170 (III)	19.7	19.7	20.1	19.6	19.9	19.4
IA3048 (SCN)	18.9	18.0	19.6	18.7	19.4	18.6
LD07-3395bf (SCN) (L)	20.4	20.1	21.5	20.4	19.7	20.3
U14-910097 (SCN) (E)	20.0	19.6	21.0	19.4	20.2	19.8
AR18-281070	19.9	19.4	20.7	20.0	20.1	19.3
AR18-381003	18.9	18.5	19.7	19.3	18.9	18.4
AR18-381009	19.6	18.9	20.0	20.0	20.2	18.8
AR18-381036	20.0	19.6	20.9	20.0	20.0	19.6
AR18-381042	19.5	19.3	20.4	19.4	19.9	18.5
AR18-381044	19.8	19.4	20.3	20.5	19.4	19.1
AR18-381046	18.9	18.2	19.8	19.2	18.8	18.5
CR16-0008	18.6	18.1	18.9	18.8	19.3	17.7
CR16-0035	18.2	17.9	18.4	18.4	18.4	17.9
CR16-0042	18.9	18.2	19.4	19.0	19.1	18.8
CR16-0053	18.0	17.4	19.1	17.7	18.1	17.8
CR16-0067	19.0	18.4	19.6	18.9	19.2	18.7
CR16-0155	18.3	17.7	19.3	18.2	18.1	18.3
U16-323153	19.9	19.6	20.6	19.7	20.2	19.7
U16-323177	19.6	18.9	20.5	19.8	20.1	18.6
U16-324189	20.0	19.7	20.7	20.6	20.0	19.3
U16-325193	19.9	19.1	20.6	19.9	20.0	20.1
U16-326197	20.0	19.4	21.0	20.5	20.2	19.0
U17-602177	20.3	19.3	20.7	20.9	20.5	20.1
U17-602199	19.9	19.5	20.6	20.6	19.5	19.1
U17-602213	19.8	19.2	20.2	20.3	19.9	19.4
U17-603165	19.6	18.6	20.5	19.8	19.8	19.4
U17-606129	18.9	18.0	19.8	19.3	19.2	18.2
U17-607173	20.1	20.1	21.0	20.4	19.9	19.3
U17-608196	19.5	19.4	20.1	19.6	19.2	19.1
U17-611078	19.4	18.8	20.8	19.5	19.2	18.9
U17-616162	19.7	19.5	20.7	19.8	19.5	18.9
U17-929069	19.5	19.3	21.0	19.1	19.4	19.0

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	Northern Regional Uniform Test					
	Uniform Test IV, 2019					
			Seed	Previous	Gen.	Unique
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits
1	LD06-7620 (IV)	IA3023 x LD00-3309	Diers	8	F5	SCN
2	LD00-2817 (L)	Ina x Dwight	Diers	10	F5	SCN
3	LD07-3395bf (SCN) (E)	LD07-3395 Reselection	Diers	4	F5	SCN
4	CR15-0616	CL05-4637 x AR08-286003	Rainey	PTIV	F5	
5	CR15-0619	CL05-4637 x AR08-286003	Rainey	PTIV	F5	
6	CR15-1369	4J10534 x LD06-7620	Rainey	PTIIIA	F5	
7	CR15-1382	4J10534 x LD06-7620	Rainey	PTIV	F5	
8	K15-1283	LD06-7620 x 435.TCS	Schapaugh	1	F5	SCN, STS
9	LD15-3818	LD09-3913 x BN09002129	Diers	SCN PIV	F5	SCN
10	LG15-4348	LG06-2284 x LG07-2309	Walker	PTIV	F6	Genetic diversity (G. max & G. soja)
11	LG16-4634	LG06-5798 x WN0800527	Walker	PTIV	F6	Genetic diversity
12	LG16-4642	LG06-5798 x WN0800527	Walker	PTIV	F6	Genetic diversity
13	LG16-4644	LG06-5798 x WN0800527	Walker	PTIV	F6	Genetic diversity
14	LG16-4655	LG06-5798 x WN0800527	Walker	PTIV	F6	Genetic diversity
15	S13-2743C	LS07-3125 x S05-11400	Chen	2		SCN
16	S15-10879C	S09-13635 x S08-8440RR1	Chen	Initial		SCN, STS
17	S16-14161C	S08-17361 x LG09-6212	Chen	Initial		SCN
18	S16-9784C	S09-9943 x DT97-4290	Chen	Initial		
19	SA14-5854	LD07-3419 x LD04-13265	Scaboo	2	F4	

UNIFORM TEST IV, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Seed Treatment	Shattering Score
			Manhattan
LD06-7620 (IV)	PGBDYBI		1.0
LD00-2817 (L)	PGTSYIbI		1.0
LD07-3395bf (SCN) (E)	WGTSYBfI		1.0
CR15-0616	PGBSYIbI		1.0
CR15-0619	PGBSYIbI		1.0
CR15-1369	PGBSYIbI		1.0
CR15-1382	PGBSYIbI		1.0
K15-1283	PT+GB+TSYBI	Apron XL	1.0
LD15-3818	PLtBDYIbI		1.0
LG15-4348	WGBSYBI		1.0
LG16-4634	PGBSYBI		1.0
LG16-4642	PGBSYIbI		1.0
LG16-4644	PGBDYBI		1.0
LG16-4655	PGBSYIbI		1.0
S13-2743C	WGTSYBfI		1.0
S15-10879C	WGTSYLBfI		1.0
S16-14161C	WGBSYLBfI		1.0
S16-9784C	WGBDYBI		1.0
SA14-5854	PGTSYBfI		1.0

UNIFORM TEST IV, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 11 bu/a	Rank 11 No.	Maturity 11 Date	Lodging 11 Score	Plant Height 11 In.	Seed Size 11 g/100	Seed Quality 11 Score	Composition Protein 4 %	 Oil 4 %
LD06-7620 (IV)	57.7	10	10/3	1.2	29	15.0	2.2	35.6	18.7
LD00-2817 (L)	55.4	14	-1.3	1.5	34	14.4	2.2	33.4	20.1
LD07-3395bf (SCN) (E)	61.4	2	-2.9	1.2	28	16.7	2.1	33.8	20.2
CR15-0616	56.0	13	-2.5	1.1	30	14.5	2.1	34.5	19.9
CR15-0619	54.9	18	-2.6	1.1	30	14.4	2.2	34.1	20.0
CR15-1369	58.2	8	0.3	1.4	31	15.6	2.3	34.8	19.5
CR15-1382	55.4	14	-0.8	1.2	29	18.5	2.4	34.8	19.4
K15-1283	56.1	12	3.0	1.2	29	16.4	2.1	36.0	18.8
LD15-3818	60.5	5	-2.4	1.1	30	15.7	2.2	35.0	19.4
LG15-4348	58.1	9	-1.5	1.9	37	15.5	2.2	33.4	19.7
LG16-4634	60.8	4	-1.9	1.3	33	14.1	2.1	34.0	19.0
LG16-4642	61.4	2	-0.6	1.3	33	14.1	2.0	34.6	19.3
LG16-4644	58.8	7	-2.0	1.4	34	14.1	2.1	33.7	19.1
LG16-4655	62.1	1	1.7	1.4	36	14.4	2.0	34.0	19.4
S13-2743C	60.2	6	2.2	1.2	34	14.0	1.9	35.4	19.2
S15-10879C	55.4	14	0.8	1.3	33	14.5	2.1	37.4	16.8
S16-14161C	56.6	11	8.1	1.4	34	17.2	2.2	35.6	18.8
S16-9784C	55.3	17	3.5	1.5	32	16.4	1.9	35.3	18.5
SA14-5854	54.0	19	-0.2	1.3	30	15.9	2.1	35.0	19.4
Mean	57.0			1.3	31.6	14.5	2.1		
C.V. (%)	11.0			25.7	6.8	5.9	22.2		
L.S.D. (5%)	2.7			0.2	0.9	0.5	0.3		

124.8 Days After Planting

UNIFORM TEST IV, 2019

2018-2019 2-YEAR MEAN

No. of Tests Strain	Yield 23 bu/a	Rank 23 No.	Maturity 22 Date	Lodging 23 Score	Plant Height 22 In.	Seed Size 18 g/100	Seed Quality 18 Score	Composition Protein 7 %	 Oil 7 %
LD06-7620 (IV)	56.2	4	9/28	1.6	31	14.4	2.3	34.7	18.9
LD00-2817 (L)	54.1	6	1.1	1.9	35	13.5	2.4	33.0	20.2
LD07-3395bf (SCN) (E)	57.8	2	-3.0	1.5	29	15.6	2.5	33.2	20.5
K15-1283	57.1	3	3.7	1.7	31	15.9	2.1	35.5	18.9
S13-2743C	58.9	1	3.2	1.6	37	13.5	1.9	34.7	19.3
SA14-5854	55.4	5	0.2	1.6	32	15.0	2.1	34.0	19.8

128.5 Days After Planting

2017-2019 3-YEAR MEAN

No. of Tests Strain	35	35	34	35	33	30	30	13	13
LD06-7620 (IV)	59.3	3	9/28	1.5	31	14.5	2.1	34.4	19.1
LD00-2817 (L)	56.3	4	1.7	1.8	36	13.7	2.3	32.6	20.4
LD07-3395bf (SCN) (E)	61.1	1	-2.8	1.5	30	15.8	2.3	32.5	20.6
S13-2743C	61.0	2	3.9	1.6	38	13.4	1.9	34.7	19.3

127.8 Days After Planting

UNIFORM TEST IV, 2019

YIELD (bu/a)

Strain	Mean 11 Tests	Flora IL	Ivesdale IL	Urbana IL	West Lafayette IN	Man-hattan KS	Ottawa KS
LD06-7620 (IV)	57.7	36.7	75.6	51.9	66.9	38.0	60.3
LD00-2817 (L)	55.4	41.8	70.1	49.1	59.3	44.3	59.1
LD07-3395bf (SCN) (E)	61.4	53.0	76.0	51.8	62.6	46.5	65.7
CR15-0616	56.0	36.8	68.7	48.4	61.0	52.1	62.2
CR15-0619	54.9	36.1	63.9	47.9	61.9	49.0	59.5
CR15-1369	58.2	40.9	72.2	53.7	62.7	42.1	62.2
CR15-1382	55.4	35.7	75.2	46.2	60.0	38.0	60.9
K15-1283	56.1	38.2	66.4	46.4	68.1	37.8	54.9
LD15-3818	60.5	43.8	81.5	57.3	60.1	51.9	62.1
LG15-4348	58.1	42.5	74.6	58.6	69.5	49.5	51.9
LG16-4634	60.8	41.3	74.1	62.6	56.4	45.8	63.4
LG16-4642	61.4	43.9	72.7	62.8	65.6	45.7	62.7
LG16-4644	58.8	42.9	73.6	60.8	62.6	46.8	59.8
LG16-4655	62.1	42.3	73.5	65.9	69.6	46.3	66.1
S13-2743C	60.2	39.5	73.5	58.1	63.8	51.0	63.8
S15-10879C	55.4	41.0	62.7	45.6	62.0	46.6	54.9
S16-14161C	56.6	35.0	70.9	43.1	57.1	47.4	57.4
S16-9784C	55.3	28.1	66.1	52.4	62.5	43.7	58.2
SA14-5854	54.0	24.7	69.1	48.0	55.8	42.9	59.6
Location Mean		39.2	71.6	53.2	62.5	45.5	60.2
C.V. (%)		10.8	4.1	7.5	5.4	4.8	4.6
L.S.D. (5%)		8.9	6.2	8.3	5.8	3.6	4.5
Row Sp. (In.)		30	30	30	30	30	30
Rows/Plot		4	4	4	4	4	4
Reps		2	2	2	2	3	3

UNIFORM TEST IV, 2019

YIELD (bu/a)

Strain	Riley KS	Albany MO	Columbia MO	Portageville Clay MO	Portageville* Loam MO
LD06-7620 (IV)	53.0	75.8	85.3	33.3	39.2
LD00-2817 (L)	53.7	74.8	73.9	28.0	42.6
LD07-3395bf (SCN) (E)	57.1	83.1	87.9	30.3	37.7
CR15-0616	52.8	73.1	77.0	27.6	44.2
CR15-0619	53.5	71.8	73.6	32.2	42.5
CR15-1369	54.2	78.4	85.3	30.3	34.1
CR15-1382	52.3	69.9	89.7	26.3	45.9
K15-1283	55.1	73.2	84.0	36.9	44.4
LD15-3818	53.4	76.9	85.5	32.6	35.3
LG15-4348	54.3	69.0	77.4	33.9	35.6
LG16-4634	62.9	81.3	82.7	37.2	46.1
LG16-4642	64.3	73.0	81.0	42.4	43.5
LG16-4644	52.6	67.5	80.1	41.2	40.7
LG16-4655	61.4	70.2	84.5	41.6	49.6
S13-2743C	53.4	79.8	85.7	33.2	43.7
S15-10879C	52.5	71.1	74.2	43.5	50.2
S16-14161C	52.8	67.1	81.2	53.7	52.0
S16-9784C	56.5	69.6	81.1	35.1	45.4
SA14-5854	52.7	73.4	87.4	26.4	32.1
Location Mean	55.2	73.6	82.0	35.0	42.4
C.V. (%)	4.7	4.7	6.7	10.0	15.5
L.S.D. (5%)	4.3	5.7	9.1	7.0	13.0
Row Sp. (In.)	30	30	30	30	30
Rows/Plot	4	4	4	4	4
Reps	3	2	2	3	3

*Data not included in mean.

UNIFORM TEST IV, 2019

YIELD RANK

Strain	Yield Rank	Flora IL	Ivesdale IL	Urbana IL	West Lafayette IN	Man-hattan KS	Ottawa KS
LD06-7620 (IV)	10	14	3	10	4	17	10
LD00-2817 (L)	14	7	13	12	16	13	14
LD07-3395bf (SCN) (E)	2	1	2	11	8	9	2
CR15-0616	13	13	15	13	13	1	6
CR15-0619	18	15	18	15	12	5	13
CR15-1369	8	10	11	8	7	16	6
CR15-1382	14	16	4	17	15	17	9
K15-1283	12	12	16	16	3	19	17
LD15-3818	5	3	1	7	14	2	8
LG15-4348	9	5	5	5	2	4	19
LG16-4634	4	8	6	3	18	11	4
LG16-4642	2	2	10	2	5	12	5
LG16-4644	7	4	7	4	8	7	11
LG16-4655	1	6	8	1	1	10	1
S13-2743C	6	11	9	6	6	3	3
S15-10879C	14	9	19	18	11	8	17
S16-14161C	11	17	12	19	17	6	16
S16-9784C	17	18	17	9	10	14	15
SA14-5854	19	19	14	14	19	15	12

UNIFORM TEST IV, 2019

MATURITY (date)

Strain	Mean 11 Tests	Flora IL	Ivesdale IL	Urbana IL	West Lafayette IN	Man-hattan KS	Ottawa KS
LD06-7620 (IV)	10/3	9/27	10/9	10/7	10/8	10/14	10/3
LD00-2817 (L)	-1	1	-5	-1	-2	0	-3
LD07-3395bf (SCN) (E)	-3	-1	-2	-5	-3	-2	-3
CR15-0616	-3	-2	-5	2	-5	-2	-3
CR15-0619	-3	-2	-4	-1	-7	-1	-3
CR15-1369	0	1	-1	0	1	1	1
CR15-1382	-1	-1	1	-2	1	-1	-2
K15-1283	3	0	0	4	0	1	4
LD15-3818	-2	0	-2	-1	-4	-2	-3
LG15-4348	-2	1	1	2	-5	0	-3
LG16-4634	-2	-2	-1	-1	-3	-2	-3
LG16-4642	-1	0	-2	1	0	-1	-3
LG16-4644	-2	-1	-5	1	-2	0	-3
LG16-4655	2	1	-4	7	1	1	1
S13-2743C	2	3	0	5	4	2	3
S15-10879C	1	3	-1	3	4	-1	2
S16-14161C	8	0	5	4	10	4	13
S16-9784C	3	2	-1	-1	-2	2	4
SA14-5854	-0	6	-2	11	-1	-4	-3
Date Planted	6/1	6/10	6/1	6/5	6/5	6/5	6/3
Days to Mature	125	109	130	124	125	131	122

UNIFORM TEST IV, 2019

YIELD RANK

Strain	Riley KS	Albany MO	Columbia MO	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	13	6	6	10	14
LD00-2817 (L)	9	7	18	16	11
LD07-3395bf (SCN) (E)	4	1	2	14	15
CR15-0616	14	10	16	17	8
CR15-0619	10	12	19	13	12
CR15-1369	8	4	6	14	18
CR15-1382	19	15	1	19	5
K15-1283	6	9	9	7	7
LD15-3818	11	5	5	12	17
LG15-4348	7	17	15	9	16
LG16-4634	2	2	10	6	4
LG16-4642	1	11	13	3	10
LG16-4644	17	18	14	5	13
LG16-4655	3	14	8	4	3
S13-2743C	11	3	4	11	9
S15-10879C	18	13	17	2	2
S16-14161C	14	19	11	1	1
S16-9784C	5	16	12	8	6
SA14-5854	16	8	3	18	19

UNIFORM TEST IV, 2019

MATURITY (date)

Strain	Riley KS	Albany MO	Columbia MO	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	10/7	10/13	10/1	9/26	9/17
LD00-2817 (L)	-1	1	0	-6	2
LD07-3395bf (SCN) (E)	-4	0	-1	-7	-4
CR15-0616	-3	1	-2	-7	-2
CR15-0619	-3	0	0	-7	-1
CR15-1369	6	0	1	-7	0
CR15-1382	1	0	-1	-6	1
K15-1283	7	2	3	4	8
LD15-3818	-2	-1	-1	-6	-4
LG15-4348	-2	0	2	-7	-6
LG16-4634	-3	0	0	-5	-1
LG16-4642	5	-1	-2	-5	1
LG16-4644	-2	-1	-2	-5	-2
LG16-4655	6	-1	3	1	3
S13-2743C	7	1	4	-5	0
S15-10879C	1	0	3	-8	3
S16-14161C	13	4	9	10	17
S16-9784C	8	2	3	9	12
SA14-5854	0	1	-1	-7	-2
Date Planted	6/4	6/7	6/3	5/16	5/14
Days to Mature	125	128	120	133	126

UNIFORM TEST IV, 2019

LODGING (score)

Strain	Mean 11 Tests	Flora IL	Ivesdale IL	Urbana IL	West Lafayette IN	Man-hattan KS	Ottawa KS
LD06-7620 (IV)	1.2	1.0	1.0	1.0	1.0	1.0	1.0
LD00-2817 (L)	1.5	1.0	1.0	1.0	1.0	2.7	1.3
LD07-3395bf (SCN) (E)	1.2	1.0	1.0	1.0	1.0	1.3	1.0
CR15-0616	1.1	1.0	1.0	1.0	1.0	1.0	1.0
CR15-0619	1.1	1.0	1.0	1.0	1.0	1.0	1.0
CR15-1369	1.4	1.8	1.0	1.0	1.0	1.7	1.0
CR15-1382	1.2	1.0	1.0	1.0	1.0	1.0	1.0
K15-1283	1.2	1.3	1.0	1.0	1.0	1.0	1.0
LD15-3818	1.1	1.0	1.0	1.0	1.0	1.0	1.0
LG15-4348	1.9	1.3	2.0	1.0	1.0	2.3	2.3
LG16-4634	1.3	1.5	1.0	1.0	1.0	1.3	1.0
LG16-4642	1.3	1.5	1.0	1.0	1.0	1.3	1.0
LG16-4644	1.4	1.0	1.0	1.0	1.0	1.7	1.3
LG16-4655	1.4	1.0	1.0	1.0	1.5	1.7	1.0
S13-2743C	1.2	1.5	1.0	1.0	1.0	1.0	1.0
S15-10879C	1.3	1.0	1.0	1.0	1.0	1.3	1.7
S16-14161C	1.4	1.3	1.0	1.0	1.0	1.0	1.0
S16-9784C	1.5	1.5	1.0	1.0	1.0	1.3	1.7
SA14-5854	1.3	1.5	1.0	1.0	1.0	1.3	1.3

UNIFORM TEST IV, 2019

PLANT HEIGHT (inches)

Strain	Mean 11 Tests	Flora IL	Ivesdale IL	Urbana IL	West Lafayette IN	Man-hattan KS	Ottawa KS
LD06-7620 (IV)	29	24	33	29	31	31	35
LD00-2817 (L)	34	31	40	31	33	35	38
LD07-3395bf (SCN) (E)	28	26	33	26	26	28	30
CR15-0616	30	25	36	27	28	32	35
CR15-0619	30	24	34	29	29	31	36
CR15-1369	31	26	36	29	28	31	35
CR15-1382	29	25	34	27	27	30	31
K15-1283	29	27	35	27	29	27	33
LD15-3818	30	26	36	27	29	30	35
LG15-4348	37	36	47	35	36	38	43
LG16-4634	33	27	38	32	34	33	37
LG16-4642	33	29	41	32	30	33	38
LG16-4644	34	29	39	32	32	36	40
LG16-4655	36	29	42	35	35	38	43
S13-2743C	34	31	42	34	31	33	39
S15-10879C	33	29	41	32	30	34	35
S16-14161C	34	28	41	28	32	36	41
S16-9784C	32	26	36	29	29	30	37
SA14-5854	30	31	36	34	25	29	36

UNIFORM TEST IV, 2019

LODGING (score)

Strain	Riley KS	Albany MO	Columbia MO	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	1.0	2.3	1.5	1.0	2.0
LD00-2817 (L)	1.3	3.2	1.8	1.0	2.5
LD07-3395bf (SCN) (E)	1.0	1.8	1.7	1.0	3.5
CR15-0616	1.0	1.5	1.2	1.0	2.5
CR15-0619	1.0	1.5	1.2	1.0	2.5
CR15-1369	1.0	2.3	1.8	1.0	3.0
CR15-1382	1.0	2.0	2.2	1.0	2.5
K15-1283	1.0	2.2	1.7	1.0	2.5
LD15-3818	1.0	1.8	1.5	1.0	2.0
LG15-4348	1.3	3.5	2.8	1.0	3.5
LG16-4634	1.0	2.8	1.7	1.0	2.7
LG16-4642	1.0	2.8	1.8	1.0	3.5
LG16-4644	1.0	2.7	1.8	1.0	3.5
LG16-4655	1.0	2.7	2.0	1.0	3.5
S13-2743C	1.0	2.0	1.7	1.0	4.0
S15-10879C	1.0	2.5	1.7	1.0	2.0
S16-14161C	1.0	2.7	3.2	1.0	3.0
S16-9784C	1.0	3.0	2.5	1.0	3.0
SA14-5854	1.0	2.0	1.7	1.0	2.5

UNIFORM TEST IV, 2019

PLANT HEIGHT (inches)

Strain	Riley KS	Albany MO	Columbia MO	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	28	33	32	19	27
LD00-2817 (L)	32	40	38	20	30
LD07-3395bf (SCN) (E)	27	32	30	20	24
CR15-0616	27	36	36	22	29
CR15-0619	28	35	33	21	29
CR15-1369	31	37	36	21	30
CR15-1382	29	33	33	18	28
K15-1283	27	32	33	20	27
LD15-3818	30	35	32	20	29
LG15-4348	34	41	42	20	30
LG16-4634	32	36	35	21	21
LG16-4642	32	38	35	23	34
LG16-4644	31	39	38	23	30
LG16-4655	35	40	37	22	30
S13-2743C	30	41	38	22	35
S15-10879C	30	38	35	24	33
S16-14161C	33	40	37	27	38
S16-9784C	31	38	36	25	37
SA14-5854	30	33	34	18	27

UNIFORM TEST IV, 2019

SEED SIZE (g/100)

Strain	Mean 11 Tests	Flora IL	Ivesdale IL	Urbana IL	West Lafayette IN	Man-hattan KS	Ottawa KS
LD06-7620 (IV)	15.0	12.6	15.5	14.8	17.4	14.9	15.0
LD00-2817 (L)	14.4	11.4	14.9	14.1	16.3	17.3	13.6
LD07-3395bf (SCN) (E)	16.7	14.0	16.5	15.9	18.7	18.0	16.2
CR15-0616	14.5	12.0	14.7	14.9	16.0	15.7	14.5
CR15-0619	14.4	11.9	14.8	15.1	16.8	14.7	14.7
CR15-1369	15.6	13.3	16.3	15.7	19.4	15.8	15.5
CR15-1382	18.5	15.7	18.8	18.7	22.3	18.2	21.0
K15-1283	16.4	13.5	16.2	16.0	19.9	17.0	16.6
LD15-3818	15.7	13.4	17.2	15.5	18.6	15.0	16.8
LG15-4348	15.5	12.9	17.5	16.3	18.9	16.2	14.7
LG16-4634	14.1	11.7	14.8	14.1	16.4	13.6	14.4
LG16-4642	14.1	11.8	14.3	13.8	15.9	15.3	14.5
LG16-4644	14.1	12.1	15.3	14.9	16.4	13.1	13.7
LG16-4655	14.4	12.2	15.4	15.4	17.8	14.6	13.8
S13-2743C	14.0	10.9	14.2	14.0	16.5	14.7	15.0
S15-10879C	14.5	12.7	14.4	14.5	16.5	15.2	14.4
S16-14161C	17.2	12.7	17.9	16.5	21.1	16.2	18.4
S16-9784C	16.4	12.4	16.4	15.6	19.6	16.1	17.4
SA14-5854	15.9	12.8	16.4	17.7	17.7	16.4	17.1

UNIFORM TEST IV, 2019

SEED QUALITY (score)

Strain	Mean 11 Tests	Flora IL	Ivesdale IL	Urbana IL	West Lafayette IN	Man-hattan KS	Ottawa KS
LD06-7620 (IV)	2.2	2.0	2.0	2.0	1.0	3.0	3.0
LD00-2817 (L)	2.2	3.0	1.8	2.0	1.0	3.0	3.0
LD07-3395bf (SCN) (E)	2.1	2.0	1.5	2.0	1.0	3.0	3.0
CR15-0616	2.1	2.0	1.8	2.0	1.0	3.0	3.0
CR15-0619	2.2	2.0	2.0	3.0	1.0	3.0	3.0
CR15-1369	2.3	2.0	1.5	2.0	1.0	3.0	3.0
CR15-1382	2.4	2.0	1.5	3.0	1.0	4.0	3.0
K15-1283	2.1	2.0	1.5	2.0	1.0	4.0	2.0
LD15-3818	2.2	3.0	2.0	2.0	1.0	3.0	3.0
LG15-4348	2.2	2.0	1.3	3.0	1.0	3.0	2.0
LG16-4634	2.1	2.0	2.0	1.0	1.0	4.0	2.0
LG16-4642	2.0	2.0	1.5	2.0	1.0	3.0	2.0
LG16-4644	2.1	2.0	1.5	2.0	1.0	4.0	3.0
LG16-4655	2.0	2.0	1.3	2.0	1.0	3.0	3.0
S13-2743C	1.9	2.0	1.3	2.0	1.0	3.0	3.0
S15-10879C	2.1	2.0	1.3	2.0	1.0	3.0	3.0
S16-14161C	2.2	2.0	1.8	2.0	1.0	3.0	3.0
S16-9784C	1.9	2.0	1.5	2.0	1.0	2.0	2.0
SA14-5854	2.1	2.0	1.5	3.0	1.0	3.0	2.0

UNIFORM TEST IV, 2019

SEED SIZE (g/100)

Strain	Riley KS	Albany MO	Columbia MO	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	14.9	15.8	16.5	12.9	12.8
LD00-2817 (L)	14.2	16.2	15.1	11.4	11.2
LD07-3395bf (SCN) (E)	16.6	18.3	19.0	14.2	13.6
CR15-0616	16.4	15.1	14.5	11.6	10.8
CR15-0619	13.8	14.2	15.4	12.3	10.6
CR15-1369	15.1	15.5	16.2	13.5	12.9
CR15-1382	18.0	17.3	19.5	15.4	15.8
K15-1283	16.1	17.2	17.7	14.0	13.4
LD15-3818	15.9	14.7	16.0	13.7	12.7
LG15-4348	15.1	15.1	16.4	12.1	11.3
LG16-4634	13.6	15.1	15.6	12.2	10.4
LG16-4642	13.8	15.1	15.0	11.5	10.7
LG16-4644	13.9	14.3	15.3	12.0	10.6
LG16-4655	14.0	13.7	14.8	12.2	11.1
S13-2743C	13.6	14.6	14.9	12.1	11.2
S15-10879C	13.8	16.4	15.2	12.1	12.3
S16-14161C	15.3	19.6	19.1	15.8	14.4
S16-9784C	15.5	18.7	17.7	15.1	13.3
SA14-5854	15.3	15.2	17.6	13.3	12.0

UNIFORM TEST IV, 2019

SEED QUALITY (score)

Strain	Riley KS	Albany MO	Columbia MO	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	2.0	2.0	1.5	3.3	2.7
LD00-2817 (L)	2.0	2.0	2.0	2.3	2.0
LD07-3395bf (SCN) (E)	3.0	1.5	1.5	2.7	2.0
CR15-0616	2.0	2.0	1.5	2.3	2.0
CR15-0619	3.0	1.5	1.5	2.0	2.0
CR15-1369	3.0	3.0	1.5	3.3	2.7
CR15-1382	3.0	2.0	1.5	2.7	2.7
K15-1283	3.0	2.0	1.5	2.3	2.3
LD15-3818	2.0	2.0	1.5	2.3	2.0
LG15-4348	3.0	2.5	1.5	2.7	3.0
LG16-4634	3.0	2.0	2.0	2.3	2.0
LG16-4642	3.0	2.0	1.5	2.0	2.0
LG16-4644	2.0	2.0	1.0	2.0	2.0
LG16-4655	2.0	2.0	1.5	2.3	2.0
S13-2743C	2.0	1.5	1.5	2.0	2.0
S15-10879C	3.0	2.0	1.5	2.0	2.0
S16-14161C	2.0	2.0	2.0	3.0	2.0
S16-9784C	2.0	2.5	1.5	2.0	2.0
SA14-5854	3.0	2.0	1.5	2.3	2.3

UNIFORM TEST IV, 2019

PROTEIN (%)

Strain	Mean 4 Tests	Ivesdale IL	Urbana IL	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	35.6	35.6	35.1	36.1	35.6
LD00-2817 (L)	33.4	33.1	32.1	34.2	34.4
LD07-3395bf (SCN) (E)	33.8	33.1	33.0	34.1	35.2
CR15-0616	34.5	34.0	34.2	34.4	35.2
CR15-0619	34.1	33.4	33.9	34.3	34.7
CR15-1369	34.8	33.4	34.5	35.5	35.6
CR15-1382	34.8	34.8	33.6	35.0	35.6
K15-1283	36.0	35.1	35.9	36.4	36.6
LD15-3818	35.0	34.4	34.1	34.9	36.6
LG15-4348	33.4	33.8	32.3	33.2	34.2
LG16-4634	34.0	33.7	33.3	34.8	34.3
LG16-4642	34.6	33.8	34.4	34.3	35.8
LG16-4644	33.7	33.1	33.3	33.7	34.7
LG16-4655	34.0	33.7	34.0	33.9	34.5
S13-2743C	35.4	35.0	34.9	35.8	36.0
S15-10879C	37.4	38.2	36.0	37.8	37.6
S16-14161C	35.6	35.5	35.9	35.6	35.5
S16-9784C	35.3	35.5	32.9	36.0	36.6
SA14-5854	35.0	34.2	37.4	33.8	34.7

UNIFORM TEST IV, 2019

OIL (%)

Strain	Mean 4 Tests	Ivesdale IL	Urbana IL	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	18.7	18.3	19.2	18.2	19.1
LD00-2817 (L)	20.1	19.8	20.7	19.7	20.2
LD07-3395bf (SCN) (E)	20.2	20.3	20.6	19.8	20.2
CR15-0616	19.9	19.4	20.3	19.8	20.2
CR15-0619	20.0	19.6	20.3	20.0	20.1
CR15-1369	19.5	19.5	19.8	19.3	19.4
CR15-1382	19.4	18.8	20.1	19.3	19.4
K15-1283	18.8	18.7	19.3	18.5	18.5
LD15-3818	19.4	19.1	19.9	19.5	19.1
LG15-4348	19.7	19.2	20.0	19.7	20.2
LG16-4634	19.0	18.7	19.6	18.5	19.2
LG16-4642	19.3	19.1	19.6	19.3	19.2
LG16-4644	19.1	19.1	18.6	19.2	19.5
LG16-4655	19.4	19.1	19.4	19.7	19.5
S13-2743C	19.2	19.1	19.9	18.6	19.2
S15-10879C	16.8	16.2	17.5	16.7	17.0
S16-14161C	18.8	18.7	18.5	18.7	19.4
S16-9784C	18.5	17.8	20.2	17.8	18.3
SA14-5854	19.4	20.0	18.3	19.3	20.0

	Northern Regional Uniform Test				
	Preliminary Test IV, 2019				
			Seed	Gen.	Unique
Ent.	Strain	Parentage	Source	Comp.	Traits
1	LD06-7620 (IV)	IA3023 x LD00- 3309	Diers	F5	SCN
2	LD00-2817 (L)	Ina x Dwight	Diers	F5	SCN
3	LD07-3395bf (SCN) (E)	LD07-3395 Reselection	Diers	F5	SCN
4	CR16-0032		Rainey	F6	
5	CR16-0129	LD02-9050 x L66-2470-2	Rainey	F6	
6	CR16-0130	LD02-9050 x L66-2470-2	Rainey	F6	
7	CR16-0153	LG09-8165 x HI0800685	Rainey	F6	
8	CR16-0154	LG09-8165 x HI0800685	Rainey	F6	
9	CR16-0156	LG09-8165 x HI0800685	Rainey	F6	
10	K16-1045	LS07-3125 x 435.TCS	Schapaugh	F4	STS, SCN
11	K16-1071	LS07-3125 x 435.TCS	Schapaugh	F4	STS, SCN
12	K16-1076	LS07-3131 x 435.TCS	Schapaugh	F4	STS, SCN
13	K16-1211	LS07-3125 x K10-8556	Schapaugh	F4	SCN
14	K16-1222	LS07-3125 x K10-8556	Schapaugh	F4	SCN
15	K16-1229	LS07-3125 x K10-8556	Schapaugh	F4	SCN
16	K16-1706	K10-8556 x 435.TCS	Schapaugh	F4	SCN
17	LG16-4808	LG09-7256 x WN0800527	Walker	F6	Genetic diversity
18	LG17-8693	LD07-4477 x LG09-8166	Walker	F6	Genetic diversity
19	LG17-8880	LG09-8165 x WN0800527	Walker	F6	Genetic diversity
20	LG17-8885	LG09-8165 x WN0800527	Walker	F6	Genetic diversity
21	LG17-8888	LG09-8165 x WN0800527	Walker	F6	Genetic diversity
22	SA16-10735	LD07-3395bf x HM11-W193	Scaboo	F5	
23	SA16-11227	SA12-1532 x LD10-9409	Scaboo	F5	SCN
24	SA16-12348	SA12-1541 x LD08-1592	Scaboo	F5	SCN

PRELIMINARY TEST IV, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Seed Treatment	Shattering Score
			Manhattan
LD06-7620 (IV)	PGBDYBI		1.0
LD00-2817 (L)	PGTSYIbI		1.0
LD07-3395bf (SCN) (E)	WGTSYBfI		1.0
CR16-0032	PTBSYBI		1.0
CR16-0129	PTBSYIbI		1.0
CR16-0130	PTBSYIbI		1.0
CR16-0153	PGBDYIbI		1.0
CR16-0154	PGBDYBI		1.0
CR16-0156	PGBDYIbI		1.0
K16-1045	WGTSYBI	Apron XL	1.0
K16-1071	PTBDYBI	Apron XL	1.0
K16-1076	PTBDYBI	Apron XL	1.0
K16-1211	PGTDYBI	Apron XL	1.0
K16-1222	WGTSYBI	Apron XL	1.0
K16-1229	PGTDYBI	Apron XL	1.0
K16-1706	PTBSYBI	Apron XL	1.0
LG16-4808	PGTDYBI		1.0
LG17-8693	PGBSYBI		1.0
LG17-8880	PGBDYIbI		1.0
LG17-8885	PGTDYIbI		1.0
LG17-8888	PGTDYIbI		1.0
SA16-10735	PGTSGnIbI		1.0
SA16-11227	WGBSYBI		1.0
SA16-12348	WTBSYGI		1.0

PRELIMINARY TEST IV, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 6 bu/a	Rank 6 No.	Maturity 7 Date	Lodging 7 Score	Plant Height 7 In.	Seed Size 7 g/100	Seed Quality 7 Score	Composition Protein 4 %	 Oil 4 %
LD06-7620 (IV)	64.0	6	10/8	1.2	31	14.9	2.3	35.5	18.8
LD00-2817 (L)	60.9	17	-2.0	1.5	35	15.1	2.2	33.5	19.9
LD07-3395bf (SCN) (E)	66.2	2	-4.7	1.1	30	16.8	2.1	33.1	20.6
CR16-0032	58.2	24	-6.4	1.3	34	16.6	2.1	36.9	18.8
CR16-0129	59.4	21	-2.2	1.1	33	13.8	2.2	34.5	18.9
CR16-0130	58.3	23	-1.9	1.1	32	13.7	2.0	34.5	19.0
CR16-0153	62.3	12	-4.1	1.1	34	16.8	2.0	35.9	18.2
CR16-0154	61.0	16	-5.1	1.1	33	17.2	2.3	35.5	18.6
CR16-0156	60.0	20	-3.8	1.1	32	17.0	1.9	34.9	18.5
K16-1045	59.3	22	-3.7	1.1	28	15.5	1.9	36.0	19.2
K16-1071	61.3	15	-0.7	1.3	34	15.0	1.9	37.4	18.6
K16-1076	61.4	14	2.9	1.4	36	15.8	2.2	36.6	18.3
K16-1211	60.1	19	0.4	1.3	39	14.8	2.5	35.5	18.5
K16-1222	64.2	5	2.4	1.2	34	14.0	2.4	34.7	19.3
K16-1229	65.3	4	-1.4	1.1	34	16.1	2.1	34.7	19.5
K16-1706	61.9	13	0.6	1.3	30	16.6	1.8	35.6	18.8
LG16-4808	63.6	8	-3.9	1.8	35	16.0	2.4	35.5	18.1
LG17-8693	62.7	11	-0.4	2.6	40	17.5	1.9	36.1	18.7
LG17-8880	63.5	9	-2.8	1.9	39	15.1	2.0	33.9	19.2
LG17-8885	65.6	3	-1.0	2.0	38	15.2	1.9	34.5	18.9
LG17-8888	67.5	1	0.6	2.0	38	15.8	2.0	34.9	19.0
SA16-10735	63.9	7	-1.6	2.4	33	17.1	2.3	34.8	19.5
SA16-11227	63.3	10	-0.6	1.8	33	14.6	2.4	36.2	18.0
SA16-12348	60.4	18	-0.7	2.6	40	16.3	2.1	35.3	18.6
Mean	62.2			1.5	34.0	15.8	2.0		
C.V. (%)	8.2			24.0	7.4	4.6	19.4		
L.S.D. (5%)	3.4			0.2	1.7	0.7	0.3		

126.1 Days After Planting

PRELIMINARY TEST IV, 2019

YIELD (bu/a)

Strain	Mean 6 Tests	Ivesdale IL	Urbana IL	West Lafayette IN	Manhattan* KS
LD06-7620 (IV)	64.0	75.4	57.0	68.9	24.5
LD00-2817 (L)	60.9	66.6	54.0	57.6	33.7
LD07-3395bf (SCN) (E)	66.2	68.3	58.6	67.3	30.9
CR16-0032	58.2	67.0	49.0	62.5	29.8
CR16-0129	59.4	71.8	52.6	51.9	27.9
CR16-0130	58.3	65.2	49.8	52.9	30.0
CR16-0153	62.3	73.4	55.5	56.7	24.6
CR16-0154	61.0	66.9	56.1	61.1	28.2
CR16-0156	60.0	66.0	50.9	58.0	30.0
K16-1045	59.3	70.9	52.4	60.2	30.9
K16-1071	61.3	73.0	58.8	55.4	29.4
K16-1076	61.4	74.3	60.8	52.9	29.1
K16-1211	60.1	64.5	59.9	59.4	31.5
K16-1222	64.2	73.1	57.2	58.6	28.2
K16-1229	65.3	75.8	58.3	67.4	36.0
K16-1706	61.9	70.7	55.6	58.7	35.3
LG16-4808	63.6	76.0	59.9	57.9	27.1
LG17-8693	62.7	71.0	61.6	70.7	23.5
LG17-8880	63.5	80.3	57.9	56.5	28.5
LG17-8885	65.6	78.4	58.9	64.5	28.2
LG17-8888	67.5	79.4	67.0	73.5	32.6
SA16-10735	63.9	66.9	58.5	58.4	22.5
SA16-11227	63.3	73.2	59.1	54.7	33.4
SA16-12348	60.4	67.0	58.6	54.3	28.1
Location Mean		71.5	57.0	60.0	29.3
C.V. (%)		4.5	6.2	9.1	10.0
L.S.D. (5%)		6.7	7.3	9.4	6.3
Row Sp. (In.)		30	30	30	30
Rows/Plot		4	4	4	4
Reps		2	2	2	2

*Data not included in mean.

PRELIMINARY TEST IV, 2019

YIELD (bu/a)

Strain	Ottawa KS	Riley KS	Albany MO
LD06-7620 (IV)	56.2	60.1	66.7
LD00-2817 (L)	61.1	52.0	74.0
LD07-3395bf (SCN) (E)	67.0	57.2	78.6
CR16-0032	56.4	45.1	68.9
CR16-0129	58.3	54.0	67.7
CR16-0130	57.4	59.5	64.9
CR16-0153	57.7	54.4	76.0
CR16-0154	56.9	47.6	77.2
CR16-0156	57.3	52.1	75.8
K16-1045	51.4	50.6	70.0
K16-1071	53.8	55.4	71.3
K16-1076	55.0	59.1	66.4
K16-1211	59.4	49.7	67.9
K16-1222	68.6	57.5	70.0
K16-1229	62.9	54.7	72.8
K16-1706	58.3	57.3	70.6
LG16-4808	53.8	53.9	80.4
LG17-8693	52.7	48.8	71.6
LG17-8880	57.0	60.5	68.7
LG17-8885	58.7	59.7	73.1
LG17-8888	64.5	55.5	64.9
SA16-10735	58.9	57.5	83.3
SA16-11227	61.3	52.6	79.1
SA16-12348	59.0	53.7	69.9
Location Mean	58.5	54.5	72.1
C.V. (%)	4.5	4.7	7.7
L.S.D. (5%)	5.5	5.3	11.5
Row Sp. (In.)	30	30	30
Rows/Plot	4	4	4
Reps	2	2	2

PRELIMINARY TEST IV, 2019

YIELD RANK

Strain	Yield Rank	Ivesdale IL	Urbana IL	West Lafayette IN	Manhattan KS
LD06-7620 (IV)	6	6	15	3	22
LD00-2817 (L)	17	21	19	16	3
LD07-3395bf (SCN) (E)	2	16	9	5	7
CR16-0032	24	17	24	7	11
CR16-0129	21	12	20	24	19
CR16-0130	23	23	23	22	9
CR16-0153	12	8	18	17	21
CR16-0154	16	20	16	8	15
CR16-0156	20	22	22	14	9
K16-1045	22	14	21	9	7
K16-1071	15	11	8	19	12
K16-1076	14	7	3	22	13
K16-1211	19	24	4	10	6
K16-1222	5	10	14	12	15
K16-1229	4	5	12	4	1
K16-1706	13	15	17	11	2
LG16-4808	8	4	4	15	20
LG17-8693	11	13	2	2	23
LG17-8880	9	1	13	18	14
LG17-8885	3	3	7	6	15
LG17-8888	1	2	1	1	5
SA16-10735	7	19	11	13	24
SA16-11227	10	9	6	20	4
SA16-12348	18	18	9	21	18

PRELIMINARY TEST IV, 2019

YIELD RANK

Strain	Ottawa KS	Riley KS	Albany MO
LD06-7620 (IV)	19	2	21
LD00-2817 (L)	6	19	8
LD07-3395bf (SCN) (E)	2	9	4
CR16-0032	18	24	17
CR16-0129	11	14	20
CR16-0130	14	4	23
CR16-0153	13	13	6
CR16-0154	17	23	5
CR16-0156	15	18	7
K16-1045	24	20	14
K16-1071	21	11	12
K16-1076	20	5	22
K16-1211	7	21	19
K16-1222	1	6	14
K16-1229	4	12	10
K16-1706	11	8	13
LG16-4808	21	15	2
LG17-8693	23	22	11
LG17-8880	16	1	18
LG17-8885	10	3	9
LG17-8888	3	10	23
SA16-10735	9	6	1
SA16-11227	5	17	3
SA16-12348	8	16	16

PRELIMINARY TEST IV, 2019

MATURITY (date)

Strain	Mean 7 Tests	Ivesdale IL	Urbana IL	West Lafayette IN	Manhattan KS
LD06-7620 (IV)	10/8	10/10	10/6	10/10	10/3
LD00-2817 (L)	-2	-3	0	-5	8
LD07-3395bf (SCN) (E)	-5	-4	-5	-5	-2
CR16-0032	-6	-6	-7	-7	-4
CR16-0129	-2	-2	-1	-1	5
CR16-0130	-2	-3	-1	-5	5
CR16-0153	-4	-3	-3	-7	-2
CR16-0154	-5	-2	-3	-6	-1
CR16-0156	-4	-2	-5	-4	-3
K16-1045	-4	-1	-1	-4	-2
K16-1071	-1	-2	2	-2	8
K16-1076	3	1	4	1	10
K16-1211	0	-1	5	0	8
K16-1222	2	1	5	2	12
K16-1229	-1	-1	3	3	5
K16-1706	1	-1	3	0	9
LG16-4808	-4	-2	-3	-5	-2
LG17-8693	-0	-1	5	-1	10
LG17-8880	-3	-6	-2	-5	8
LG17-8885	-1	-4	2	-5	10
LG17-8888	1	-3	6	-3	11
SA16-10735	-2	-3	1	-4	6
SA16-11227	-1	1	0	-4	8
SA16-12348	-1	0	2	-4	9
Date Planted	6/4	6/1	6/5	6/5	6/5
Days to Mature	126	131	123	127	120

PRELIMINARY TEST IV, 2019

MATURITY (date)

Strain	Ottawa KS	Riley KS	Albany MO
LD06-7620 (IV)	10/4	10/14	10/12
LD00-2817 (L)	-4	-11	1
LD07-3395bf (SCN) (E)	-4	-13	0
CR16-0032	-5	-15	-1
CR16-0129	-4	-10	-3
CR16-0130	-3	-6	-1
CR16-0153	-4	-9	-1
CR16-0154	-8	-15	-1
CR16-0156	-4	-10	1
K16-1045	-4	-10	-4
K16-1071	-3	-9	1
K16-1076	2	1	2
K16-1211	-2	-10	2
K16-1222	2	-4	-1
K16-1229	-4	-12	-4
K16-1706	0	-8	1
LG16-4808	-4	-12	1
LG17-8693	-4	-13	1
LG17-8880	-4	-10	-1
LG17-8885	-4	-7	1
LG17-8888	-1	-3	-3
SA16-10735	-3	-10	2
SA16-11227	-3	-7	1
SA16-12348	-3	-9	0
Date Planted	6/3	6/4	6/7
Days to Mature	123	132	127

PRELIMINARY TEST IV, 2019

LODGING (score)

Strain	Mean 7 Tests	Ivesdale IL	Urbana IL	West Lafayette IN	Manhattan KS
LD06-7620 (IV)	1.2	1.0	1.0	1.0	1.5
LD00-2817 (L)	1.5	1.0	1.0	1.0	2.0
LD07-3395bf (SCN) (E)	1.1	1.0	1.0	1.0	1.0
CR16-0032	1.3	1.0	1.0	1.0	1.0
CR16-0129	1.1	1.0	1.0	1.0	1.0
CR16-0130	1.1	1.0	1.0	1.0	1.0
CR16-0153	1.1	1.0	1.0	1.0	1.0
CR16-0154	1.1	1.0	1.0	1.0	1.0
CR16-0156	1.1	1.0	1.0	1.0	1.0
K16-1045	1.1	1.0	1.0	1.0	1.0
K16-1071	1.3	1.0	1.0	1.0	1.5
K16-1076	1.4	1.0	1.0	1.0	2.0
K16-1211	1.3	1.0	1.0	1.0	2.0
K16-1222	1.2	1.0	1.0	1.0	1.5
K16-1229	1.1	1.0	1.0	1.0	1.0
K16-1706	1.3	1.0	1.0	1.0	1.5
LG16-4808	1.8	1.0	1.5	1.0	3.0
LG17-8693	2.6	2.0	2.5	2.0	3.0
LG17-8880	1.9	2.0	1.0	1.0	2.0
LG17-8885	2.0	1.5	2.0	1.5	1.5
LG17-8888	2.0	2.0	2.0	1.5	2.5
SA16-10735	2.4	2.0	3.0	1.3	3.0
SA16-11227	1.8	1.5	2.0	1.0	2.5
SA16-12348	2.6	2.5	2.5	1.5	3.0

PRELIMINARY TEST IV, 2019

LODGING (score)

Strain	Ottawa KS	Riley KS	Albany MO
LD06-7620 (IV)	1.0	1.0	2.0
LD00-2817 (L)	2.0	1.0	2.8
LD07-3395bf (SCN) (E)	1.0	1.0	2.0
CR16-0032	1.0	1.5	2.3
CR16-0129	1.0	1.0	1.5
CR16-0130	1.0	1.0	1.8
CR16-0153	1.0	1.0	2.0
CR16-0154	1.0	1.0	1.8
CR16-0156	1.0	1.0	2.0
K16-1045	1.0	1.0	1.8
K16-1071	1.0	1.0	2.5
K16-1076	1.0	1.0	2.5
K16-1211	1.0	1.0	2.3
K16-1222	1.0	1.0	1.8
K16-1229	1.0	1.0	1.8
K16-1706	1.0	1.0	2.3
LG16-4808	2.0	1.0	2.8
LG17-8693	2.5	2.0	4.3
LG17-8880	2.0	2.0	3.0
LG17-8885	2.0	2.0	3.3
LG17-8888	2.0	1.0	3.3
SA16-10735	2.5	1.0	4.0
SA16-11227	1.5	1.0	3.0
SA16-12348	2.5	3.0	3.5

PRELIMINARY TEST IV, 2019

PLANT HEIGHT (inches)

Strain	Mean 7 Tests	Ivesdale IL	Urbana IL	West Lafayette IN	Manhattan KS
LD06-7620 (IV)	31	31	28	29	34
LD00-2817 (L)	35	39	32	34	35
LD07-3395bf (SCN) (E)	30	32	29	31	32
CR16-0032	34	38	30	32	36
CR16-0129	33	35	32	31	35
CR16-0130	32	34	30	30	34
CR16-0153	34	38	33	32	37
CR16-0154	33	36	33	32	34
CR16-0156	32	34	30	31	35
K16-1045	28	30	26	25	33
K16-1071	34	38	33	29	37
K16-1076	36	37	35	31	37
K16-1211	39	41	39	39	43
K16-1222	34	36	32	29	37
K16-1229	34	36	33	31	38
K16-1706	30	31	28	29	31
LG16-4808	35	40	33	29	34
LG17-8693	40	44	37	41	39
LG17-8880	39	45	39	32	41
LG17-8885	38	43	37	34	40
LG17-8888	38	42	36	35	42
SA16-10735	33	40	31	32	30
SA16-11227	33	38	31	33	30
SA16-12348	40	47	33	35	41

PRELIMINARY TEST IV, 2019

PLANT HEIGHT (inches)

Strain	Ottawa KS	Riley KS	Albany MO
LD06-7620 (IV)	34	30	31
LD00-2817 (L)	40	31	38
LD07-3395bf (SCN) (E)	31	27	30
CR16-0032	33	35	34
CR16-0129	35	28	35
CR16-0130	36	27	34
CR16-0153	37	28	36
CR16-0154	32	27	36
CR16-0156	32	29	34
K16-1045	31	24	32
K16-1071	36	27	36
K16-1076	40	35	38
K16-1211	39	31	41
K16-1222	39	31	37
K16-1229	35	29	35
K16-1706	31	26	31
LG16-4808	38	32	37
LG17-8693	43	33	40
LG17-8880	44	30	43
LG17-8885	42	32	41
LG17-8888	44	32	38
SA16-10735	36	28	33
SA16-11227	35	29	33
SA16-12348	44	40	43

PRELIMINARY TEST IV, 2019

SEED SIZE (g/100)

Strain	Mean 7 Tests	Ivesdale IL	Urbana IL	West Lafayette IN	Manhattan KS
LD06-7620 (IV)	14.9	14.8	15.0	17.8	14.8
LD00-2817 (L)	15.1	15.1	14.3	18.6	13.7
LD07-3395bf (SCN) (E)	16.8	16.6	16.2	19.3	16.5
CR16-0032	16.6	17.3	16.2	19.1	15.3
CR16-0129	13.8	13.5	14.1	16.1	13.9
CR16-0130	13.7	14.2	13.6	15.3	13.6
CR16-0153	16.8	17.0	16.4	18.3	17.0
CR16-0154	17.2	17.9	17.8	18.9	16.0
CR16-0156	17.0	17.7	16.4	19.0	17.4
K16-1045	15.5	16.6	15.6	17.5	15.6
K16-1071	15.0	15.5	15.6	17.3	14.4
K16-1076	15.8	16.6	16.4	17.8	14.2
K16-1211	14.8	15.5	15.9	16.6	13.6
K16-1222	14.0	14.9	14.0	15.5	12.8
K16-1229	16.1	16.2	16.5	18.5	15.7
K16-1706	16.6	16.4	16.1	19.3	16.7
LG16-4808	16.0	16.0	16.0	18.2	16.0
LG17-8693	17.5	18.5	18.6	21.5	15.8
LG17-8880	15.1	15.3	15.7	17.8	14.7
LG17-8885	15.2	15.3	14.9	16.9	15.2
LG17-8888	15.8	15.9	16.5	18.5	15.5
SA16-10735	17.1	17.6	17.7	19.4	13.4
SA16-11227	14.6	14.6	13.7	15.9	15.9
SA16-12348	16.3	17.3	16.1	18.4	14.6

PRELIMINARY TEST IV, 2019

SEED SIZE (g/100)

Strain	Ottawa KS	Riley KS	Albany MO
LD06-7620 (IV)	16.1	11.8	13.7
LD00-2817 (L)	14.4	12.9	16.5
LD07-3395bf (SCN) (E)	16.7	14.3	18.3
CR16-0032	17.5	14.6	16.2
CR16-0129	13.9	11.5	13.5
CR16-0130	13.9	11.9	13.1
CR16-0153	18.6	14.2	16.2
CR16-0154	18.0	14.0	17.6
CR16-0156	16.6	14.4	17.5
K16-1045	16.0	12.6	14.5
K16-1071	15.0	12.9	14.6
K16-1076	16.0	12.6	16.9
K16-1211	15.5	11.6	15.2
K16-1222	15.9	11.4	13.7
K16-1229	16.0	14.6	14.9
K16-1706	16.8	14.1	16.8
LG16-4808	16.2	12.6	17.2
LG17-8693	16.7	14.2	17.4
LG17-8880	15.0	13.4	14.2
LG17-8885	15.2	13.9	15.3
LG17-8888	15.7	14.5	14.0
SA16-10735	17.7	14.8	18.8
SA16-11227	13.7	12.6	16.1
SA16-12348	16.6	14.6	16.2

PRELIMINARY TEST IV, 2019

SEED QUALITY (score)

Strain	Mean 7 Tests	Ivesdale IL	Urbana IL	West Lafayette IN	Manhattan KS
LD06-7620 (IV)	2.3	1.8	2.0	1.0	3.0
LD00-2817 (L)	2.2	1.3	2.0	1.0	3.0
LD07-3395bf (SCN) (E)	2.1	1.3	2.0	1.0	3.0
CR16-0032	2.1	1.5	2.0	1.0	2.0
CR16-0129	2.2	1.8	2.0	1.0	3.0
CR16-0130	2.0	1.3	2.0	1.0	2.0
CR16-0153	2.0	1.5	2.0	1.0	3.0
CR16-0154	2.3	1.5	2.0	1.0	3.0
CR16-0156	1.9	1.0	2.0	1.0	2.0
K16-1045	1.9	1.0	2.0	1.0	3.0
K16-1071	1.9	1.3	2.0	1.0	2.0
K16-1076	2.2	2.0	2.0	1.0	3.0
K16-1211	2.5	1.8	3.0	1.0	3.0
K16-1222	2.4	2.0	2.0	1.0	3.0
K16-1229	2.1	1.5	2.0	1.0	2.0
K16-1706	1.8	1.8	2.0	1.0	1.0
LG16-4808	2.4	1.5	2.0	1.0	3.0
LG17-8693	1.9	1.5	1.0	1.0	3.0
LG17-8880	2.0	1.0	2.0	1.0	2.0
LG17-8885	1.9	1.3	2.0	1.0	2.0
LG17-8888	2.0	1.8	2.0	1.0	3.0
SA16-10735	2.3	1.8	2.0	1.0	3.0
SA16-11227	2.4	2.0	3.0	1.0	3.0
SA16-12348	2.1	1.3	2.0	1.0	2.0

PRELIMINARY TEST IV, 2019

SEED QUALITY (score)

Strain	Ottawa KS	Riley KS	Albany MO
LD06-7620 (IV)	3.0	4.0	1.5
LD00-2817 (L)	3.0	3.0	2.0
LD07-3395bf (SCN) (E)	3.0	3.0	1.5
CR16-0032	3.0	3.0	2.0
CR16-0129	3.0	3.0	1.5
CR16-0130	3.0	3.0	1.5
CR16-0153	3.0	2.0	1.5
CR16-0154	3.0	3.0	2.5
CR16-0156	2.0	3.0	2.0
K16-1045	2.0	3.0	1.5
K16-1071	2.0	3.0	2.0
K16-1076	2.0	3.0	2.5
K16-1211	3.0	4.0	1.5
K16-1222	3.0	4.0	1.5
K16-1229	2.0	4.0	2.0
K16-1706	2.0	3.0	2.0
LG16-4808	3.0	4.0	2.0
LG17-8693	2.0	3.0	2.0
LG17-8880	2.0	4.0	2.0
LG17-8885	2.0	3.0	2.0
LG17-8888	2.0	3.0	1.5
SA16-10735	3.0	3.0	2.0
SA16-11227	3.0	3.0	2.0
SA16-12348	3.0	3.0	2.5

PRELIMINARY TEST IV, 2019

PROTEIN (%)

Strain	Mean 4 Tests	Ivesdale IL	Urbana IL	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	35.5	34.4	35.7	35.6	36.3
LD00-2817 (L)	33.5	32.2	32.8	34.5	34.6
LD07-3395bf (SCN) (E)	33.1	31.8	32.4	33.9	34.2
CR16-0032	36.9	36.7	36.4	36.8	37.7
CR16-0129	34.5	34.2	34.6	34.9	34.3
CR16-0130	34.5	34.4	34.3	35.2	34.1
CR16-0153	35.9	35.2	36.1	35.9	36.4
CR16-0154	35.5	35.2	36.1	35.1	35.7
CR16-0156	34.9	35.6	35.0	34.1	35.1
K16-1045	36.0	36.1	36.0	36.4	35.4
K16-1071	37.4	37.1	37.7	37.6	37.3
K16-1076	36.6	36.2	36.1	36.9	37.2
K16-1211	35.5	35.9	35.0	35.8	35.4
K16-1222	34.7	34.9	34.9	34.6	34.5
K16-1229	34.7	34.5	34.4	35.4	34.5
K16-1706	35.6	34.2	36.9	36.3	35.2
LG16-4808	35.5	34.2	34.9	36.6	36.2
LG17-8693	36.1	34.3	36.3	36.3	37.3
LG17-8880	33.9	33.1	33.0	34.9	34.5
LG17-8885	34.5	35.2	33.1	34.1	35.6
LG17-8888	34.9	34.6	34.6	34.8	35.6
SA16-10735	34.8	34.4	34.4	35.1	35.4
SA16-11227	36.2	35.7	36.6	36.1	36.4
SA16-12348	35.3	35.8	35.6	33.6	36.3

PRELIMINARY TEST IV, 2019

OIL (%)

Strain	Mean 4 Tests	Ivesdale IL	Urbana IL	West Lafayette IN	Ottawa KS
LD06-7620 (IV)	18.8	18.8	18.9	18.6	18.9
LD00-2817 (L)	19.9	19.9	20.6	19.5	19.8
LD07-3395bf (SCN) (E)	20.6	20.7	21.0	19.9	20.6
CR16-0032	18.8	18.5	18.8	18.8	19.0
CR16-0129	18.9	18.4	19.3	18.5	19.3
CR16-0130	19.0	18.7	19.1	18.7	19.6
CR16-0153	18.2	18.0	18.3	18.2	18.3
CR16-0154	18.6	18.4	18.5	18.2	19.3
CR16-0156	18.5	18.3	18.3	19.0	18.3
K16-1045	19.2	18.9	19.2	19.1	19.8
K16-1071	18.6	18.3	18.6	18.4	18.9
K16-1076	18.3	18.2	18.4	18.2	18.4
K16-1211	18.5	18.1	18.7	18.4	19.0
K16-1222	19.3	18.8	19.6	19.0	19.8
K16-1229	19.5	19.5	19.7	18.9	19.8
K16-1706	18.8	18.7	18.6	18.4	19.3
LG16-4808	18.1	18.1	18.3	17.8	18.3
LG17-8693	18.7	18.6	18.7	18.6	19.1
LG17-8880	19.2	18.8	19.8	18.6	19.5
LG17-8885	18.9	18.2	19.4	19.2	18.7
LG17-8888	19.0	18.9	19.1	18.6	19.4
SA16-10735	19.5	19.4	19.8	19.5	19.4
SA16-11227	18.0	17.7	17.9	18.1	18.2
SA16-12348	18.6	18.2	18.4	19.4	18.5

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	Northern Regional Uniform Test					
	Uniform Test 00 Traited Material, 2019					
			Seed	Previous	Gen.	Unique
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits
1	MN0083 (00)	M97-121138 x MN0091	Lorenz	1	F5	Rps6
2	MN0095 (0)	M92-270029 x M93-313185	Lorenz	11	F5	Rps1
3	ND Rolette	M00-30755 x ND05-17649	Helms	4	F4	
4	AG00437		Monsanto	1		
5	AG00632		Monsanto	4		SCN
6	AG00937		Monsanto	1		
7	ND17009GT	OAC07-26C x RG607RR	Helms	4	F3	RR1
8	M12-454061	ND07-2205 x PI639637	Lorenz	1	F5	Diversity, Protein
9	ND16-10069GT	ND10-3473 x ND07-3987 x [RG7008RR x ND03-5441]	Helms	Initial	F3	GT
10	ND16-10359GT	ND10-3495 x ND04-11421 x [P.91M10 x RG7008RR]	Helms	Initial	F3	GT
11	ND16-10485GT	NDND10-3473 x ND03-7556 x RG200RR	Helms	Initial	F3	GT
12	ND16-10491GT	ND10-3773 x ND03-7556 x RG7008RR	Helms	Initial	F3	GT
13	ND16-11108GT	ND10-3495 x ND07-18644	Helms	Initial	F3	GT
14	ND16-11172GT	ND10-3473 x ND07-3987 x [RG7008RR x ND03-5441]	Helms	Initial	F3	GT
15	ND16-11448GT	ND10-2522 x ND07-3987 x [RG7008RR x ND03-5441]	Helms	Initial	F3	GT
16	ND16-11454GT	M05-363022 x ND07-3987 x [RG7008RR x ND03-5441]	Helms	Initial	F3	GT
17	ND16-12086GT	Ashtabula x ND07-18644	Helms	Initial	F3	GT
18	ND16-9796GT	ND10-2522 x ND07-18644	Helms	Initial	F3	GT
19	ND18008GT	RG200RR x ND07-18569	Helms	4	F3	RR1

UNIFORM TEST 00 TRAITED MATERIAL, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score		Shattering Score
		Roseau	Thief River Falls	Man-hattan
MN0083 (00)	WTBSYGI	2.0	2.0	1.0
MN0095 (0)	PGTSYIbI	1.2	1.2	1.0
ND Rolette	PGTSYLBrI	2.0	2.0	1.0
AG00437	PTBSYBI	1.3	1.3	1.0
AG00632	PTBSYIbI	2.3	2.3	1.0
AG00937	PTBSYBI	1.3	1.3	1.0
ND17009GT	WTBSYBI	4.7	4.7	1.0
M12-454061	PGBDYGI	2.0	2.0	1.0
ND16-10069GT	WGTSYDBfI	2.3	2.3	1.0
ND16-10359GT	PTBSYBI	2.7	2.7	1.0
ND16-10485GT	PGTDYLBrI	2.2	2.2	1.0
ND16-10491GT	PGTSYLBrI	1.7	1.7	1.0
ND16-11108GT	PGTSYIbI	2.2	2.2	1.0
ND16-11172GT	PGBSYYI	2.5	2.5	1.0
ND16-11448GT	PTBDYGI	3.2	3.2	1.0
ND16-11454GT	WGTSYLBrI	3.5	3.5	1.0
ND16-12086GT	PGBDYBrI	2.2	2.2	1.0
ND16-9796GT	PGTSYBfI	1.5	1.5	1.0
ND18008GT	PTBSYBI	2.0	2.0	1.0

UNIFORM TEST 00 TRAITED MATERIAL, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 2 bu/a	Rank 2 No.	Maturity 4 Date	Lodging 2 Score	Plant Height 2 In	Seed Size 4 g/100	Seed Quality 3 Score	Composition Protein 3 %	 Oil 3 %
MN0083 (00)	47.2	12	9/22	1.0	32	14.4	1.0	36.0	16.6
MN0095 (0)	52.1	5	2.2	1.4	33	13.5	1.0	35.7	17.0
ND Rolette	50.8	9	-0.2	1.0	31	13.8	1.0	35.4	16.7
AG00437	52.8	4	-2.4	1.0	32	18.2	1.0	35.8	16.4
AG00632	40.1	19	4.4	1.3	31	20.7	1.0	34.8	16.8
AG00937	56.7	1	0.8	1.0	32	18.7	1.0	35.3	16.5
ND17009GT	59.7	1	2.2	1.5	33	17.9	1.0	36.4	17.5
M12-454061	42.0	17	8.2	1.2	28	15.6	1.0	36.4	17.2
ND16-10069GT	45.3	14	7.4	1.2	31	13.7	1.0	35.4	17.4
ND16-10359GT	51.1	7	5.8	1.0	32	15.1	1.0	36.6	16.9
ND16-10485GT	47.9	11	7.6	1.4	33	14.1	1.0	35.2	17.1
ND16-10491GT	44.2	16	8.9	1.2	33	15.0	1.0	36.8	15.9
ND16-11108GT	46.5	13	10.3	1.4	34	16.9	1.0	35.4	17.2
ND16-11172GT	51.8	6	7.0	1.0	30	15.4	1.0	33.1	18.3
ND16-11448GT	53.7	3	7.6	1.0	29	15.9	1.0	34.4	17.3
ND16-11454GT	45.7	14	6.7	1.0	29	15.3	1.0	35.0	17.3
ND16-12086GT	50.9	8	7.4	1.2	31	15.9	1.0	35.2	17.2
ND16-9796GT	41.8	18	7.1	1.4	31	14.9	1.0	34.7	17.2
ND18008GT	50.3	9	-1.7	1.0	25	15.2	1.0	35.2	17.2
Mean	48.7			1.3	32.9	15.9			
C.V. (%)	17.7			29.2	6.0	1.1			
L.S.D. (5%)	8.3			0.5	2.7	0.8			

122.5 Days After Planting

UNIFORM TEST 00 TRAITED MATERIAL, 2019

2018-2019 2-YEAR MEAN

No. of Tests Strain	Yield 5 bu/a	Rank 5 No.	Maturity 6 Date	Lodging 5 Score	Plant Height 4 In.	Seed Size 7 g/100	Seed Quality 6 Score	Composition Protein 5 %	 Oil 5 %
MN0083 (00)	44.3	6	9/15	1.0	31	14.1	1.2	35.7	16.9
MN0095 (0)	49.9	3	1.6	1.2	30	13.2	1.2	35.3	17.4
AG00437	48.6	5	-2.7	1.0	30	18.0	1.5	35.3	17.1
AG00632	40.9	8	2.2	1.2	29	20.0	1.5	34.5	17.3
AG00937	51.9	2	2.2	1.0	30	18.4	1.2	34.8	17.1
ND17009GT	52.1	1	3.1	1.3	30	17.4	1.2	36.2	17.7
M12-454061	44.1	7	6.8	1.1	30	15.4	1.2	36.1	17.7
ND18008GT	49.1	4	-0.1	1.0	26	14.8	1.2	34.9	17.7

119.0 Days After Planting

2017-2019 3-YEAR MEAN

No. of Tests Strain	7	7	9	8	6	11	9	8	8
MN0095 (0)	48.0	3	9/13	1.1	32	17.0	1.3	35.0	17.4
AG00632	48.2	2	5.0	1.1	30	15.2	1.1	34.7	17.6
ND17009GT	52.0	1	3.8	1.2	33	17.1	1.1	36.2	18.0
ND18008GT	45.8	4	0.2	1.0	28	14.7	1.2	35.0	17.8

119.9 Days After Planting

UNIFORM TEST 00 TRAITED MATERIAL, 2019

YIELD (bu/a)

Strain	Mean 2 Tests	Roseau MN	Thief River Falls* MN	Cassel-ton* ND	La Pocatiere QUE
MN0083 (00)	47.2	47.8	43.7	20.5	46.7
MN0095 (0)	52.1	59.7	53.6	13.0	44.4
ND Rolette	50.8	56.0	55.9	14.6	45.5
AG00437	52.8	44.4	48.2		61.2
AG00632	40.1	35.4	21.6		44.8
AG00937	56.7	49.8	49.2		63.6
ND17009GT	59.7	50.9	45.7	24.2	68.5
M12-454061	42.0	50.7	44.8	23.8	33.4
ND16-10069GT	45.3	55.2	41.2	21.6	35.4
ND16-10359GT	51.1	54.0	39.5	22.1	48.2
ND16-10485GT	47.9	52.8	51.2	25.4	43.1
ND16-10491GT	44.2	46.0	44.9	34.8	42.5
ND16-11108GT	46.5	51.4	42.9	30.3	41.7
ND16-11172GT	51.8	51.2	41.3	16.4	52.5
ND16-11448GT	53.7	55.5	33.9	20.2	51.8
ND16-11454GT	45.7	55.3	44.1	16.2	36.0
ND16-12086GT	50.9	50.7	43.6	15.6	51.1
ND16-9796GT	41.8	52.0	43.3	24.2	31.5
ND18008GT	50.3	50.1	27.5	18.0	50.6
Location Mean		51.0	42.9	21.3	47.0
C.V. (%)		11.4	15.5	24.8	2.6
L.S.D. (5%)		9.6	11.0	8.9	5.2
Row sp. (In.)		10	10	30	5.9
Rows/Plot		8	8	4	7
Reps		3	3	3	3

*Data not included in mean.

UNIFORM TEST 00 TRAITED MATERIAL, 2019

YIELD RANK

Strain	Yield Rank	Roseau MN	Thief River Falls MN	Cassel-ton ND	La Pocatiere QUE
MN0083 (00)	12	16	10	9	9
MN0095 (0)	5	1	2	16	12
ND Rolette	9	2	1	15	10
AG00437	4	18	5		3
AG00632	19	19	19		11
AG00937	1	15	4		2
ND17009GT	1	11	6	4	1
M12-454061	17	13	8	6	18
ND16-10069GT	14	5	15	8	17
ND16-10359GT	7	6	16	7	8
ND16-10485GT	11	7	3	3	13
ND16-10491GT	16	17	7	1	14
ND16-11108GT	13	9	13	2	15
ND16-11172GT	6	10	14	12	4
ND16-11448GT	3	3	17	10	5
ND16-11454GT	14	4	9	13	16
ND16-12086GT	8	12	11	14	6
ND16-9796GT	18	8	12	4	19
ND18008GT	9	14	18	11	7

UNIFORM TEST 00 TRAITED MATERIAL, 2019

MATURITY (date)

Strain	Mean 4 Tests	Roseau MN	Thief River Falls MN	Cassel-ton ND	La Pocatiere QUE
MN0083 (00)	9/22	9/21	9/18	9/19	9/30
MN0095 (0)	2	1	2	-2	8
ND Rolette	-0	-1	0	0	0
AG00437	-2	-5	-1		-2
AG00632	4	2	4		7
AG00937	1	-1	4		0
ND17009GT	2	-1	1	6	2
M12-454061	8	6	6	8	12
ND16-10069GT	7	4	5	8	12
ND16-10359GT	6	5	5	6	7
ND16-10485GT	8	4	7	7	12
ND16-10491GT	9	7	8	9	12
ND16-11108GT	10	10	8	6	17
ND16-11172GT	7	5	9	5	9
ND16-11448GT	8	2	10	9	9
ND16-11454GT	7	3	5	9	9
ND16-12086GT	7	4	7	6	12
ND16-9796GT	7	3	5	7	14
ND18008GT	-2	-4	1	1	-5
Date Planted	5/22	5/18	5/18	5/17	6/6
Days to Mature	122.5	126	123	125	116

UNIFORM TEST 00 TRAITED MATERIAL, 2019

LODGING (score)

Strain	Mean 2 Tests	Roseau MN	Thief River Falls MN	Cassel-ton ND	La Pocatiere QUE
MN0083 (00)	1.0			1.0	1.0
MN0095 (0)	1.4			1.0	1.7
ND Rolette	1.0			1.0	1.0
AG00437	1.0				1.0
AG00632	1.3				1.3
AG00937	1.0				1.0
ND17009GT	1.5			1.0	2.0
M12-454061	1.2			1.0	1.3
ND16-10069GT	1.2			1.0	1.3
ND16-10359GT	1.0			1.0	1.0
ND16-10485GT	1.4			1.0	1.7
ND16-10491GT	1.2			1.0	1.3
ND16-11108GT	1.4			1.0	1.7
ND16-11172GT	1.0			1.0	1.0
ND16-11448GT	1.0			1.0	1.0
ND16-11454GT	1.0			1.0	1.0
ND16-12086GT	1.2			1.0	1.3
ND16-9796GT	1.4			1.0	1.7
ND18008GT	1.0			1.0	1.0

UNIFORM TEST 00 TRAITED MATERIAL, 2019

PLANT HEIGHT (inches)

Strain	Mean 2 Tests	Roseau MN	Thief River Falls MN	Cassel-ton ND	La Pocatiere QUE
MN0083 (00)	32		31		33
MN0095 (0)	33		31		34
ND Rolette	31		30		31
AG00437	32		32		32
AG00632	31		29		33
AG00937	32		31		32
ND17009GT	33		31		35
M12-454061	28		27		29
ND16-10069GT	31		29		32
ND16-10359GT	32		28		35
ND16-10485GT	33		31		34
ND16-10491GT	33		32		34
ND16-11108GT	34		32		36
ND16-11172GT	30		27		33
ND16-11448GT	29		25		33
ND16-11454GT	29		27		31
ND16-12086GT	31		28		34
ND16-9796GT	31		27		35
ND18008GT	25		21		29

UNIFORM TEST 00 TRAITED MATERIAL, 2019

SEED SIZE (g/100)

Strain	Mean 4 Tests	Roseau MN	Thief River Falls MN	Cassel-ton ND	La Pocatiere QUE
MN0083 (00)	14.4	14.6	14.2	14.4	14.2
MN0095 (0)	13.5	14.0	12.1	14.4	13.3
ND Rolette	13.8	13.3	13.1	15.2	13.7
AG00437	18.2	17.9	17.3		19.4
AG00632	20.7	21.0	20.3		20.9
AG00937	18.7	18.4	18.2		19.6
ND17009GT	17.9	17.4	16.5	18.1	19.7
M12-454061	15.6	15.2	14.2	16.5	16.4
ND16-10069GT	13.7	13.5	13.0	14.5	13.6
ND16-10359GT	15.1	14.8	14.5	16.1	15.1
ND16-10485GT	14.1	14.0	13.8	14.8	13.8
ND16-10491GT	15.0	15.7	14.7	14.9	14.5
ND16-11108GT	16.9	17.9	15.9	17.0	16.9
ND16-11172GT	15.4	14.7	14.3	17.0	15.5
ND16-11448GT	15.9	16.5	14.6	16.6	15.9
ND16-11454GT	15.3	15.4	14.8	16.7	14.2
ND16-12086GT	15.9	15.4	15.0	17.0	16.2
ND16-9796GT	14.9	14.9	14.9	15.7	14.0
ND18008GT	15.2	15.4	14.3	14.9	16.2

UNIFORM TEST 00 TRAITED MATERIAL, 2019

SEED QUALITY (score)

Strain	Mean 3 Tests	Roseau MN	Thief River Falls MN	Cassel-ton ND	La Pocatiere QUE
MN0083 (00)	1.0	1.0	1.0	1.0	
MN0095 (0)	1.0	1.0	1.0	1.0	
ND Rolette	1.0	1.0	1.0	1.0	
AG00437	1.0	1.0	1.0		
AG00632	1.0	1.0	1.0		
AG00937	1.0	1.0	1.0		
ND17009GT	1.0	1.0	1.0	1.0	
M12-454061	1.0	1.0	1.0	1.0	
ND16-10069GT	1.0	1.0	1.0	1.0	
ND16-10359GT	1.0	1.0	1.0	1.0	
ND16-10485GT	1.0	1.0	1.0	1.0	
ND16-10491GT	1.0	1.0	1.0	1.0	
ND16-11108GT	1.0	1.0	1.0	1.0	
ND16-11172GT	1.0	1.0	1.0	1.0	
ND16-11448GT	1.0	1.0	1.0	1.0	
ND16-11454GT	1.0	1.0	1.0	1.0	
ND16-12086GT	1.0	1.0	1.0	1.0	
ND16-9796GT	1.0	1.0	1.0	1.0	
ND18008GT	1.0	1.0	1.0	1.0	

UNIFORM TEST 00 TRAITED MATERIAL, 2019

PROTEIN (%)

Strain	Mean 3 Tests	Roseau MN	Thief River Falls MN	Casselton ND
MN0083 (00)	36.0	36.3	36.3	35.5
MN0095 (0)	35.7	35.8	37.1	34.0
ND Rolette	35.4	34.7	36.3	35.3
AG00437	35.8	34.7	36.8	
AG00632	34.8	34.9	34.7	
AG00937	35.3	34.5	36.0	
ND17009GT	36.4	36.4	36.3	36.6
M12-454061	36.4	36.2	36.5	36.4
ND16-10069GT	35.4	35.7	35.1	35.3
ND16-10359GT	36.6	37.5	36.1	36.2
ND16-10485GT	35.2	35.7	35.8	34.1
ND16-10491GT	36.8	37.8	36.0	36.5
ND16-11108GT	35.4	35.9	35.4	34.9
ND16-11172GT	33.1	33.1	33.4	32.9
ND16-11448GT	34.4	34.7	34.2	34.4
ND16-11454GT	35.0	35.3	34.6	35.0
ND16-12086GT	35.2	35.5	35.3	34.8
ND16-9796GT	34.7	35.5	33.7	34.9
ND18008GT	35.2	35.6	34.8	35.4

UNIFORM TEST 00 TRAITED MATERIAL, 2019

OIL (%)

Strain	Mean 3 Tests	Roseau MN	Thief River Falls MN	Casselton ND
MN0083 (00)	16.6	15.9	16.8	17.2
MN0095 (0)	17.0	16.5	16.5	18.1
ND Rolette	16.7	16.6	16.6	16.9
AG00437	16.4	16.5	16.2	
AG00632	16.8	16.6	16.9	
AG00937	16.5	16.8	16.3	
ND17009GT	17.5	17.4	17.5	17.6
M12-454061	17.2	17.0	17.1	17.4
ND16-10069GT	17.4	16.8	17.8	17.7
ND16-10359GT	16.9	16.1	17.4	17.3
ND16-10485GT	17.1	16.4	17.1	17.9
ND16-10491GT	15.9	15.0	16.4	16.4
ND16-11108GT	17.2	16.4	17.5	17.8
ND16-11172GT	18.3	18.0	18.3	18.8
ND16-11448GT	17.3	16.7	17.4	17.7
ND16-11454GT	17.3	16.9	18.2	17.0
ND16-12086GT	17.2	16.7	17.3	17.7
ND16-9796GT	17.2	16.7	17.6	17.3
ND18008GT	17.2	16.7	17.5	17.3

	Northern Regional Uniform Test					
	Uniform Test 0 Traited Material, 2019					
			Seed	Previous	Gen.	Unique
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits
1	ND Stutsman (0)	Sheyenne x [LaMoure(2)Rag1]	Helms	6	F4	PI 88788, Rps1c
2	MN0095 (E)	M92-270029 x M93-313185	Lorenz	8	F5	Rps1
3	MN0404CN (SCN)	MN0902CN x MN0304	Lorenz	2		SCN, Rpsk1, PLT
4	MN1410 (L)	Unknown	Lorenz	11	F5	
5	AG0536		Monsanto	1		
6	AG0835		Monsanto	1		
7	AG1135		Monsanto	1		
8	ND17009GT	OAC07-26C x RG607RR	Helms	4	F3	RR1
9	M06R-614008	SDX00R-026-42 x N34505R	Lorenz	Initial	F5	GT
10	M07-296048	M01-314114 x MN1011CN	Lorenz	Initial	F5	
11	M07-296048HOLL-1	[M07-296048(4) x M05-319034LL]	Lorenz	Initial	BC3F3	HOLL
		x [M07-296048(4) M10-237089HO]				
12	M07-296048HOLL-2	[M07-296048(4) x M05-319034LL]	Lorenz	Initial	BC3F3	HOLL
		x [M07-296048(4) M10-237089HO]				
13	M07-296048HOLL-3	[M07-296048(4) M10-237089HO]	Lorenz	Initial	BC3F3	HOLL
		x [M07-296048(4) M05-319036LL]				
14	M07-296048HOLL-4	[M07-296048(4) x M05-319034LL]	Lorenz	Initial	BC3F3	HOLL
		x [M07-296048(4) x M10-237089HO]				
15	M13-209007	M07-392033 x M05-248041	Lorenz	Initial	F5	PRO
16	M13-268035	M06-340057 x A09-754003	Lorenz	Initial	F5	PRO
17	M13-270022	M06-340057 x M05-307064	Lorenz	Initial	F5	PRO
18	M13-276034	M07-2064093 x M05-297042	Lorenz	Initial	F5	PRO, SCN
19	M13-277057	M06-226003 x M06-318018	Lorenz	Initial	F5	PRO
20	M13-278078	M06-289192 x M07-298022	Lorenz	Initial	F5	PRO, SCN
21	M13-280012	MN1505SP x M07-303013	Lorenz	Initial	F5	PRO
22	M13R-309006	M06R-619017 x MN1107RR	Lorenz	Initial	F5	GT
23	M13R-309009	M06R-619017 x MN1107RR	Lorenz	Initial	F5	GT
24	M13R-309021	M06R-619017 x MN1107RR	Lorenz	Initial	F5	GT
25	M13R-309024	M06R-619017 x MN1107RR	Lorenz	Initial	F5	GT
26	M13R-309033	M06R-619017 x MN1107RR	Lorenz	Initial	F5	GT
27	M13R-309035	M06R-619017 x MN1107RR	Lorenz	Initial	F5	GT
28	M13R-323110	MN1107RR x M10-236018	Lorenz	Initial	F5	GT
29	M14HO-1329-1001	MN0107(4) x KB10-10#990-1	Lorenz	1	BC3F3	HO
30	M14HO-1329-4008	MN0107(4) x KB10-10#990-1	Lorenz	1	BC3F3	
31	M14HO-1330-14001	MN0107(4) x KB10-10#990-1	Lorenz	1	BC3F3	HO
32	M14HO-1330-3006	MN0107(4) x KB10-10#990-1	Lorenz	1	BC3F3	
33	MCH13R-117072	M06R-614008 x M06R-613036	Lorenz	PT0TM	F5	GT
34	ND15-22873(GT)	MN1410 x Sheyenne	Helms	PT0TM	F4	
		x [Ashtabula x RG7008RR]				
35	ND16-11368GT	M05-363022 x ND07-3987	Helms	Initial	F3	GT
		x [RG7008RR x ND03-5441]				
36	ND16-11624GT	ND10-3495 x ND04-11421	Helms	Initial	F3	GT
		x [P.91M10 x RG200RR]				
37	ND16-11836GT	M05-363022 x ND04-11421	Helms	Initial	F3	GT
		x [P.91M10 x RG7008RR]				
38	ND16-9741GT	ND10-3473 x ND07-18633GT	Helms	Initial	F3	GT
39	ND16-9745GT	ND10-3473 x ND07-18633GT	Helms	Initial	F3	GT
40	ND16-9755GT	ND10-3743 x ND07-18633GT	Helms	Initial	F3	GT

UNIFORM TEST 0 TRAITED MATERIAL, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score Shelly	Shattering Score Manhattan
ND Stutsman (0)	PGTSYYI	1.3	1.0
MN0095 (E)	PGTSYIbI	2.5	1.0
MN0404CN (SCN)	PTBSYIbI	2.3	1.0
MN1410 (L)	WGTSYBrI	2.8	1.0
AG0536	PGBSYBBfI	2.0	1.0
AG0835	PGTSYIbI	1.8	1.0
AG1135	PGBSYIbI	4.3	1.0
ND17009GT	WTBSYBI	4.5	1.0
M06R-614008	WTBDYGI	2.3	1.0
M07-296048	PTBDYLGGYI	1.8	1.0
M07-296048HOLL-1	PTBSYYI	1.5	1.0
M07-296048HOLL-2	PTBSYYI	3.0	1.0
M07-296048HOLL-3	PTBSYGI	2.0	1.0
M07-296048HOLL-4	PTBSYGI	2.5	1.0
M13-209007	WGTSYBfI	2.3	1.0
M13-268035	PGBSYGI	2.8	1.0
M13-270022	PTBDYBI	2.3	1.0
M13-276034	PTBDYLGGBrI	2.8	1.0
M13-277057	WGBDYYGI	2.0	1.0
M13-278078	PGB+TDYLBrI	2.5	1.0
M13-280012	WTBDYLGGI	2.3	1.0
M13R-309006	PGTDYIbLBrI	2.8	1.0
M13R-309009	PGTDYLBrI	2.8	1.0
M13R-309021	PGTDYLBrI	2.0	1.0
M13R-309024	PGTDYLBrI	2.5	1.0
M13R-309033	PGTDYLBrIbI	2.3	1.0
M13R-309035	PT+GB+TDYLBrI	2.0	1.0
M13R-323110	PTBSYBrI	3.0	1.0
M14HO-1329-1001	PGTSYYI	2.0	1.0
M14HO-1329-4008	PGTSYYBrI	1.8	1.0
M14HO-1330-14001	PGTDYGI	1.8	1.0
M14HO-1330-3006	PGTDYYGBrI	1.5	1.0
MCH13R-117072	PTBDYBrI	1.3	1.0
ND15-22873(GT)	PGTSYGIbYI	2.0	1.0
ND16-11368GT	PGTSYBfI	2.0	1.0
ND16-11624GT	PGBDYBrI	2.3	1.0
ND16-11836GT	PTBSYBrI	2.3	1.0
ND16-9741GT	PGTSYIbI	1.8	1.0
ND16-9745GT	PGTSYIbI	3.3	1.0
ND16-9755GT	WGB+TSYDBfI	1.5	1.0

UNIFORM TEST 0 TRAITED MATERIAL, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 0 bu/a	Rank 0 No.	Maturity 2 Date	Lodging 1 Score	Plant Height 1 In.	Seed Size 2 g/100	Seed Quality 2 Score	Composition Protein 2 %	 Oil 2 %
ND Stutsman (0)			9/29	1.0	24	14.8	1.0	31.5	18.3
MN0095 (E)			-16.0	1.0	21	12.8	1.0	33.1	18.5
MN0404CN (SCN)			-10.5	1.0	28	12.6	1.0	30.9	18.9
MN1410 (L)			7.2	1.0	32	15.4	1.0	31.5	19.2
AG0536			2.0	0.0	19	15.9	2.0	29.3	19.5
AG0835			8.1	0.0	23	14.5	2.0	30.1	18.8
AG1135			0.0	0.0	19	0.0	0.0	0.0	0.0
ND17009GT			-7.6	1.0	26	16.8	1.0	34.8	18.0
M06R-614008			3.7	1.0	31	14.3	1.0	33.6	17.9
M07-296048			-0.1	1.0	33	13.9	1.0	33.6	17.5
M07-296048HOLL-1			-2.1	1.0	33	13.8	1.5	34.0	17.8
M07-296048HOLL-2			-3.0	1.0	31	13.4	1.0	34.4	17.8
M07-296048HOLL-3			-2.2	1.0	34	13.4	1.0	32.8	18.1
M07-296048HOLL-4			0.5	1.0	35	14.1	1.0	33.1	17.9
M13-209007			-0.3	1.0	24	14.8	1.0	33.8	18.2
M13-268035			1.1	1.0	29	15.7	1.0	32.3	18.6
M13-270022			-0.4	1.0	30	15.9	1.0	30.7	19.5
M13-276034			-5.5	1.0	31	15.7	1.0	34.0	17.8
M13-277057			0.0	1.0	26	17.9	1.0	34.3	17.4
M13-278078			-5.5	1.0	25	14.6	1.0	33.5	18.1
M13-280012			-7.8	1.0	18	19.2	1.5	34.8	17.7
M13R-309006			-5.6	1.0	23	16.1	1.0	32.7	18.2
M13R-309009			-3.3	1.0	25	16.0	1.5	32.1	18.6
M13R-309021			-6.1	1.0	26	16.7	1.0	31.9	18.6
M13R-309024			-0.7	1.0	27	16.1	1.0	32.8	18.0
M13R-309033			-6.5	1.0	22	17.0	1.0	32.3	18.6
M13R-309035			-4.8	1.0	25	16.2	1.0	32.7	18.4
M13R-323110			5.3	1.0	24	16.0	1.5	31.7	18.5
M14HO-1329-1001			-9.4	1.0	21	14.6	1.0	34.3	17.5
M14HO-1329-4008			-12.0	1.0	27	14.7	1.0	34.7	16.9
M14HO-1330-14001			-9.1	1.0	29	14.7	1.0	34.5	17.7
M14HO-1330-3006			-9.6	1.0	30	15.0	1.0	33.9	17.4
MCH13R-117072			-5.1	1.0	23	15.4	1.0	30.9	18.7
ND15-22873(GT)			1.7	1.0	24	13.9	1.5	31.9	18.3
ND16-11368GT			-5.4	1.0	26	13.9	1.0	32.0	18.2
ND16-11624GT			-6.0	1.0	29	14.5	1.5	32.9	17.3
ND16-11836GT			-5.1	1.0	29	15.4	1.0	32.9	17.3
ND16-9741GT			-7.6	1.0	32	13.6	1.0	31.5	19.0
ND16-9745GT			-5.3	1.0	39	13.6	1.0	31.8	19.1
ND16-9755GT			-3.8	1.0	39	14.7	1.0	32.2	18.6
Mean									
C.V. (%)									
L.S.D. (5%)									

134.0 Days After Planting

UNIFORM TEST 0 TRAITED MATERIAL, 2019

2018-2019 2-YEAR MEAN

No. of Tests Strain	Yield 2 bu/a	Rank 2 No.	Maturity 5 Date	Lodging 4 Score	Plant Height 3 In.	Seed Size 5 g/100	Seed Quality 5 Score	Composition Protein 4 %	 Oil 4 %
ND Stutsman (0)	63.1	3	9/24	1.1	30	15.0	1.2	31.8	18.8
MN0095 (E)	51.0	7	-12.5	1.1	25	12.8	1.0	33.2	19.0
MN0404CN (SCN)	47.6	12	-8.2	1.2	32	13.1	1.0	31.9	18.9
MN1410 (L)	59.9	5	7.9	1.2	35	16.0	1.3	32.7	19.2
AG0536	62.6	4	1.0	0.8	27	16.8	1.5	31.6	19.0
AG0835	67.2	1	5.2	0.7	29	15.1	1.5	31.9	18.7
AG1135	66.5	2	3.3	0.7	27	7.7	0.5	16.9	9.1
ND17009GT	51.0	7	-6.8	1.1	31	17.0	1.0	34.7	18.4
M14HO-1329-1001	49.4	11	-8.4	1.1	28	15.4	1.0	34.7	17.8
M14HO-1329-4008	49.6	10	-10.3	1.1	32	14.9	1.0	35.0	17.5
M14HO-1330-14001	53.2	6	-8.0	1.1	33	15.8	1.0	35.2	18.1
M14HO-1330-3006	50.4	9	-8.5	1.1	32	15.9	1.0	34.9	17.6

129.0 Days After Planting

UNIFORM TEST 0 TRAITED MATERIAL, 2019

YIELD (bu/a)

Strain	Mean 0 Tests	Shelly* MN	Casselton* ND
ND Stutsman (0)		12.5	6.0
MN0095 (E)		8.1	22.9
MN0404CN (SCN)		30.2	17.5
MN1410 (L)		41.5	38.3
AG0536		6.4	
AG0835		8.0	
AG1135		2.0	
ND17009GT		18.7	17.8
M06R-614008		42.8	3.9
M07-296048		37.2	27.2
M07-296048HOLL-1		28.6	30.5
M07-296048HOLL-2		20.6	20.6
M07-296048HOLL-3		23.9	34.1
M07-296048HOLL-4		25.5	31.3
M13-209007		38.0	36.6
M13-268035		40.3	27.4
M13-270022		32.4	28.4
M13-276034		25.0	22.3
M13-277057		22.0	18.3
M13-278078		23.4	20.1
M13-280012		15.5	6.1
M13R-309006		18.2	22.0
M13R-309009		16.7	20.8
M13R-309021		13.1	26.1
M13R-309024		29.0	24.0
M13R-309033		18.4	28.3
M13R-309035		24.1	15.3
M13R-323110		24.2	33.6
M14HO-1329-1001		14.5	23.0
M14HO-1329-4008		19.0	20.4
M14HO-1330-14001		20.1	23.7
M14HO-1330-3006		19.3	22.1
MCH13R-117072		13.7	29.8
ND15-22873(GT)		25.4	25.4
ND16-11368GT		22.9	22.7
ND16-11624GT		34.1	43.5
ND16-11836GT		34.4	42.4
ND16-9741GT		23.5	37.0
ND16-9745GT		24.5	26.2
ND16-9755GT		26.9	17.0
Location Mean		23.1	24.7
C.V. (%)		37.9	22.5
L.S.D. (5%)		14.2	8.9
Row sp. (In.)		10	30
Rows/Plot		8	4
Reps		3	3

*Data not included in mean.

UNIFORM TEST 0 TRAITED MATERIAL, 2019

YIELD RANK

Strain	Yield Rank	Shelly MN	Casselton ND
ND Stutsman (0)		36	36
MN0095 (E)		37	21
MN0404CN (SCN)		9	32
MN1410 (L)		2	3
AG0536		39	
AG0835		38	
AG1135		40	
ND17009GT		28	31
M06R-614008		1	37
M07-296048		5	14
M07-296048HOLL-1		11	9
M07-296048HOLL-2		24	27
M07-296048HOLL-3		19	6
M07-296048HOLL-4		13	8
M13-209007		4	5
M13-268035		3	13
M13-270022		8	11
M13-276034		15	23
M13-277057		23	30
M13-278078		21	29
M13-280012		32	35
M13R-309006		30	25
M13R-309009		31	26
M13R-309021		35	16
M13R-309024		10	18
M13R-309033		29	12
M13R-309035		18	24
M13R-323110		17	7
M14HO-1329-1001		33	20
M14HO-1329-4008		27	28
M14HO-1330-14001		25	19
M14HO-1330-3006		26	24
MCH13R-117072		34	10
ND15-22873(GT)		14	17
ND16-11368GT		22	22
ND16-11624GT		7	1
ND16-11836GT		6	2
ND16-9741GT		20	4
ND16-9745GT		16	15
ND16-9755GT		12	33

UNIFORM TEST 0 TRAITED MATERIAL, 2019

MATURITY (date)

Strain	Mean 2 Tests	Shelly MN	Casselton ND
ND Stutsman (0)	9/29	9/27	10/2
MN0095 (E)	-16		-16
MN0404CN (SCN)	-10	-9	-12
MN1410 (L)	7	8	6
AG0536	2	2	
AG0835	8	8	
AG1135			
ND17009GT	-8	-5	-10
M06R-614008	4	12	-5
M07-296048	-0	2	-2
M07-296048HOLL-1	-2	1	-5
M07-296048HOLL-2	-3	-2	-4
M07-296048HOLL-3	-2	-3	-1
M07-296048HOLL-4	1	0	1
M13-209007	-0	1	-2
M13-268035	1	1	1
M13-270022	-0	-1	0
M13-276034	-6	-3	-8
M13-277057	0	1	-1
M13-278078	-6	-2	-9
M13-280012	-8	-8	-8
M13R-309006	-6	-6	-5
M13R-309009	-3	-1	-6
M13R-309021	-6	-5	-7
M13R-309024	-1	-0	-1
M13R-309033	-6	-6	-7
M13R-309035	-5	-4	-6
M13R-323110	5	7	4
M14HO-1329-1001	-9	-8	-11
M14HO-1329-4008	-12		-12
M14HO-1330-14001	-9	-7	-11
M14HO-1330-3006	-10	-7	-12
MCH13R-117072	-5	-2	-8
ND15-22873(GT)	2	1	2
ND16-11368GT	-5	-9	-2
ND16-11624GT	-6	-7	-5
ND16-11836GT	-5	-5	-5
ND16-9741GT	-8	-8	-7
ND16-9745GT	-5	-7	-4
ND16-9755GT	-4	-4	-4
Date Planted	5/18	5/20	5/17
Days to Mature	134	130	138

UNIFORM TEST 0 TRAITED MATERIAL, 2019

LODGING (score)

Strain	Mean 1 Tests	Shelly MN	Casselton ND
ND Stutsman (0)	1.0		1.0
MN0095 (E)	1.0		1.0
MN0404CN (SCN)	1.0		1.0
MN1410 (L)	1.0		1.0
AG0536			
AG0835			
AG1135			
ND17009GT	1.0		1.0
M06R-614008	1.0		1.0
M07-296048	1.0		1.0
M07-296048HOLL-1	1.0		1.0
M07-296048HOLL-2	1.0		1.0
M07-296048HOLL-3	1.0		1.0
M07-296048HOLL-4	1.0		1.0
M13-209007	1.0		1.0
M13-268035	1.0		1.0
M13-270022	1.0		1.0
M13-276034	1.0		1.0
M13-277057	1.0		1.0
M13-278078	1.0		1.0
M13-280012	1.0		1.0
M13R-309006	1.0		1.0
M13R-309009	1.0		1.0
M13R-309021	1.0		1.0
M13R-309024	1.0		1.0
M13R-309033	1.0		1.0
M13R-309035	1.0		1.0
M13R-323110	1.0		1.0
M14HO-1329-1001	1.0		1.0
M14HO-1329-4008	1.0		1.0
M14HO-1330-14001	1.0		1.0
M14HO-1330-3006	1.0		1.0
MCH13R-117072	1.0		1.0
ND15-22873(GT)	1.0		1.0
ND16-11368GT	1.0		1.0
ND16-11624GT	1.0		1.0
ND16-11836GT	1.0		1.0
ND16-9741GT	1.0		1.0
ND16-9745GT	1.0		1.0
ND16-9755GT	1.0		1.0

UNIFORM TEST 0 TRAITED MATERIAL, 2019

PLANT HEIGHT (inches)

Strain	Mean 1 Tests	Shelly MN	Casselton ND
ND Stutsman (0)	24	24	
MN0095 (E)	21	21	
MN0404CN (SCN)	28	28	
MN1410 (L)	32	32	
AG0536	19	19	
AG0835	23	23	
AG1135	19	19	
ND17009GT	26	26	
M06R-614008	31	31	
M07-296048	33	33	
M07-296048HOLL-1	33	33	
M07-296048HOLL-2	31	31	
M07-296048HOLL-3	34	34	
M07-296048HOLL-4	35	35	
M13-209007	24	24	
M13-268035	29	29	
M13-270022	30	30	
M13-276034	31	31	
M13-277057	26	26	
M13-278078	25	25	
M13-280012	18	18	
M13R-309006	23	23	
M13R-309009	25	25	
M13R-309021	26	26	
M13R-309024	27	27	
M13R-309033	22	22	
M13R-309035	25	25	
M13R-323110	24	24	
M14HO-1329-1001	21	21	
M14HO-1329-4008	27	27	
M14HO-1330-14001	29	29	
M14HO-1330-3006	30	30	
MCH13R-117072	23	23	
ND15-22873(GT)	24	24	
ND16-11368GT	26	26	
ND16-11624GT	29	29	
ND16-11836GT	29	29	
ND16-9741GT	32	32	
ND16-9745GT	39	39	
ND16-9755GT	39	39	

UNIFORM TEST 0 TRAITED MATERIAL, 2019

SEED SIZE (g/100)

Strain	Mean 2 Tests	Shelly MN	Casselton ND
ND Stutsman (0)	14.8	13.3	16.2
MN0095 (E)	12.8	12.0	13.5
MN0404CN (SCN)	12.6	11.7	13.5
MN1410 (L)	15.4	13.8	16.9
AG0536	15.9	15.9	
AG0835	14.5	14.5	
AG1135			
ND17009GT	16.8	15.6	18.0
M06R-614008	14.3	12.5	16.0
M07-296048	13.9	12.4	15.4
M07-296048HOLL-1	13.8	13.2	14.3
M07-296048HOLL-2	13.4	11.8	14.9
M07-296048HOLL-3	13.4	12.4	14.3
M07-296048HOLL-4	14.1	12.8	15.3
M13-209007	14.8	14.0	15.5
M13-268035	15.7	14.7	16.7
M13-270022	15.9	14.7	17.0
M13-276034	15.7	14.0	17.4
M13-277057	17.9	15.3	20.5
M13-278078	14.6	13.1	16.1
M13-280012	19.2	18.1	20.2
M13R-309006	16.1	14.7	17.4
M13R-309009	16.0	13.8	18.2
M13R-309021	16.7	14.4	19.0
M13R-309024	16.1	14.7	17.4
M13R-309033	17.0	15.8	18.2
M13R-309035	16.2	14.5	17.8
M13R-323110	16.0	15.0	16.9
M14HO-1329-1001	14.6	13.8	15.4
M14HO-1329-4008	14.7	13.7	15.6
M14HO-1330-14001	14.7	13.8	15.5
M14HO-1330-3006	15.0	13.7	16.2
MCH13R-117072	15.4	13.6	17.1
ND15-22873(GT)	13.9	12.6	15.1
ND16-11368GT	13.9	12.2	15.6
ND16-11624GT	14.5	13.0	16.0
ND16-11836GT	15.4	14.4	16.3
ND16-9741GT	13.6	11.5	15.6
ND16-9745GT	13.6	12.1	15.1
ND16-9755GT	14.7	13.7	15.6

UNIFORM TEST 0 TRAITED MATERIAL, 2019

SEED QUALITY (score)

Strain	Mean 2 Tests	Shelly MN	Casselton ND
ND Stutsman (0)	1.0	1.0	1.0
MN0095 (E)	1.0	1.0	1.0
MN0404CN (SCN)	1.0	1.0	1.0
MN1410 (L)	1.0	1.0	1.0
AG0536	2.0	2.0	
AG0835	2.0	2.0	
AG1135			
ND17009GT	1.0	1.0	1.0
M06R-614008	1.0	1.0	1.0
M07-296048	1.0	1.0	1.0
M07-296048HOLL-1	1.5	2.0	1.0
M07-296048HOLL-2	1.0	1.0	1.0
M07-296048HOLL-3	1.0	1.0	1.0
M07-296048HOLL-4	1.0	1.0	1.0
M13-209007	1.0	1.0	1.0
M13-268035	1.0	1.0	1.0
M13-270022	1.0	1.0	1.0
M13-276034	1.0	1.0	1.0
M13-277057	1.0	1.0	1.0
M13-278078	1.0	1.0	1.0
M13-280012	1.5	2.0	1.0
M13R-309006	1.0	1.0	1.0
M13R-309009	1.5	2.0	1.0
M13R-309021	1.0	1.0	1.0
M13R-309024	1.0	1.0	1.0
M13R-309033	1.0	1.0	1.0
M13R-309035	1.0	1.0	1.0
M13R-323110	1.5	2.0	1.0
M14HO-1329-1001	1.0	1.0	1.0
M14HO-1329-4008	1.0	1.0	1.0
M14HO-1330-14001	1.0	1.0	1.0
M14HO-1330-3006	1.0	1.0	1.0
MCH13R-117072	1.0	1.0	1.0
ND15-22873(GT)	1.5	2.0	1.0
ND16-11368GT	1.0	1.0	1.0
ND16-11624GT	1.5	2.0	1.0
ND16-11836GT	1.0	1.0	1.0
ND16-9741GT	1.0	1.0	1.0
ND16-9745GT	1.0	1.0	1.0
ND16-9755GT	1.0	1.0	1.0

UNIFORM TEST 0 TRAITED MATERIAL, 2019

PROTEIN (%)

Strain	Mean 2 Tests	Shelly MN	Casselton ND
ND Stutsman (0)	31.5	28.9	34.1
MN0095 (E)	33.1	32.0	34.3
MN0404CN (SCN)	30.9	29.5	32.3
MN1410 (L)	31.5	29.1	33.9
AG0536	29.3	29.3	
AG0835	30.1	30.1	
AG1135			
ND17009GT	34.8	33.1	36.5
M06R-614008	33.6	33.0	34.3
M07-296048	33.6	32.0	35.2
M07-296048HOLL-1	34.0	31.4	36.6
M07-296048HOLL-2	34.4	31.2	37.6
M07-296048HOLL-3	32.8	29.6	36.1
M07-296048HOLL-4	33.1	29.3	36.9
M13-209007	33.8	30.9	36.6
M13-268035	32.3	30.2	34.4
M13-270022	30.7	27.9	33.5
M13-276034	34.0	31.1	36.8
M13-277057	34.3	29.4	39.3
M13-278078	33.5	30.9	36.1
M13-280012	34.8	32.8	36.8
M13R-309006	32.7	30.1	35.3
M13R-309009	32.1	30.5	33.7
M13R-309021	31.9	29.0	34.9
M13R-309024	32.8	30.6	35.0
M13R-309033	32.3	30.1	34.4
M13R-309035	32.7	30.9	34.5
M13R-323110	31.7	29.6	33.9
M14HO-1329-1001	34.3	32.1	36.5
M14HO-1329-4008	34.7	32.8	36.7
M14HO-1330-14001	34.5	32.8	36.2
M14HO-1330-3006	33.9	31.7	36.0
MCH13R-117072	30.9	28.4	33.4
ND15-22873(GT)	31.9	29.7	34.2
ND16-11368GT	32.0	29.4	34.7
ND16-11624GT	32.9	30.9	34.9
ND16-11836GT	32.9	31.6	34.1
ND16-9741GT	31.5	27.9	35.0
ND16-9745GT	31.8	29.1	34.6
ND16-9755GT	32.2	30.0	34.3

UNIFORM TEST 0 TRAITED MATERIAL, 2019

OIL (%)

Strain	Mean 2 Tests	Shelly MN	Casselton ND
ND Stutsman (0)	18.3	19.3	17.3
MN0095 (E)	18.5	19.0	18.0
MN0404CN (SCN)	18.9	19.4	18.3
MN1410 (L)	19.2	20.2	18.2
AG0536	19.5	19.5	
AG0835	18.8	18.8	
AG1135			
ND17009GT	18.0	18.4	17.6
M06R-614008	17.9	17.8	18.0
M07-296048	17.5	18.2	16.9
M07-296048HOLL-1	17.8	18.4	17.2
M07-296048HOLL-2	17.8	18.7	16.9
M07-296048HOLL-3	18.1	19.0	17.3
M07-296048HOLL-4	17.9	19.1	16.8
M13-209007	18.2	19.1	17.3
M13-268035	18.6	19.5	17.8
M13-270022	19.5	20.5	18.6
M13-276034	17.8	18.8	16.7
M13-277057	17.4	18.9	15.9
M13-278078	18.1	19.1	17.1
M13-280012	17.7	18.3	17.0
M13R-309006	18.2	19.2	17.3
M13R-309009	18.6	19.2	17.9
M13R-309021	18.6	19.7	17.5
M13R-309024	18.0	18.8	17.1
M13R-309033	18.6	19.0	18.2
M13R-309035	18.4	19.4	17.4
M13R-323110	18.5	19.2	17.7
M14HO-1329-1001	17.5	18.1	16.8
M14HO-1329-4008	16.9	17.6	16.3
M14HO-1330-14001	17.7	18.1	17.3
M14HO-1330-3006	17.4	18.3	16.6
MCH13R-117072	18.7	19.6	17.7
ND15-22873(GT)	18.3	18.9	17.7
ND16-11368GT	18.2	19.1	17.2
ND16-11624GT	17.3	18.0	16.6
ND16-11836GT	17.3	17.7	16.8
ND16-9741GT	19.0	20.2	17.7
ND16-9745GT	19.1	20.1	18.2
ND16-9755GT	18.6	19.4	17.7

UNIFORM TEST 0 TRAITED MATERIAL, 2019

REGIONAL SUMMARY - FA-SEED COMPOSITION

No. of Tests Strain	Palmitic 1 %	Stearic 1 %	Oleic 1 %	Linoleic 1 %	Linolenic 1 %
ND Stutsman (0)	9.2	4.1	16.8	58.8	5.2
MN0095 (E)	8.9	3.4	18.2	57.2	3.4
MN0404CN (SCN)	8.7	3.5	15.8	59.6	3.7
MN1410 (L)	8.3	4.1	19.1	57.1	3.6
AG0536					
AG0835					
AG1135					
ND17009GT					
M06R-614008					
M07-296048					
M07-296048HOLL-1	8.7	3.2	68.3	59.6	3.7
M07-296048HOLL-2	8.3	3.4	69.3	15.5	3.6
M07-296048HOLL-3	8.9	2.8	40.0	38.0	10.2
M07-296048HOLL-4	7.5	3.1	65.1	16.4	7.9
M13-209007					
M13-268035					
M13-270022					
M13-276034					
M13-277057					
M13-278078					
M13-280012					
M13R-309006					
M13R-309009					
M13R-309021					
M13R-309024					
M13R-309033					
M13R-309035					
M13R-323110					
M14HO-1329-1001	8.9	2.8	40.0	38.0	10.2
M14HO-1329-4008					
M14HO-1330-14001	7.5	3.1	65.1	16.4	7.9
M14HO-1330-3006					
MCH13R-117072					
ND15-22873(GT)					
ND16-11368GT					
ND16-11624GT					
ND16-11836GT					
ND16-9741GT					
ND16-9745GT					
ND16-9755GT					
Mean					
C.V. (%)					
L.S.D. (5%)					

UNIFORM TEST 0 TRAITED MATERIAL, 2019

FATTY ACID, PALMITIC (%)

Strain	Mean 1 Tests	Shelly MN
ND Stutsman (0)	9.8	9.8
MN0095 (E)	10.3	10.3
MN0404CN (SCN)	10.4	10.4
MN1410 (L)	10.3	10.3
M07-296048HOLL-1	9.2	9.2
M07-296048HOLL-2	8.9	8.9
M07-296048HOLL-3	8.7	8.7
M07-296048HOLL-4	8.3	8.3
M14HO-1329-1001	8.9	8.9
M14HO-1330-14001	7.5	7.5

UNIFORM TEST 0 TRAITED MATERIAL, 2019

FATTY ACID, STEARIC (%)

Strain	Mean 1 Tests	Shelly MN
ND Stutsman (0)	4.1	4.1
MN0095 (E)	3.4	3.4
MN0404CN (SCN)	3.5	3.5
MN1410 (L)	4.1	4.1
M07-296048HOLL-1	3.4	3.4
M07-296048HOLL-2	3.5	3.5
M07-296048HOLL-3	3.2	3.2
M07-296048HOLL-4	3.4	3.4
M14HO-1329-1001	2.8	2.8
M14HO-1330-14001	3.1	3.1

UNIFORM TEST 0 TRAITED MATERIAL, 2019

FATTY ACID, OLEIC (%)

Strain	Mean 1 Tests	Shelly MN
ND Stutsman (0)	16.8	16.8
MN0095 (E)	18.2	18.2
MN0404CN (SCN)	15.8	15.8
MN1410 (L)	19.1	19.1
M07-296048HOLL-1	59.2	59.2
M07-296048HOLL-2	69.2	69.2
M07-296048HOLL-3	68.3	68.3
M07-296048HOLL-4	69.3	69.3
M14HO-1329-1001	40.0	40.0
M14HO-1330-14001	65.1	65.1

UNIFORM TEST 0 TRAITED MATERIAL, 2019

FATTY ACID, LINOLEIC (%)

Strain	Mean 1 Tests	Shelly MN
ND Stutsman (0)	58.8	58.8
MN0095 (E)	57.2	57.2
MN0404CN (SCN)	59.6	59.6
MN1410 (L)	57.1	57.1
M07-296048HOLL-1	23.1	23.1
M07-296048HOLL-2	15.0	15.0
M07-296048HOLL-3	16.1	16.1
M07-296048HOLL-4	15.5	15.5
M14HO-1329-1001	38.0	38.0
M14HO-1330-14001	16.4	16.4

UNIFORM TEST 0 TRAITED MATERIAL, 2019

FATTY ACID, LINOLENIC (%)

Strain	Mean 1 Tests	Shelly MN
ND Stutsman (0)	10.5	10.5
MN0095 (E)	10.9	10.9
MN0404CN (SCN)	10.7	10.7
MN1410 (L)	9.4	9.4
M07-296048HOLL-1	5.2	5.2
M07-296048HOLL-2	3.4	3.4
M07-296048HOLL-3	3.7	3.7
M07-296048HOLL-4	3.6	3.6
M14HO-1329-1001	10.2	10.2
M14HO-1330-14001	7.9	7.9

	Northern Regional Uniform Test					
	Uniform Test I Traited Material, 2019					
			Seed	Previous	Gen.	Unique
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits
1	MN1410 (I)	Unknown	Lorenz	14	F5	
2	ND Stutsman (E)	Sheyenne x [LaMoure(2)Rag1]	Helms	6	F4	PI 88788, Rps1c
3	U11-917032 (SCN) (L)	LD02-4485 x U03-100612	Graef	5	F6	SCN, HR, MR, IDC
4	U14-103015	LG07-2249 x LG07-6944	Graef	2	F5	Diversity
5	AG1135		Monsanto	1		
6	AG1733		Monsanto	4		
7	AG2031		Monsanto	7		
8	E15165T	E07158-T x E07051	Wang	2	F5	> 50% Meal, SCN?
9	E17137	E07158-T x E07051	Wang	Initial		HOLL, low saturated
10	E17808-1	E07051 x E15806	Wang	1	F5	HOLL, low saturated
11	E18834	E16830-1 x E12076T	Wang	Initial	F5	HOLL, low saturated
12	M07-297007	MN0902CN x LD02-5320	Lorenz	Initial	F5	
13	M07-297007HOLL-1	[M07-297007(4) x M05-319034LL]	Lorenz	Initial	BC3F3	HOLL
		x [M07-297007(4) x M10-237089HO]				
14	M07-297007HOLL-2	[M07-297007(4) x M05-319034LL]	Lorenz	Initial	BC3F3	HOLL
		x [M07-297007(4) x M10-237089HO]				
15	M07-297007HOLL-3	[M07-297007(4) x M05-319034LL]	Lorenz	Initial	BC3F3	HOLL
		x [M07-297007(4) x M10-237089HO]				
16	M07-297007HOLL-4	[M07-297007(4) x M05-319034LL]	Lorenz	Initial	BC3F3	HOLL
		x [M07-297007(4) x M10-237089HO]				
17	M10-236-2007	MO HI OLEIC X	Lorenz	2	F5	HO
18	M10-238-2036	MO HI OLEIC X	Lorenz	2	F5	
19	M11-314020	MN1505SP x MN0804SP	Lorenz	2	F5	
20	M11-314101	MN1505SP x MN0804SP	Lorenz	2	F5	
21	M12R-801080	M00-530039 x M04R-514129	Lorenz	1	F5	GT
22	M12R-803016	U07-135636R x M06R-613036	Lorenz	1	F5	GT
23	M13-182037	M06-226003 x M07-317130	Lorenz	Initial	F5	PRO
24	M13-194010	M06-381085 x HEFENG 50	Lorenz	Initial	F5	Diversity, PRO
25	M13-215031	M05-248041 x M08-144031	Lorenz	Initial	F5	PRO
26	M13-246073	M03-172059 x MN1606SP	Lorenz	Initial	F5	PRO
27	M13-268021	M06-340057 x A09-754003	Lorenz	Initial	F5	PRO
28	M13-276053	M07-2064093 x M05-297042	Lorenz	Initial	F5	PRO, SCN
29	M13R-323009	MN1107RR x M10-236018	Lorenz	Initial	F5	GT
30	M13R-323077	MN1107RR x M10-236018	Lorenz	Initial	F5	GT
31	M13R-323140	MN1107RR x M10-236018	Lorenz	Initial	F5	GT
32	M13R-323141	MN1107RR x M10-236018	Lorenz	Initial	F5	GT
33	M13R-324135	MN1107RR x M10-236071	Lorenz	Initial	F5	GT
34	M14HO-1326-1002	M03-289072 x KB10-10#990-1	Lorenz	1	F5	HO
35	MCH13R-117054	M06R-614008 x M06R-613036	Lorenz	1	F5	GT

UNIFORM TEST I TRAITED MATERIAL, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	IDC Score			Shattering Score
		Danvers	Morris	Rose mount	Man-hattan
MN1410 (I)	WGTSYBrI	2.7	2.7	2.7	1.0
ND Stutsman (E)	PGTSYYI	3.8	3.8	3.8	1.0
U11-917032 (SCN) (L)	PTBSYBIbI	1.7	1.7	1.7	1.0
U14-103015	PGBSYBI	1.5	1.5	1.5	1.0
AG1135	PGBSYIbI	1.7	1.7	1.7	1.0
AG1733	PGTSYGI	3.0	3.0	3.0	1.0
AG2031	PTTSYBI	3.0	3.0	3.0	1.0
E15165T	PGTDYYI	3.3	3.3	3.3	1.0
E17137	PGTDLgIbI	3.8	3.8	3.8	1.0
E17808-1	PTBSYLBrI	1.7	1.7	1.7	1.0
E18834	PGTDLgIbI	3.2	3.2	3.2	2.0
M07-297007	PTBSYBI	1.7	1.7	1.7	1.0
M07-297007HOLL-1	P+WGTDYGnIbBrI	2.5	2.5	2.5	2.0
M07-297007HOLL-2	WTBSYBI	1.7	1.7	1.7	1.0
M07-297007HOLL-3	P+WTBDYBI	3.3	3.3	3.3	1.0
M07-297007HOLL-4	P+WTBSYGnBI	2.5	2.5	2.5	1.0
M10-236-2007	PTBSYBrI	1.8	1.8	1.8	2.0
M10-238-2036	PTBDGrIbI	3.5	3.5	3.5	1.0
M11-314020	PTBDYBfGI	3.5	3.5	3.5	1.0
M11-314101	PT+GTSYYI	1.5	1.5	1.5	1.0
M12R-801080	PGBDYBrIbI	1.5	1.5	1.5	1.0
M12R-803016	PGTDYIbI	2.3	2.3	2.3	1.0
M13-182037	WTBDYGI	4.0	4.0	4.0	1.0
M13-194010	PTBDYYI	2.8	2.8	2.8	1.0
M13-215031	PTBDLgBrI	2.0	2.0	2.0	1.0
M13-246073	PTBDYBI	2.0	2.0	2.0	1.0
M13-268021	PTBDYGGI	2.0	2.0	2.0	1.0
M13-276053	P+WGTDYLBrI	1.3	1.3	1.3	1.0
M13R-323009	PGTDYBLBrI	2.5	2.5	2.5	1.0
M13R-323077	PGTDTBBrI	2.7	2.7	2.7	1.0
M13R-323140	PT+GTDYBBrI	1.5	1.5	1.5	1.0
M13R-323141	PTTDYBBrI	1.8	1.8	1.8	1.0
M13R-324135	PGTSYBrI	2.2	2.2	2.2	1.0
M14HO-1326-1002	WTBDYIbI	2.8	2.8	2.8	1.0
MCH13R-117054	PGBDYBrI	3.5	3.5	3.5	1.0

UNIFORM TEST I TRAITED MATERIAL, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 6 bu/a	Rank 6 No.	Maturity 7 Date	Lodging 5 Score	Plant Height 6 In.	Seed Size 6 g/100	Seed Quality 6 Score	Composition Protein 4 %	 Oil 4 %
MN1410 (I)	46.1	19	9/21	1.0	29	16.0	1.2	34.1	19.3
ND Stutsman (E)	45.4	23	-3.5	1.0	28	15.0	1.2	33.1	19.3
U11-917032 (SCN) (L)	54.5	1	5.8	1.0	30	15.8	1.3	32.0	20.0
U14-103015	49.1	4	4.8	1.4	29	16.1	1.2	35.1	19.1
AG1135	35.6	34	2.2	1.0	27	14.6	1.3	33.0	19.1
AG1733	48.5	7	4.8	1.0	28	17.2	1.0	33.8	19.0
AG2031	34.3	35	8.0	1.0	28	17.8	1.7	34.1	19.2
E15165T	51.3	2	6.3	1.0	28	21.9	1.3	38.2	17.5
E17137	37.2	33	11.4	1.0	32	18.5	2.8	36.7	18.5
E17808-1	47.5	11	5.2	1.0	32	15.1	1.7	35.7	18.9
E18834	41.9	31	3.6	1.6	25	15.9	1.5	36.4	17.8
M07-297007	48.2	9	2.2	1.0	30	14.5	1.0	36.4	18.4
M07-297007HOLL-1	48.7	6	4.2	1.0	30	14.2	1.2	37.9	18.5
M07-297007HOLL-2	44.9	25	4.9	1.0	32	14.5	1.3	38.6	17.2
M07-297007HOLL-3	47.0	13	3.4	1.0	32	14.6	1.2	37.2	18.0
M07-297007HOLL-4	48.8	5	2.3	1.0	32	14.9	1.0	37.5	18.1
M10-236-2007	41.1	32	0.1	1.0	28	14.9	1.2	36.0	18.5
M10-238-2036	46.6	14	-0.1	1.0	29	15.7	1.5	36.2	18.6
M11-314020	43.0	29	-1.9	1.0	29	18.6	1.0	37.2	17.6
M11-314101	43.4	28	0.6	1.0	29	19.5	1.2	36.9	18.4
M12R-801080	45.3	24	-0.3	1.0	27	16.7	1.2	34.3	19.2
M12R-803016	48.4	8	5.9	1.1	31	16.5	1.2	35.2	18.9
M13-182037	43.7	27	1.8	1.0	31	20.9	1.2	37.1	17.9
M13-194010	46.0	21	2.1	1.0	30	18.6	1.2	37.1	18.3
M13-215031	47.4	12	-0.6	1.0	30	21.2	1.3	34.6	18.7
M13-246073	46.4	17	-0.6	1.0	30	20.2	1.3	35.6	18.7
M13-268021	49.3	3	3.1	1.0	33	17.2	1.2	36.9	17.3
M13-276053	42.5	30	-1.4	1.4	32	20.5	1.3	38.6	17.5
M13R-323009	44.5	26	1.7	1.0	29	17.2	1.2	35.3	18.5
M13R-323077	46.5	15	3.7	1.0	25	17.0	1.2	36.3	19.5
M13R-323140	47.9	10	5.4	1.0	30	16.7	1.2	35.5	18.6
M13R-323141	46.1	19	3.2	1.0	27	15.1	1.2	35.2	18.8
M13R-324135	45.6	22	3.7	1.0	29	14.9	1.3	35.0	18.9
M14HO-1326-1002	46.3	18	-2.3	1.0	30	13.8	1.2	36.3	18.6
MCH13R-117054	46.5	15	-0.9	1.0	28	16.6	1.0	33.6	19.4
Mean	45.9			1.2	28.9	16.3	1.4		
C.V. (%)	15.9			43.6	10.3	4.9	33.7		
L.S.D. (5%)	0.3			0.3	1.9	0.7	0.4		

113.3 Days After Planting

UNIFORM TEST I TRAITED MATERIAL, 2019

2018-2019 2-YEAR MEAN

No. of Tests Strain	Yield 11 bu/a	Rank 11 No.	Maturity 13 Date	Lodging 11 Score	Plant Height 12 In.	Seed Size 11 g/100	Seed Quality 11 Score	Composition Protein 9 %	 Oil 9 %
MN1410 (I)	49.2	6	9/17	1.3	31	16.7	1.5	34.5	19.4
ND Stutsman (E)	48.6	8	-5.9	1.2	29	15.9	1.7	33.7	19.3
U11-917032 (SCN) (L)	55.2	2	3.8	1.4	31	16.0	1.6	32.2	20.3
AG1135	45.7	13	-1.7	1.5	29	14.9	1.4	33.1	19.4
AG1733	56.5	1	4.4	1.1	29	17.2	1.2	33.4	19.5
AG2031	47.4	10	5.8	1.3	31	17.6	1.9	34.4	19.2
M10-236-2007	45.8	12	-1.0	1.1	29	15.3	1.5	36.1	19.0
M10-238-2036	48.6	8	-0.7	1.3	31	16.2	1.8	36.2	19.0
M11-314020	45.2	14	-3.2	1.1	29	18.9	1.4	37.3	17.8
M11-314101	46.2	11	-0.7	1.1	30	19.8	1.4	36.7	18.8
M12R-801080	48.7	7	-2.8	1.1	28	17.4	1.3	34.4	19.5
M12R-803016	52.3	3	3.3	1.3	33	16.7	1.4	35.1	19.2
M14HO-1326-1002	49.3	5	-2.7	1.3	33	14.2	1.4	36.3	18.9
MCH13R-117054	50.0	4	-3.4	1.1	29	17.4	1.3	34.0	19.6

116.2 Days After Planting

2017-2019 3-YEAR MEAN

No. of Tests Strain	16	16	19	16	17	16	16	14	14
MN1410 (I)	50.7	2	9/18	1.4	32	16.9	1.5	34.9	19.0
AG1733	52.7	1	4.5	1.1	29	16.9	1.2	33.5	19.1
AG2031	50.4	3	5.8	1.4	32	17.8	1.8	34.7	18.9
M10-236-2007	46.8	7	-0.6	1.1	29	15.2	1.7	36.4	18.5
M10-238-2036	50.4	3	-0.5	1.4	31	16.4	1.8	36.4	18.6
M11-314020	46.9	6	-2.9	1.3	30	19.2	1.4	37.7	17.4
M11-314101	49.1	5	0.3	1.2	31	19.9	1.5	37.0	18.3

116.5 Days After Planting

UNIFORM TEST I TRAITED MATERIAL, 2019

YIELD (bu/a)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris* MN	Rose mount MN
MN1410 (I)	46.1	38.4	34.2	36.4	48.5	59.4	38.3	59.6
ND Stutsman (E)	45.4	35.5	28.5	43.7	48.6	56.7	55.3	59.6
U11-917032 (SCN) (L)	54.5	45.2	45.9	50.9	59.8	69.1	51.4	56.1
U14-103015	49.1	43.2	47.9	39.4	53.9	56.6	50.0	53.8
AG1135	35.6	36.1	31.4	27.7	47.1			
AG1733	48.5	44.1	43.6	38.5	56.7	60.8	46.7	47.2
AG2031	34.3	35.2	34.3	25.2	42.5			
E15165T	51.3	42.0	50.7	44.1	56.7	54.5	43.2	59.9
E17137	37.2	37.4	46.7	33.6	47.4	32.2	16.2	25.7
E17808-1	47.5	46.4	44.4	42.6	47.7	53.0	29.7	50.7
E18834	41.9	35.1	40.7	35.6	42.0	49.5	33.7	48.3
M07-297007	48.2	41.6	43.3	36.0	52.9	56.2	49.9	59.4
M07-297007HOLL-1	48.7	38.7	42.2	39.0	51.5	61.1	43.0	59.8
M07-297007HOLL-2	44.9	38.6	37.9	38.9	51.3	49.5	40.2	53.1
M07-297007HOLL-3	47.0	40.8	40.6	43.0	51.6	51.1	47.5	54.7
M07-297007HOLL-4	48.8	37.6	42.2	44.1	56.4	56.5	34.7	56.0
M10-236-2007	41.1	35.4	37.6	34.0	42.7	44.9	38.0	52.2
M10-238-2036	46.6	39.9	38.6	39.2	47.3	56.4	36.3	58.2
M11-314020	43.0	36.2	33.6	36.8	47.9	48.1	33.4	55.5
M11-314101	43.4	37.6	37.8	30.7	46.6	53.7	40.4	54.1
M12R-801080	45.3	36.9	32.5	31.4	47.5	62.8	32.0	60.9
M12R-803016	48.4	40.7	44.8	36.6	48.5	59.1	40.6	60.9
M13-182037	43.7	42.0	38.1	28.7	46.7	51.6	38.1	55.0
M13-194010	46.0	40.9	38.0	40.0	50.5	49.6	36.3	56.9
M13-215031	47.4	42.7	43.9	38.6	43.7	56.1	33.2	59.6
M13-246073	46.4	38.9	37.3	34.8	47.8	56.7	37.5	62.7
M13-268021	49.3	44.6	46.1	38.9	53.1	59.6	38.4	53.3
M13-276053	42.5	33.4	34.9	36.9	46.6	52.0	34.1	51.3
M13R-323009	44.5	33.2	37.1	37.1	42.7	60.2	41.6	56.7
M13R-323077	46.5	35.2	35.6	37.9	44.3	58.4	42.0	67.3
M13R-323140	47.9	41.3	41.0	39.6	47.9	54.5	46.7	63.2
M13R-323141	46.1	34.1	36.7	40.2	47.1	59.4	28.9	59.1
M13R-324135	45.6	38.7	38.0	38.2	49.6	51.0	30.1	57.9
M14HO-1326-1002	46.3	37.2	37.4	39.4	46.3	61.1	39.3	56.6
MCH13R-117054	46.5	36.9	34.0	34.7	50.0	62.2	33.3	61.0
Location Mean		38.9	39.4	37.5	48.9	55.3	38.8	55.9
C.V. (%)		6.8	9.0	12.9	6.7	9.5	15.5	9.1
L.S.D. (5%)		4.5	6.0	9.4	6.4	8.6	12.8	8.3
Row sp. (In.)		30	30	15	15	30	30	30
Rows/Plot		4	4	6	6	4	4	4
Reps		2	2	3	3	3	3	3

*Data not included in mean.

UNIFORM TEST I TRAITED MATERIAL, 2019

YIELD RANK

Strain	Yield Rank	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN	Rose mount MN
MN1410 (I)	19	19	30	24	16	9	17	11
ND Stutsman (E)	23	28	35	4	14	13	1	10
U11-917032 (SCN) (L)	1	2	5	1	1	1	2	19
U14-103015	4	5	2	10	5	15	3	25
AG1135	34	27	34	34	25			
AG1733	7	4	9	17	2	6	6	32
AG2031	35	30	29	35	34			
E15165T	2	7	1	3	3	21	8	7
E17137	33	22	3	30	22	33	33	33
E17808-1	11	1	7	6	20	23	31	30
E18834	31	32	14	26	35	30	25	31
M07-297007	9	9	10	25	7	18	4	12
M07-297007HOLL-1	6	16	11	13	9	4	9	8
M07-297007HOLL-2	25	18	20	15	10	29	14	27
M07-297007HOLL-3	13	12	15	5	8	26	5	23
M07-297007HOLL-4	5	20	11	2	4	16	23	20
M10-236-2007	32	29	22	29	33	32	19	28
M10-238-2036	14	14	16	12	23	17	21	14
M11-314020	29	26	32	22	18	31	26	21
M11-314101	28	20	21	32	27	22	13	24
M12R-801080	24	24	33	31	21	2	29	5
M12R-803016	8	13	6	23	15	11	12	6
M13-182037	27	7	17	33	26	25	18	22
M13-194010	21	11	18	8	11	28	22	16
M13-215031	12	6	8	16	31	19	28	9
M13-246073	17	15	24	27	19	14	20	3
M13-268021	3	3	4	14	6	8	16	26
M13-276053	30	34	28	21	28	24	24	29
M13R-323009	26	35	25	20	32	7	11	17
M13R-323077	15	30	27	19	30	12	10	1
M13R-323140	10	10	13	9	17	20	7	2
M13R-323141	19	33	26	7	24	10	32	13
M13R-324135	22	16	18	18	13	27	30	15
M14HO-1326-1002	18	23	23	11	29	5	15	18
MCH13R-117054	15	24	31	28	12	3	27	4

UNIFORM TEST I TRAITED MATERIAL, 2019

MATURITY (date)

Strain	Mean 7 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN	Rose mount MN
MN1410 (I)	9/21	9/20	9/12	9/13	9/19	9/25	10/10	9/23
ND Stutsman (E)	-3	-3	2	-0	-2	-2	-14	-6
U11-917032 (SCN) (L)	6	4	11	8	6	3		4
U14-103015	5	3	9	5	6	3		4
AG1135	2	-2	4	5	3		2	
AG1733	5	1	8	7	5	3		5
AG2031	8	2	11	9	10			
E15165T	6	4	11	8	5	6	2	8
E17137	11	8	15	12	11			
E17808-1	5	3	6	7	5	3		8
E18834	4	-3	5	5	6	5		4
M07-297007	2	1	7	6	6	1	-3	-2
M07-297007HOLL-1	4	4	9	6	6	2	-1	3
M07-297007HOLL-2	5	3	9	6	6	1	0	10
M07-297007HOLL-3	3	3	8	5	5	1	0	2
M07-297007HOLL-4	2	2	6	6	6	-2	0	-1
M10-236-2007	0	-4	4	1	1	0	-1	-1
M10-238-2036	-0	-3	4	0	3	1	-2	-4
M11-314020	-2	-2	0	-2	1	-2	-4	-5
M11-314101	1	-1	4	-0	1	2	1	-2
M12R-801080	-0	-2	3	-1	3	-1	0	-4
M12R-803016	6	4	8	5	5	6		7
M13-182037	2	-1	6	6	3	0	1	-3
M13-194010	2	0	6	4	4	2	1	-1
M13-215031	-1	-1	3	2	-1	-3	-2	-3
M13-246073	-1	1	2	1	-1	-1	-2	-3
M13-268021	3	2	1	5	6	3		2
M13-276053	-1	-2	3	1	-1	-1	-5	-5
M13R-323009	2	-2	8	4	2	-5	0	5
M13R-323077	4	2	9	4	3	1	0	7
M13R-323140	5	3	11	7	8	5	1	4
M13R-323141	3	3	10	4	2	-4	0	7
M13R-324135	4	1	6	6	6	1		4
M14HO-1326-1002	-2	-4	5	3	2	-3	-15	-5
MCH13R-117054	-1	-4	1	1	3	-2		-5
Date Planted	5/31	6/3	6/5	5/29	6/8	5/26	5/30	5/26
Days to Mature	113	109	99	107	103	122	133	120

UNIFORM TEST I TRAITED MATERIAL, 2019

LODGING (score)

Strain	Mean 5 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN	Rose mount MN
MN1410 (I)	1.0	1.0	1.0	1.0	1.0			1.0
ND Stutsman (E)	1.0	1.0	1.0	1.0	1.0			1.0
U11-917032 (SCN) (L)	1.0	1.0	1.0	1.0	1.0			1.0
U14-103015	1.4	1.0	1.0	1.0	1.0			3.0
AG1135	1.0	1.0	1.0	1.0	1.0			1.0
AG1733	1.0	1.0	1.0	1.0	1.0			1.0
AG2031	1.0	1.0	1.0	1.0	1.0			1.0
E15165T	1.0	1.0	1.0	1.0	1.0			1.0
E17137	1.0	1.0	1.0	1.0	1.0			1.0
E17808-1	1.0	1.0	1.0	1.0	1.0			1.0
E18834	1.6	1.0	1.0	1.0	1.0			4.0
M07-297007	1.0	1.0	1.0	1.0	1.0			1.0
M07-297007HOLL-1	1.0	1.0	1.0	1.0	1.0			1.0
M07-297007HOLL-2	1.0	1.0	1.0	1.0	1.0			1.0
M07-297007HOLL-3	1.0	1.0	1.0	1.0	1.0			1.0
M07-297007HOLL-4	1.0	1.0	1.0	1.0	1.0			1.0
M10-236-2007	1.0	1.0	1.0	1.0	1.0			1.0
M10-238-2036	1.0	1.0	1.0	1.0	1.0			1.0
M11-314020	1.0	1.0	1.0	1.0	1.0			1.0
M11-314101	1.0	1.0	1.0	1.0	1.0			1.0
M12R-801080	1.0	1.0	1.0	1.0	1.0			1.0
M12R-803016	1.1	1.0	1.0	1.0	1.3			1.0
M13-182037	1.0	1.0	1.0	1.0	1.0			1.0
M13-194010	1.0	1.0	1.0	1.0	1.0			1.0
M13-215031	1.0	1.0	1.0	1.0	1.0			1.0
M13-246073	1.0	1.0	1.0	1.0	1.0			1.0
M13-268021	1.0	1.0	1.0	1.0	1.0			1.0
M13-276053	1.4	1.0	1.0	1.0	1.0			3.0
M13R-323009	1.0	1.0	1.0	1.0	1.0			1.0
M13R-323077	1.0	1.0	1.0	1.0	1.0			1.0
M13R-323140	1.0	1.0	1.0	1.0	1.0			1.0
M13R-323141	1.0	1.0	1.0	1.0	1.0			1.0
M13R-324135	1.0	1.0	1.0	1.0	1.0			1.0
M14HO-1326-1002	1.0	1.0	1.0	1.0	1.0			1.0
MCH13R-117054	1.0	1.0	1.0	1.0	1.0			1.0

UNIFORM TEST I TRAITED MATERIAL, 2019

PLANT HEIGHT (inches)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN	Rose mount MN
MN1410 (I)	29	25	20	25	29	39		37
ND Stutsman (E)	28	24	18	23	29	37		35
U11-917032 (SCN) (L)	30	22	26	25	30	34		44
U14-103015	29	25	27	22	30	38		33
AG1135	27	22	24	24	28	32		30
AG1733	28	24	22	20	28	35		41
AG2031	28	27	27	22	30	33		30
E15165T	28	21	25	23	28	39		32
E17137	32	31	30	24	34	38		37
E17808-1	32	28	29	27	32	39		39
E18834	25	16	17	21	27	29		39
M07-297007	30	25	28	20	30	42		33
M07-297007HOLL-1	30	25	26	22	33	39		37
M07-297007HOLL-2	32	28	25	24	33	41		39
M07-297007HOLL-3	32	26	28	24	34	39		41
M07-297007HOLL-4	32	26	27	27	32	42		39
M10-236-2007	28	22	24	20	29	36		38
M10-238-2036	29	25	25	23	30	35		36
M11-314020	29	24	22	21	28	41		40
M11-314101	29	21	23	22	30	38		39
M12R-801080	27	23	23	19	26	37		37
M12R-803016	31	26	27	22	32	40		39
M13-182037	31	25	25	21	30	43		41
M13-194010	30	25	22	23	33	36		40
M13-215031	30	26	28	25	29	37		34
M13-246073	30	24	28	24	31	38		34
M13-268021	33	28	31	28	36	40		33
M13-276053	32	28	28	24	30	42		39
M13R-323009	29	24	29	21	26	35		41
M13R-323077	25	17	20	21	25	32		34
M13R-323140	30	26	25	24	31	38		35
M13R-323141	27	20	23	23	28	34		36
M13R-324135	29	25	21	23	33	37		34
M14HO-1326-1002	30	24	27	25	29	40		37
MCH13R-117054	28	23	20	20	28	38		37

UNIFORM TEST I TRAITED MATERIAL, 2019

SEED SIZE (g/100)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN	Rose mount MN
MN1410 (I)	16.0	17.3	14.2	14.3		17.2	16.2	16.8
ND Stutsman (E)	15.0	14.9	14.8	14.1		16.3	15.1	14.8
U11-917032 (SCN) (L)	15.8	15.2	14.3	14.7		18.3	16.7	15.4
U14-103015	16.1	15.9	16.5	14.5		17.5	17.1	15.3
AG1135	14.6	14.5	14.0	13.4		15.3	16.0	14.2
AG1733	17.2	16.5	17.7	16.2		18.1	18.6	16.1
AG2031	17.8	16.0	17.0	17.2		19.5	18.1	19.2
E15165T	21.9	20.8	22.7	21.2		23.2	21.8	21.9
E17137	18.5	18.4	19.4	18.5		19.1	16.0	19.8
E17808-1	15.1	15.2	16.0	13.9		15.5	14.7	15.1
E18834	15.9	16.1	16.0	15.0		16.8	15.3	16.4
M07-297007	14.5	14.8	14.5	12.5		16.2	14.9	14.3
M07-297007HOLL-1	14.2	14.2	14.5	12.6		14.6	16.0	13.3
M07-297007HOLL-2	14.5	15.1	14.6	13.0		15.0	14.0	15.1
M07-297007HOLL-3	14.6	15.6	14.7	13.5		15.0	14.8	14.3
M07-297007HOLL-4	14.9	15.1	15.3	13.3		15.7	15.4	14.4
M10-236-2007	14.9	14.9	15.0	13.5		15.0	15.6	15.4
M10-238-2036	15.7	16.0	15.9	14.4		16.7	15.5	15.9
M11-314020	18.6	19.7	17.5	16.4		20.8	19.0	18.5
M11-314101	19.5	20.6	19.4	16.7		20.5	20.3	19.5
M12R-801080	16.7	16.5	16.8	14.1		18.2	17.8	16.8
M12R-803016	16.5	16.7	17.1	13.4		18.2	16.6	16.8
M13-182037	20.9	22.0	20.4	18.0		23.0	20.7	21.2
M13-194010	18.6	19.1	18.7	16.3		19.0	18.7	19.8
M13-215031	21.2	22.4	20.8	19.2		22.1	21.3	21.3
M13-246073	20.2	20.1	19.2	19.3		20.9	20.7	21.2
M13-268021	17.2	17.3	17.4	15.0		18.9	17.1	17.7
M13-276053	20.5	21.2	19.1	18.4		22.4	20.6	21.1
M13R-323009	17.2	16.6	17.6	15.4		19.1	18.2	16.4
M13R-323077	17.0	17.8	17.1	15.1		17.9	17.2	16.7
M13R-323140	16.7	15.8	16.1	15.8		18.3	17.4	16.7
M13R-323141	15.1	15.7	15.2	15.2		17.3	11.0	16.0
M13R-324135	14.9	15.5	13.9	12.8		17.1	14.7	15.2
M14HO-1326-1002	13.8	14.2	13.2	12.8		14.7	14.3	13.4
MCH13R-117054	16.6	17.5	15.4	14.7		18.6	16.7	16.7

UNIFORM TEST I TRAITED MATERIAL, 2019

SEED QUALITY (score)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Saginaw MI	Danvers MN	Morris MN	Rose mount MN
MN1410 (I)	1.2	1.0	1.0	2.0		1.0	1.0	1.0
ND Stutsman (E)	1.2	1.0	1.0	2.0		1.0	1.0	1.0
U11-917032 (SCN) (L)	1.3	1.0	1.0	2.0		1.0	2.0	1.0
U14-103015	1.2	1.0	1.0	1.0		1.0	2.0	1.0
AG1135	1.3	1.0	1.0	2.0		1.0	2.0	1.0
AG1733	1.0	1.0	1.0	1.0		1.0	1.0	1.0
AG2031	1.7	1.0	1.0	3.0		1.0	3.0	1.0
E15165T	1.3	1.0	1.0	1.0		1.0	3.0	1.0
E17137	2.8	1.0	1.0	2.0		4.0	5.0	4.0
E17808-1	1.7	1.0	1.0	2.0		2.0	3.0	1.0
E18834	1.5	1.0	1.0	2.0		1.0	3.0	1.0
M07-297007	1.0	1.0	1.0	1.0		1.0	1.0	1.0
M07-297007HOLL-1	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M07-297007HOLL-2	1.3	1.0	1.0	1.0		2.0	2.0	1.0
M07-297007HOLL-3	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M07-297007HOLL-4	1.0	1.0	1.0	1.0		1.0	1.0	1.0
M10-236-2007	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M10-238-2036	1.5	1.0	1.0	3.0		1.0	2.0	1.0
M11-314020	1.0	1.0	1.0	1.0		1.0	1.0	1.0
M11-314101	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M12R-801080	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M12R-803016	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M13-182037	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M13-194010	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M13-215031	1.3	1.0	1.0	2.0		1.0	2.0	1.0
M13-246073	1.3	1.0	1.0	3.0		1.0	1.0	1.0
M13-268021	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M13-276053	1.3	1.0	1.0	3.0		1.0	1.0	1.0
M13R-323009	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M13R-323077	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M13R-323140	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M13R-323141	1.2	1.0	1.0	2.0		1.0	1.0	1.0
M13R-324135	1.3	1.0	1.0	2.0		1.0	2.0	1.0
M14HO-1326-1002	1.2	1.0	1.0	2.0		1.0	1.0	1.0
MCH13R-117054	1.0	1.0	1.0	1.0		1.0	1.0	1.0

UNIFORM TEST I TRAITED MATERIAL, 2019

PROTEIN (%)

Strain	Mean 4 Tests	West Lafayette IN	Wanatah IN	East Lansing MI	Morris MN
MN1410 (I)	34.1	32.9	35.2	33.9	34.4
ND Stutsman (E)	33.1	32.4	33.8	32.7	33.4
U11-917032 (SCN) (L)	32.0	29.8	33.4	32.5	32.5
U14-103015	35.1	34.4	35.6	33.8	36.8
AG1135	33.0	32.6	32.8	33.1	33.5
AG1733	33.8	32.9	34.8	32.7	35.0
AG2031	34.1	34.0	34.7	33.6	34.2
E15165T	38.2	38.0	38.4	38.4	37.8
E17137	36.7	36.6	36.3	35.8	38.0
E17808-1	35.7	35.2	36.6	34.5	36.4
E18834	36.4	35.4	36.6	36.2	37.4
M07-297007	36.4	35.7	37.6	35.7	36.5
M07-297007HOLL-1	37.9	37.6	38.4	36.7	38.9
M07-297007HOLL-2	38.6	38.1	39.9	36.5	39.9
M07-297007HOLL-3	37.2	37.2	39.0	34.4	38.4
M07-297007HOLL-4	37.5	38.0	38.3	34.9	38.7
M10-236-2007	36.0	35.2	36.9	35.4	36.4
M10-238-2036	36.2	35.3	37.9	35.5	36.3
M11-314020	37.2	36.3	37.9	36.3	38.2
M11-314101	36.9	35.0	38.5	37.2	37.0
M12R-801080	34.3	33.1	34.7	34.5	35.0
M12R-803016	35.2	34.2	35.3	35.8	35.4
M13-182037	37.1	36.2	37.1	37.0	37.9
M13-194010	37.1	36.9	37.5	36.9	37.2
M13-215031	34.6	34.3	34.6	34.5	35.1
M13-246073	35.6	35.1	36.1	34.4	36.6
M13-268021	36.9	37.4	38.2	36.0	36.2
M13-276053	38.6	37.5	39.9	38.1	38.9
M13R-323009	35.3	34.7	36.4	34.5	35.4
M13R-323077	36.3	35.3	37.3	36.3	36.2
M13R-323140	35.5	35.2	35.7	35.0	36.2
M13R-323141	35.2	34.5	35.9	34.4	36.0
M13R-324135	35.0	34.9	36.5	34.1	34.6
M14HO-1326-1002	36.3	35.7	36.4	35.6	37.4
MCH13R-117054	33.6	32.2	34.8	33.7	33.9

UNIFORM TEST I TRAITED MATERIAL, 2019

OIL (%)

Strain	Mean 4 Tests	West Lafayette IN	Wanatah IN	East Lansing MI	Morris MN
MN1410 (I)	19.3	20.2	19.1	19.2	18.6
ND Stutsman (E)	19.3	20.1	19.3	19.6	18.1
U11-917032 (SCN) (L)	20.0	21.6	19.9	19.7	18.9
U14-103015	19.1	20.0	19.3	19.3	17.7
AG1135	19.1	19.7	19.6	19.3	17.9
AG1733	19.0	19.8	19.1	19.7	17.5
AG2031	19.2	19.7	19.3	19.6	18.3
E15165T	17.5	18.3	17.8	17.4	16.7
E17137	18.5	19.2	19.1	18.4	17.3
E17808-1	18.9	19.9	18.9	19.4	17.6
E18834	17.8	19.2	18.7	17.4	16.0
M07-297007	18.4	19.1	18.0	19.4	17.2
M07-297007HOLL-1	18.5	19.5	18.6	18.3	17.4
M07-297007HOLL-2	17.2	18.0	16.7	18.8	15.2
M07-297007HOLL-3	18.0	19.0	17.8	18.8	16.4
M07-297007HOLL-4	18.1	18.8	18.3	18.8	16.4
M10-236-2007	18.5	19.1	18.2	18.7	17.7
M10-238-2036	18.6	19.6	18.0	19.2	17.8
M11-314020	17.6	18.4	17.6	18.0	16.4
M11-314101	18.4	19.6	18.3	18.4	17.1
M12R-801080	19.2	20.0	19.5	18.8	18.5
M12R-803016	18.9	20.0	19.1	18.1	18.1
M13-182037	17.9	18.6	18.1	17.8	16.9
M13-194010	18.3	19.1	18.5	18.0	17.6
M13-215031	18.7	19.4	19.2	18.7	17.7
M13-246073	18.7	19.2	18.9	19.2	17.5
M13-268021	17.3	19.1	18.6	18.9	12.4
M13-276053	17.5	18.3	17.3	17.9	16.3
M13R-323009	18.5	19.3	18.1	18.9	17.7
M13R-323077	19.5	20.3	19.5	19.3	18.8
M13R-323140	18.6	19.4	18.6	18.9	17.6
M13R-323141	18.8	19.7	18.9	19.1	17.7
M13R-324135	18.9	19.6	18.8	19.0	18.1
M14HO-1326-1002	18.6	19.5	18.6	18.8	17.6
MCH13R-117054	19.4	20.3	19.3	19.4	18.9

UNIFORM TEST I TRAITED MATERIAL, 2019

REGIONAL SUMMARY - FA-SEED COMPOSITION

No. of Tests Strain	Palmitic 6 %	Stearic 6 %	Oleic 6 %	Linoleic 6 %	Linolenic 6 %
MN1410 (I)	10.5	4.3	21.2	55.4	8.5
ND Stutsman (E)	10.0	4.0	17.9	59.0	9.0
U11-917032 (SCN) (L)					
U14-103015					
AG1135					
AG1733					
AG2031					
E15165T					
E17137	3.5	3.5	79.5	10.7	2.7
E17808-1	4.5	3.1	80.3	9.7	2.4
E18834	5.0	3.0	78.4	11.3	2.4
M07-297007					
M07-297007HOLL-1	6.8	3.4	78.3	9.8	1.7
M07-297007HOLL-2	7.2	3.4	77.0	10.9	1.5
M07-297007HOLL-3	7.0	3.4	78.7	9.7	1.3
M07-297007HOLL-4	7.4	3.5	70.1	16.4	2.6
M10-236-2007					
M10-238-2036					
M11-314020					
M11-314101					
M12R-801080					
M12R-803016					
M13-182037					
M13-194010					
M13-215031					
M13-246073					
M13-268021					
M13-276053					
M13R-323009					
M13R-323077					
M13R-323140					
M13R-323141					
M13R-324135					
M14HO-1326-1002	7.9	3.4	61.5	26.1	1.1
MCH13R-117054					
Mean	7.5	3.6	60.4	25.5	3.1
C.V. (%)	7.0	4.9	12.3	24.6	25.3
L.S.D. (5%)	0.5	0.2	7.2	6.0	0.8

UNIFORM TEST I TRAITED MATERIAL, 2019

FATTY ACID, PALMITIC (%)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Danvers MI	Morris MN	Rose-mount MN
MN1410 (I)	10.5	10.6	10.4	10.7	10.5	10.2	10.6
ND Stutsman (E)	10.0	10.1	10.1	10.0	10.0	9.7	10.3
E17137	3.5	3.1	3.2	3.5	3.1	4.5	3.4
E17808-1	4.5	4.6	4.6	4.6	4.4	4.2	4.7
E18834	5.0	4.3	5.6	4.9	4.6	4.8	5.7
M07-297007HOLL-1	6.8	6.6	6.8	7.6	6.9	6.5	6.8
M07-297007HOLL-2	7.2	7.0	7.1	7.4	7.3	7.0	7.2
M07-297007HOLL-3	7.0	6.8	7.0	7.0	7.0	6.9	7.0
M07-297007HOLL-4	7.4	6.8	6.9	10.3	7.0	6.7	6.9
M10-236-2007	12.1	12.6	12.2	12.6	12.2	11.2	12.1
M14HO-1326-1002	7.9	8.0	8.0	8.4	7.9	8.0	7.0

UNIFORM TEST I TRAITED MATERIAL, 2019

FATTY ACID, STEARIC (%)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Danvers MI	Morris MN	Rose-mount MN
MN1410 (I)	4.3	4.7	3.9	4.5	4.3	4.5	3.9
ND Stutsman (E)	4.0	4.2	4.1	4.3	3.8	4.1	3.8
E17137	3.5	3.9	3.7	3.7	3.5	3.4	3.2
E17808-1	3.1	3.2	2.9	3.3	3.3	2.9	3.0
E18834	3.0	3.1	2.8	3.0	2.9	3.0	2.9
M07-297007HOLL-1	3.4	3.2	3.3	3.6	3.5	3.4	3.3
M07-297007HOLL-2	3.4	3.3	3.3	3.5	3.3	3.8	3.2
M07-297007HOLL-3	3.4	3.3	3.4	3.5	3.4	3.5	3.2
M07-297007HOLL-4	3.5	3.4	3.3	4.1	3.3	3.7	3.1
M10-236-2007	4.5	4.5	4.4	5.0	4.5	4.5	4.4
M14HO-1326-1002	3.4	3.4	3.3	3.4	3.5	3.9	3.2

UNIFORM TEST I TRAITED MATERIAL, 2019

FATTY ACID, OLEIC (%)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Danvers MI	Morris MN	Rose-mount MN
MN1410 (I)	21.2	22.3	21.6	20.8	22.0	21.4	19.2
ND Stutsman (E)	17.9	18.9	17.7	18.0	17.6	18.2	17.1
E17137	79.5	83.0	83.6	81.0	77.6	72.8	79.1
E17808-1	80.3	83.3	83.5	80.7	78.9	75.8	79.4
E18834	78.4	81.8	82.2	78.3	76.5	74.9	76.4
M07-297007HOLL-1	78.3	82.6	82.1	69.3	78.6	77.8	79.3
M07-297007HOLL-2	77.0	81.2	80.7	72.7	76.0	74.0	77.6
M07-297007HOLL-3	78.7	81.0	81.1	80.0	78.0	75.3	76.8
M07-297007HOLL-4	70.1	82.3	81.9	22.2	78.7	76.4	79.3
M10-236-2007	21.2	20.9	21.9	19.7	22.0	23.4	19.4
M14HO-1326-1002	61.5	63.4	67.2	56.9	58.4	51.3	71.6

UNIFORM TEST I TRAITED MATERIAL, 2019

FATTY ACID, LINOLEIC (%)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Danvers MI	Morris MN	Rose-mount MN
MN1410 (I)	55.4	54.6	56.1	55.6	54.4	54.9	57.0
ND Stutsman (E)	59.0	58.4	59.8	59.0	58.7	58.3	60.1
E17137	10.7	7.7	7.3	9.3	13.0	15.4	11.7
E17808-1	9.7	6.7	6.8	9.0	10.8	14.5	10.4
E18834	11.3	8.9	7.4	11.2	13.4	14.6	12.6
M07-297007HOLL-1	9.8	6.2	6.2	17.3	9.4	10.6	9.1
M07-297007HOLL-2	10.9	6.6	8.0	14.4	11.5	14.1	11.0
M07-297007HOLL-3	9.7	7.5	7.2	8.0	10.6	13.3	11.6
M07-297007HOLL-4	16.4	6.1	6.3	56.0	9.4	11.6	9.0
M10-236-2007	60.8	60.8	60.4	61.4	60.0	59.6	62.8
M14HO-1326-1002	26.1	24.3	20.5	30.3	29.2	35.2	16.9

UNIFORM TEST I TRAITED MATERIAL, 2019

FATTY ACID, LINOLENIC (%)

Strain	Mean 6 Tests	Wanatah IN	West Lafayette IN	East Lansing MI	Danvers MI	Morris MN	Rose-mount MN
MN1410 (I)	8.5	7.8	8.0	8.3	8.9	9.0	9.2
ND Stutsman (E)	9.0	8.5	8.3	8.6	9.9	9.8	8.7
E17137	2.7	2.3	2.3	2.5	2.8	3.9	2.6
E17808-1	2.4	2.2	2.2	2.4	2.7	2.6	2.5
E18834	2.4	2.0	2.0	2.5	2.6	2.7	2.5
M07-297007HOLL-1	1.7	1.5	1.6	2.1	1.7	1.7	1.6
M07-297007HOLL-2	1.5	1.9	0.9	1.9	1.9	1.2	1.0
M07-297007HOLL-3	1.3	1.4	1.4	1.5	1.0	1.0	1.4
M07-297007HOLL-4	2.6	1.4	1.6	7.4	1.6	1.7	1.7
M10-236-2007	1.2	1.2	1.2	1.3	1.3	1.3	1.3
M14HO-1326-1002	1.1	1.0	0.9	1.0	1.0	1.6	1.3

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	Northern Regional Uniform Test					
	Uniform Test II Traited Material, 2019					
			Seed	Previous	Gen.	Unique
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits
1	IA2102 (II)	A04-545045 x AgriPro 98180-A01-0613	Cai	8	F4	
2	LD02-4485 (SCN)	M90-184111 x IA3010	Diers	7	F5	SCN
3	U11-917032 (SCN) (E)	LD02-4485 x U03-100612	Graef	5	F6	SCN, HR, MR, IDC
4	U14-910097 (SCN) (L)	U09-105007 x LD07-3419	Graef	2	F5	Rps, SCN (HR, HR)
5	AG2031		Monsanto	7		
6	AG2535		Monsanto	4		
7	LD12-15246 R2a	LD09-17170R2 x LD08-12459a	Diers	3	F5	RR2, Rag 1+2
8	E11128T	E05276-T x LD01-7323	Wang	2		> 50% Meal, SCN
9	E15346T	IA2102 x E07051	Wang	2	F5	> 50% Meal, SCN?
10	E17143	E07051 x (E13906 x E13816)	Wang	Initial	F5	HOLL, low saturated
11	E17801-08	E07051 x E13802	Wang	Initial	F7	HOLL, low saturated
12	E17804-01	E07051 x E15805	Wang	Initial	F5	HOLL, low saturated
13	HM15-H006	OHS306 x OhioFG5	McHale	Initial	F4	
14	HM15-J049	PI438230A x Dennison	McHale	Initial	F4	
15	HM16-M015	M10-W111 x M09-W153	McHale	Initial	F4	
16	HM16-W150	M11-W117 x HS8-3463	McHale	Initial	F4	
17	LD16-10150	LD10-10198 x KB13-15F314-224	Diers	1	F4	SCN, HOLL
18	LD17-12673	[U11-614093 x KB13-15F314-224]	Diers	Initial	F3	HOLL
		x [LD11-10069 x KB13-15F314-224]				
19	LD17-12905	[E12020 x KB13-15F314-224]	Diers	Initial	F3	HOLL
		x [M08-362051 x KB13-15F314-224]				
20	LD17-13294	[LG11-6210 x KB13-15F314-224]	Diers	Initial	F3	HOLL
		x [E12020 x KB13-15F314-224]				
21	SA17-12251	SA13-2784 x A12-961054	Scaboo	Initial	F5	HOLL
22	SA17-13168-1	LD10-10226 x A12-961044	Scaboo	Initial	F5	HOLL, SCN
23	SA17-14575	LG11-6190 x A12-961054	Scaboo	Initial	F5	HOLL
24	SA17-2316	LG11-6208 x A12-961054	Scaboo	Initial	F5	HOLL
25	SA17-2418	U11-616086 x A12-961044	Scaboo	Initial	F5	HOLL
26	SA17-2742	LD10-10226 x A12-961054	Scaboo	Initial	F5	HOLL
27	SA17-5794	LD07-3419 x A12-961054	Scaboo	Initial	F5	HOLL

UNIFORM TEST II TRAITED MATERIAL, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Shattering Score
		Manhattan
IA2102 (II)	WGTDYYBfI	1.0
LD02-4485 (SCN)	PGTDYBfI	1.0
U11-917032 (SCN) (E)	PTBSYBIbI	1.0
U14-910097 (SCN) (L)	PGTSYBfI	1.0
AG2031	PTTSYBI	1.0
AG2535	PGTSYBrI	1.0
LD12-15246 R2a	P+WT+GTDYIbI	1.0
E11128T	PTTSYYI	1.0
E15346T	P+WGTSYBfI	1.0
E17143	PTBDLgBI	1.0
E17801-08	PGTDLgYIbI	1.0
E17804-01	PGTDYIbI	1.0
HM15-H006	PGTSYIbI	1.0
HM15-J049	WGTSYYI	1.0
HM16-M015	PGTSYYI	1.0
HM16-W150	PTBSYBrYI	1.0
LD16-10150	PGBDYGI	1.0
LD17-12673	WLtBDYGI	1.0
LD17-12905	PTBDYGI	1.0
LD17-13294	PTBDYGI	1.0
SA17-12251	PTBSYBI	1.0
SA17-13168-1	PGTSYGI	1.0
SA17-14575	PTBSLgYBI	1.0
SA17-2316	WTBDYBI	1.0
SA17-2418	WGBSLgYGI	1.0
SA17-2742	PGTDYBfI	1.0
SA17-5794	WGBSYBI	1.0

UNIFORM TEST II TRAITED MATERIAL, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 7 bu/a	Rank 7 No.	Maturity 8 Date	Lodging 8 Score	Plant Height 8 In.	Seed Size 7 g/100	Seed Quality 7 Score	Composition Protein 5 %	 Oil 5 %
IA2102 (II)	52.3	23	9/25	1.4	30	16.4	1.4	34.3	18.8
LD02-4485 (SCN)	62.8	2	1.8	1.3	31	15.8	1.6	33.0	19.3
U11-917032 (SCN) (E)	56.1	17	-2.8	1.2	28	15.4	1.6	33.5	19.8
U14-910097 (SCN) (L)	64.5	1	5.2	1.4	30	15.7	1.5	33.2	20.1
AG2031	38.6	27	0.2	1.2	28	17.4	1.3	34.4	19.5
AG2535	52.3	23	3.3	1.1	27	16.2	1.4	34.7	19.3
LD12-15246 R2a	59.3	7	3.7	1.1	27	15.7	1.6	35.6	18.5
E11128T	58.4	11	1.0	1.1	29	20.2	1.6	37.5	17.3
E15346T	59.5	5	-0.3	1.3	30	18.0	1.4	34.6	19.2
E17143	57.2	12	3.8	1.3	32	16.4	1.3	37.3	18.1
E17801-08	50.3	26	4.8	1.5	31	14.6	1.6	36.5	18.0
E17804-01	56.2	16	0.9	1.2	28	18.1	1.5	36.6	18.7
HM15-H006	55.7	19	5.1	1.4	30	22.7	1.4	37.5	18.2
HM15-J049	55.3	20	6.3	1.7	31	20.2	1.4	36.3	17.9
HM16-M015	61.0	3	5.2	1.3	32	18.9	1.4	35.2	19.5
HM16-W150	60.7	4	4.0	1.9	34	16.6	1.5	35.5	18.4
LD16-10150	58.6	9	3.3	1.1	27	15.4	1.5	36.1	19.2
LD17-12673	56.9	14	4.3	1.2	28	15.2	1.1	37.5	18.9
LD17-12905	58.6	9	3.2	1.2	31	15.0	1.3	36.4	19.8
LD17-13294	57.2	12	4.8	1.0	27	15.1	1.4	37.9	18.7
SA17-12251	53.8	22	4.5	1.2	31	15.8	1.1	36.8	19.3
SA17-13168-1	59.5	6	3.1	1.2	30	17.2	1.5	37.0	18.9
SA17-14575	52.1	25	6.1	1.3	30	14.8	1.3	37.2	18.6
SA17-2316	56.1	17	4.0	1.3	31	15.6	1.2	36.8	18.9
SA17-2418	56.5	15	2.7	1.1	29	14.8	1.1	34.2	19.3
SA17-2742	58.8	8	2.5	1.2	28	15.5	1.4	36.8	19.3
SA17-5794	54.8	21	6.0	1.2	26	14.5	1.5	34.4	19.7
Mean	57.3			1.3	30.0	16.7	1.2		
C.V. (%)	13.0			28.2	7.1	4.3	26.4		
L.S.D. (5%)	4.4			0.2	1.2	0.6	0.3		

117.5 Days After Planting

UNIFORM TEST II TRAITED MATERIAL, 2019

2018-2019 2-YEAR MEAN

No. of Tests Strain	Yield 16 bu/a	Rank 16 No.	Maturity 17 Date	Lodging 17 Score	Plant Height 17 In.	Seed Size 15 g/100	Seed Quality 15 Score	Composition Protein 13 %	 Oil 13 %
IA2102 (II)	57.8	7	9/21	1.9	32	16.0	1.6	34.2	19.0
LD02-4485 (SCN)	63.2	1	1.3	1.7	33	14.8	1.7	32.5	19.6
AG2031	49.3	8	-1.8	1.5	31	16.9	1.4	34.5	19.5
AG2535	58.1	6	2.1	1.5	31	15.5	1.5	34.0	19.5
LD12-15246 R2a	63.1	2	3.4	1.4	29	15.2	1.6	34.6	19.0
E11128T	59.3	4	0.9	1.6	32	19.9	1.7	37.3	17.7
E15346T	59.5	3	-0.5	1.7	32	17.9	1.7	34.2	19.5
LD16-10150	59.1	5	3.3	1.3	29	15.0	1.6	35.5	19.5

120.7 Days After Planting

2017-2019 3-YEAR MEAN

No. of Tests Strain	23	23	24	25	25	21	21	19	19
IA2102 (II)	58.4	4	9/23	1.9	33	16.3	1.5	34.2	18.8
LD02-4485 (SCN)	62.4	1	1.4	1.6	34	15.2	1.6	32.5	19.4
AG2031	53.6	7	-2.1	1.5	32	17.2	1.3	34.6	19.2
AG2535	58.2	6	2.0	1.5	32	15.9	1.4	33.8	19.3
LD12-15246 R2a	61.8	2	3.3	1.5	30	15.4	1.5	34.4	18.9
E11128T	58.4	4	1.0	1.6	32	20.4	1.6	36.9	17.6
E15346T	59.8	3	-0.8	1.7	32	18.1	1.6	34.1	19.3

121.8 Days After Planting

UNIFORM TEST II TRAITED MATERIAL, 2019

YIELD (bu/a)

Strain	Mean 7 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	East Lansing* MI
IA2102 (II)	52.3	61.2	47.8	36.5	44.9	50.6	37.2
LD02-4485 (SCN)	62.8	60.7	53.9	46.7	55.2	67.5	60.0
U11-917032 (SCN) (E)	56.1	62.4	41.5	34.6	47.1	50.4	46.0
U14-910097 (SCN) (L)	64.5	55.4	56.3	41.9	54.6	74.6	54.6
AG2031	38.6	60.2	35.6	29.2	17.0	30.1	
AG2535	52.3	66.5	49.6	40.4	44.4	43.6	
LD12-15246 R2a	59.3	59.8	52.6	42.5	45.8	58.7	41.4
E11128T	58.4	64.8	50.8	42.7	49.2	52.7	49.7
E15346T	59.5	61.6	47.7	42.2	51.7	62.2	54.7
E17143	57.2	62.7	40.8	38.4	48.7	59.1	39.2
E17801-08	50.3	57.7	42.3	28.8	51.6	33.3	
E17804-01	56.2	67.2	43.7	36.1	45.4	57.6	42.2
HM15-H006	55.7	52.3	44.9	34.2	54.6	60.9	45.0
HM15-J049	55.3	61.2	52.2	41.0	49.7	47.0	54.0
HM16-M015	61.0	59.0	47.3	40.9	54.7	58.7	53.7
HM16-W150	60.7	61.5	46.4	37.7	52.5	68.8	53.9
LD16-10150	58.6	56.1	50.0	43.9	51.7	53.1	37.3
LD17-12673	56.9	60.9	47.6	40.2	49.1	48.4	44.2
LD17-12905	58.6	62.2	50.6	41.4	49.5	64.1	37.9
LD17-13294	57.2	61.4	45.6	39.9	48.4	60.4	29.4
SA17-12251	53.8	58.2	47.1	41.0	49.1	52.0	49.3
SA17-13168-1	59.5	62.8	49.7	40.2	49.8	68.7	50.1
SA17-14575	52.1	59.1	47.1	34.5	46.5	56.4	42.0
SA17-2316	56.1	56.7	50.0	40.1	50.2	57.2	47.0
SA17-2418	56.5	58.1	45.1	32.5	49.9	57.6	53.2
SA17-2742	58.8	60.5	46.3	34.1	49.6	63.3	44.7
SA17-5794	54.8	57.4	43.5	36.0	47.6	58.0	48.9
Location Mean		60.3	47.3	38.4	48.5	56.1	46.5
C.V. (%)		7.3	5.8	8.8	4.8	9.4	17.0
L.S.D. (5%)		9.1	5.7	5.7	4.0	10.4	15.6
Row sp. (In.)		30	30	30	30	15.0	15
Rows/Plot		4	4	4	4	6	6
Reps		2	2	2	2	3	3

*Data not included in mean.

UNIFORM TEST II TRAITED MATERIAL, 2019

YIELD (bu/a)

Strain	Phillips NE	Wooster OH
IA2102 (II)	80.2	44.7
LD02-4485 (SCN)	77.2	78.5
U11-917032 (SCN) (E)	84.9	72.2
U14-910097 (SCN) (L)	87.3	81.2
AG2031	59.6	
AG2535	87.0	34.6
LD12-15246 R2a	79.8	75.9
E11128T	72.1	76.1
E15346T	76.9	74.1
E17143	71.9	79.0
E17801-08	65.4	73.1
E17804-01	67.1	76.1
HM15-H006	68.8	74.4
HM15-J049	60.0	76.2
HM16-M015	86.0	80.2
HM16-W150	79.4	78.7
LD16-10150	78.9	76.7
LD17-12673	78.9	73.1
LD17-12905	70.4	71.7
LD17-13294	70.9	73.9
SA17-12251	70.2	59.3
SA17-13168-1	72.7	72.4
SA17-14575	66.2	55.2
SA17-2316	75.5	63.1
SA17-2418	85.6	66.3
SA17-2742	83.2	74.4
SA17-5794	73.6	67.2
Location Mean	75.2	70.3
C.V. (%)	5.0	10.3
L.S.D. (5%)	7.8	11.5
Row sp. (In.)	30	7.5
Rows/Plot	4	6
Reps	2	3

UNIFORM TEST II TRAITED MATERIAL, 2019

YIELD RANK

Strain	Yield Rank	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	East Lansing MI
IA2102 (II)	23	11	11	18	25	21	23
LD02-4485 (SCN)	2	14	2	1	1	4	1
U11-917032 (SCN) (E)	17	6	25	21	21	22	13
U14-910097 (SCN) (L)	1	26	1	6	3	1	3
AG2031	27	16	27	26	27	27	
AG2535	23	2	10	11	26	25	
LD12-15246 R2a	7	17	3	4	23	12	19
E11128T	11	3	5	3	15	19	9
E15346T	5	8	12	5	6	7	2
E17143	12	5	26	16	18	10	20
E17801-08	26	22	24	27	8	26	
E17804-01	16	1	22	19	24	15	17
HM15-H006	19	27	21	23	3	8	14
HM15-J049	20	11	4	8	12	24	4
HM16-M015	3	19	14	10	2	11	6
HM16-W150	4	9	17	17	5	2	5
LD16-10150	9	25	7	2	6	18	22
LD17-12673	14	13	13	12	16	23	16
LD17-12905	9	7	6	7	14	5	21
LD17-13294	12	10	19	15	19	9	24
SA17-12251	22	20	15	8	16	20	10
SA17-13168-1	6	4	9	12	11	3	8
SA17-14575	25	18	15	22	22	17	18
SA17-2316	17	24	7	14	9	16	12
SA17-2418	15	21	20	25	10	14	7
SA17-2742	8	15	18	24	13	6	15
SA17-5794	21	23	23	20	20	13	11

UNIFORM TEST II TRAITED MATERIAL, 2019

YIELD RANK

Strain	Phillips NE	Wooster OH
IA2102 (II)	7	22
LD02-4485 (SCN)	12	5
U11-917032 (SCN) (E)	5	15
U14-910097 (SCN) (L)	1	1
AG2031	27	
AG2535	2	23
LD12-15246 R2a	8	9
E11128T	17	8
E15346T	13	11
E17143	18	3
E17801-08	25	13
E17804-01	23	8
HM15-H006	22	10
HM15-J049	26	7
HM16-M015	3	2
HM16-W150	9	4
LD16-10150	11	6
LD17-12673	10	13
LD17-12905	20	16
LD17-13294	19	12
SA17-12251	21	20
SA17-13168-1	16	14
SA17-14575	24	21
SA17-2316	14	19
SA17-2418	4	18
SA17-2742	6	10
SA17-5794	15	17

UNIFORM TEST II TRAITED MATERIAL, 2019

MATURITY (date)

Strain	Mean 8 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	East Lansing MI
IA2102 (II)	9/25	9/25	9/15	9/24	9/28	9/25	10/2
LD02-4485 (SCN)	2	2	0	5	6	1	0
U11-917032 (SCN) (E)	-3	-4	-5	2	-5	-4	-1
U14-910097 (SCN) (L)	5	6	4	12	8	6	2
AG2031	0	-1	0	4	-3	2	3
AG2535	3	3	3	5	5	5	2
LD12-15246 R2a	4	4	6	7	6	1	-0
E11128T	1	0	0	6	-1	2	1
E15346T	-0	0	-2	2	1	1	-0
E17143	4	1	4	6	6	4	6
E17801-08	5	4	5	7	7	2	8
E17804-01	1	0	1	5	7	0	-1
HM15-H006	5	4	6	9	9	6	1
HM15-J049	6	6	8	9	9	6	7
HM16-M015	5	5	6	10	8	7	4
HM16-W150	4	4	4	6	8	6	1
LD16-10150	3	4	5	6	6	-0	2
LD17-12673	4	4	4	6	4	2	8
LD17-12905	3	3	3	5	5	4	2
LD17-13294	5	3	5	9	5	5	4
SA17-12251	4	4	6	8	7	2	4
SA17-13168-1	3	3	3	6	7	3	0
SA17-14575	6	5	8	6	7	8	7
SA17-2316	4	3	6	6	5	6	0
SA17-2418	3	1	1	4	6	2	3
SA17-2742	3	0	2	10	5	3	0
SA17-5794	6	5	5	10	8	8	6
Date Planted	5/31	6/7	5/31	6/3	6/5	6/9	5/29
Days to Mature	118	110	107	113	115	108	126

UNIFORM TEST II TRAITED MATERIAL, 2019

MATURITY (date)

Strain	Phillips NE	Wooster OH
IA2102 (II)	10/2	9/23
LD02-4485 (SCN)	0	0
U11-917032 (SCN) (E)	1	-7
U14-910097 (SCN) (L)	2	2
AG2031	-3	
AG2535	2	1
LD12-15246 R2a	5	1
E11128T	3	-3
E15346T	-3	-1
E17143	3	1
E17801-08	2	3
E17804-01	-2	-3
HM15-H006	2	3
HM15-J049	2	3
HM16-M015	1	1
HM16-W150	0	3
LD16-10150	3	1
LD17-12673	4	2
LD17-12905	3	1
LD17-13294	5	2
SA17-12251	3	2
SA17-13168-1	1	2
SA17-14575	5	3
SA17-2316	5	1
SA17-2418	2	2
SA17-2742	-1	1
SA17-5794	1	4
Date Planted	5/18	5/22
Days to Mature	137	124

UNIFORM TEST II TRAITED MATERIAL, 2019

LODGING (score)

Strain	Mean 8 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	East Lansing MI
IA2102 (II)	1.4	1.8	1.0	1.0	1.0	1.0	1.0
LD02-4485 (SCN)	1.3	1.5	1.0	1.0	1.0	1.0	1.0
U11-917032 (SCN) (E)	1.2	1.5	1.0	1.0	1.0	1.0	1.0
U14-910097 (SCN) (L)	1.4	1.8	1.0	1.0	1.0	1.0	1.0
AG2031	1.2	1.5	1.0	1.0	1.0	1.0	1.0
AG2535	1.1	1.0	1.0	1.0	1.0	1.0	1.0
LD12-15246 R2a	1.1	1.0	1.0	1.0	1.0	1.0	1.0
E11128T	1.1	1.0	1.0	1.0	1.0	1.0	1.0
E15346T	1.3	1.5	1.0	1.0	1.0	1.0	1.0
E17143	1.3	1.0	1.0	1.0	1.0	1.3	1.0
E17801-08	1.5	1.8	1.0	1.0	1.0	1.0	1.0
E17804-01	1.2	1.0	1.0	1.0	1.0	1.0	1.0
HM15-H006	1.4	1.3	1.0	1.0	1.0	1.0	1.0
HM15-J049	1.7	2.0	1.0	1.0	1.0	1.0	1.0
HM16-M015	1.3	1.5	1.0	1.0	1.0	1.0	1.0
HM16-W150	1.9	2.3	1.0	1.0	1.3	1.3	1.3
LD16-10150	1.1	1.0	1.0	1.0	1.0	1.0	1.0
LD17-12673	1.2	1.0	1.0	1.0	1.0	1.0	1.0
LD17-12905	1.2	1.3	1.0	1.0	1.0	1.0	1.0
LD17-13294	1.0	1.0	1.0	1.0	1.0	1.0	1.0
SA17-12251	1.2	1.3	1.0	1.0	1.0	1.0	1.0
SA17-13168-1	1.2	1.3	1.0	1.0	1.0	1.0	1.0
SA17-14575	1.3	1.5	1.0	1.0	1.0	1.0	1.0
SA17-2316	1.3	1.5	1.0	1.0	1.0	1.0	1.0
SA17-2418	1.1	1.0	1.0	1.0	1.0	1.0	1.0
SA17-2742	1.2	1.3	1.0	1.0	1.0	1.0	1.0
SA17-5794	1.2	1.5	1.0	1.0	1.0	1.0	1.0

UNIFORM TEST II TRAITED MATERIAL, 2019

LODGING (score)

Strain	Phillips NE	Wooster OH
IA2102 (II)	3.0	1.0
LD02-4485 (SCN)	2.5	1.0
U11-917032 (SCN) (E)	2.0	1.0
U14-910097 (SCN) (L)	3.0	1.0
AG2031	2.0	
AG2535	2.0	1.0
LD12-15246 R2a	2.0	1.0
E11128T	2.0	1.0
E15346T	2.5	1.0
E17143	2.5	1.7
E17801-08	3.5	1.7
E17804-01	2.5	1.0
HM15-H006	3.5	1.0
HM15-J049	4.0	2.3
HM16-M015	2.5	1.0
HM16-W150	4.0	3.0
LD16-10150	1.5	1.0
LD17-12673	2.5	1.0
LD17-12905	2.0	1.0
LD17-13294	1.0	1.0
SA17-12251	2.0	1.0
SA17-13168-1	2.0	1.0
SA17-14575	3.0	1.0
SA17-2316	3.0	1.0
SA17-2418	2.0	1.0
SA17-2742	2.5	1.0
SA17-5794	2.0	1.0

UNIFORM TEST II TRAITED MATERIAL, 2019

PLANT HEIGHT (inches)

Strain	Mean 8 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	East Lansing MI
IA2102 (II)	30	35	32	26	28	28	23
LD02-4485 (SCN)	31	33	31	28	33	25	27
U11-917032 (SCN) (E)	28	30	27	25	29	24	23
U14-910097 (SCN) (L)	30	33	30	27	29	29	26
AG2031	28	30	29	26	25	27	22
AG2535	27	30	29	27	28	21	21
LD12-15246 R2a	27	28	26	23	26	27	20
E11128T	29	32	28	26	28	27	25
E15346T	30	32	31	28	31	28	26
E17143	32	32	30	29	32	31	30
E17801-08	31	34	29	30	31	27	24
E17804-01	28	32	28	24	26	26	25
HM15-H006	30	32	30	26	29	28	26
HM15-J049	31	33	32	28	30	29	29
HM16-M015	32	35	32	29	33	31	26
HM16-W150	34	37	33	30	35	32	31
LD16-10150	27	29	29	23	28	23	21
LD17-12673	28	31	27	24	29	27	25
LD17-12905	31	34	33	28	29	30	25
LD17-13294	27	30	26	24	29	27	20
SA17-12251	31	36	31	32	29	28	30
SA17-13168-1	30	33	30	27	31	29	27
SA17-14575	30	32	32	26	27	31	26
SA17-2316	31	36	31	29	32	26	26
SA17-2418	29	32	29	27	26	27	25
SA17-2742	28	31	27	26	29	27	21
SA17-5794	26	29	26	23	24	25	22

UNIFORM TEST II TRAITED MATERIAL, 2019

PLANT HEIGHT (inches)

Strain	Phillips NE	Wooster OH
IA2102 (II)	35	30
LD02-4485 (SCN)	36	33
U11-917032 (SCN) (E)	34	29
U14-910097 (SCN) (L)	34	31
AG2031	34	
AG2535	36	28
LD12-15246 R2a	36	30
E11128T	32	33
E15346T	32	33
E17143	35	37
E17801-08	35	35
E17804-01	33	31
HM15-H006	34	32
HM15-J049	35	34
HM16-M015	34	35
HM16-W150	36	40
LD16-10150	35	28
LD17-12673	33	31
LD17-12905	34	34
LD17-13294	34	30
SA17-12251	35	29
SA17-13168-1	34	33
SA17-14575	36	31
SA17-2316	37	31
SA17-2418	34	29
SA17-2742	34	32
SA17-5794	35	27

UNIFORM TEST II TRAITED MATERIAL, 2019

SEED SIZE (g/100)

Strain	Mean 7 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	East Lansing MI
IA2102 (II)	16.4	17.3	15.6	14.8	17.3		16.3
LD02-4485 (SCN)	15.8	16.7	14.9	16.0	16.9		15.7
U11-917032 (SCN) (E)	15.4	16.5	13.6	15.4	15.0		14.8
U14-910097 (SCN) (L)	15.7	15.7	15.1	14.6	16.9		15.5
AG2031	17.4	18.4	16.4	16.5	18.6		16.8
AG2535	16.2	16.4	15.1	15.6	17.3		16.6
LD12-15246 R2a	15.7	16.6	15.6	15.5	16.2		14.9
E11128T	20.2	20.8	18.6	19.6	20.1		19.6
E15346T	18.0	18.7	17.2	17.3	19.3		17.5
E17143	16.4	16.9	15.6	15.5	17.6		15.9
E17801-08	14.6	15.5	14.0	12.7	14.0		15.2
E17804-01	18.1	19.2	17.1	17.7	19.2		17.1
HM15-H006	22.7	23.4	21.5	21.2	23.2		22.9
HM15-J049	20.2	22.3	20.2	17.9	18.7		21.8
HM16-M015	18.9	19.5	17.5	17.1	18.9		19.3
HM16-W150	16.6	17.9	15.7	15.2	16.7		16.8
LD16-10150	15.4	16.6	14.9	14.2	15.3		15.1
LD17-12673	15.2	15.2	13.7	14.6	15.7		15.6
LD17-12905	15.0	15.5	14.5	14.0	15.7		15.8
LD17-13294	15.1	15.2	14.2	14.5	16.0		15.8
SA17-12251	15.8	17.2	15.6	14.6	16.2		15.4
SA17-13168-1	17.2	19.1	17.6	15.5	18.1		16.7
SA17-14575	14.8	15.8	15.2	13.8	14.6		14.4
SA17-2316	15.6	16.6	15.2	14.8	16.3		15.1
SA17-2418	14.8	16.3	13.9	14.3	14.4		14.3
SA17-2742	15.5	16.6	14.5	14.7	16.9		14.8
SA17-5794	14.5	14.8	12.7	13.5	16.0		14.2

UNIFORM TEST II TRAITED MATERIAL, 2019

SEED SIZE (g/100)

Strain	Phillips NE	Wooster OH
IA2102 (II)	18.0	15.7
LD02-4485 (SCN)	15.8	14.8
U11-917032 (SCN) (E)	17.1	15.7
U14-910097 (SCN) (L)	16.6	15.6
AG2031	17.9	
AG2535	16.9	15.7
LD12-15246 R2a	15.8	15.7
E11128T	21.8	21.2
E15346T	18.4	17.8
E17143	17.0	16.6
E17801-08	15.2	16.0
E17804-01	18.3	18.0
HM15-H006	24.2	22.6
HM15-J049	19.7	21.1
HM16-M015	20.4	19.5
HM16-W150	17.0	16.7
LD16-10150	15.8	16.0
LD17-12673	16.1	15.8
LD17-12905	15.0	14.8
LD17-13294	14.9	15.3
SA17-12251	16.9	14.9
SA17-13168-1	16.6	16.7
SA17-14575	15.6	14.1
SA17-2316	16.4	15.2
SA17-2418	17.0	13.5
SA17-2742	16.4	15.0
SA17-5794	15.2	15.4

UNIFORM TEST II TRAITED MATERIAL, 2019

SEED QUALITY (score)

Strain	Mean 7 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	Britton MI	East Lansing MI
IA2102 (II)	1.4	1.0	1.0	1.0	1.0		3.0
LD02-4485 (SCN)	1.6	2.0	2.0	1.0	1.0		3.0
U11-917032 (SCN) (E)	1.6	2.0	2.0	1.0	1.0		2.0
U14-910097 (SCN) (L)	1.5	1.0	2.0	1.0	1.0		3.0
AG2031	1.3	1.0	2.0	1.0	1.0		2.0
AG2535	1.4	2.0	1.0	1.0	1.0		3.0
LD12-15246 R2a	1.6	2.0	2.0	1.0	1.0		2.0
E11128T	1.6	3.0	2.0	1.0	1.0		2.0
E15346T	1.4	2.0	2.0	1.0	1.0		2.0
E17143	1.3	1.0	2.0	1.0	1.0		2.0
E17801-08	1.6	2.0	2.0	1.0	1.0		3.0
E17804-01	1.5	2.0	2.0	1.0	1.0		2.0
HM15-H006	1.4	2.0	2.0	1.0	1.0		2.0
HM15-J049	1.4	2.0	2.0	1.0	1.0		2.0
HM16-M015	1.4	1.0	2.0	1.0	1.0		2.0
HM16-W150	1.5	2.0	2.0	1.0	1.0		2.0
LD16-10150	1.5	2.0	2.0	1.0	1.0		2.0
LD17-12673	1.1	1.0	1.0	1.0	1.0		2.0
LD17-12905	1.3	2.0	1.0	1.0	1.0		2.0
LD17-13294	1.4	2.0	2.0	1.0	1.0		2.0
SA17-12251	1.1	2.0	1.0	1.0	1.0		1.0
SA17-13168-1	1.5	2.0	2.0	1.0	1.0		2.0
SA17-14575	1.3	1.0	2.0	1.0	1.0		2.0
SA17-2316	1.2	1.0	2.0	1.0	1.0		1.0
SA17-2418	1.1	1.0	1.0	1.0	1.0		1.0
SA17-2742	1.4	2.0	1.0	1.0	1.0		2.0
SA17-5794	1.5	2.0	2.0	1.0	1.0		2.0

UNIFORM TEST II TRAITED MATERIAL, 2019

SEED QUALITY (score)

Strain	Phillips NE	Wooster OH
IA2102 (II)	2.0	1.0
LD02-4485 (SCN)	1.5	1.0
U11-917032 (SCN) (E)	2.0	1.0
U14-910097 (SCN) (L)	1.5	1.0
AG2031	1.0	
AG2535	1.0	1.0
LD12-15246 R2a	2.0	1.0
E11128T	1.5	1.0
E15346T	1.0	1.0
E17143	1.0	1.0
E17801-08	1.0	1.0
E17804-01	1.5	1.0
HM15-H006	1.0	1.0
HM15-J049	1.0	1.0
HM16-M015	1.5	1.0
HM16-W150	1.5	1.0
LD16-10150	1.5	1.0
LD17-12673	1.0	1.0
LD17-12905	1.0	1.0
LD17-13294	1.0	1.0
SA17-12251	1.0	1.0
SA17-13168-1	1.5	1.0
SA17-14575	1.0	1.0
SA17-2316	1.5	1.0
SA17-2418	1.5	1.0
SA17-2742	2.0	1.0
SA17-5794	1.5	1.0

UNIFORM TEST II TRAITED MATERIAL, 2019

PROTEIN (%)

Strain	Mean 5 Tests	Urbana IL	West Lafayette IN	East Lansing MI	Phillips NE	Wooster OH
IA2102 (II)	34.3	33.5	34.6	33.1	35.5	34.8
LD02-4485 (SCN)	33.0	32.7	32.3	31.8	33.5	34.8
U11-917032 (SCN) (E)	33.5	33.2	32.2	31.9	34.4	35.8
U14-910097 (SCN) (L)	33.2	33.6	33.2	31.4	32.9	35.1
AG2031	34.4	34.4	34.0	34.1	35.2	
AG2535	34.7	34.3	35.1	33.6	35.1	35.3
LD12-15246 R2a	35.6	35.4	36.1	33.4	36.2	37.0
E11128T	37.5	37.4	37.8	36.0	38.3	37.8
E15346T	34.6	34.7	35.4	32.2	35.2	35.4
E17143	37.3	38.0	36.7	35.6	37.5	38.8
E17801-08	36.5	35.4	37.1	35.1	37.1	37.8
E17804-01	36.6	36.8	37.1	34.3	36.8	37.9
HM15-H006	37.5	37.3	37.1	36.0	37.4	39.7
HM15-J049	36.3	37.2	35.8	34.8	35.0	38.5
HM16-M015	35.2	36.0	35.2	34.0	34.9	36.1
HM16-W150	35.5	35.4	35.6	34.1	35.1	37.3
LD16-10150	36.1	35.8	36.0	34.5	36.0	38.3
LD17-12673	37.5	38.4	37.5	36.1	37.2	38.4
LD17-12905	36.4	35.7	35.8	36.3	36.2	38.2
LD17-13294	37.9	37.9	38.0	36.8	37.7	39.0
SA17-12251	36.8	36.6	36.8	34.4	37.7	38.2
SA17-13168-1	37.0	37.1	37.6	35.1	36.4	38.7
SA17-14575	37.2	38.0	37.0	35.4	37.2	38.5
SA17-2316	36.8	38.3	37.7	34.7	35.3	38.3
SA17-2418	34.2	33.8	33.9	31.9	35.5	35.8
SA17-2742	36.8	36.1	37.3	33.6	38.6	38.4
SA17-5794	34.4	35.1	35.2	32.6	34.7	34.7

UNIFORM TEST II TRAITED MATERIAL, 2019

OIL (%)

Strain	Mean 5 Tests	Urbana IL	West Lafayette IN	East Lansing MI	Phillips NE	Wooster OH
IA2102 (II)	18.8	19.7	19.1	19.0	17.9	18.6
LD02-4485 (SCN)	19.3	19.8	20.1	19.0	19.1	18.4
U11-917032 (SCN) (E)	19.8	20.5	20.7	19.6	19.1	19.0
U14-910097 (SCN) (L)	20.1	20.3	20.7	20.3	20.1	19.4
AG2031	19.5	19.9	20.1	19.4	18.6	
AG2535	19.3	19.6	19.3	18.8	20.2	18.5
LD12-15246 R2a	18.5	19.2	18.5	18.8	18.2	18.0
E11128T	17.3	17.9	17.7	17.7	16.7	16.5
E15346T	19.2	19.7	19.3	19.5	19.0	18.5
E17143	18.1	18.6	18.7	18.2	17.6	17.5
E17801-08	18.0	19.1	18.1	18.0	17.4	17.2
E17804-01	18.7	19.2	19.0	18.8	18.7	17.8
HM15-H006	18.2	19.1	18.6	17.8	18.3	17.2
HM15-J049	17.9	18.2	18.2	18.1	18.5	16.7
HM16-M015	19.5	20.3	19.6	19.2	19.2	19.1
HM16-W150	18.4	19.2	18.6	18.5	18.3	17.4
LD16-10150	19.2	19.7	19.8	19.3	18.9	18.4
LD17-12673	18.9	19.9	19.6	18.3	18.6	18.3
LD17-12905	19.8	20.7	20.4	19.3	19.7	19.0
LD17-13294	18.7	19.0	18.9	18.7	18.7	18.1
SA17-12251	19.3	19.8	19.4	19.5	18.7	18.7
SA17-13168-1	18.9	19.5	19.3	19.1	18.3	18.3
SA17-14575	18.6	18.9	19.3	18.6	18.2	17.9
SA17-2316	18.9	19.3	19.0	19.3	18.2	18.5
SA17-2418	19.3	20.3	19.8	19.0	18.6	19.0
SA17-2742	19.3	20.4	19.4	19.7	18.4	18.5
SA17-5794	19.7	20.1	19.9	19.8	19.4	19.2

UNIFORM TEST II TRAITED MATERIAL, 2019

REGIONAL SUMMARY - FA-SEED COMPOSITION

No. of Tests Strain	Palmitic 7 %	Stearic 7 %	Oleic 7 %	Linoleic 7 %	Linolenic 7 %
IA2102 (II)	11.8	4.3	19.5	55.0	9.4
LD02-4485 (SCN)	11.8	4.3	21.0	53.4	9.5
U11-917032 (SCN) (E)					
U14-910097 (SCN) (L)					
AG2031					
AG2535					
LD12-15246 R2a					
E11128T					
E15346T					
E17143	5.2	3.2	80.1	9.3	2.2
E17801-08	3.5	3.0	82.4	8.9	2.2
E17804-01	3.8	3.4	80.9	9.5	2.4
HM15-H006					
HM15-J049					
HM16-M015					
HM16-W150					
LD16-10150	7.2	3.3	83.4	7.4	2.8
LD17-12673	7.0	3.3	82.7	4.5	2.5
LD17-12905	7.0	3.4	83.7	3.6	2.3
LD17-13294	6.9	3.2	83.2	4.2	2.5
SA17-12251	8.2	4.0	76.3	10.1	1.4
SA17-13168-1	7.3	3.9	79.2	5.6	3.9
SA17-14575	8.1	3.6	75.2	10.3	2.7
SA17-2316	8.1	3.5	76.8	8.8	2.8
SA17-2418	8.9	4.2	72.1	11.9	3.0
SA17-2742	7.8	4.0	79.5	7.9	0.8
SA17-5794	8.5	3.5	76.2	10.7	1.0
Mean	7.6	3.6	72.0	13.8	3.2
C.V. (%)	4.7	5.3	4.2	22.7	14.4
L.S.D. (5%)	0.3	0.2	2.7	2.8	0.4

UNIFORM TEST II TRAITED MATERIAL, 2019

FATTY ACID, PALMITIC (%)

Strain	Mean 7 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI
IA2102 (II)	11.8	12.1	11.9	11.5	11.7	11.8
LD02-4485 (SCN)	11.8	11.7	11.8	11.6	11.9	11.8
E17143	5.2	5.4	5.1	5.3	5.5	5.1
E17801-08	3.5	3.4	3.4	3.3	3.3	5.0
E17804-01	3.8	4.0	4.4	3.7	3.5	3.4
LD16-10150	7.2	6.8	6.9	6.8	6.9	8.9
LD17-12673	7.0	7.0	7.1	6.7	7.0	6.9
LD17-12905	7.0	6.9	7.0	6.8	7.0	6.9
LD17-13294	6.9	6.8	7.0	6.8	6.7	6.8
SA17-12251	8.2	8.0	8.1	8.0	8.6	8.4
SA17-13168-1	7.3	7.3	7.3	7.1	7.4	7.2
SA17-14575	8.1	7.7	8.4	7.9	8.1	8.4
SA17-2316	8.1	8.7	8.0	7.7	8.0	8.0
SA17-2418	8.9	9.9	8.2	9.0	8.4	9.3
SA17-2742	7.8	7.8	7.6	7.8	8.0	7.6
SA17-5794	8.5	8.4	8.3	8.6	8.6	8.3

UNIFORM TEST II TRAITED MATERIAL, 2019

FATTY ACID, STEARIC (%)

Strain	Mean 7 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI
IA2102 (II)	4.3	3.9	4.0	4.5	4.4	4.4
LD02-4485 (SCN)	4.3	4.1	4.0	4.6	4.4	4.3
E17143	3.2	3.3	3.0	3.5	3.4	3.2
E17801-08	3.0	2.9	2.9	3.1	3.1	3.1
E17804-01	3.4	3.4	3.4	3.7	3.5	3.2
LD16-10150	3.3	3.2	3.1	3.3	3.3	3.7
LD17-12673	3.3	3.2	3.3	3.6	3.3	3.5
LD17-12905	3.4	3.3	3.2	3.5	3.6	3.8
LD17-13294	3.2	3.0	3.0	3.3	3.6	3.3
SA17-12251	4.0	3.8	3.8	4.2	4.2	3.9
SA17-13168-1	3.9	3.6	3.8	4.1	4.0	4.1
SA17-14575	3.6	3.6	3.7	3.9	3.8	3.6
SA17-2316	3.5	4.0	3.3	3.7	3.6	3.6
SA17-2418	4.2	4.1	3.7	4.8	4.1	4.7
SA17-2742	4.0	3.8	3.9	4.4	4.2	4.2
SA17-5794	3.5	3.6	3.6	3.5	3.7	3.3

UNIFORM TEST II TRAITED MATERIAL, 2019

FATTY ACID, PALMITIC (%)

Strain	Phillips NE	Wooster OH
IA2102 (II)	11.9	11.9
LD02-4485 (SCN)	12.2	11.7
E17143	5.1	5.1
E17801-08	3.2	3.2
E17804-01	4.3	3.3
LD16-10150	6.9	7.0
LD17-12673	7.2	7.0
LD17-12905	7.4	7.2
LD17-13294	6.9	7.1
SA17-12251	8.3	8.2
SA17-13168-1	7.6	7.4
SA17-14575	8.2	8.3
SA17-2316	8.1	8.2
SA17-2418	8.6	8.9
SA17-2742	7.9	7.9
SA17-5794	8.3	8.9

UNIFORM TEST II TRAITED MATERIAL, 2019

FATTY ACID, STEARIC (%)

Strain	Phillips NE	Wooster OH
IA2102 (II)	4.4	4.4
LD02-4485 (SCN)	4.3	4.4
E17143	3.1	3.0
E17801-08	2.8	2.9
E17804-01	3.4	3.1
LD16-10150	3.1	3.3
LD17-12673	3.2	3.1
LD17-12905	3.2	3.0
LD17-13294	3.1	3.0
SA17-12251	3.8	4.4
SA17-13168-1	3.6	4.3
SA17-14575	3.3	3.4
SA17-2316	3.3	3.2
SA17-2418	3.5	4.2
SA17-2742	3.7	4.0
SA17-5794	3.3	3.8

UNIFORM TEST II TRAITED MATERIAL, 2019

FATTY ACID, OLEIC (%)

Strain	Mean 7 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI
IA2102 (II)	19.5	20.9	18.8	19.0	20.0	18.6
LD02-4485 (SCN)	21.0	20.3	21.2	22.9	21.7	19.0
E17143	80.1	80.0	82.4	77.9	79.5	78.6
E17801-08	82.4	82.8	83.6	81.2	82.9	80.8
E17804-01	80.9	83.6	73.3	81.5	84.5	81.7
LD16-10150	83.4	83.7	83.6	83.9	83.6	
LD17-12673	82.7	82.7	83.2	82.5	83.7	80.9
LD17-12905	83.7	84.4	84.7	84.0	83.5	82.3
LD17-13294	83.2	84.0	83.9	83.6	82.4	81.9
SA17-12251	76.3	78.7	78.6	76.5	70.9	74.3
SA17-13168-1	79.2	80.1	80.8	78.8	79.6	77.4
SA17-14575	75.2	78.9	69.7	76.9	78.4	66.8
SA17-2316	76.8	65.6	79.9	78.2	79.2	75.8
SA17-2418	72.1	64.7	78.6	69.1	77.4	60.7
SA17-2742	79.5	79.3	81.5	78.8	79.3	76.6
SA17-5794	76.2	78.0	78.7	76.7	77.8	75.7

UNIFORM TEST II TRAITED MATERIAL, 2019

FATTY ACID, LINOLEIC (%)

Strain	Mean 7 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI
IA2102 (II)	55.0	54.1	56.3	55.5	54.7	54.4
LD02-4485 (SCN)	53.4	54.2	53.9	52.4	53.4	54.3
E17143	9.3	9.2	7.5	11.0	9.5	10.8
E17801-08	8.9	8.8	8.1	10.2	8.5	8.4
E17804-01	9.5	6.8	15.9	8.7	6.4	9.0
LD16-10150	7.4	4.0	4.2	3.8	4.0	26.3
LD17-12673	4.5	4.7	4.1	4.6	3.9	5.8
LD17-12905	3.6	3.3	3.0	3.5	3.6	4.3
LD17-13294	4.2	3.9	3.8	3.9	4.7	5.2
SA17-12251	10.1	8.3	8.2	9.0	14.7	12.2
SA17-13168-1	5.6	5.1	4.7	6.1	5.4	6.8
SA17-14575	10.3	7.3	15.5	8.4	7.6	18.4
SA17-2316	8.8	17.9	6.4	7.8	6.7	9.6
SA17-2418	11.9	17.4	7.3	13.9	7.7	21.6
SA17-2742	7.9	8.3	6.3	8.2	7.7	10.7
SA17-5794	10.7	9.2	8.6	10.3	9.2	11.8

UNIFORM TEST II TRAITED MATERIAL, 2019

FATTY ACID, OLEIC (%)

Strain	Phillips NE	Wooster OH
IA2102 (II)	20.0	19.1
LD02-4485 (SCN)	21.1	21.0
E17143	82.3	79.8
E17801-08	83.8	81.6
E17804-01	77.7	84.1
LD16-10150	83.6	81.9
LD17-12673	83.5	82.7
LD17-12905	83.9	83.3
LD17-13294	84.0	82.9
SA17-12251	78.8	76.4
SA17-13168-1	80.4	77.6
SA17-14575	79.6	76.3
SA17-2316	80.0	78.6
SA17-2418	79.8	74.7
SA17-2742	81.2	79.6
SA17-5794	79.2	67.6

UNIFORM TEST II TRAITED MATERIAL, 2019

FATTY ACID, LINOLEIC (%)

Strain	Phillips NE	Wooster OH
IA2102 (II)	54.4	55.2
LD02-4485 (SCN)	52.7	52.8
E17143	7.3	9.7
E17801-08	8.2	9.9
E17804-01	12.4	7.0
LD16-10150	4.1	5.1
LD17-12673	3.7	4.6
LD17-12905	3.2	4.0
LD17-13294	3.7	4.5
SA17-12251	7.9	10.1
SA17-13168-1	4.6	6.5
SA17-14575	6.4	8.9
SA17-2316	6.2	7.2
SA17-2418	5.9	9.3
SA17-2742	6.4	7.7
SA17-5794	8.3	17.6

UNIFORM TEST II TRAITED MATERIAL, 2019

FATTY ACID, LINOLENIC (%)

Strain	Mean 7 Tests	Pontiac IL	Urbana IL	Wanatah IN	West Lafayette IN	East Lansing MI
IA2102 (II)	9.4	9.0	9.0	9.4	9.2	10.8
LD02-4485 (SCN)	9.5	9.6	9.1	8.5	8.6	10.6
E17143	2.2	2.1	2.0	2.3	2.2	2.4
E17801-08	2.2	2.1	2.0	2.3	2.2	2.8
E17804-01	2.4	2.2	3.1	2.3	2.0	2.7
LD16-10150	2.8	2.3	2.2	2.2	2.2	5.9
LD17-12673	2.5	2.4	2.4	2.6	2.2	2.9
LD17-12905	2.3	2.1	2.0	2.2	2.3	2.8
LD17-13294	2.5	2.3	2.2	2.4	2.6	2.8
SA17-12251	1.4	1.1	1.3	2.2	1.6	1.3
SA17-13168-1	3.9	3.8	3.3	3.9	3.7	4.5
SA17-14575	2.7	2.5	2.7	2.9	2.1	2.8
SA17-2316	2.8	3.8	2.3	2.6	2.5	3.1
SA17-2418	3.0	3.9	2.3	3.3	2.4	3.7
SA17-2742	0.8	0.8	0.7	0.8	0.8	0.9
SA17-5794	1.0	0.9	0.8	0.9	0.8	0.9

UNIFORM TEST II TRAITED MATERIAL, 2019

FATTY ACID, LINOLENIC (%)

Strain	Phillips NE	Wooster OH
IA2102 (II)	9.3	9.4
LD02-4485 (SCN)	9.7	10.1
E17143	2.1	2.4
E17801-08	2.0	2.4
E17804-01	2.2	2.5
LD16-10150	2.2	2.8
LD17-12673	2.4	2.6
LD17-12905	2.2	2.5
LD17-13294	2.3	2.6
SA17-12251	1.2	0.9
SA17-13168-1	3.8	4.2
SA17-14575	2.5	3.1
SA17-2316	2.5	2.8
SA17-2418	2.2	3.0
SA17-2742	0.8	0.8
SA17-5794	0.9	2.2

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	Northern Regional Uniform Test					
	Uniform Test III Traited Material, 2019					
			Seed	Previous	Gen.	Unique
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits
1	LD11-2170 (III)	Syngenta 03JR313108 x LD05-3171	Diers	4	F5	SCN
2	IA3048 (SCN)	Dairyland 99540 x IA2068	Cai	11	F4	SCN
3	LD07-3395bf (SCN) (L)	LD07-3395 Reselection	Diers	4	F5	SCN
4	U14-910097 (SCN) (E)	U09-105007 x LD07-3419	Graef	2	F6	Ex Rps Resist
5	AG3334		Monsanto	4		
6	AG3832		Monsanto	10		RR, SCN
7	CR16-0020	CL05-51227 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
8	CR16-0023	CL05-51227 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
9	CR16-0024	CL05-51227 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
10	CR16-0025	CL05-51227 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
11	CR16-0027	CL05-51227 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
12	CR16-0029	CL05-3314 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
13	CR16-0033	CL05-3314 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
14	HM16-L079	M10-W111 x M09-W153	McHale	Intial	F4	
15	HM16-L084	M10-W111 x M09-W153	McHale	Intial	F4	
16	HM16-M006	M10-W111 x M09-W153	McHale	Intial	F4	
17	HM16-M016	M10-W111 x M09-W153	McHale	Intial	F4	
18	HM16-M019	M10-W111 x M09-W153	McHale	Intial	F4	
19	LD16-10165	LD10-10198 x KB13-15F314-224	Diers	Intial	F4	HOLL
20	LD16-10183	LD10-10198 x KB13-15F314-224	Diers	1	F4	SCN, HOLL
21	LD16-10310	U11-614093 x KB13-15F314-224	Diers	Intial	F4	HOLL
22	LD16-10319	U11-614093 x KB13-15F314-224	Diers	Intial	F4	HOLL
23	LD16-10351	U11-614093 x KB13-15F314-224	Diers	1	F4	SCN, HOLL
24	LD17-12201	[LD10-10198 x KB13-15F314-224]	Diers	Intial	F3	HOLL
		x [LD10-5213a x KB13-15F314-224]				
25	LD17-12679	[U11-614093 x KB13-15F314-224]	Diers	Intial	F3	HOLL
		x [LD11-10069 x KB13-15F314-224]				
26	LD17-12708	[U11-614093 x KB13-15F314-224]	Diers	Intial	F3	HOLL
		x [LD11-10069 x KB13-15F314-224]				
27	LD17-12986	[E12020 x KB13-15F314-224]	Diers	Intial	F3	HOLL
		x [M08-362051 x KB13-15F314-224]				
28	SA17-11294	SA13-5837 x A12-961044	Scaboo	Intial	F5	HOLL
29	SA17-11463	SA13-2489 x A12-961044	Scaboo	Intial	F5	HOLL
30	SA17-11700	SA13-2126 x A12-961054	Scaboo	Intial	F5	HOLL
31	SA17-13516	LG11-6214 x A12-961044	Scaboo	Intial	F5	HOLL
32	SA17-5753	LD07-3419 x A12-961054	Scaboo	Intial	F5	HOLL
33	SA17-5771	LD07-3419 x A12-961054	Scaboo	Intial	F5	HOLL
34	SA17-5776	LD07-3419 x A12-961054	Scaboo	Intial	F5	HOLL
35	SA17-5792	LD07-3419 x A12-961054	Scaboo	Intial	F5	HOLL
36	SA17-5797	LD07-3419 x A12-961054	Scaboo	Intial	F5	HOLL
37	SA17-6259	LS07-3131 x A12-961054	Scaboo	Intial	F5	HOLL, SCN
38	SA17-7283	SA13-1385 x A12-961054	Scaboo	Intial	F5	HOLL, SCN
39	SA17-749PR	S10-6090 (4) x A12-961054	Scaboo	1	F3	SCN, HOLL
40	SA17-8035	SA13-2770 x A12-961044	Scaboo	Intial	F5	HOLL, SCN

UNIFORM TEST III TRAITED MATERIAL, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Shattering Score
		Manhattan
LD11-2170 (III)	PGTDYBrI	1.0
IA3048 (SCN)	WGTSYYI	1.0
LD07-3395bf (SCN) (L)	WGTSYBfI	1.0
U14-910097 (SCN) (E)	PGTSYBfI	1.0
AG3334	PGTSYGI	1.0
AG3832	PGTSYGI	1.0
CR16-0020	WGBSYIbI	1.0
CR16-0023	WTBSYIbI	1.0
CR16-0024	WGBSYIbI	1.0
CR16-0025	WTBSYIbI	1.0
CR16-0027	WTB+TSYIbI	1.0
CR16-0029	PTBSYIbG I	1.0
CR16-0033	PG+TBDYLBrI	1.0
HM16-L079	WGTSYYI	1.0
HM16-L084	WGTSYYI	1.0
HM16-M006	P+WGTSYYI	1.0
HM16-M016	PGTSYYI	1.0
HM16-M019	P+WGTSYYI	1.0
LD16-10165	PGBDYGI	1.0
LD16-10183	PGBSYGI	1.0
LD16-10310	WLtBSYBrGI	1.0
LD16-10319	WLtBDYBrI	1.0
LD16-10351	WTBDYY+BrI	1.0
LD17-12201	PTBDYGI	1.0
LD17-12679	WLtBDYGI	1.0
LD17-12708	WLtBDYGI	1.0
LD17-12986	PTBDYBrI	1.0
SA17-11294	PGTSYBI	1.0
SA17-11463	WGBSYBI	1.0
SA17-11700	PGTSYBI	1.0
SA17-13516	PTBDYGI	1.0
SA17-5753	WGBSYBI	1.0
SA17-5771	WGBSYBI	1.0
SA17-5776	WGBSYIbI	1.0
SA17-5792	WGBDYIbI	1.0
SA17-5797	WGBSYIbI	1.0
SA17-6259	PTBSYLBrI	1.0
SA17-7283	WTBDYIbI	1.0
SA17-749PR	PTBDYIbI	1.0
SA17-8035	PTTDYIbI	1.0

UNIFORM TEST III TRAITED MATERIAL, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 9 bu/a	Rank 9 No.	Maturity 9 Date	Lodging 9 Score	Plant Height 8 In.	Seed Size 9 g/100	Seed Quality 9 Score	Composition Protein 4 %	 Oil 4 %
LD11-2170 (III)	69.1	3	9/29	1.3	30	16.8	1.3	35.0	19.7
IA3048 (SCN)	62.9	15	0.3	1.6	32	15.9	1.4	35.4	18.5
LD07-3395bf (SCN) (L)	70.4	2	4.4	1.4	31	17.0	1.4	32.8	20.1
U14-910097 (SCN) (E)	72.6	1	1.1	1.6	31	16.4	1.4	33.5	19.9
AG3334	54.7	39	3.8	1.4	31	18.0	1.6	36.2	18.1
AG3832	45.2	40	5.9	1.4	28	18.7	1.6	35.4	18.6
CR16-0020	62.8	17	4.6	1.6	33	17.4	1.3	37.6	18.2
CR16-0023	60.3	27	3.3	1.6	33	16.5	1.5	33.9	19.5
CR16-0024	61.2	24	4.8	1.3	32	16.3	1.4	35.6	18.7
CR16-0025	55.2	38	5.0	1.1	30	16.6	1.3	35.7	19.4
CR16-0027	63.6	11	3.1	1.4	33	17.3	1.5	36.7	18.7
CR16-0029	61.3	23	1.6	1.5	35	16.2	1.4	36.8	18.3
CR16-0033	65.5	4	6.0	1.7	34	18.1	1.5	36.4	18.5
HM16-L079	64.2	9	5.2	1.4	34	16.6	1.4	36.5	19.1
HM16-L084	61.6	21	3.5	1.4	35	17.1	1.6	36.6	19.0
HM16-M006	63.5	12	0.3	1.4	33	19.0	1.6	36.1	19.5
HM16-M016	65.0	6	2.1	1.5	32	18.6	1.5	35.8	19.4
HM16-M019	64.0	10	1.1	1.6	34	17.7	1.4	36.4	19.2
LD16-10165	64.3	7	3.3	1.3	28	15.8	1.6	36.9	18.9
LD16-10183	64.3	7	1.6	1.2	28	15.8	1.5	36.8	19.0
LD16-10310	65.5	4	4.3	1.2	30	14.6	1.4	37.9	18.7
LD16-10319	62.2	19	-0.1	1.1	28	14.8	1.3	37.9	18.8
LD16-10351	61.7	20	5.1	1.3	29	14.1	1.4	37.7	18.9
LD17-12201	59.1	33	1.6	1.1	29	12.9	1.5	36.1	19.2
LD17-12679	63.4	13	1.0	1.1	29	14.5	1.4	37.6	18.6
LD17-12708	63.3	14	-0.1	1.2	29	14.3	1.3	37.8	18.6
LD17-12986	61.1	25	6.4	1.6	35	15.5	1.5	37.0	18.7
SA17-11294	55.3	37	0.9	1.3	32	16.8	1.3	37.2	17.7
SA17-11463	59.9	29	3.0	1.5	30	14.0	1.3	35.8	19.0
SA17-11700	61.5	22	3.7	1.5	35	15.3	1.6	36.2	18.7
SA17-13516	60.3	27	2.9	1.7	35	14.9	1.4	38.8	18.3
SA17-5753	60.9	26	3.1	1.4	29	14.9	1.2	35.1	19.5
SA17-5771	57.9	34	2.9	1.3	28	15.2	1.4	35.6	19.4
SA17-5776	59.4	32	0.5	1.3	28	15.6	1.4	35.0	19.5
SA17-5792	57.2	36	1.9	1.3	27	15.6	1.4	35.1	19.6
SA17-5797	59.9	29	2.6	1.4	29	14.9	1.2	35.4	19.4
SA17-6259	62.3	18	5.4	1.7	34	17.1	1.7	38.6	18.3
SA17-7283	59.5	31	3.1	1.5	30	15.9	1.4	38.4	18.2
SA17-749PR	57.6	35	4.6	2.1	38	14.1	1.3	36.6	18.6
SA17-8035	62.9	16	3.2	1.7	34	16.2	1.4	38.7	18.4
Mean	62.6			1.4	31.3	15.9	1.4		
C.V. (%)	9.9			29.0	7.2	5.6	21.8		
L.S.D. (5%)	3.2			0.2	1.3	0.6	0.2		

136.2 Days After Planting

UNIFORM TEST III TRAITED MATERIAL, 2019

2018-2019 2-YEAR MEAN

No. of Tests Strain	Yield 15 bu/a	Rank 15 No.	Maturity 15 Date	Lodging 16 Score	Plant Height 14 In.	Seed Size 15 g/100	Seed Quality 15 Score	Composition Protein 9 %	Oil 9 %
LD11-2170 (III)	73.3	1	9/23	1.3	33	16.2	1.5	34.4	20.2
IA3048 (SCN)	66.4	4	-1.2	1.6	35	15.1	1.7	34.6	19.0
LD07-3395bf (SCN) (L)	70.3	2	2.7	1.5	33	16.2	1.8	32.5	20.5
AG3334	65.0	6	2.9	1.3	35	17.3	1.8	35.7	18.4
AG3832	61.2	8	5.0	1.4	33	17.8	1.7	35.1	18.8
LD16-10183	66.5	3	-1.0	1.2	31	15.3	2.0	35.6	19.7
LD16-10351	65.8	5	3.4	1.3	33	13.8	1.7	36.9	19.3
SA17-749PR	62.4	7	2.6	2.3	42	13.6	1.7	35.8	19.2

132.8 Days After Planting

UNIFORM TEST III TRAITED MATERIAL, 2019

YIELD (bu/a)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Colum-bia MO
LD11-2170 (III)	69.1	85.2	51.2	72.8	46.3	64.7	69.6	73.0
IA3048 (SCN)	62.9	78.3	45.9	71.3	46.7	61.2	52.3	67.7
LD07-3395bf (SCN) (L)	70.4	77.6	60.2	82.3	48.2	65.6	63.6	77.0
U14-910097 (SCN) (E)	72.6	78.3	56.9	90.6	52.4	59.4	67.1	78.3
AG3334	54.7	65.2	48.7	71.3	51.1	57.7	41.2	54.3
AG3832	45.2	68.1	34.7		39.2	28.6	28.2	47.6
CR16-0020	62.8	71.3	46.8	68.6	43.1	59.6	61.9	65.6
CR16-0023	60.3	62.2	49.0	66.1	48.0	52.1	57.8	64.6
CR16-0024	61.2	62.7	47.5	67.9	44.8	52.6	68.3	65.8
CR16-0025	55.2	60.1	38.4	64.9	38.0	49.8	59.4	54.7
CR16-0027	63.6	73.5	48.5	69.1	43.1	60.2	66.1	61.2
CR16-0029	61.3	71.7	47.1	71.4	46.1	51.6	64.1	61.0
CR16-0033	65.5	74.9	50.4	74.5	44.1	58.3	69.7	57.9
HM16-L079	64.2	60.9	51.8	70.7	43.5	62.9	59.0	60.6
HM16-L084	61.6	73.9	46.3	67.8	40.3	53.8	52.7	64.8
HM16-M006	63.5	67.3	52.6	68.1	46.7	56.4	55.0	63.7
HM16-M016	65.0	64.8	50.6	74.6	43.4	60.1	67.5	68.6
HM16-M019	64.0	72.2	46.6	74.4	43.0	65.0	51.5	71.6
LD16-10165	64.3	72.8	52.9	72.5	47.3	56.6	59.6	69.9
LD16-10183	64.3	67.3	49.8	74.7	47.7	61.2	62.9	61.2
LD16-10310	65.5	75.0	53.6	68.9	46.9	53.4	69.6	65.9
LD16-10319	62.2	76.9	45.6	60.8	46.4	59.4	62.8	61.0
LD16-10351	61.7	66.0	49.5	72.1	43.4	56.5	57.8	58.3
LD17-12201	59.1	63.7	46.3	67.8	50.9	56.0	62.6	62.7
LD17-12679	63.4	76.7	51.8	70.3	47.6	51.7	62.4	59.4
LD17-12708	63.3	70.2	47.9	64.2	47.1	54.8	63.7	66.2
LD17-12986	61.1	77.2	42.1	73.3	40.3	53.2	63.8	62.6
SA17-11294	55.3	67.5	47.0	57.5	41.5	50.9	47.8	53.4
SA17-11463	59.9	63.1	44.3	67.4	41.4	52.3	62.8	64.4
SA17-11700	61.5	70.5	49.3	70.6	40.8	55.2	60.2	63.4
SA17-13516	60.3	68.1	54.2	66.6	43.6	54.5	60.9	65.4
SA17-5753	60.9	53.9	48.3	67.3	44.3	54.3	59.7	68.7
SA17-5771	57.9	54.5	46.3	67.2	37.9	50.1	59.7	57.2
SA17-5776	59.4	54.3	44.5	65.6	43.1	54.0	61.8	63.3
SA17-5792	57.2	63.5	42.1	63.5	41.7	49.9	49.9	57.5
SA17-5797	59.9	72.1	46.0	62.5	41.2	49.0	52.4	65.1
SA17-6259	62.3	66.3	45.9	68.2	49.0	58.8	53.8	79.6
SA17-7283	59.5	66.7	44.2	65.8	43.7	53.2	53.3	61.8
SA17-749PR	57.6	67.5	47.7	59.0	45.0	58.5	57.5	64.4
SA17-8035	62.9	74.7	54.8	71.0	46.3	52.8	66.8	59.8
Location Mean		68.9	48.2	69.3	44.6	55.4	59.2	63.7
C.V. (%)		13.1	11.6	8.7	6.5	6.1	9.5	10.7
L.S.D. (5%)		18.4	11.5	10.5	4.9	5.7	11.3	13.8
Row sp. (In.)		30	30	30	30	30	30	30
Rows/Plot		4	4	2	4	4	4	4
Reps		2	2	3	2	2	2	2

UNIFORM TEST III TRAITED MATERIAL, 2019

YIELD (bu/a)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	83.1	76.1
IA3048 (SCN)	80.6	62.0
LD07-3395bf (SCN) (L)	79.4	79.8
U14-910097 (SCN) (E)	85.9	84.3
AG3334	81.1	21.4
AG3832	70.3	
CR16-0020	71.8	77.0
CR16-0023	68.5	74.6
CR16-0024	72.9	68.4
CR16-0025	66.5	64.7
CR16-0027	77.2	73.9
CR16-0029	69.6	69.5
CR16-0033	81.1	79.0
HM16-L079	88.7	80.1
HM16-L084	83.2	71.4
HM16-M006	80.5	81.3
HM16-M016	80.0	75.5
HM16-M019	74.7	77.0
LD16-10165	79.7	68.0
LD16-10183	80.5	73.0
LD16-10310	83.0	73.2
LD16-10319	80.0	67.1
LD16-10351	79.2	72.7
LD17-12201	78.7	42.9
LD17-12679	80.3	70.3
LD17-12708	80.5	75.1
LD17-12986	63.5	74.2
SA17-11294	68.9	63.0
SA17-11463	77.0	66.4
SA17-11700	71.1	72.3
SA17-13516	67.1	62.4
SA17-5753	81.4	69.8
SA17-5771	79.3	69.4
SA17-5776	78.6	69.6
SA17-5792	80.4	66.7
SA17-5797	78.7	72.1
SA17-6259	71.4	68.2
SA17-7283	74.8	71.9
SA17-749PR	61.3	57.9
SA17-8035	72.2	67.4
Location Mean	76.6	69.5
C.V. (%)	4.5	13.9
L.S.D. (5%)	7.0	15.3
Row sp. (In.)	30	7.5
Rows/Plot	4	6
Reps	2	3

UNIFORM TEST III TRAITED MATERIAL, 2019

YIELD RANK

Strain	Yield Rank	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Columbia MO
LD11-2170 (III)	3	1	10	8	15	3	2	4
IA3048 (SCN)	15	2	31	12	12	5	35	9
LD07-3395bf (SCN) (L)	2	4	1	2	5	1	12	3
U14-910097 (SCN) (E)	1	2	2	1	1	10	6	2
AG3334	39	29	17	13	2	15	39	38
AG3832	40	20	40	40	38	40	40	40
CR16-0020	17	17	25	20	27	9	18	13
CR16-0023	27	35	16	30	6	32	27	17
CR16-0024	24	34	22	23	19	30	4	12
CR16-0025	38	37	39	33	39	38	25	37
CR16-0027	11	12	18	18	27	7	8	26
CR16-0029	23	16	23	11	17	34	9	28
CR16-0033	4	9	12	5	21	14	1	34
HM16-L079	9	36	8	15	24	4	26	30
HM16-L084	21	11	27	25	36	25	33	16
HM16-M006	12	24	7	22	12	18	30	20
HM16-M016	6	30	11	4	25	8	5	8
HM16-M019	10	14	26	6	30	2	36	5
LD16-10165	7	13	6	9	9	16	24	6
LD16-10183	7	24	13	3	7	5	13	26
LD16-10310	4	8	5	19	11	26	2	11
LD16-10319	19	6	33	37	14	10	14	28
LD16-10351	20	28	14	10	25	17	27	33
LD17-12201	33	31	27	24	3	19	16	23
LD17-12679	13	7	8	17	8	33	17	32
LD17-12708	14	19	20	34	10	21	11	10
LD17-12986	25	5	37	7	36	27	10	24
SA17-11294	37	22	24	39	32	35	38	39
SA17-11463	29	33	35	26	33	31	14	18
SA17-11700	22	18	15	16	35	20	21	21
SA17-13516	27	20	4	29	23	22	20	14
SA17-5753	26	40	19	27	20	23	22	7
SA17-5771	34	38	27	28	40	36	22	36
SA17-5776	32	39	34	32	27	24	19	22
SA17-5792	36	32	37	35	31	37	37	35
SA17-5797	29	15	30	36	34	39	34	15
SA17-6259	18	27	31	21	4	12	31	1
SA17-7283	31	26	36	31	22	27	32	25
SA17-749PR	35	22	21	38	18	13	29	18
SA17-8035	16	10	3	14	15	29	7	31

UNIFORM TEST III TRAITED MATERIAL, 2019

YIELD RANK

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	4	7
IA3048 (SCN)	9	35
LD07-3395bf (SCN) (L)	18	4
U14-910097 (SCN) (E)	2	1
AG3334	7	38
AG3832	33	
CR16-0020	30	6
CR16-0023	36	10
CR16-0024	28	25
CR16-0025	38	32
CR16-0027	24	12
CR16-0029	34	23
CR16-0033	8	5
HM16-L079	1	3
HM16-L084	3	19
HM16-M006	12	2
HM16-M016	16	8
HM16-M019	27	6
LD16-10165	17	27
LD16-10183	11	14
LD16-10310	5	13
LD16-10319	15	29
LD16-10351	20	15
LD17-12201	21	37
LD17-12679	14	20
LD17-12708	10	9
LD17-12986	39	11
SA17-11294	35	33
SA17-11463	25	31
SA17-11700	32	16
SA17-13516	37	34
SA17-5753	6	21
SA17-5771	19	24
SA17-5776	23	22
SA17-5792	13	30
SA17-5797	22	17
SA17-6259	31	26
SA17-7283	26	18
SA17-749PR	40	36
SA17-8035	29	28

UNIFORM TEST III TRAITED MATERIAL, 2019

MATURITY (date)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Colum-bia MO
LD11-2170 (III)	9/29	10/2	9/22	10/2	10/3	10/2	10/3	9/24
IA3048 (SCN)	0	1	-1	2	-2	3	1	-1
LD07-3395bf (SCN) (L)	4	3	4	3	2	8	9	4
U14-910097 (SCN) (E)	1	0	-1	1	0	4	3	0
AG3334	4	1	5	2	3	5	7	7
AG3832	6	3	8	3	7	8	9	8
CR16-0020	5	3	3	2	4	7	7	4
CR16-0023	3	1	2	1	3	8	4	4
CR16-0024	5	1	3	3	6	9	8	5
CR16-0025	5	3	4	4	4	8	9	2
CR16-0027	3	1	2	3	3	5	7	2
CR16-0029	2	2	2	0	0	1	5	-1
CR16-0033	6	3	8	3	7	11	9	3
HM16-L079	5	3	7	3	5	9	8	4
HM16-L084	3	3	5	2	2	4	7	3
HM16-M006	0	-1	-1	2	0	3	1	-1
HM16-M016	2	2	1	1	2	5	5	1
HM16-M019	1	1	2	2	-1	2	2	1
LD16-10165	3	4	6	2	3	4	3	4
LD16-10183	2	1	3	2	2	3	1	0
LD16-10310	4	2	6	3	4	6	7	5
LD16-10319	-0	0	-2	1	0	2	-2	-2
LD16-10351	5	5	6	3	6	6	8	5
LD17-12201	2	2	3	1	3	3	0	1
LD17-12679	1	1	-1	1	0	2	1	1
LD17-12708	-0	-1	-2	1	-1	1	-2	1
LD17-12986	6	6	7	1	7	8	10	6
SA17-11294	1	-1	2	0	2	1	3	0
SA17-11463	3	0	4	3	5	0	7	3
SA17-11700	4	0	4	2	5	3	9	5
SA17-13516	3	1	5	2	6	2	3	1
SA17-5753	3	2	4	1	2	4	7	5
SA17-5771	3	3	3	3	2	4	4	2
SA17-5776	1	-1	1	2	-1	1	0	2
SA17-5792	2	-1	3	3	3	3	1	2
SA17-5797	3	0	2	3	3	5	4	3
SA17-6259	5	4	6	3	5	7	9	8
SA17-7283	3	1	5	2	2	4	4	5
SA17-749PR	5	3	7	2	4	5	6	6
SA17-8035	3	0	6	3	4	6	7	1
Date Planted	5/16	6/4	5/31	6/8	6/3	6/5	6/7	6/4
Days to Mature	136	120	114	116	122	119	118	112

UNIFORM TEST III TRAITED MATERIAL, 2019

MATURITY (date)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	10/7	9/24
IA3048 (SCN)	-1	1
LD07-3395bf (SCN) (L)	3	4
U14-910097 (SCN) (E)	1	2
AG3334	0	4
AG3832	1	
CR16-0020	6	5
CR16-0023	4	3
CR16-0024	2	6
CR16-0025	3	8
CR16-0027	2	3
CR16-0029	3	2
CR16-0033	5	5
HM16-L079	4	4
HM16-L084	2	3
HM16-M006	-1	1
HM16-M016	0	2
HM16-M019	-1	2
LD16-10165	0	3
LD16-10183	1	1
LD16-10310	2	4
LD16-10319	2	0
LD16-10351	3	4
LD17-12201	-1	3
LD17-12679	2	2
LD17-12708	1	1
LD17-12986	6	6
SA17-11294	-1	2
SA17-11463	1	4
SA17-11700	2	4
SA17-13516	2	4
SA17-5753	-1	4
SA17-5771	1	4
SA17-5776	-1	2
SA17-5792	-1	4
SA17-5797	-1	4
SA17-6259	2	5
SA17-7283	2	3
SA17-749PR	3	5
SA17-8035	-1	3
Date Planted	5/18	5/22
Days to Mature	142	125

UNIFORM TEST III TRAITED MATERIAL, 2019

LODGING (score)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Colum-bia MO
LD11-2170 (III)	1.3	1.5	1.0	1.0	1.0	1.0	1.8	1.3
IA3048 (SCN)	1.6	2.5	1.0	1.0	1.0	1.0	1.8	1.5
LD07-3395bf (SCN) (L)	1.4	1.8	1.0	1.0	1.0	1.0	2.0	1.5
U14-910097 (SCN) (E)	1.6	2.8	1.0	1.0	1.0	1.0	2.3	1.3
AG3334	1.4	1.5	1.0	1.0	1.0	1.0	1.8	2.0
AG3832	1.4	1.3	1.0	1.0	1.0	1.0	2.0	2.0
CR16-0020	1.6	2.5	1.0	1.0	1.0	1.0	2.8	1.5
CR16-0023	1.6	1.5	1.0	1.0	1.0	1.0	2.5	1.5
CR16-0024	1.3	1.0	1.0	1.0	1.0	1.0	1.5	1.5
CR16-0025	1.1	1.3	1.0	1.0	1.0	1.0	2.0	1.0
CR16-0027	1.4	1.5	1.0	1.0	1.0	1.0	1.8	1.0
CR16-0029	1.5	1.8	1.0	1.0	1.0	1.0	2.3	1.0
CR16-0033	1.7	1.8	1.0	1.0	1.0	1.0	2.5	1.8
HM16-L079	1.4	2.5	1.0	1.0	1.0	1.0	1.8	1.3
HM16-L084	1.4	1.8	1.0	1.0	1.0	1.0	1.5	1.5
HM16-M006	1.4	2.0	1.0	1.0	1.0	1.0	1.8	1.0
HM16-M016	1.5	2.5	1.0	1.0	1.0	1.0	1.8	1.3
HM16-M019	1.6	2.5	1.0	1.0	1.0	1.0	2.0	1.5
LD16-10165	1.3	1.3	1.0	1.0	1.0	1.0	1.8	1.3
LD16-10183	1.2	1.3	1.0	1.0	1.0	1.0	1.5	1.0
LD16-10310	1.2	1.0	1.0	1.0	1.0	1.0	1.5	1.0
LD16-10319	1.1	1.0	1.0	1.0	1.0	1.0	1.3	1.0
LD16-10351	1.3	1.3	1.0	1.0	1.0	1.0	1.5	1.8
LD17-12201	1.1	1.5	1.0	1.0	1.0	1.0	1.5	1.0
LD17-12679	1.1	1.0	1.0	1.0	1.0	1.0	1.3	1.3
LD17-12708	1.2	1.0	1.0	1.0	1.0	1.0	1.5	1.0
LD17-12986	1.6	2.0	1.0	1.0	1.0	1.0	1.8	1.5
SA17-11294	1.3	1.0	1.0	1.0	1.0	1.0	2.0	1.3
SA17-11463	1.5	1.3	1.0	1.0	1.0	1.0	2.3	1.0
SA17-11700	1.5	1.8	1.0	1.0	1.0	1.0	2.0	1.8
SA17-13516	1.7	2.5	1.0	1.0	1.0	1.0	2.3	1.5
SA17-5753	1.4	1.3	1.0	1.0	1.0	1.0	2.3	2.0
SA17-5771	1.3	1.5	1.0	1.0	1.0	1.0	1.8	1.5
SA17-5776	1.3	1.3	1.0	1.0	1.0	1.0	1.8	1.5
SA17-5792	1.3	1.5	1.0	1.0	1.0	1.0	1.5	1.3
SA17-5797	1.4	1.5	1.0	1.0	1.0	1.0	2.0	1.8
SA17-6259	1.7	2.8	1.0	1.0	1.0	1.0	2.3	1.8
SA17-7283	1.5	1.8	1.0	1.0	1.0	1.0	2.0	1.8
SA17-749PR	2.1	3.8	1.0	1.0	1.0	1.0	3.0	2.3
SA17-8035	1.7	2.3	1.0	1.0	1.0	1.0	3.0	1.3

UNIFORM TEST III TRAITED MATERIAL, 2019

LODGING (score)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	2.0	1.0
IA3048 (SCN)	4.0	1.0
LD07-3395bf (SCN) (L)	2.0	1.0
U14-910097 (SCN) (E)	3.0	1.0
AG3334	2.0	1.0
AG3832	1.5	
CR16-0020	3.0	1.0
CR16-0023	4.0	1.0
CR16-0024	3.0	1.0
CR16-0025	1.0	1.0
CR16-0027	3.0	1.0
CR16-0029	3.5	1.0
CR16-0033	4.0	1.0
HM16-L079	2.0	1.0
HM16-L084	2.0	1.7
HM16-M006	3.0	1.0
HM16-M016	3.0	1.0
HM16-M019	3.5	1.0
LD16-10165	2.0	1.0
LD16-10183	2.0	1.0
LD16-10310	2.0	1.0
LD16-10319	1.5	1.0
LD16-10351	2.0	1.0
LD17-12201	1.0	1.0
LD17-12679	1.5	1.0
LD17-12708	2.0	1.0
LD17-12986	3.5	1.3
SA17-11294	2.5	1.0
SA17-11463	3.5	1.0
SA17-11700	2.5	1.0
SA17-13516	4.0	1.3
SA17-5753	2.0	1.0
SA17-5771	2.0	1.0
SA17-5776	2.0	1.0
SA17-5792	2.0	1.0
SA17-5797	2.0	1.0
SA17-6259	3.0	1.0
SA17-7283	2.5	1.0
SA17-749PR	5.0	1.0
SA17-8035	3.5	1.0

UNIFORM TEST III TRAITED MATERIAL, 2019

PLANT HEIGHT (inches)

Strain	Mean 8 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Colum-bia MO
LD11-2170 (III)	29.6	35	30		26	23	30	29
IA3048 (SCN)	32.0	33	32		27	31	30	35
LD07-3395bf (SCN) (L)	31.2	29	32		28	32	29	31
U14-910097 (SCN) (E)	31.5	35	31		28	31	29	31
AG3334	31.4	30	28		30	31	31	28
AG3832	28.4	32	26		24	28	28	26
CR16-0020	32.9	33	33		27	35	31	34
CR16-0023	33.1	32	34		32	32	32	35
CR16-0024	32.3	32	34		28	29	33	31
CR16-0025	30.4	31	27		28	28	31	31
CR16-0027	32.7	35	32		30	32	31	31
CR16-0029	34.8	37	35		32	32	32	35
CR16-0033	33.6	33	33		30	36	34	34
HM16-L079	33.6	34	36		29	31	32	36
HM16-L084	35.0	34	35		35	34	33	34
HM16-M006	33.1	35	32		31	33	32	33
HM16-M016	32.2	31	33		28	30	34	35
HM16-M019	34.3	33	33		35	34	32	34
LD16-10165	28.2	28	27		24	29	27	29
LD16-10183	28.0	28	28		25	27	27	28
LD16-10310	30.1	31	27		27	29	30	30
LD16-10319	27.9	29	25		26	25	27	28
LD16-10351	29.2	28	29		27	27	29	29
LD17-12201	28.7	28	27		27	27	29	30
LD17-12679	29.3	30	28		28	27	28	30
LD17-12708	29.1	28	27		29	28	28	28
LD17-12986	34.7	39	29		32	33	36	33
SA17-11294	31.8	33	29		30	31	30	31
SA17-11463	30.1	28	29		30	27	30	31
SA17-11700	34.6	36	33		32	36	35	34
SA17-13516	35.2	34	37		33	33	33	36
SA17-5753	28.7	23	29		27	25	32	31
SA17-5771	27.9	24	28		26	25	26	31
SA17-5776	27.7	24	27		24	26	30	29
SA17-5792	27.3	25	26		24	24	27	31
SA17-5797	28.7	30	27		26	26	28	29
SA17-6259	33.8	34	35		34	30	33	36
SA17-7283	29.8	32	29		27	26	29	30
SA17-749PR	38.0	38	36		37	36	39	40
SA17-8035	33.7	34	34		34	31	32	33

UNIFORM TEST III TRAITED MATERIAL, 2019

PLANT HEIGHT (inches)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	36	30
IA3048 (SCN)	36	32
LD07-3395bf (SCN) (L)	36	32
U14-910097 (SCN) (E)	35	32
AG3334	39	34
AG3832	37	
CR16-0020	37	33
CR16-0023	38	31
CR16-0024	39	33
CR16-0025	36	32
CR16-0027	36	35
CR16-0029	39	37
CR16-0033	37	33
HM16-L079	36	36
HM16-L084	37	39
HM16-M006	35	35
HM16-M016	36	31
HM16-M019	37	37
LD16-10165	35	29
LD16-10183	35	28
LD16-10310	36	32
LD16-10319	35	30
LD16-10351	36	30
LD17-12201	35	28
LD17-12679	35	30
LD17-12708	36	31
LD17-12986	38	37
SA17-11294	37	34
SA17-11463	36	31
SA17-11700	38	33
SA17-13516	38	37
SA17-5753	36	29
SA17-5771	35	29
SA17-5776	36	27
SA17-5792	34	28
SA17-5797	36	29
SA17-6259	36	33
SA17-7283	36	31
SA17-749PR	38	39
SA17-8035	37	35

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED SIZE (g/100)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Colum-bia MO
LD11-2170 (III)	16.8	18.1	16.7	17.6	14.3	17.4	17.3	16.4
IA3048 (SCN)	15.9	17.9	15.6	16.7	14.8	16.3	16.6	15.5
LD07-3395bf (SCN) (L)	17.0	18.4	16.7	17.3	14.6	17.2	19.4	16.5
U14-910097 (SCN) (E)	16.4	17.7	16.0	16.8	14.9	16.6	17.0	15.9
AG3334	18.0	18.3	18.1	18.0	17.2	19.4	19.6	17.2
AG3832	18.7	18.8	18.9	19.2	17.2	20.8	19.8	16.4
CR16-0020	17.4	18.8	17.3	16.9	16.5	16.5	17.3	16.2
CR16-0023	16.5	16.6	16.0	16.2	14.6	18.0	18.4	15.7
CR16-0024	16.3	16.0	16.0	15.7	15.2	17.9	17.6	15.0
CR16-0025	16.6	17.4	16.3	16.4	16.3	17.9	18.8	14.8
CR16-0027	17.3	18.6	17.3	18.4	15.8	18.1	18.5	15.9
CR16-0029	16.2	18.5	17.0	15.9	14.6	16.1	17.8	15.6
CR16-0033	18.1	19.4	19.8	17.3	17.5	19.6	18.8	17.2
HM16-L079	16.6	18.2	16.9	15.4	15.1	18.3	18.6	16.0
HM16-L084	17.1	19.2	17.2	17.4	15.5	17.7	17.9	15.7
HM16-M006	19.0	20.4	18.6	19.9	16.5	19.1	20.0	19.9
HM16-M016	18.6	19.4	18.4	19.4	16.8	20.0	19.5	17.7
HM16-M019	17.7	18.7	17.5	19.2	16.0	18.2	17.5	17.2
LD16-10165	15.8	16.9	15.8	17.5	15.1	17.1	16.2	15.8
LD16-10183	15.8	16.3	15.3	16.9	15.1	16.3	17.0	16.2
LD16-10310	14.6	16.2	14.3	15.5	13.6	15.1	15.1	14.7
LD16-10319	14.8	16.4	14.3	15.2	14.2	15.3	16.0	14.5
LD16-10351	14.1	14.7	13.8	15.0	13.8	14.3	15.2	13.6
LD17-12201	12.9	15.8	14.1	15.8	13.3	16.5	15.9	13.4
LD17-12679	14.5	16.5	13.9	15.3	13.3	15.8	15.6	13.6
LD17-12708	14.3	15.0	13.8	14.3	14.0	15.0	15.9	14.2
LD17-12986	15.5	17.1	13.8	16.1	13.7	16.0	17.5	16.1
SA17-11294	16.8	18.5	17.7	17.3	16.0	18.2	18.0	16.2
SA17-11463	14.0	14.0	14.6	14.3	13.4	15.1	14.9	14.3
SA17-11700	15.3	16.3	15.5	15.7	14.4	15.5	17.4	15.8
SA17-13516	14.9	16.4	15.9	15.8	13.4	16.4	17.2	13.9
SA17-5753	14.9	14.8	14.7	16.1	13.1	15.8	16.0	15.2
SA17-5771	15.2	16.7	15.0	16.5	13.3	16.0	16.6	14.0
SA17-5776	15.6	16.2	15.2	16.8	13.4	16.3	16.8	16.2
SA17-5792	15.6	16.7	15.5	16.1	14.5	16.8	16.4	14.7
SA17-5797	14.9	15.6	13.9	16.3	14.0	15.3	15.1	15.2
SA17-6259	17.1	18.8	16.9	18.6	15.7	18.7	18.2	17.1
SA17-7283	15.9	17.0	16.5	16.7	15.2	17.3	15.7	15.5
SA17-749PR	14.1	15.7	13.7	14.4	12.3	14.6	15.0	13.8
SA17-8035	16.2	18.2	17.6	17.1	14.8	17.5	16.4	14.8

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED SIZE (g/100)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	17.7	15.5
IA3048 (SCN)	16.1	13.6
LD07-3395bf (SCN) (L)	16.6	16.8
U14-910097 (SCN) (E)	16.6	15.7
AG3334	17.9	16.1
AG3832	18.3	
CR16-0020	19.2	17.7
CR16-0023	17.6	15.4
CR16-0024	16.9	16.1
CR16-0025	15.1	16.3
CR16-0027	16.2	16.8
CR16-0029	14.5	15.8
CR16-0033	16.2	17.2
HM16-L079	15.0	16.1
HM16-L084	16.2	17.4
HM16-M006	17.4	19.2
HM16-M016	16.5	19.5
HM16-M019	16.4	18.8
LD16-10165	12.7	14.9
LD16-10183	13.0	16.7
LD16-10310	12.1	14.7
LD16-10319	12.7	15.0
LD16-10351	12.4	13.7
LD17-12201	11.8	0.0
LD17-12679	12.3	14.1
LD17-12708	12.0	14.7
LD17-12986	13.2	15.9
SA17-11294	14.3	14.8
SA17-11463	11.8	13.4
SA17-11700	13.0	14.6
SA17-13516	12.3	13.2
SA17-5753	12.7	15.9
SA17-5771	13.3	15.5
SA17-5776	13.2	15.9
SA17-5792	13.7	16.0
SA17-5797	13.0	15.6
SA17-6259	14.3	15.4
SA17-7283	14.3	15.3
SA17-749PR	12.1	14.9
SA17-8035	13.8	15.3

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED QUALITY (score)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Colum-bia MO
LD11-2170 (III)	1.3	2.0	1.0	1.0	2.0	1.0	2.0	1.0
IA3048 (SCN)	1.4	2.0	1.0	1.0	2.0	1.0	1.5	1.0
LD07-3395bf (SCN) (L)	1.4	2.0	2.0	1.0	2.0	1.0	1.5	1.0
U14-910097 (SCN) (E)	1.4	2.0	1.0	1.0	2.0	1.0	1.5	1.5
AG3334	1.6	2.0	2.0	1.0	2.0	1.0	2.0	1.5
AG3832	1.6	2.0	2.0	1.0	2.0	1.0	2.0	1.5
CR16-0020	1.3	1.0	1.0	1.0	2.0	1.0	2.0	1.5
CR16-0023	1.5	2.0	2.0	1.0	2.0	1.0	1.5	1.5
CR16-0024	1.4	2.0	2.0	1.0	2.0	1.0	1.5	1.5
CR16-0025	1.3	1.0	1.0	1.0	2.0	1.0	1.5	2.0
CR16-0027	1.5	2.0	2.0	1.0	2.0	1.0	2.0	1.5
CR16-0029	1.4	2.0	2.0	1.0	2.0	1.0	1.5	1.0
CR16-0033	1.5	2.0	2.0	1.0	2.0	1.0	1.5	1.5
HM16-L079	1.4	2.0	2.0	1.0	2.0	1.0	2.0	1.0
HM16-L084	1.6	2.0	2.0	1.0	2.0	1.0	2.5	1.0
HM16-M006	1.6	2.0	2.0	1.0	2.0	1.0	2.5	1.5
HM16-M016	1.5	2.0	2.0	1.0	2.0	1.0	2.5	1.0
HM16-M019	1.4	2.0	2.0	1.0	2.0	1.0	2.0	1.0
LD16-10165	1.6	3.0	2.0	1.0	2.0	1.0	1.5	1.5
LD16-10183	1.5	2.0	2.0	1.0	2.0	1.0	2.5	1.0
LD16-10310	1.4	2.0	2.0	1.0	2.0	1.0	2.0	1.0
LD16-10319	1.3	2.0	1.0	1.0	2.0	1.0	1.5	1.0
LD16-10351	1.4	2.0	2.0	1.0	2.0	1.0	2.0	1.0
LD17-12201	1.5	2.0	2.0	1.0	2.0	1.0	2.0	1.5
LD17-12679	1.4	2.0	2.0	1.0	2.0	1.0	2.0	1.0
LD17-12708	1.3	2.0	1.0	1.0	2.0	1.0	2.0	1.0
LD17-12986	1.5	2.0	2.0	1.0	2.0	1.0	1.5	1.5
SA17-11294	1.3	1.0	2.0	1.0	2.0	1.0	1.5	1.5
SA17-11463	1.3	1.0	2.0	1.0	2.0	1.0	1.5	1.0
SA17-11700	1.6	2.0	3.0	1.0	2.0	1.0	2.0	1.5
SA17-13516	1.4	2.0	2.0	1.0	2.0	1.0	2.0	1.0
SA17-5753	1.2	1.0	1.0	1.0	2.0	1.0	2.0	1.0
SA17-5771	1.4	2.0	2.0	1.0	2.0	1.0	1.5	1.0
SA17-5776	1.4	1.0	2.0	1.0	2.0	1.0	2.0	1.5
SA17-5792	1.4	2.0	2.0	1.0	2.0	1.0	1.5	1.5
SA17-5797	1.2	1.0	1.0	1.0	2.0	1.0	1.5	1.5
SA17-6259	1.7	4.0	2.0	1.0	2.0	1.0	2.0	1.0
SA17-7283	1.4	2.0	2.0	1.0	2.0	1.0	1.5	1.0
SA17-749PR	1.3	2.0	1.0	1.0	2.0	1.0	1.5	1.5
SA17-8035	1.4	1.0	2.0	1.0	2.0	1.0	2.5	1.5

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED QUALITY (score)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	1.0	1.0
IA3048 (SCN)	2.0	1.0
LD07-3395bf (SCN) (L)	1.0	1.0
U14-910097 (SCN) (E)	1.5	1.0
AG3334	1.5	1.0
AG3832	1.0	
CR16-0020	1.5	1.0
CR16-0023	1.5	1.0
CR16-0024	1.0	1.0
CR16-0025	1.0	1.0
CR16-0027	1.0	1.0
CR16-0029	1.0	1.0
CR16-0033	1.5	1.0
HM16-L079	1.0	1.0
HM16-L084	1.5	1.0
HM16-M006	1.0	1.0
HM16-M016	1.0	1.0
HM16-M019	1.0	1.0
LD16-10165	1.5	1.0
LD16-10183	1.0	1.0
LD16-10310	1.0	1.0
LD16-10319	1.0	1.0
LD16-10351	1.0	1.0
LD17-12201	1.0	1.0
LD17-12679	1.0	1.0
LD17-12708	1.0	1.0
LD17-12986	1.5	1.0
SA17-11294	1.0	1.0
SA17-11463	1.0	1.0
SA17-11700	1.0	1.0
SA17-13516	1.0	1.0
SA17-5753	1.0	1.0
SA17-5771	1.0	1.0
SA17-5776	1.0	1.0
SA17-5792	1.0	1.0
SA17-5797	1.0	1.0
SA17-6259	1.0	1.0
SA17-7283	1.0	1.0
SA17-749PR	1.0	1.0
SA17-8035	1.0	1.0

UNIFORM TEST III TRAITED MATERIAL, 2019

PROTEIN (%)

Strain	Mean 4 Tests	Urbana IL	Romney IN	Phillips NE	Wooster OH
LD11-2170 (III)	35.0	34.8	34.1	34.7	36.4
IA3048 (SCN)	35.4	35.6	34.9	35.4	35.6
LD07-3395bf (SCN) (L)	32.8	33.4	33.0	32.4	32.5
U14-910097 (SCN) (E)	33.5	33.5	31.9	33.0	35.5
AG3334	36.2	36.7	35.3	36.1	36.6
AG3832	35.4	36.8	34.5	34.9	
CR16-0020	37.6	37.9	37.0	36.3	39.2
CR16-0023	33.9	33.1	33.0	33.6	35.8
CR16-0024	35.6	35.8	35.0	34.9	36.5
CR16-0025	35.7	35.2	35.4	35.5	36.6
CR16-0027	36.7	36.8	35.8	36.5	37.8
CR16-0029	36.8	36.9	36.6	36.3	37.6
CR16-0033	36.4	36.8	35.4	35.8	37.5
HM16-L079	36.5	37.2	36.7	35.3	37.0
HM16-L084	36.6	37.3	35.7	36.7	36.6
HM16-M006	36.1	36.1	35.4	35.2	37.8
HM16-M016	35.8	35.8	35.7	35.2	36.4
HM16-M019	36.4	36.1	36.0	36.1	37.4
LD16-10165	36.9	36.8	37.0	35.4	38.4
LD16-10183	36.8	36.4	36.9	35.6	38.3
LD16-10310	37.9	37.9	36.9	37.6	39.0
LD16-10319	37.9	36.6	37.6	37.6	39.9
LD16-10351	37.7	36.9	37.8	37.3	38.8
LD17-12201	36.1	35.3	36.4	35.1	37.4
LD17-12679	37.6	37.2	37.1	37.1	39.2
LD17-12708	37.8	36.9	37.0	37.6	39.5
LD17-12986	37.0	37.5	36.1	36.7	37.7
SA17-11294	37.2	37.1	37.0	35.7	38.9
SA17-11463	35.8	35.8	35.4	35.2	36.7
SA17-11700	36.2	35.9	35.8	36.3	37.0
SA17-13516	38.8	38.7	38.6	38.4	39.6
SA17-5753	35.1	35.3	35.2	35.0	35.1
SA17-5771	35.6	36.1	35.8	34.5	35.8
SA17-5776	35.0	34.9	35.0	34.6	35.5
SA17-5792	35.1	35.6	34.9	34.1	35.6
SA17-5797	35.4	35.7	34.9	35.4	35.4
SA17-6259	38.6	38.3	38.2	37.7	40.3
SA17-7283	38.4	38.1	38.1	38.6	39.0
SA17-749PR	36.6	36.8	36.0	36.1	37.3
SA17-8035	38.7	38.1	38.8	38.9	38.9

UNIFORM TEST III TRAITED MATERIAL, 2019

OIL (%)

Strain	Mean 4 Tests	Urbana IL	Romney IN	Phillips NE	Wooster OH
LD11-2170 (III)	19.7	20.3	20.0	19.6	19.0
IA3048 (SCN)	18.5	19.0	18.6	18.5	18.0
LD07-3395bf (SCN) (L)	20.1	20.2	20.6	19.7	20.0
U14-910097 (SCN) (E)	19.9	20.4	20.6	19.8	19.0
AG3334	18.1	18.4	18.6	17.8	17.8
AG3832	18.6	18.2	19.0	18.6	
CR16-0020	18.2	18.6	18.8	18.3	17.2
CR16-0023	19.5	20.2	20.0	19.1	18.6
CR16-0024	18.7	19.0	19.4	18.4	18.0
CR16-0025	19.4	20.1	19.9	19.1	18.6
CR16-0027	18.7	19.2	19.4	18.3	18.0
CR16-0029	18.3	18.8	18.5	18.0	17.9
CR16-0033	18.5	18.9	18.6	18.5	18.1
HM16-L079	19.1	19.3	19.3	19.1	18.6
HM16-L084	19.0	19.1	19.2	18.5	19.2
HM16-M006	19.5	20.0	19.7	19.7	18.6
HM16-M016	19.4	19.7	19.9	19.3	18.9
HM16-M019	19.2	20.1	19.5	19.1	18.2
LD16-10165	18.9	19.4	19.0	19.1	17.9
LD16-10183	19.0	19.9	19.2	18.8	18.3
LD16-10310	18.7	19.2	19.3	18.4	17.9
LD16-10319	18.8	19.7	19.1	18.8	17.7
LD16-10351	18.9	19.4	18.9	18.6	18.5
LD17-12201	19.2	19.6	19.1	19.3	18.6
LD17-12679	18.6	19.3	19.0	18.3	17.8
LD17-12708	18.6	19.6	19.2	18.0	17.8
LD17-12986	18.7	18.9	19.4	18.4	18.1
SA17-11294	17.7	18.0	18.2	17.5	17.2
SA17-11463	19.0	19.2	19.4	18.9	18.6
SA17-11700	18.7	19.4	19.0	18.4	18.1
SA17-13516	18.3	18.6	18.6	18.4	17.8
SA17-5753	19.5	20.1	19.7	18.8	19.4
SA17-5771	19.4	19.7	19.8	18.8	19.4
SA17-5776	19.5	20.0	19.7	19.1	19.1
SA17-5792	19.6	20.2	19.9	18.9	19.3
SA17-5797	19.4	19.7	19.6	19.0	19.1
SA17-6259	18.3	18.5	18.4	18.4	18.0
SA17-7283	18.2	18.7	18.5	18.2	17.5
SA17-749PR	18.6	19.0	18.9	18.6	18.0
SA17-8035	18.4	19.2	18.7	17.9	18.0

UNIFORM TEST III TRAITED MATERIAL, 2019

REGIONAL SUMMARY - FA-SEED COMPOSITION

No. of Tests Strain	Palmitic 9 %	Stearic 9 %	Oleic 9 %	Linoleic 9 %	Linolenic 9 %
LD11-2170 (III)	11.9	3.6	24.8	52.3	7.4
IA3048 (SCN)	11.2	3.6	25.7	52.4	7.1
LD07-3395bf (SCN) (L)					
U14-910097 (SCN) (E)					
AG3334					
AG3832					
CR16-0020					
CR16-0023					
CR16-0024					
CR16-0025					
CR16-0027					
CR16-0029					
CR16-0033					
HM16-L079					
HM16-L084					
HM16-M006					
HM16-M016					
HM16-M019					
LD16-10165	7.1	3.3	80.7	6.3	2.6
LD16-10183	7.0	3.3	83.4	4.0	2.3
LD16-10310	6.6	3.4	83.4	4.2	2.3
LD16-10319	6.8	3.4	83.5	3.9	2.4
LD16-10351	6.7	3.4	84.1	3.6	2.3
LD17-12201	7.4	3.4	83.4	3.2	2.5
LD17-12679	6.9	3.4	82.0	5.2	2.5
LD17-12708	7.2	3.4	82.6	4.3	2.4
LD17-12986	7.0	3.3	84.2	3.2	2.2
SA17-11294	7.8	3.5	78.2	8.4	2.0
SA17-11463	8.3	3.2	78.5	9.2	0.8
SA17-11700	8.0	4.0	78.4	7.7	1.9
SA17-13516	8.5	3.9	77.1	7.7	2.7
SA17-5753	8.3	3.7	78.5	7.6	1.9
SA17-5771	8.3	3.6	78.6	8.5	0.9
SA17-5776	7.9	3.6	78.8	7.1	2.5
SA17-5792	8.3	3.4	77.4	8.9	1.9
SA17-5797	8.2	3.5	78.5	7.9	1.8
SA17-6259	8.2	3.5	78.6	8.8	0.9
SA17-7283	8.2	4.2	77.3	7.9	2.4
SA17-749PR	7.8	3.6	77.2	8.8	2.7
SA17-8035	7.4	3.5	79.5	7.3	2.3
Mean	8.0	3.5	75.8	10.2	2.5
C.V. (%)	2.3	4.6	2.2	13.7	12.0
L.S.D. (5%)	0.1	0.1	1.3	1.1	0.2

UNIFORM TEST III TRAITED MATERIAL, 2019

FATTY ACID, PALMITIC (%)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Columbia MO
LD11-2170 (III)	11.9	12.5	11.8	11.6	11.7	11.7	11.7	12.0
IA3048 (SCN)	11.2	11.9	11.1	11.1	11.2	11.1	10.8	11.2
LD16-10165	7.1	7.2	6.9	7.0	7.5	6.6	7.1	7.0
LD16-10183	7.0	7.1	6.8	7.0	6.8	6.6	7.1	7.0
LD16-10310	6.6	7.1	6.5	6.7	6.3	6.5	6.7	6.9
LD16-10319	6.8	6.9	6.6	6.9	6.7	6.9	7.0	6.9
LD16-10351	6.7	7.1	6.5	6.7	6.4	6.8	6.6	6.7
LD17-12201	7.4	7.7	7.1	7.4	7.3	7.0	7.5	7.5
LD17-12679	6.9	7.0	6.7	6.9	7.4	6.6	7.1	6.9
LD17-12708	7.2	7.5	7.0	7.4	6.9	7.1	7.3	7.5
LD17-12986	7.0	7.4	7.1	7.1	6.7	7.1	6.8	7.4
SA17-11294	7.8	8.1	7.8	7.7	7.6	7.6	7.7	7.6
SA17-11463	8.3	8.6	8.3	8.2	8.1	8.3	8.2	8.3
SA17-11700	8.0	8.3	7.8	8.1	7.8	7.9	8.1	8.0
SA17-13516	8.5	8.6	8.3	8.4	8.1	8.6	8.4	8.8
SA17-5753	8.3	8.5	8.4	8.4	7.9	8.1	8.0	8.5
SA17-5771	8.3	8.6	8.3	8.3	8.3	8.3	8.2	8.6
SA17-5776	7.9	7.9	7.8	7.9	7.8	8.0	8.0	8.0
SA17-5792	8.3	8.5	8.2	8.6	8.1	8.4	8.2	7.9
SA17-5797	8.2	8.5	8.2	8.1	7.9	8.3	8.5	8.3
SA17-6259	8.2	8.3	8.3	8.2	8.1	8.1	8.2	8.2
SA17-7283	8.2	8.3	8.2	8.3	8.1	8.2	8.3	8.6
SA17-749PR	7.8	7.9	7.9	7.9	7.6	7.7	7.9	7.8
SA17-8035	7.4	7.4	7.3	7.3	7.1	7.6	7.5	7.7

UNIFORM TEST III TRAITED MATERIAL, 2019

FATTY ACID, PALMITIC (%)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	12.0	11.9
IA3048 (SCN)	11.6	10.8
LD16-10165	6.9	7.3
LD16-10183	7.1	7.5
LD16-10310	6.6	6.8
LD16-10319	6.8	6.7
LD16-10351	6.7	6.7
LD17-12201	7.8	7.9
LD17-12679	6.8	7.0
LD17-12708	7.2	7.2
LD17-12986	6.9	7.0
SA17-11294	7.7	8.2
SA17-11463	8.3	8.5
SA17-11700	8.1	8.2
SA17-13516	8.7	8.9
SA17-5753	8.4	8.4
SA17-5771	8.4	8.3
SA17-5776	7.9	8.1
SA17-5792	8.0	8.1
SA17-5797	8.2	8.2
SA17-6259	7.9	8.2
SA17-7283	8.3	8.3
SA17-749PR	7.6	7.9
SA17-8035	7.5	7.5

UNIFORM TEST III TRAITED MATERIAL, 2019

FATTY ACID, STEARIC (%)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Columbia MO
LD11-2170 (III)	3.6	3.4	3.7	3.6	4.0	3.6	3.3	3.4
IA3048 (SCN)	3.6	3.6	3.4	3.9	3.9	3.6	3.6	3.4
LD16-10165	3.3	3.1	3.7	3.4	3.6	3.3	3.1	3.4
LD16-10183	3.3	3.4	3.4	3.2	3.3	3.5	3.0	3.4
LD16-10310	3.4	3.3	3.5	3.4	3.5	3.5	3.3	3.2
LD16-10319	3.4	3.3	3.4	3.7	3.5	3.4	3.4	3.4
LD16-10351	3.4	3.3	3.4	3.3	3.7	3.3	3.2	3.5
LD17-12201	3.4	3.6	3.4	3.6	3.5	3.4	3.3	3.2
LD17-12679	3.4	3.3	3.3	3.2	3.7	3.7	3.2	3.3
LD17-12708	3.4	3.5	3.4	3.4	3.5	3.6	3.4	3.4
LD17-12986	3.3	3.4	3.4	3.6	3.3	3.4	3.1	3.1
SA17-11294	3.5	3.7	3.7	3.7	3.8	3.5	3.3	3.6
SA17-11463	3.2	3.1	3.2	3.1	3.7	3.3	3.1	3.3
SA17-11700	4.0	4.0	4.0	4.0	4.4	4.0	3.8	4.2
SA17-13516	3.9	4.2	4.1	4.1	4.1	3.7	3.8	3.7
SA17-5753	3.7	4.1	3.5	3.9	4.4	3.8	3.1	3.3
SA17-5771	3.6	3.9	3.4	3.9	3.7	3.6	3.5	3.3
SA17-5776	3.6	3.8	3.3	3.7	4.2	3.5	3.4	3.4
SA17-5792	3.4	3.4	3.4	3.8	3.4	3.3	3.4	3.6
SA17-5797	3.5	3.4	3.4	3.7	3.8	3.4	3.3	3.4
SA17-6259	3.5	3.4	3.5	3.8	3.8	3.5	3.5	3.6
SA17-7283	4.2	4.4	4.0	4.4	4.3	4.1	3.9	4.0
SA17-749PR	3.6	3.3	3.4	3.5	4.0	3.6	3.5	3.4
SA17-8035	3.5	3.7	3.8	3.4	3.6	3.4	3.2	3.3

UNIFORM TEST III TRAITED MATERIAL, 2019

FATTY ACID, STEARIC (%)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	3.7	3.6
IA3048 (SCN)	3.5	3.7
LD16-10165	3.1	3.2
LD16-10183	3.0	3.4
LD16-10310	3.1	3.6
LD16-10319	3.4	3.6
LD16-10351	3.1	3.5
LD17-12201	3.3	3.3
LD17-12679	3.2	3.3
LD17-12708	3.3	3.3
LD17-12986	3.1	3.3
SA17-11294	3.1	3.6
SA17-11463	3.1	3.3
SA17-11700	3.7	4.1
SA17-13516	3.6	4.0
SA17-5753	3.3	3.9
SA17-5771	3.2	3.7
SA17-5776	3.2	3.9
SA17-5792	3.2	3.5
SA17-5797	3.1	3.7
SA17-6259	3.1	3.6
SA17-7283	3.7	4.5
SA17-749PR	3.5	3.8
SA17-8035	3.1	3.9

UNIFORM TEST III TRAITED MATERIAL, 2019

FATTY ACID, OLEIC (%)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Columbia MO
LD11-2170 (III)	24.8	24.4	24.4	26.4	24.5	24.6	27.0	27.7
IA3048 (SCN)	25.7	25.8	23.5	26.4	25.2	25.2	29.5	27.3
LD16-10165	80.7	82.9	82.5	81.8	68.9	82.8	83.4	82.9
LD16-10183	83.4	84.1	83.8	83.4	83.5	82.8	85.0	84.6
LD16-10310	83.4	84.0	84.8	83.3	84.1	81.2	84.6	85.2
LD16-10319	83.5	84.4	84.6	83.4	83.8	82.0	83.8	84.7
LD16-10351	84.1	83.9	84.9	83.2	84.1	84.1	85.3	84.9
LD17-12201	83.4	83.8	84.2	82.9	83.3	84.2	83.7	84.5
LD17-12679	82.0	84.0	84.2	83.8	70.8	83.5	84.4	84.8
LD17-12708	82.6	82.8	83.6	81.8	82.5	82.2	83.3	83.4
LD17-12986	84.2	83.9	84.2	83.5	84.0	83.8	85.7	85.0
SA17-11294	78.2	78.1	78.2	77.7	77.9	78.1	81.0	80.5
SA17-11463	78.5	78.8	78.7	78.5	77.1	77.8	80.6	79.9
SA17-11700	78.4	79.1	78.6	77.9	77.5	78.2	80.3	80.0
SA17-13516	77.1	77.6	77.4	77.2	76.2	77.1	79.0	78.9
SA17-5753	78.5	78.4	78.5	77.5	77.2	78.7	81.5	80.3
SA17-5771	78.6	79.1	78.1	77.9	77.6	78.1	81.1	80.8
SA17-5776	78.8	79.7	79.4	78.9	77.5	78.6	80.0	81.6
SA17-5792	77.4	78.8	79.5	66.0	77.5	78.7	80.9	81.7
SA17-5797	78.5	78.6	78.4	78.7	77.5	78.3	80.1	80.1
SA17-6259	78.6	79.3	78.3	78.1	76.9	79.1	80.5	80.3
SA17-7283	77.3	77.4	77.6	77.1	75.9	77.9	79.9	78.6
SA17-749PR	77.2	78.4	77.3	76.5	75.3	76.8	79.6	79.1
SA17-8035	79.5	80.0	79.8	80.1	78.0	78.9	81.1	81.8

UNIFORM TEST III TRAITED MATERIAL, 2019

FATTY ACID, OLEIC (%)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	24.5	22.4
IA3048 (SCN)	22.5	27.3
LD16-10165	82.4	80.7
LD16-10183	83.8	80.7
LD16-10310	83.5	82.1
LD16-10319	83.8	82.2
LD16-10351	84.0	83.3
LD17-12201	82.8	82.2
LD17-12679	83.4	82.3
LD17-12708	82.9	81.9
LD17-12986	84.6	83.8
SA17-11294	80.1	74.5
SA17-11463	79.3	76.6
SA17-11700	79.5	76.0
SA17-13516	77.8	74.6
SA17-5753	79.4	76.4
SA17-5771	79.6	77.6
SA17-5776	80.3	76.1
SA17-5792	80.1	77.7
SA17-5797	79.5	77.0
SA17-6259	79.9	76.8
SA17-7283	77.2	75.3
SA17-749PR	78.3	75.3
SA17-8035	80.3	77.5

UNIFORM TEST III TRAITED MATERIAL, 2019

FATTY ACID, LINOLEIC (%)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Columbia MO
LD11-2170 (III)	52.3	52.7	53.0	51.4	51.8	52.8	50.7	50.7
IA3048 (SCN)	52.4	51.9	54.4	51.3	52.3	53.3	49.9	51.9
LD16-10165	6.3	4.6	4.5	5.2	16.4	4.8	4.3	4.4
LD16-10183	4.0	3.2	3.6	3.9	4.1	4.6	2.8	2.9
LD16-10310	4.2	3.4	3.1	4.1	3.9	6.4	3.3	2.8
LD16-10319	3.9	3.3	3.3	3.6	3.6	5.3	3.6	2.9
LD16-10351	3.6	3.5	3.0	4.2	3.5	3.7	2.9	2.9
LD17-12201	3.2	2.7	2.9	3.5	3.4	3.0	3.0	2.6
LD17-12679	5.2	3.5	3.6	3.8	14.6	3.9	3.1	2.9
LD17-12708	4.3	3.9	3.8	4.9	4.5	4.5	3.7	3.6
LD17-12986	3.2	3.1	3.1	3.4	3.5	3.5	2.5	2.6
SA17-11294	8.4	8.3	8.3	8.8	8.6	8.6	6.1	6.4
SA17-11463	9.2	8.6	9.1	9.3	10.2	9.7	7.3	7.4
SA17-11700	7.7	6.9	7.7	8.1	8.3	7.9	6.1	6.0
SA17-13516	7.7	7.1	7.5	7.5	8.8	7.9	6.2	6.3
SA17-5753	7.6	7.1	8.0	8.0	8.2	8.2	5.5	6.2
SA17-5771	8.5	7.6	9.2	8.9	9.4	9.2	6.4	6.5
SA17-5776	7.1	6.3	7.0	6.8	8.3	7.3	6.2	4.9
SA17-5792	8.9	7.2	7.4	18.2	10.1	7.9	5.8	5.7
SA17-5797	7.9	7.6	8.0	8.0	8.4	8.6	5.7	6.8
SA17-6259	8.8	8.2	9.1	9.0	10.3	8.0	7.1	7.1
SA17-7283	7.9	7.3	7.8	7.8	9.2	7.8	5.7	6.6
SA17-749PR	8.8	7.9	8.9	9.4	10.2	9.4	6.6	7.4
SA17-8035	7.3	7.2	6.0	6.2	9.5	7.9	6.3	5.9

UNIFORM TEST III TRAITED MATERIAL, 2019

FATTY ACID, LINOLEIC (%)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	52.4	53.8
IA3048 (SCN)	55.0	51.0
LD16-10165	5.0	5.7
LD16-10183	3.8	5.9
LD16-10310	4.5	4.8
LD16-10319	3.8	4.6
LD16-10351	3.9	4.1
LD17-12201	3.5	3.8
LD17-12679	4.3	4.7
LD17-12708	4.1	4.9
LD17-12986	3.3	3.4
SA17-11294	7.1	11.4
SA17-11463	8.4	10.7
SA17-11700	6.9	9.6
SA17-13516	7.3	9.6
SA17-5753	6.9	8.8
SA17-5771	8.1	9.5
SA17-5776	6.2	8.9
SA17-5792	6.6	8.4
SA17-5797	7.8	9.4
SA17-6259	8.3	10.5
SA17-7283	8.2	9.1
SA17-749PR	7.5	10.2
SA17-8035	7.4	8.0

UNIFORM TEST III TRAITED MATERIAL, 2019

FATTY ACID, LINOLENIC (%)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Columbia MO
LD11-2170 (III)	7.4	6.9	7.2	7.1	8.0	7.3	7.2	6.3
IA3048 (SCN)	7.1	6.8	7.6	7.3	7.5	6.9	6.2	6.2
LD16-10165	2.6	2.2	2.5	2.6	3.7	2.4	2.1	2.3
LD16-10183	2.3	2.2	2.3	2.4	2.4	2.5	2.1	2.1
LD16-10310	2.3	2.1	2.1	2.4	2.3	2.5	2.1	2.0
LD16-10319	2.4	2.1	2.1	2.5	2.4	2.4	2.2	2.1
LD16-10351	2.3	2.2	2.1	2.5	2.3	2.2	2.1	2.1
LD17-12201	2.5	2.2	2.3	2.6	2.6	2.4	2.5	2.2
LD17-12679	2.5	2.1	2.2	2.3	3.5	2.3	2.2	2.0
LD17-12708	2.4	2.3	2.2	2.5	2.6	2.5	2.3	2.2
LD17-12986	2.2	2.2	2.2	2.4	2.4	2.3	2.0	2.0
SA17-11294	2.0	1.9	2.0	2.1	2.1	2.1	1.9	1.8
SA17-11463	0.8	0.8	0.8	0.9	0.9	0.9	0.8	1.1
SA17-11700	1.9	1.8	1.9	2.0	2.0	1.9	1.7	1.7
SA17-13516	2.7	2.6	2.6	2.8	2.8	2.6	2.6	2.4
SA17-5753	1.9	1.8	1.7	2.3	2.3	1.1	1.9	1.7
SA17-5771	0.9	0.8	0.9	1.0	0.9	0.9	0.8	0.8
SA17-5776	2.5	2.4	2.4	2.7	2.3	2.5	2.4	2.1
SA17-5792	1.9	2.1	1.5	3.3	0.9	1.7	1.7	1.1
SA17-5797	1.8	2.0	1.9	1.5	2.4	1.3	2.4	1.5
SA17-6259	0.9	0.7	0.8	0.8	0.9	1.3	0.8	0.8
SA17-7283	2.4	2.5	2.4	2.4	2.6	2.0	2.1	2.2
SA17-749PR	2.7	2.4	2.4	2.8	2.8	2.5	2.4	2.3
SA17-8035	2.3	1.7	3.2	3.0	1.7	2.3	1.9	1.3

UNIFORM TEST III TRAITED MATERIAL, 2019

FATTY ACID, LINOLENIC (%)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	7.4	8.4
IA3048 (SCN)	7.4	7.2
LD16-10165	2.5	3.0
LD16-10183	2.4	2.4
LD16-10310	2.3	2.7
LD16-10319	2.3	2.8
LD16-10351	2.4	2.5
LD17-12201	2.7	2.9
LD17-12679	2.3	2.7
LD17-12708	2.4	2.7
LD17-12986	2.2	2.4
SA17-11294	2.0	2.3
SA17-11463	0.8	0.9
SA17-11700	1.8	2.0
SA17-13516	2.7	3.0
SA17-5753	2.0	2.4
SA17-5771	0.8	0.9
SA17-5776	2.4	3.0
SA17-5792	2.1	2.4
SA17-5797	1.5	1.7
SA17-6259	0.8	0.8
SA17-7283	2.6	2.8
SA17-749PR	3.0	2.8
SA17-8035	1.6	3.1

UNIFORM TEST III TRAITED MATERIAL, 2019

REGIONAL SUMMARY - SUGARS-SEED COMPOSITION

Strain	Sucrose 9 %	Raffinose 9 %	Stachyose 9 %	Total Sugar 9 %
LD11-2170 (III)	4.1	0.7	4.2	9.0
IA3048 (SCN)	5.1	0.8	4.2	10.0
LD07-3395bf (SCN) (L)				
U14-910097 (SCN) (E)				
AG3334				
AG3832				
CR16-0020	5.0	0.2	2.0	7.3
CR16-0023	5.0	0.3	2.2	7.5
CR16-0024	4.8	0.2	2.0	7.1
CR16-0025	4.6	0.2	1.7	6.5
CR16-0027	4.9	0.2	1.8	7.0
CR16-0029	4.8	0.2	1.8	6.8
CR16-0033	4.0	0.4	2.9	7.3
HM16-L079				
HM16-L084				
HM16-M006				
HM16-M016				
HM16-M019				
LD16-10165				
LD16-10183				
LD16-10310				
LD16-10319				
LD16-10351				
LD17-12201				
LD17-12679				
LD17-12708				
LD17-12986				
SA17-11294				
SA17-11463				
SA17-11700				
SA17-13516				
SA17-5753				
SA17-5771				
SA17-5776				
SA17-5792				
SA17-5797				
SA17-6259				
SA17-7283				
SA17-749PR				
SA17-8035				
Mean	4.7	0.4	2.5	7.6
C.V. (%)	25.6	94.3	45.1	29.2
L.S.D. (5%)	1.1	0.3	0.7	1.9

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED SUGAR, SUCROSE (%)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Columbia MO
LD11-2170 (III)	4.1	4.5	4.0	3.6	3.3	3.1	3.0	2.5
IA3048 (SCN)	5.1	5.5	4.6	4.5	3.9	3.7	4.6	3.7
CR16-0020	5.0	6.3	5.4	5.2	4.6	4.2	4.5	4.9
CR16-0023	5.0	6.2	5.8	4.9	4.4	4.9	4.0	4.3
CR16-0024	4.8	5.6	5.6	5.2	5.0	4.1	4.0	4.6
CR16-0025	4.6	5.5	5.3	4.7	3.9	3.8	4.6	4.5
CR16-0027	4.9	6.1	5.3	5.1	4.6	4.2	5.3	4.6
CR16-0029	4.8	6.1	5.2	5.0	4.2	4.7	3.8	4.7
CR16-0033	4.0	5.2	4.6	4.6	3.3	3.8	3.6	3.2

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Columbia MO
LD11-2170 (III)	0.7	0.7	1.2	0.3	0.3	0.4	0.5	1.1
IA3048 (SCN)	0.8	0.9	0.8	0.6	0.4	0.5	0.6	1.1
CR16-0020	0.2	0.4	0.3	0.1	0.5	0.1	0.1	0.3
CR16-0023	0.3	0.7	0.3	0.1	0.5	0.1	0.1	0.3
CR16-0024	0.2	0.6	0.2	0.1	0.3	0.1	0.1	0.2
CR16-0025	0.2	0.8	0.2	0.1	0.1	0.1	0.1	0.3
CR16-0027	0.2	0.7	0.3	0.1	0.1	0.1	0.1	0.3
CR16-0029	0.2	0.7	0.3	0.1	0.1	0.1	0.1	0.3
CR16-0033	0.4	0.7	0.6	0.5	0.3	0.2	0.3	0.7

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED SUGAR, SUCROSE (%)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	3.5	9.5
IA3048 (SCN)	3.9	11.4
CR16-0020	5.0	5.0
CR16-0023	5.0	5.4
CR16-0024	4.6	4.8
CR16-0025	4.5	4.8
CR16-0027	4.3	4.9
CR16-0029	4.4	4.9
CR16-0033	4.0	4.0

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED SUGAR, RAFFINOSE (%)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	0.4	1.6
IA3048 (SCN)	0.5	1.6
CR16-0020	0.1	0.1
CR16-0023	0.1	0.1
CR16-0024	0.1	0.1
CR16-0025	0.1	0.1
CR16-0027	0.1	0.1
CR16-0029	0.1	0.1
CR16-0033	0.1	0.4

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED SUGAR, STACHYOSE (%)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Columbia MO
LD11-2170 (III)	4.2	3.9	4.3	3.6	3.5	3.6	3.3	3.7
IA3048 (SCN)	4.2	4.0	4.0	3.5	3.5	3.6	3.9	3.8
CR16-0020	2.0	2.1	2.3	1.9	2.0	2.0	1.9	2.3
CR16-0023	2.2	2.7	2.6	1.9	2.0	2.1	1.8	2.5
CR16-0024	2.0	2.1	2.1	1.8	2.4	1.8	1.6	2.1
CR16-0025	1.7	1.8	1.6	1.6	1.7	1.8	1.3	1.8
CR16-0027	1.8	1.7	2.1	1.4	1.8	1.7	1.9	2.2
CR16-0029	1.8	1.9	2.0	1.6	1.8	1.8	1.5	2.3
CR16-0033	2.9	3.4	2.9	3.0	2.7	2.8	2.4	3.0

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED SUGAR, TOTAL (%)

Strain	Mean 9 Tests	Arthur IL	Urbana IL	Romney IN	Wanatah IN	West Lafayette IN	Albany MO	Columbia MO
LD11-2170 (III)	9.0	9.1	9.5	7.6	7.1	7.1	6.7	7.3
IA3048 (SCN)	10.0	10.4	9.4	8.5	7.8	7.8	9.1	8.5
CR16-0020	7.3	8.7	8.0	7.1	7.2	6.3	6.5	7.4
CR16-0023	7.5	9.7	8.6	7.0	6.9	7.0	5.9	7.1
CR16-0024	7.1	8.3	7.9	7.1	7.7	6.0	5.8	6.9
CR16-0025	6.5	8.1	7.1	6.4	5.8	5.7	6.0	6.5
CR16-0027	7.0	8.5	7.7	6.5	6.4	6.0	7.3	7.1
CR16-0029	6.8	8.8	7.4	6.6	6.1	6.6	5.4	7.3
CR16-0033	7.3	9.3	8.2	8.1	6.3	6.8	6.3	7.0

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED SUGAR, STACHYOSE (%)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	3.6	7.9
IA3048 (SCN)	3.4	7.8
CR16-0020	1.9	2.1
CR16-0023	2.1	2.5
CR16-0024	2.0	2.2
CR16-0025	1.5	1.8
CR16-0027	1.6	2.1
CR16-0029	1.7	2.0
CR16-0033	2.7	3.1

UNIFORM TEST III TRAITED MATERIAL, 2019

SEED SUGAR, TOTAL (%)

Strain	Phillips NE	Wooster OH
LD11-2170 (III)	7.4	19.0
IA3048 (SCN)	7.8	20.7
CR16-0020	7.0	7.2
CR16-0023	7.1	8.0
CR16-0024	6.6	7.1
CR16-0025	6.2	6.7
CR16-0027	6.0	7.1
CR16-0029	6.2	7.0
CR16-0033	6.8	7.4

	Northern Regional Uniform Test					
	Uniform Test IV Traited Material, 2019					
			Seed	Previous	Gen.	Unique
Ent.	Strain	Parentage	Source	Testing	Comp.	Traits
1	LD06-7620 (IV)	IA3023 x LD00-3309	Diers	8	F5	SCN
2	LD00-2817 (L)	Ina x Dwight	Diers	10	F5	SCN
3	LD07-3395bf (SCN) (E)	LD07-3395 Reselection	Diers	4	F5	SCN
4	AG3832		Monsanto	7		RR, SCN
5	AG4034		Monsanto	1		
6	AG4232		Monsanto	6		RR, SCN
7	CR16-0011	CL05-51227 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
8	CR16-0014	CL05-51227 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
9	CR16-0016	CL05-51227 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
10	CR16-0030	CL05-3314 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
11	CR16-0031	CL05-3314 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
12	CR16-0037	CL05-4637 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
13	CR16-0106	CL05-51227 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
14	CR16-0107	CL05-51227 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
15	CR16-0110	CL05-3314 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
16	CR16-0112	CL05-3314 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
17	CR16-0113	CL05-3314 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
18	CR16-0116	CL05-3314 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
19	CR16-0117	CL05-3314 x KB10-22-1	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
20	CR16-0120	CL05-4637 x KB10-22-2	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
21	CR16-0124	CL05-4637 x KB10-22-2	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
22	CR16-0125	CL05-4637 x KB10-22-2	Rainey	Intial	F6	Sugar; RS2-397 (T107I)
23	K4117Nsgr	KS4117NS(5) x KS3406RR	Schapaugh	Intial	F2:3 BC4	STS, SCN
24	LD17-12352	[U11-374036 x KB13-15F314-224]	Diers	Intial	F3	HOLL
		x [LG11-6210 x KB13-15F314-224]				
25	LD17-12668	[U11-614093 x KB13-15F314-224]	Diers	Intial	F3	HOLL
		x [LD11-10069 x KB13-15F314-224]				
26	S15-6047R	LS07-3125 x S11-9618RR	Chen	Intial		R2Y, STS, High Oil, Stem Canker, Excluder
27	SA17-5483	HM11-W193 x A12-961044	Scaboo	Intial	F5	HOLL
28	SA17-5523	HM11-W193 x A12-961044	Scaboo	Intial	F5	HOLL
29	SA17-5563	HM11-W193 x A12-961044	Scaboo	Intial	F5	HOLL
30	SA17-5568	HM11-W193 x A12-961044	Scaboo	Intial	F5	HOLL
31	SA17-5569	HM11-W193 x A12-961044	Scaboo	Intial	F5	HOLL
32	SA17-5585	HM11-W193 x A12-961044	Scaboo	Intial	F5	HOLL
33	SA17-8882	SA13-2699 x A12-961044	Scaboo	Intial	F5	HOLL

UNIFORM TEST IV TRAITED MATERIAL, 2019

DESCRIPTIVE AND DISEASE DATA

Strain	Descriptive Code	Seed Treatment	Shattering Score
			Manhattan
LD06-7620 (IV)	PGBDYBI		1.0
LD00-2817 (L)	PGTSYIbI		1.0
LD07-3395bf (SCN) (E)	WGTSYBfI		1.0
AG3832	PGTSYGI		1.0
AG4034	PGTDYGI		1.0
AG4232	PGBSYBrI		1.0
CR16-0011	WG+TTSYIbI		1.0
CR16-0014	WTTSYIbI		1.0
CR16-0016	WTTSYIbI		1.0
CR16-0030	PTTSYGIbI		1.0
CR16-0031	WTTSYLBrI		1.0
CR16-0037	WGBSYIbI		1.0
CR16-0106	WGBSYIbI		1.0
CR16-0107	PGBSYIbI		1.0
CR16-0110	WGBDYLBrI		1.0
CR16-0112	WGBSYLBrI		1.0
CR16-0113	WGB+TDYLBrI		1.0
CR16-0116	PGBSYYI		1.0
CR16-0117	PGBSYGI		1.0
CR16-0120	WGB+TSYIbI		1.0
CR16-0124	P+WGBSYIbI		1.0
CR16-0125	WGBSYIbI		1.0
K4117Nsgr	PGBDYBI	Apron XL	1.0
LD17-12352	WT+LtBDYIbI		1.0
LD17-12668	WLtBDYYI		1.0
S15-6047R	WGTSYLBfI		1.0
SA17-5483	PTBDYBI		1.0
SA17-5523	PTBDYIbI		1.0
SA17-5563	PTBSYBI		1.0
SA17-5568	PTBSYBI		1.0
SA17-5569	PTBDYIbI		1.0
SA17-5585	PTTSYIbI		1.0
SA17-8882	PTBSYBI		1.0

UNIFORM TEST IV TRAITED MATERIAL, 2019

REGIONAL SUMMARY

No. of Tests Strain	Yield 7 bu/a	Rank 7 No.	Maturity 8 Date	Lodging 8 Score	Plant Height 7 In.	Seed Size 8 g/100	Seed Quality 8 Score	Composition Protein 3 %	 Oil 3 %
LD06-7620 (IV)	61.7	6	10/1	1.5	27	14.6	2.0	35.5	18.7
LD00-2817 (L)	64.3	3	-1.2	1.7	33	14.2	1.8	33.7	19.8
LD07-3395bf (SCN) (E)	66.0	2	-3.3	1.4	25	15.9	1.8	32.2	20.5
AG3832	25.0	32	-2.3	1.1	22	16.8	1.5	36.0	18.4
AG4034	47.5	31	0.2	1.4	25	15.9	1.6	36.4	18.7
AG4232	24.7	33	6.4	1.4	27	15.4	1.9	34.5	19.1
CR16-0011	56.0	21	-2.4	1.5	26	15.8	1.5	35.2	19.4
CR16-0014	57.7	13	-3.6	1.6	30	15.5	1.6	34.0	19.4
CR16-0016	57.2	14	-3.4	1.5	29	14.3	1.5	34.1	19.7
CR16-0030	54.6	27	-3.1	1.3	26	18.6	1.8	37.4	19.4
CR16-0031	56.5	18	-4.5	1.6	30	16.4	1.6	36.7	18.5
CR16-0037	56.6	16	-3.6	1.6	32	14.6	1.6	35.6	19.5
CR16-0106	55.7	24	-1.8	1.4	27	15.1	1.5	34.4	19.8
CR16-0107	54.4	29	0.3	1.5	31	15.9	1.6	34.9	19.8
CR16-0110	54.7	26	0.2	1.5	27	17.6	1.8	36.6	19.0
CR16-0112	56.4	19	1.7	1.6	30	16.0	1.9	36.7	18.8
CR16-0113	52.8	30	-2.5	1.4	26	15.9	1.7	36.1	19.3
CR16-0116	66.7	1	0.4	1.6	30	16.7	1.7	36.8	18.6
CR16-0117	62.1	5	-1.4	1.6	31	16.0	1.7	36.7	18.9
CR16-0120	55.8	22	-0.7	1.5	30	14.4	1.6	34.8	19.6
CR16-0124	55.8	22	-1.4	1.3	31	15.7	1.5	35.4	19.6
CR16-0125	56.6	16	-0.2	1.4	30	15.0	1.5	36.3	18.4
K4117Nsgr	60.8	8	0.5	1.3	25	15.5	1.8	35.8	18.6
LD17-12352	62.7	4	2.5	1.6	29	13.9	1.6	36.2	19.7
LD17-12668	58.6	9	-2.9	1.3	27	13.5	1.6	36.8	19.2
S15-6047R	55.1	25	3.3	1.3	30	16.8	1.7	35.9	19.0
SA17-5483	54.6	27	-1.1	1.7	32	16.7	2.0	37.2	18.5
SA17-5523	58.0	11	-1.8	1.8	32	16.8	1.7	38.0	18.8
SA17-5563	57.1	15	-1.6	1.9	32	16.7	1.7	37.6	19.0
SA17-5568	57.9	12	-2.9	2.0	31	16.1	1.6	37.7	19.1
SA17-5569	58.6	9	-0.3	1.7	31	16.5	1.8	38.1	18.7
SA17-5585	56.4	19	-1.3	2.0	34	15.8	1.5	38.0	18.7
SA17-8882	61.4	7	-0.9	1.6	31	15.5	1.5	37.3	19.1
Mean	56.1			1.6	30.6	15.1	1.8		
C.V. (%)	11.1			28.1	6.5	5.3	25.3		
L.S.D. (5%)	3.6			0.3	1.3	0.7	0.4		

123.3 Days After Planting

UNIFORM TEST IV TRAITED MATERIAL, 2019

YIELD (bu/a)

Strain	Mean 7 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	61.7	38.1	55.8	81.7	66.4	78.9	71.8
LD00-2817 (L)	64.3	35.0	58.8	92.5	62.5	80.6	75.7
LD07-3395bf (SCN) (E)	66.0	47.2	53.6	86.9	62.8	92.0	78.4
AG3832	25.0		38.9		22.5		
AG4034	47.5	26.2	47.4	70.8	52.5		
AG4232	24.7		31.6		27.2		
CR16-0011	56.0	31.1	40.7	71.0	54.5	77.5	73.1
CR16-0014	57.7	40.4	49.7	70.5	57.2	78.2	65.4
CR16-0016	57.2	35.5	46.6	73.6	59.2	77.3	68.1
CR16-0030	54.6	33.9	51.2	69.2	56.5	77.9	65.7
CR16-0031	56.5	45.2	47.4	67.0	61.9	80.8	64.5
CR16-0037	56.6	41.4	44.1	71.2	57.2	68.5	73.5
CR16-0106	55.7	41.4	41.4	68.7	56.2	67.7	67.5
CR16-0107	54.4	39.1	50.6	68.1	54.9	67.0	66.2
CR16-0110	54.7	34.4	44.9	73.0	56.2	74.2	66.4
CR16-0112	56.4	33.1	51.7	69.2	55.8	73.3	68.1
CR16-0113	52.8	33.2	49.5	64.5	45.5	76.1	62.1
CR16-0116	66.7	38.5	56.2	76.3	77.6	84.4	79.9
CR16-0117	62.1	36.2	53.6	73.1	64.2	85.5	76.6
CR16-0120	55.8	43.5	46.5	66.3	57.1	75.1	64.3
CR16-0124	55.8	34.6	49.9	76.2	56.8	69.2	66.4
CR16-0125	56.6	41.1	46.5	71.2	54.7	74.8	69.5
K4117Nsgr	60.8	44.1	46.2	69.2	66.5	73.7	70.8
LD17-12352	62.7	40.9	53.8	83.1	63.5	78.6	72.3
LD17-12668	58.6	43.9	49.7	70.0	57.6	71.6	74.3
S15-6047R	55.1	40.4	50.3	70.3	62.1	69.0	75.3
SA17-5483	54.6	36.1	47.8	63.7	59.3	64.3	72.2
SA17-5523	58.0	47.4	51.1	66.2	61.6	69.8	70.4
SA17-5563	57.1	47.6	48.8	64.1	61.8	70.3	66.7
SA17-5568	57.9	42.4	54.9	66.4	60.7	72.0	68.9
SA17-5569	58.6	48.3	47.2	67.7	60.9	75.1	72.9
SA17-5585	56.4	46.2	47.3	65.6	58.3	71.0	67.2
SA17-8882	61.4	41.8	50.5	78.7	63.4	70.6	77.1
Location Mean		39.6	48.6	71.8	57.4	74.8	70.4
C.V. (%)		11.5	7.7	9.2	8.2	10.5	8.6
L.S.D. (5%)		9.4	7.6	10.0	7.9	15.4	12.1
Row sp. (In.)		30	30	30	30	30	30
Rows/Plot		4	4	2	4	4	4
Reps		2	2	3	2	2	2

UNIFORM TEST IV TRAITED MATERIAL, 2019

YIELD (bu/a)

Strain	Portageville* Clay MO	Portageville Loam MO
LD06-7620 (IV)	21.9	39.2
LD00-2817 (L)	27.1	44.7
LD07-3395bf (SCN) (E)	21.8	41.3
AG3832	6.3	13.6
AG4034	17.3	40.5
AG4232	5.3	15.2
CR16-0011	31.5	43.9
CR16-0014	23.6	42.3
CR16-0016	30.5	40.4
CR16-0030	23.6	27.6
CR16-0031	28.7	29.0
CR16-0037	24.0	40.1
CR16-0106	25.4	47.4
CR16-0107	22.7	34.8
CR16-0110	18.2	34.0
CR16-0112	20.5	43.5
CR16-0113	19.2	38.7
CR16-0116	32.7	53.8
CR16-0117	27.4	45.6
CR16-0120	19.3	38.0
CR16-0124	26.9	37.3
CR16-0125	29.2	38.2
K4117Nsgr	32.3	55.4
LD17-12352	29.8	46.5
LD17-12668	27.2	43.0
S15-6047R	5.8	18.3
SA17-5483	29.8	38.8
SA17-5523	30.2	39.6
SA17-5563	27.4	40.6
SA17-5568	29.5	40.0
SA17-5569	24.5	38.3
SA17-5585	29.3	39.1
SA17-8882	29.8	47.7
Location Mean	24.2	38.7
C.V. (%)	17.9	12.2
L.S.D. (5%)	8.4	9.2
Row sp. (In.)	30	30
Rows/Plot	4	4
Reps	3	3

*Data not included in mean.

UNIFORM TEST IV TRAITED MATERIAL, 2019

YIELD RANK

Strain	Yield Rank	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	6	20	3	4	3	6	13
LD00-2817 (L)	3	24	1	1	8	5	5
LD07-3395bf (SCN) (E)	2	4	6	2	7	1	2
AG3832	32		32	33	33		
AG4034	31	31	20	14	30		
AG4232	33		33	32	32		
CR16-0011	21	30	31	13	29	10	9
CR16-0014	13	16	15	15	19	8	27
CR16-0016	14	23	24	8	16	11	18
CR16-0030	27	27	9	19	23	9	26
CR16-0031	18	6	20	24	10	4	28
CR16-0037	16	12	29	12	19	27	8
CR16-0106	24	12	30	21	24	28	20
CR16-0107	29	18	11	22	27	29	25
CR16-0110	26	26	28	10	24	16	23
CR16-0112	19	29	8	20	26	18	18
CR16-0113	30	28	17	29	31	12	30
CR16-0116	1	19	2	6	1	3	1
CR16-0117	5	21	6	9	4	2	4
CR16-0120	22	9	25	26	21	13	29
CR16-0124	22	25	14	7	22	25	23
CR16-0125	16	14	25	11	28	15	16
K4117Nsgr	8	7	27	18	2	17	14
LD17-12352	4	15	5	3	5	7	11
LD17-12668	9	8	15	17	18	20	7
S15-6047R	25	16	13	16	9	26	6
SA17-5483	27	22	19	31	15	30	12
SA17-5523	11	3	10	27	12	24	15
SA17-5563	15	2	18	30	11	23	22
SA17-5568	12	10	4	25	14	19	17
SA17-5569	9	1	23	23	13	13	10
SA17-5585	19	5	22	28	17	21	21
SA17-8882	7	11	12	5	6	22	3

UNIFORM TEST IV TRAITED MATERIAL, 2019

YIELD RANK

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	24	19
LD00-2817 (L)	16	7
LD07-3395bf (SCN) (E)	25	12
AG3832	31	33
AG4034	30	14
AG4232	33	32
CR16-0011	3	8
CR16-0014	21	11
CR16-0016	4	15
CR16-0030	21	30
CR16-0031	12	29
CR16-0037	20	16
CR16-0106	18	4
CR16-0107	23	27
CR16-0110	29	28
CR16-0112	26	9
CR16-0113	28	22
CR16-0116	1	2
CR16-0117	13	6
CR16-0120	27	25
CR16-0124	17	26
CR16-0125	11	24
K4117Nsgr	2	1
LD17-12352	6	5
LD17-12668	15	10
S15-6047R	32	31
SA17-5483	6	21
SA17-5523	5	18
SA17-5563	13	13
SA17-5568	9	17
SA17-5569	19	23
SA17-5585	10	20
SA17-8882	6	3

UNIFORM TEST IV TRAITED MATERIAL, 2019

MATURITY (date)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	10/1	9/27	10/2	10/9	10/8	10/16	10/3
LD00-2817 (L)	-1	-1	0	-2	-3	-3	-1
LD07-3395bf (SCN) (E)	-3	-2	-6	-2	-4	-3	-3
AG3832	-2		-1	-3	-6		
AG4034	0	-1	2	-1	1		
AG4232	6		9	7	4		
CR16-0011	-2	-2	0	-2	-2	-4	-4
CR16-0014	-4	-2	-2	-3	-4	-4	-3
CR16-0016	-3	-2	-2	-4	-2	-4	-3
CR16-0030	-3	-1	-2	-4	-3	-4	-4
CR16-0031	-5	-2	-8	-3	-6	-4	-4
CR16-0037	-4	-2	-2	-3	-6	-5	-1
CR16-0106	-2	1	-1	-1	-3	-3	-4
CR16-0107	0	0	1	1	2	-3	-1
CR16-0110	0	-1	0	1	1	-2	-2
CR16-0112	2	-2	-2	3	5	1	-2
CR16-0113	-2	-3	-5	-4	2	-4	-2
CR16-0116	0	0	-3	1	2	-1	-1
CR16-0117	-1	-1	-1	-0	-4	-2	-1
CR16-0120	-1	0	0	-1	-2	-1	0
CR16-0124	-1	-1	-2	4	-2	-3	-3
CR16-0125	-0	0	0	-2	-3	1	1
K4117Nsgr	1	0	3	2	1	-2	-2
LD17-12352	3	0	3	6	2	0	1
LD17-12668	-3	-2	-4	-4	-3	-4	-4
S15-6047R	3	3	6	8	2	2	3
SA17-5483	-1	-1	2	4	-1	-3	-1
SA17-5523	-2	1	1	1	-3	-3	-1
SA17-5563	-2	1	1	-2	-3	-1	0
SA17-5568	-3	2	-2	-1	-5	-3	-2
SA17-5569	-0	1	1	7	0	-3	-1
SA17-5585	-1	0	1	1	-2	-3	-1
SA17-8882	-1	2	2	0	-2	-4	-2
Date Planted	5/31	6/10	5/31	6/8	6/5	6/7	6/4
Days to Mature	123	109	124	123	125	131	121

UNIFORM TEST IV TRAITED MATERIAL, 2019

MATURITY (date)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	9/20	9/17
LD00-2817 (L)	1	0
LD07-3395bf (SCN) (E)	-3	-3
AG3832	4	-6
AG4034	1	-1
AG4232	9	3
CR16-0011	-3	-2
CR16-0014	-5	-6
CR16-0016	-4	-6
CR16-0030	0	-7
CR16-0031	1	-10
CR16-0037	-4	-6
CR16-0106	-2	-1
CR16-0107	4	-2
CR16-0110	6	-2
CR16-0112	10	0
CR16-0113	-2	-2
CR16-0116	4	1
CR16-0117	0	-2
CR16-0120	0	-2
CR16-0124	0	-4
CR16-0125	2	-1
K4117Nsgr	0	2
LD17-12352	4	4
LD17-12668	1	-3
S15-6047R	2	0
SA17-5483	-3	-6
SA17-5523	-4	-6
SA17-5563	-4	-5
SA17-5568	-5	-7
SA17-5569	-4	-3
SA17-5585	-4	-2
SA17-8882	-2	-1
Date Planted	5/16	5/14
Days to Mature	127	126

UNIFORM TEST IV TRAITED MATERIAL, 2019

LODGING (score)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	1.5	1.0	1.0	2.3	1.0	2.0	1.5
LD00-2817 (L)	1.7	1.0	1.0	1.0	1.0	3.3	1.8
LD07-3395bf (SCN) (E)	1.4	1.0	1.0	1.0	1.0	2.0	1.5
AG3832	1.1		1.0	1.3	1.0		
AG4034	1.4	2.0	1.0	1.7	1.0		
AG4232	1.4		1.0	1.0	1.0		
CR16-0011	1.5	1.3	1.0	1.0	1.0	1.8	1.5
CR16-0014	1.6	1.3	1.0	1.0	1.0	3.3	1.5
CR16-0016	1.5	1.0	1.0	1.0	1.0	1.8	1.8
CR16-0030	1.3	1.0	1.0	1.0	1.0	2.0	1.5
CR16-0031	1.6	1.3	1.0	1.3	1.0	2.5	1.8
CR16-0037	1.6	1.0	1.0	1.7	1.0	2.8	1.5
CR16-0106	1.4	1.0	1.0	1.0	1.0	2.0	1.5
CR16-0107	1.5	1.3	1.0	1.0	1.0	2.0	1.8
CR16-0110	1.5	1.3	1.0	1.3	1.0	2.0	1.5
CR16-0112	1.6	1.3	1.0	1.0	1.0	3.3	2.0
CR16-0113	1.4	1.5	1.0	1.0	1.0	2.0	1.5
CR16-0116	1.6	1.0	1.0	1.0	1.5	3.3	2.3
CR16-0117	1.6	1.0	1.0	1.3	1.0	3.0	1.8
CR16-0120	1.5	1.0	1.0	1.7	1.0	2.0	1.5
CR16-0124	1.3	1.0	1.0	1.0	1.0	1.5	1.5
CR16-0125	1.4	1.0	1.0	1.0	1.0	2.5	1.8
K4117Nsgr	1.3	1.0	1.0	1.0	1.0	1.8	1.5
LD17-12352	1.6	1.3	1.0	1.0	1.0	2.3	1.8
LD17-12668	1.3	1.0	1.0	1.0	1.0	1.5	1.5
S15-6047R	1.3	1.0	1.0	1.0	1.0	2.0	1.5
SA17-5483	1.7	1.0	1.0	1.0	1.0	3.3	2.0
SA17-5523	1.8	1.0	1.0	1.0	1.0	3.8	2.3
SA17-5563	1.9	1.3	1.0	1.0	1.3	4.0	2.3
SA17-5568	2.0	1.0	1.0	1.0	1.0	4.5	2.3
SA17-5569	1.7	1.5	1.0	1.3	1.3	3.0	1.8
SA17-5585	2.0	1.0	1.0	1.0	1.3	3.8	2.8
SA17-8882	1.6	1.0	1.0	1.0	1.0	2.5	2.0

UNIFORM TEST IV TRAITED MATERIAL, 2019

LODGING (score)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	1.0	2.0
LD00-2817 (L)	1.0	3.5
LD07-3395bf (SCN) (E)	1.0	3.0
AG3832	1.0	1.0
AG4034	1.0	2.0
AG4232	1.0	3.0
CR16-0011	1.0	3.0
CR16-0014	1.0	2.5
CR16-0016	1.0	3.0
CR16-0030	1.0	2.0
CR16-0031	1.0	3.0
CR16-0037	1.0	2.5
CR16-0106	1.0	2.5
CR16-0107	1.0	2.5
CR16-0110	1.0	2.5
CR16-0112	1.0	2.5
CR16-0113	1.0	2.0
CR16-0116	1.0	2.0
CR16-0117	1.0	3.0
CR16-0120	1.0	3.0
CR16-0124	1.0	2.5
CR16-0125	1.0	2.0
K4117Nsgr	1.0	2.0
LD17-12352	1.0	3.0
LD17-12668	1.0	2.5
S15-6047R	1.0	2.0
SA17-5483	1.0	3.0
SA17-5523	1.0	3.0
SA17-5563	1.0	3.5
SA17-5568	1.3	4.0
SA17-5569	1.0	3.0
SA17-5585	1.3	4.0
SA17-8882	1.3	3.0

UNIFORM TEST IV TRAITED MATERIAL, 2019

PLANT HEIGHT (inches)

Strain	Mean 7 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	27	24	31		27	36	29
LD00-2817 (L)	33	28	38		34	42	34
LD07-3395bf (SCN) (E)	25	24	30		28	32	26
AG3832	22		25		25		
AG4034	25	25	32		28		
AG4232	27		31		26		
CR16-0011	26	23	28		28	33	28
CR16-0014	30	28	35		31	37	31
CR16-0016	29	25	33		31	35	31
CR16-0030	26	26	32		24	33	30
CR16-0031	30	29	35		32	35	31
CR16-0037	32	30	35		33	40	36
CR16-0106	27	27	29		29	30	29
CR16-0107	31	30	36		29	36	33
CR16-0110	27	26	30		27	34	31
CR16-0112	30	29	35		31	34	31
CR16-0113	26	25	32		24	32	28
CR16-0116	30	28	35		31	37	33
CR16-0117	31	29	38		31	36	34
CR16-0120	30	30	33		32	36	32
CR16-0124	31	28	37		30	39	32
CR16-0125	30	30	35		29	37	31
K4117Nsgr	25	23	27		25	30	24
LD17-12352	29	26	32		26	34	31
LD17-12668	27	25	30		28	33	30
S15-6047R	30	29	32		31	37	31
SA17-5483	32	29	38		32	41	36
SA17-5523	32	31	38		32	39	36
SA17-5563	32	32	36		36	37	35
SA17-5568	31	29	36		33	37	36
SA17-5569	31	30	34		34	37	34
SA17-5585	34	36	38		39	40	37
SA17-8882	31	29	34		36	35	35

UNIFORM TEST IV TRAITED MATERIAL, 2019

PLANT HEIGHT (inches)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	17	26
LD00-2817 (L)	20	33
LD07-3395bf (SCN) (E)	16	22
AG3832	16	22
AG4034	16	25
AG4232	19	30
CR16-0011	18	25
CR16-0014	20	26
CR16-0016	20	28
CR16-0030	17	23
CR16-0031	20	26
CR16-0037	21	30
CR16-0106	18	28
CR16-0107	20	30
CR16-0110	16	28
CR16-0112	18	28
CR16-0113	17	27
CR16-0116	20	28
CR16-0117	18	29
CR16-0120	20	27
CR16-0124	21	30
CR16-0125	22	29
K4117Nsgr	18	27
LD17-12352	22	29
LD17-12668	17	28
S15-6047R	18	29
SA17-5483	21	30
SA17-5523	20	31
SA17-5563	19	30
SA17-5568	20	29
SA17-5569	18	29
SA17-5585	21	29
SA17-8882	21	28

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED SIZE (g/100)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	14.6	13.2	15.2	15.7	17.5	14.8	14.2
LD00-2817 (L)	14.2	11.3	14.7	15.4	17.6	17.7	15.3
LD07-3395bf (SCN) (E)	15.9	14.1	16.3	16.6	17.3	17.9	17.5
AG3832	16.8		18.2	17.0	21.8		
AG4034	15.9	12.8	17.4	17.4	21.4		
AG4232	15.4		16.6	16.0	20.7		
CR16-0011	15.8	12.9	17.0	16.4	20.3	17.7	16.2
CR16-0014	15.5	12.9	16.9	16.7	18.6	17.8	15.1
CR16-0016	14.3	11.4	16.1	14.3	17.8	16.4	13.9
CR16-0030	18.6	15.0	20.7	17.6	24.0	21.0	18.7
CR16-0031	16.4	13.5	17.4	16.3	20.1	19.4	17.5
CR16-0037	14.6	12.3	15.9	15.8	17.5	15.4	15.2
CR16-0106	15.1	12.8	15.3	15.6	18.5	16.8	15.7
CR16-0107	15.9	13.1	18.1	16.5	19.8	16.7	17.1
CR16-0110	17.6	14.2	19.2	18.0	21.5	19.8	17.8
CR16-0112	16.0	12.2	17.4	16.5	20.2	18.8	16.2
CR16-0113	15.9	13.7	16.6	15.9	20.2	18.1	15.3
CR16-0116	16.7	13.3	17.2	17.3	20.2	19.8	17.9
CR16-0117	16.0	12.9	17.2	16.3	20.0	19.2	16.6
CR16-0120	14.4	12.2	15.1	15.2	17.2	16.7	15.5
CR16-0124	15.7	12.6	16.8	17.2	20.3	16.3	16.8
CR16-0125	15.0	12.3	16.4	14.9	18.6	17.1	15.6
K4117Nsgr	15.5	13.6	16.9	15.5	18.0	16.3	16.1
LD17-12352	13.9	10.9	14.2	15.8	16.4	16.1	15.2
LD17-12668	13.5	11.9	14.0	13.5	15.8	14.4	15.1
S15-6047R	16.8	13.3	18.9	18.4	22.0	18.6	18.7
SA17-5483	16.7	13.6	19.4	16.1	20.7	17.1	19.5
SA17-5523	16.8	14.5	19.0	17.4	20.8	18.0	18.0
SA17-5563	16.7	14.8	18.1	17.7	21.2	18.3	17.0
SA17-5568	16.1	14.4	17.6	16.1	19.6	18.7	17.2
SA17-5569	16.5	14.6	17.8	17.1	18.8	18.3	18.7
SA17-5585	15.8	13.8	17.6	16.4	19.6	16.5	17.4
SA17-8882	15.5	12.3	16.3	18.4	19.2	17.0	16.6

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED SIZE (g/100)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	14.1	12.3
LD00-2817 (L)	11.2	10.5
LD07-3395bf (SCN) (E)	14.1	13.4
AG3832	13.4	13.3
AG4034	13.8	12.4
AG4232	11.4	12.2
CR16-0011	13.6	12.5
CR16-0014	13.3	12.7
CR16-0016	12.6	11.6
CR16-0030	17.0	15.2
CR16-0031	14.4	12.7
CR16-0037	13.4	11.5
CR16-0106	13.4	12.4
CR16-0107	14.0	11.7
CR16-0110	15.9	14.3
CR16-0112	13.4	13.3
CR16-0113	14.5	13.3
CR16-0116	14.4	13.4
CR16-0117	13.9	12.3
CR16-0120	12.0	11.0
CR16-0124	14.2	11.3
CR16-0125	13.0	11.9
K4117Nsgr	14.0	13.7
LD17-12352	12.0	10.7
LD17-12668	12.4	10.8
S15-6047R	12.3	12.6
SA17-5483	14.0	13.2
SA17-5523	13.8	13.0
SA17-5563	14.1	12.7
SA17-5568	13.0	11.9
SA17-5569	13.9	12.6
SA17-5585	12.8	12.1
SA17-8882	12.5	12.0

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED QUALITY (score)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	2.0	2.0	3.0	1.0	1.0	2.0	1.5
LD00-2817 (L)	1.8	3.0	2.0	1.0	1.0	2.0	1.0
LD07-3395bf (SCN) (E)	1.8	2.0	2.0	1.0	1.0	2.0	1.0
AG3832	1.5		2.0	1.0	1.0		
AG4034	1.6	2.0	2.0	1.0	1.0		
AG4232	1.9		3.0	1.0	1.0		
CR16-0011	1.5	1.0	2.0	1.0	1.0	2.0	1.0
CR16-0014	1.6	2.0	2.0	1.0	1.0	2.0	1.0
CR16-0016	1.5	1.0	2.0	1.0	1.0	2.0	1.0
CR16-0030	1.8	3.0	2.0	1.0	1.0	2.5	1.0
CR16-0031	1.6	2.0	2.0	1.0	1.0	2.0	1.0
CR16-0037	1.6	2.0	1.0	1.0	1.0	2.0	1.5
CR16-0106	1.5	1.0	2.0	1.0	1.0	1.5	1.5
CR16-0107	1.6	2.0	2.0	1.0	1.0	2.0	1.5
CR16-0110	1.8	2.0	2.0	1.0	1.0	2.5	1.5
CR16-0112	1.9	2.0	2.0	1.0	1.0	2.0	1.5
CR16-0113	1.7	2.0	2.0	1.0	1.0	2.0	1.5
CR16-0116	1.7	1.0	2.0	1.0	1.0	2.0	1.5
CR16-0117	1.7	2.0	1.0	1.0	1.0	3.0	1.5
CR16-0120	1.6	2.0	2.0	1.0	1.0	2.0	1.5
CR16-0124	1.5	1.0	2.0	1.0	1.0	2.5	1.5
CR16-0125	1.5	2.0	2.0	1.0	1.0	2.0	1.0
K4117Nsgr	1.8	2.0	2.0	1.0	1.0	2.5	1.5
LD17-12352	1.6	2.0	2.0	1.0	1.0	2.0	1.5
LD17-12668	1.6	1.0	2.0	1.0	1.0	2.5	1.5
S15-6047R	1.7	2.0	3.0	1.0	1.0	1.5	1.0
SA17-5483	2.0	2.0	3.0	1.0	1.0	3.0	1.5
SA17-5523	1.7	1.0	2.0	1.0	1.0	3.0	1.5
SA17-5563	1.7	2.0	2.0	1.0	1.0	2.0	1.5
SA17-5568	1.6	1.0	2.0	1.0	1.0	2.5	1.5
SA17-5569	1.8	1.0	3.0	1.0	1.0	2.5	1.5
SA17-5585	1.5	1.0	2.0	1.0	1.0	2.0	1.5
SA17-8882	1.5	1.0	2.0	1.0	1.0	2.0	1.0

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED QUALITY (score)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	3.0	2.3
LD00-2817 (L)	2.3	2.0
LD07-3395bf (SCN) (E)	2.7	2.3
AG3832	1.7	2.0
AG4034	2.0	1.3
AG4232	2.7	1.7
CR16-0011	2.0	1.7
CR16-0014	2.0	2.0
CR16-0016	1.7	2.0
CR16-0030	2.3	1.7
CR16-0031	2.0	2.0
CR16-0037	2.0	2.0
CR16-0106	2.0	2.0
CR16-0107	2.0	1.3
CR16-0110	2.3	2.3
CR16-0112	3.7	2.0
CR16-0113	2.0	1.7
CR16-0116	2.0	2.7
CR16-0117	2.0	1.7
CR16-0120	2.0	1.3
CR16-0124	2.0	1.3
CR16-0125	2.0	1.3
K4117Nsgr	2.0	2.7
LD17-12352	1.3	1.7
LD17-12668	2.0	2.0
S15-6047R	2.0	1.7
SA17-5483	2.0	2.7
SA17-5523	1.7	2.7
SA17-5563	2.0	2.3
SA17-5568	2.0	1.7
SA17-5569	2.0	2.3
SA17-5585	2.0	1.7
SA17-8882	2.0	2.0

UNIFORM TEST IV TRAITED MATERIAL, 2019

PROTEIN (%)

Strain	Mean 3 Tests	Urbana IL	Romney IN	West Lafayette IN
LD06-7620 (IV)	35.5	36.0	35.0	35.6
LD00-2817 (L)	33.7	34.0	32.7	34.5
LD07-3395bf (SCN) (E)	32.2	31.5	32.8	32.3
AG3832	36.0	35.8	35.6	36.7
AG4034	36.4	36.2	35.8	37.1
AG4232	34.5	35.1	33.3	35.1
CR16-0011	35.2	35.7	34.4	35.5
CR16-0014	34.0	34.5	33.3	34.2
CR16-0016	34.1	34.8	33.5	34.1
CR16-0030	37.4	37.9	37.3	37.0
CR16-0031	36.7	36.7	35.3	38.1
CR16-0037	35.6	35.5	35.7	35.7
CR16-0106	34.4	35.2	33.8	34.2
CR16-0107	34.9	35.2	34.7	34.8
CR16-0110	36.6	37.2	36.4	36.3
CR16-0112	36.7	38.2	35.6	36.3
CR16-0113	36.1	36.4	35.2	36.7
CR16-0116	36.8	37.2	36.7	36.5
CR16-0117	36.7	36.3	37.0	36.9
CR16-0120	34.8	35.9	33.8	34.6
CR16-0124	35.4	35.7	35.1	35.4
CR16-0125	36.3	37.1	35.5	36.3
K4117Nsgr	35.8	35.5	35.7	36.4
LD17-12352	36.2	37.0	36.0	35.6
LD17-12668	36.8	37.5	36.0	36.8
S15-6047R	35.9	35.6	35.7	36.5
SA17-5483	37.2	36.4	37.3	38.0
SA17-5523	38.0	37.9	37.5	38.4
SA17-5563	37.6	38.1	37.3	37.5
SA17-5568	37.7	38.0	37.5	37.6
SA17-5569	38.1	37.5	38.0	39.0
SA17-5585	38.0	38.2	37.5	38.3
SA17-8882	37.3	37.1	36.8	38.1

UNIFORM TEST IV TRAITED MATERIAL, 2019

OIL (%)

Strain	Mean 3 Tests	Urbana IL	Romney IN	West Lafayette IN
LD06-7620 (IV)	18.7	19.0	18.9	18.4
LD00-2817 (L)	19.8	19.6	20.4	19.2
LD07-3395bf (SCN) (E)	20.5	20.4	20.7	20.5
AG3832	18.4	18.6	18.7	18.0
AG4034	18.7	18.9	18.9	18.2
AG4232	19.1	19.2	19.1	19.0
CR16-0011	19.4	19.7	19.3	19.2
CR16-0014	19.4	19.4	19.7	19.0
CR16-0016	19.7	19.6	20.1	19.5
CR16-0030	19.4	19.2	19.7	19.2
CR16-0031	18.5	18.8	18.7	17.9
CR16-0037	19.5	19.7	19.5	19.4
CR16-0106	19.8	19.7	19.9	19.9
CR16-0107	19.8	19.7	19.9	19.9
CR16-0110	19.0	19.0	19.1	18.9
CR16-0112	18.8	18.3	19.0	18.9
CR16-0113	19.3	19.0	19.4	19.4
CR16-0116	18.6	18.7	18.8	18.2
CR16-0117	18.9	19.2	19.0	18.5
CR16-0120	19.6	19.3	20.1	19.4
CR16-0124	19.6	19.7	19.5	19.5
CR16-0125	18.4	18.2	18.7	18.3
K4117Nsgr	18.6	19.0	18.7	18.1
LD17-12352	19.7	19.4	20.0	19.6
LD17-12668	19.2	19.1	19.2	19.3
S15-6047R	19.0	19.2	19.3	18.4
SA17-5483	18.5	18.5	18.3	18.6
SA17-5523	18.8	18.8	18.8	18.7
SA17-5563	19.0	18.6	19.3	18.9
SA17-5568	19.1	19.2	19.3	18.9
SA17-5569	18.7	19.1	18.6	18.3
SA17-5585	18.7	18.8	19.0	18.3
SA17-8882	19.1	19.3	19.5	18.5

UNIFORM TEST IV TRAITED MATERIAL, 2019

REGIONAL SUMMARY - FA-SEED COMPOSITION

No. of Tests Strain	Palmitic 8 %	Stearic 8 %	Oleic 8 %	Linoleic 8 %	Linolenic 8 %
LD06-7620 (IV)	11.8	4.2	23.2	53.1	7.7
LD00-2817 (L)	11.2	4.4	22.3	54.6	7.5
LD07-3395bf (SCN) (E)					
AG3832					
AG4034					
AG4232					
CR16-0011					
CR16-0014					
CR16-0016					
CR16-0030					
CR16-0031					
CR16-0037					
CR16-0106					
CR16-0107					
CR16-0110					
CR16-0112					
CR16-0113					
CR16-0116					
CR16-0117					
CR16-0120					
CR16-0124					
CR16-0125					
K4117Nsgr					
LD17-12352	7.1	3.3	82.9	4.4	2.4
LD17-12668	6.8	3.4	83.8	3.8	2.2
S15-6047R					
SA17-5483	8.2	4.0	78.1	8.7	1.0
SA17-5523	7.8	4.0	79.6	6.3	2.3
SA17-5563	8.3	4.2	78.7	6.5	2.4
SA17-5568	8.1	3.9	78.9	6.7	2.4
SA17-5569	8.1	4.1	79.0	7.2	1.5
SA17-5585	8.3	4.2	78.5	6.7	2.3
SA17-8882	8.1	3.7	79.9	6.0	2.3
Mean	8.5	3.9	69.3	14.9	3.1
C.V. (%)	3.2	7.1	2.8	10.7	8.2
L.S.D. (5%)	0.2	0.2	1.6	1.3	0.2

UNIFORM TEST IV TRAITED MATERIAL, 2019

FATTY ACID, PALMITIC (%)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	11.8	11.8	11.4	11.7	11.5	12.0	11.8
LD00-2817 (L)	11.2	10.7	10.6	11.0	11.9	11.0	11.9
LD17-12352	7.1	7.0	6.9	7.3	6.9	7.3	7.2
LD17-12668	6.8	6.8	6.7	6.9	6.7	6.8	7.2
SA17-5483	8.2	8.3	8.4	7.8	8.8	8.4	8.3
SA17-5523	7.8	7.8	7.9	7.8	8.0	7.7	8.2
SA17-5563	8.3	8.7	8.1	8.4	8.0	8.4	8.6
SA17-5568	8.1	8.3	8.3	8.1	8.1	8.4	8.3
SA17-5569	8.1	8.2	8.1	8.2	8.2	8.2	8.2
SA17-5585	8.3	8.4	8.4	8.2	8.4	8.5	8.3
SA17-8882	8.1	8.0	8.1	8.1	8.0	8.2	8.5

UNIFORM TEST IV TRAITED MATERIAL, 2019

FATTY ACID, STEARIC (%)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	4.2	4.7	4.1	4.5	4.2	4.1	4.0
LD00-2817 (L)	4.4	5.6	4.3	4.3	3.9	4.3	3.9
LD17-12352	3.3	4.0	3.7	3.3	3.0	2.9	3.2
LD17-12668	3.4	3.8	3.6	3.6	3.3	3.2	3.3
SA17-5483	4.0	4.7	4.4	4.4	3.9	3.6	4.1
SA17-5523	4.0	4.8	4.4	4.2	4.1	3.7	3.8
SA17-5563	4.2	4.5	5.2	4.8	4.4	3.6	3.9
SA17-5568	3.9	4.6	4.4	4.2	4.0	3.4	3.7
SA17-5569	4.1	4.8	4.7	4.7	4.0	3.5	4.0
SA17-5585	4.2	4.8	5.0	4.9	4.2	3.8	4.0
SA17-8882	3.7	4.4	4.0	4.0	3.7	3.3	3.6

UNIFORM TEST IV TRAITED MATERIAL, 2019

FATTY ACID, PALMITIC (%)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	12.1	12.2
LD00-2817 (L)	11.7	11.2
LD17-12352	6.9	
LD17-12668	6.6	7.0
SA17-5483	7.8	7.6
SA17-5523	7.5	7.5
SA17-5563	7.8	8.0
SA17-5568	7.6	8.0
SA17-5569	7.9	7.9
SA17-5585	8.0	8.1
SA17-8882	8.1	8.0

UNIFORM TEST IV TRAITED MATERIAL, 2019

FATTY ACID, STEARIC (%)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	4.0	3.9
LD00-2817 (L)	4.3	4.3
LD17-12352	3.0	
LD17-12668	3.3	3.4
SA17-5483	3.4	3.4
SA17-5523	3.5	3.4
SA17-5563	3.5	3.7
SA17-5568	3.5	3.4
SA17-5569	3.5	3.5
SA17-5585	3.7	3.4
SA17-8882	3.1	3.2

UNIFORM TEST IV TRAITED MATERIAL, 2019

FATTY ACID, OLEIC (%)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	23.2	23.3	25.2	23.6	23.3	22.1	24.3
LD00-2817 (L)	22.3	24.9	24.5	22.8	21.9	24.4	22.3
LD17-12352	82.9	81.8	82.2	82.5	82.9	83.0	83.1
LD17-12668	83.8	84.2	83.8	83.3	83.6	83.6	84.0
SA17-5483	78.1	77.1	76.9	78.9	67.7	79.7	80.1
SA17-5523	79.6	78.1	77.5	78.3	77.6	80.2	80.1
SA17-5563	78.7	76.9	76.7	77.0	77.0	78.3	79.4
SA17-5568	78.9	77.1	76.5	77.4	76.8	79.1	79.6
SA17-5569	79.0	77.2	76.6	78.1	77.2	79.5	80.3
SA17-5585	78.5	77.0	76.2	77.0	77.2	78.1	79.2
SA17-8882	79.9	78.7	78.6	78.6	78.9	79.7	79.7

UNIFORM TEST IV TRAITED MATERIAL, 2019

FATTY ACID, LINOLEIC (%)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	53.1	53.1	51.7	52.0	52.7	53.4	52.9
LD00-2817 (L)	54.6	52.1	52.8	53.8	54.5	52.9	54.2
LD17-12352	4.4	4.7	4.7	4.6	4.6	4.4	4.3
LD17-12668	3.8	3.2	3.6	3.8	4.0	4.1	3.5
SA17-5483	8.7	9.1	9.4	8.0	17.4	7.2	6.8
SA17-5523	6.3	6.9	7.8	7.3	7.8	6.2	5.7
SA17-5563	6.5	7.4	7.5	7.3	8.0	7.2	5.9
SA17-5568	6.7	7.5	8.3	7.8	8.5	6.8	6.1
SA17-5569	7.2	8.2	8.9	7.1	9.0	7.6	5.8
SA17-5585	6.7	7.3	8.0	7.4	7.8	7.2	6.5
SA17-8882	6.0	6.5	6.9	6.9	6.9	6.4	6.0

UNIFORM TEST IV TRAITED MATERIAL, 2019

FATTY ACID, OLEIC (%)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	22.4	21.1
LD00-2817 (L)	18.3	19.4
LD17-12352	85.0	
LD17-12668	85.1	82.8
SA17-5483	82.4	82.4
SA17-5523	82.6	82.4
SA17-5563	82.6	81.4
SA17-5568	82.4	82.1
SA17-5569	82.1	81.2
SA17-5585	81.5	81.6
SA17-8882	82.7	82.6

UNIFORM TEST IV TRAITED MATERIAL, 2019

FATTY ACID, LINOLEIC (%)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	54.0	55.2
LD00-2817 (L)	58.2	58.3
LD17-12352	3.1	
LD17-12668	3.1	4.8
SA17-5483	5.6	5.7
SA17-5523	4.4	4.6
SA17-5563	4.1	4.7
SA17-5568	4.2	4.3
SA17-5569	5.0	5.9
SA17-5585	4.7	4.7
SA17-8882	4.0	4.0

UNIFORM TEST IV TRAITED MATERIAL, 2019

FATTY ACID, LINOLENIC (%)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	7.7	7.1	7.5	8.2	8.3	8.4	7.0
LD00-2817 (L)	7.5	6.8	7.8	8.2	7.8	7.3	7.7
LD17-12352	2.4	2.5	2.5	2.4	2.5	2.4	2.2
LD17-12668	2.2	2.1	2.2	2.4	2.4	2.3	2.1
SA17-5483	1.0	0.9	0.8	0.9	2.0	1.1	0.8
SA17-5523	2.3	2.4	2.4	2.5	2.5	2.2	2.1
SA17-5563	2.4	2.5	2.5	2.5	2.6	2.4	2.2
SA17-5568	2.4	2.5	2.5	2.5	2.5	2.3	2.3
SA17-5569	1.5	1.5	1.7	1.9	1.6	1.2	1.6
SA17-5585	2.3	2.5	2.5	2.5	2.5	2.4	2.0
SA17-8882	2.3	2.4	2.4	2.4	2.5	2.4	2.2

UNIFORM TEST IV TRAITED MATERIAL, 2019

FATTY ACID, LINOLENIC (%)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	7.5	7.6
LD00-2817 (L)	7.5	6.8
LD17-12352	1.9	
LD17-12668	2.0	2.1
SA17-5483	0.8	0.9
SA17-5523	2.1	2.1
SA17-5563	2.0	2.2
SA17-5568	2.2	2.2
SA17-5569	1.4	1.4
SA17-5585	2.1	2.1
SA17-8882	2.1	2.1

UNIFORM TEST IV TRAITED MATERIAL, 2019

REGIONAL SUMMARY - SUGARS-SEED COMPOSITION

Strain	Sucrose 8 %	Raffinose 8 %	Stachyose 8 %	Total Sugar 8 %
LD06-7620 (IV)	3.4	0.9	3.9	8.1
LD00-2817 (L)	3.6	0.7	3.8	8.1
LD07-3395bf (SCN) (E)				
AG3832				
AG4034				
AG4232				
CR16-0011	3.9	0.4	2.5	6.8
CR16-0014	3.4	0.6	3.7	7.8
CR16-0016	5.1	0.2	1.7	7.0
CR16-0030	3.8	0.3	1.9	6.1
CR16-0031	2.9	0.6	3.6	7.1
CR16-0037	4.0	1.0	2.8	7.9
CR16-0106	5.0	0.4	2.9	8.3
CR16-0107	4.2	0.2	2.3	6.7
CR16-0110	4.0	0.3	2.1	6.4
CR16-0112	3.3	1.2	2.5	7.0
CR16-0113	3.8	0.3	1.7	5.8
CR16-0116	4.4	0.3	2.1	6.8
CR16-0117	3.8	0.3	2.0	6.2
CR16-0120	3.6	0.4	2.3	6.3
CR16-0124	4.0	0.3	2.3	6.7
CR16-0125	4.4	0.3	2.2	6.2
K4117Nsgr				
LD17-12352				
LD17-12668				
S15-6047R				
SA17-5483				
SA17-5523				
SA17-5563				
SA17-5568				
SA17-5569				
SA17-5585				
SA17-8882				
Mean	3.9	0.5	2.6	7.0
C.V. (%)	24.1	145.6	36.2	20.1
L.S.D. (5%)	0.8	0.7	0.6	1.3

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED SUGAR, SUCROSE (%)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	3.4	3.4	4.2	3.3	3.9	3.5	3.1
LD00-2817 (L)	3.6	4.3	4.6	3.5	3.5	3.8	3.6
CR16-0011	3.9	3.1	5.2	4.0	4.7	3.3	4.4
CR16-0014	3.4	4.9	4.1	3.3	3.5	3.7	3.1
CR16-0016	5.1	4.7	6.2	5.2	5.3	4.5	5.7
CR16-0030	3.8	2.6	5.3	3.6	4.3	4.8	3.9
CR16-0031	2.9	4.1	2.7	3.1	2.9	3.7	2.9
CR16-0037	4.0	4.5	4.8	4.3	3.6	4.2	4.0
CR16-0106	5.0	4.4	5.5	9.0	4.4	4.2	4.5
CR16-0107	4.2	4.4	5.5	4.2	4.5	3.9	4.3
CR16-0110	4.0	2.8	5.5	5.1	4.7	3.5	3.9
CR16-0112	3.3	3.9	4.1	3.2	3.2	3.6	3.7
CR16-0113	3.8	4.9	4.7	3.4	4.0	3.3	4.2
CR16-0116	4.4	4.6	5.5	4.1	4.3	5.1	4.5
CR16-0117	3.8	3.6	3.6	4.0	4.3	4.1	4.4
CR16-0120	3.6	3.9	4.7	3.7	3.4	3.6	3.5
CR16-0124	4.0	3.9	5.2	3.8	4.1	3.6	5.3
CR16-0125	4.4		5.2	4.3	4.6	5.3	3.9

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED SUGAR, RAFFINOSE (%)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	0.9	1.0	1.2	0.7	0.5	0.8	0.9
LD00-2817 (L)	0.7	0.8	0.7	0.4	0.4	0.5	0.8
CR16-0011	0.4	1.2	0.2	0.1	0.1	0.2	0.2
CR16-0014	0.6	1.0	0.7	0.3	0.3	0.4	0.6
CR16-0016	0.2	0.7	0.2	0.1	0.1	0.1	0.1
CR16-0030	0.3	1.2	0.2	0.1	0.1	0.2	0.2
CR16-0031	0.6	0.7	0.8	0.4	0.3	0.4	0.6
CR16-0037	1.0	0.8	0.2	0.1	0.1	0.2	5.9
CR16-0106	0.4	1.0	0.3	0.4	0.1	0.2	0.3
CR16-0107	0.2	0.3	0.2	0.1	0.1	0.1	0.2
CR16-0110	0.3	0.7	0.3	0.1	0.1	0.1	0.2
CR16-0112	1.2	6.0	0.6	0.2	0.2	0.2	0.6
CR16-0113	0.3	0.7	0.3	0.2	0.1	0.1	0.3
CR16-0116	0.3	0.7	0.2	0.2	0.1	0.1	0.2
CR16-0117	0.3	0.9	0.2	0.4	0.1	0.1	0.3
CR16-0120	0.4	0.9	0.2	0.5	0.1	0.1	0.2
CR16-0124	0.3	0.8	0.2	0.5	0.1	0.1	0.2
CR16-0125	0.3		0.2	0.6	0.1	0.1	0.2

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED SUGAR, SUCROSE (%)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	3.4	2.1
LD00-2817 (L)	3.1	2.7
CR16-0011	4.1	2.5
CR16-0014	2.6	2.2
CR16-0016	5.1	4.2
CR16-0030	3.0	3.3
CR16-0031	2.3	1.6
CR16-0037	3.7	3.2
CR16-0106	4.2	3.8
CR16-0107	3.9	3.1
CR16-0110	3.4	3.3
CR16-0112	2.1	2.1
CR16-0113	3.2	2.6
CR16-0116	3.4	3.8
CR16-0117	3.4	3.3
CR16-0120	3.0	2.9
CR16-0124	3.4	3.1
CR16-0125		3.1

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED SUGAR, RAFFINOSE (%)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	1.2	0.8
LD00-2817 (L)	1.0	0.9
CR16-0011	0.3	1.1
CR16-0014	0.8	0.8
CR16-0016	0.1	0.1
CR16-0030	0.3	0.2
CR16-0031	0.9	0.7
CR16-0037	0.3	0.5
CR16-0106	0.5	0.4
CR16-0107	0.3	0.4
CR16-0110	0.3	0.4
CR16-0112	0.8	0.9
CR16-0113	0.3	0.5
CR16-0116	0.3	0.5
CR16-0117	0.3	0.5
CR16-0120	0.3	0.4
CR16-0124	0.3	0.5
CR16-0125		0.4

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED SUGAR, STACHYOSE (%)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	3.9	4.1	4.3	3.8	3.9	3.3	3.5
LD00-2817 (L)	3.8	4.0	4.0	3.9	3.7	3.0	3.6
CR16-0011	2.5	2.7	2.0	2.0	2.3	1.6	2.1
CR16-0014	3.7	4.4	3.9	3.4	3.5	2.8	3.6
CR16-0016	1.7	1.8	1.4	1.6	1.7	1.3	1.5
CR16-0030	1.9	2.1	1.6	1.6	1.7	2.1	1.5
CR16-0031	3.6	4.2	3.6	3.4	3.1	3.1	3.7
CR16-0037	2.8	2.5	1.9	2.1	1.9	2.2	6.5
CR16-0106	2.9	2.8	2.7	5.0	2.2	1.8	2.4
CR16-0107	2.3	2.3	2.1	2.0	2.0	1.9	1.8
CR16-0110	2.1	2.3	2.1	2.0	1.9	1.4	1.6
CR16-0112	2.5	1.0	3.1	2.5	2.4	2.3	2.9
CR16-0113	1.7	0.3	1.8	1.8	1.7	1.5	1.8
CR16-0116	2.1	2.2	1.9	1.9	1.7	1.8	1.8
CR16-0117	2.0	2.4	1.2	1.8	1.7	1.4	1.9
CR16-0120	2.3	2.3	2.1	2.1	1.9	2.0	2.1
CR16-0124	2.3	2.5	2.1	2.0	1.9	1.7	2.3
CR16-0125	2.2	2.3	1.9	1.9	2.0	2.1	1.9

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED SUGAR, TOTAL (%)

Strain	Mean 8 Tests	Flora IL	Urbana IL	Romney IN	West Lafayette IN	Albany MO	Columbia MO
LD06-7620 (IV)	8.1	8.5	9.7	7.7	8.4	7.5	7.5
LD00-2817 (L)	8.1	9.0	9.3	7.9	7.6	7.3	7.9
CR16-0011	6.8	7.0	7.4	6.1	7.1	5.0	6.8
CR16-0014	7.8	10.4	8.7	7.0	7.4	6.9	7.2
CR16-0016	7.0	7.2	7.8	6.9	7.1	5.9	7.3
CR16-0030	6.1	5.8	7.1	5.2	6.2	7.1	5.6
CR16-0031	7.1	9.1	7.1	6.9	6.3	7.2	7.2
CR16-0037	7.9	7.8	6.9	6.5	5.6	6.6	16.3
CR16-0106	8.3	8.3	8.5	14.4	6.7	6.2	7.3
CR16-0107	6.7	6.9	7.8	6.3	6.7	5.8	6.3
CR16-0110	6.4	5.8	7.9	7.2	6.8	5.0	5.8
CR16-0112	7.0	11.0	7.8	5.9	5.8	6.0	7.3
CR16-0113	5.8	5.9	6.7	5.4	5.9	5.0	6.3
CR16-0116	6.8	7.6	7.7	6.2	6.0	6.9	6.5
CR16-0117	6.2	6.9	5.1	6.2	6.1	5.5	6.6
CR16-0120	6.3	7.1	7.0	6.3	5.4	5.7	5.8
CR16-0124	6.7	7.1	7.5	6.3	6.0	5.4	7.8
CR16-0125	6.2	2.3	7.4	6.8	6.6	7.6	6.0

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED SUGAR, STACHYOSE (%)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	4.5	3.6
LD00-2817 (L)	4.1	3.9
CR16-0011	3.1	4.2
CR16-0014	4.1	4.1
CR16-0016	2.1	1.9
CR16-0030	2.1	2.5
CR16-0031	3.8	3.8
CR16-0037	2.9	2.7
CR16-0106	3.2	2.9
CR16-0107	3.3	2.9
CR16-0110	2.4	2.6
CR16-0112	2.9	3.2
CR16-0113	2.4	2.4
CR16-0116	2.8	3.1
CR16-0117	2.6	2.9
CR16-0120	3.0	3.2
CR16-0124	2.9	3.1
CR16-0125		3.1

UNIFORM TEST IV TRAITED MATERIAL, 2019

SEED SUGAR, TOTAL (%)

Strain	Portageville Clay MO	Portageville Loam MO
LD06-7620 (IV)	9.1	6.6
LD00-2817 (L)	8.1	7.5
CR16-0011	7.5	7.8
CR16-0014	7.5	7.1
CR16-0016	7.4	6.2
CR16-0030	5.4	5.9
CR16-0031	7.0	6.1
CR16-0037	6.9	6.4
CR16-0106	7.9	7.1
CR16-0107	7.4	6.3
CR16-0110	6.1	6.3
CR16-0112	5.8	6.2
CR16-0113	5.9	5.5
CR16-0116	6.5	7.4
CR16-0117	6.3	6.6
CR16-0120	6.3	6.5
CR16-0124	6.6	6.7
CR16-0125		6.5

Parentage data of strains in Uniform Tests can be found at:
https://soybase.org/uniformtrial/index.php?page=lines