UNIFORM SOYBEAN TESTS

SOUTHERN STATES

2022

COORDINATED, ANALYZED AND EDITED BY:

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Annual reports are available online at http://www.ars.usda.gov/Main/docs.htm?docid=23815
Uniform Soybean Test Parentage Information Database is available at:
https://soybase.org/uniformtrial/index.php?page=lines

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INTRODUCTION

The Uniform Soybean Testing Program has been directed toward the testing of elite breeding lines that ultimately leads to the release of varieties. Breeding lines are developed and evaluated in several participating federal and state research programs. As breeding lines demonstrate specific qualities in the individual programs, they are advanced to the preliminary and uniform regional tests conducted in cooperation with research workers in the southern states. This testing program enables breeders to evaluate new strains under a wide variety of conditions; and permits new strains to be put into production in a minimum amount of time. Lines are usually entered only once in the Preliminary Test and then are either dropped or advanced to the Uniform Test for a maximum of three years if performance warrants further testing.

Eleven uniform test groups have been established to evaluate the best strains developed in the breeding programs. The groups 00 through IV are adapted in the northern part of the United States, and the groups IV-S through VIII are grown in the southern part. Within their area of adaptation, there is a maturity range of 12 to 18 days within each maturity class. The best varieties available in each maturity class are used as check varieties with which to compare new strains as to seed yield, chemical composition, maturity, height, lodging, seed quality, and reaction to diseases and nematodes. For the groups grown in the southern area, the check varieties are:
AG38XF1, AG43XF2, LD015-3818, S13-3851C, S16-7922, AG46X6, AG48X9, AG48XF2, S16-14869, AG53XF2, AG55XF0, TN09-008, TN11-5140, AG56XF2, AG64X8 RR2X, USDA-N6005 (release of N10-687), NC-Dunphy (release of NCC07-8138), NC-Dilday (release of NCC06-1090), CZ6730, AGS-738RR, AG74X8 RR2X, N7003CN, NC-Wilder (release of NCC06-899), SH 7418LL, AG79X9RR2X/SR, N8001, N8002, and AGS 798R2.

A wide range of soil and climatic conditions exists in the regions. As an aid in recognizing regional adaptation, the region has been subdivided into five rather broad areas which still represent a wide range of soil types. These are: (1) the East Coast, consisting of the Coastal Plain and Tidewater areas of the eastern shore of Maryland, Virginia, North Carolina, and the upper half of South Carolina; (2) the Southeast, consisting primarily of the Coastal Plain soils of the Gulf Coast area, but also including similar soil from South Carolina, southward; (3) the Upper and Central South, including the Piedmont and loessial hill soils east of the Mississippi River; (4) the Delta area, composed of the alluvial soils along the Mississippi River from southern Missouri, southward; and (5) the West, comprising Arkansas and Louisiana (outside the Delta), Kansas, Oklahoma, and Texas. In the West, the potential soybean-growing areas would include alluvial soils, and the Gulf Coast of Louisiana.

POLICY ON EVALUATION AND RELEASE OF STRAINS

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 in an effort 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.

Qualifications for Participation in the Uniform Soybean Tests

Participants must be willing and able to conduct unified tests with conventional strains and strains containing proprietary and/or transgenic traits.

Participants, upon submission of entries, must disclose pedigrees to the Uniform Soybean Test Coordinator for publication with performance data in the Uniform Soybean Test Report.

Participants are individually responsible to ensure that any transgenic entries that they submit are cleared for sale as commodity seed.

Use of Uniform Soybean Test Entries in Soybean Breeding and Research

Seed of Uniform Soybean Test entries is for evaluation in the Uniform Soybean Tests only and may not be distributed to non-participants in these tests without prior approval by the originator of the entry.

Trueness-to-type or purity of seed produced by the entries in the Uniform Soybean Tests cannot be guaranteed by the USDA. Therefore, seed produced by lines in the Uniform Test trials will not be distributed by the USDA to anyone, including the developer, except for trait analyses in connection with the Uniform Test program.

Non-transgenic entries in the Uniform Soybean Test may be used by Uniform Soybean Test participants as parents in biparental crosses or for developing recurrent selection populations, subject to the material transfer requirements of the institution who owns the entry. Transgenic entries may be used in crossing subject to similar rules unless licensing or patenting restrictions regarding ownership of the transgenic trait limit this use.

Uniform Soybean Test participants must obtain prior approval before using any entry, other than their own, as recurrent parent in backcrossing, molecular research, genetic studies, or any other research.

Seed of any 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.

All published results from the USDA-ARS Uniform Soybean Tests Southern States may be used as a data base for statistical research and publication related to soybean breeding.

Release of Uniform Soybean Test Entries

Entries in the Uniform Soybean Tests are released according to USDA-ARS and State Agricultural Experiment Station policies.

ACKNOWLEDGEMENTS

The cooperation of the following scientists is gratefully acknowledged for their ratings of the Uniform Test entries: Dr. Zenglu Li and Dr. Melissa Mitchum, University of Georgia, Athens, Georgia - root-knot nematode; Dr. Prakash Arelli and Dr. Lesley Schumacher, USDA-ARS, Jackson, Tennessee - soybean cyst nematode; and Dr. Anne Gillen and Dr. Shuxian Li, USDA-ARS, Stoneville, MS – southern stem canker. We thank Drs. Blair Buckley, Louisiana State University, and David L. Holshouser TAREC, Suffolk, VA for their dedicated cooperation and wish them well in their retirement.

We dedicate this report to the memory of Dr. Pengyin Chen, University of Missouri. He was a friend to all and a highly respected soybean breeder and scientist.

We would like to acknowledge the support of this project provided by the United Soybean Board.

A special thanks to the following people whose cooperation and participation have helped to make the Uniform Soybean Tests, Southern States possible:

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STRAIN DESIGNATION

The strains designated by number carry a letter prefix. This letter identifies where each strain was selected:

DA	-	Delta Branch Experiment Station and USDA-ARS, Stoneville, MS
DS	-	Delta Branch Experiment Station and USDA-ARS, Stoneville, MS
G	-	Georgia Agricultural Experiment Station
JTN	-	Tennessee Agricultural Experiment Station, Jackson and USDA-ARS
K	-	Kansas Agricultural Experiment Station
N	-	North Carolina Agricultural Experiment Station and USDA-ARS
NDPJE	-	North Carolina Agricultural Experiment Station and USDA-ARS
R	-	Arkansas Agricultural Experiment Station
S	-	Missouri Agricultural Experiment Station
SA	-	Missouri Agricultural Experiment Station
SC	-	South Carolina Agricultural Experiment Station, Clemson
TC	-	North Carolina Agricultural Experiment Station and USDA-ARS
TN	-	Tennessee Agricultural Experiment Station
V	-	Virginia Agricultural Experiment Station, Virginia Tech

UNIFORM SOYBEAN TESTS PARENTAGE INFORMATION DATABASE

Historical Uniform Soybean Test Parentage Information can be found at the following:
https://soybase.org/uniformtrial/index.php?page=lines

SOYBEAN NURSERY INFORMATION

A. LOCATION CONTACT AND TESTS- 2022

2022 Locations	Location Contact	IV-S-E*	IV-S-E	IV-S-L	IV-S-L	V-E	V-L	V	VI	VI	VII	VII	VIII	VIII
Belle Mina,AL	Jenny Koebernick		U		U			U						
Fairhope,AL	Jenny Koebernick										P	U	P	U
Tallassee,AL	Jenny Koebernick								P	U				
Keiser,AR	Andrea Acuña	P	U	P	U	P	P	U						
Stuttgart,AR	Andrea Acuña	P		P	U	P	P	U						
Athens,GA(A)	Zenglu Li								P	U	P	U	P	U
Athens,GA(B)	Zenglu Li											U		U
Plains,GA	Zenglu Li								P	U	P	U	P	U
McCune,KS	W. T. Schapaugh, Jr.			P	U	P		U						
Pittsburg,KS	W. T. Schapaugh, Jr.			P	U	P		U						
Portageville,MO(A)	Grover Shannon		U		U			U						
Portageville,MO(B)	Grover Shannon	P	U	P	U	P		U						
Columbia,MO	Andrew Scaboo	P	U											
Starkville,MS	Brad Burgess	P	U	P	U	P	P	U						
Stoneville,MS	Anne Gillen	P	U	P	U	P	P	U						
Jackson Springs, NC	Ben Fallen										P	U	P	U
Kinston,NC	Ben Fallen					P	P		P	U	P	U	P	U
Plymouth,NC	Rouf Mian							U	P	U	P	U		
Jackson,TN	Chris Smallwood	P	U	P	U	P		U						
Knoxville,TN	Vincent Pantalone	P	U	P	U	P	P	U						
Springfield,TN	Vincent Pantalone		U		U			U						
Orange,VA	Greg Lillard	P		P	U			U						
Suffolk,VA	David Holshouser							U						
Warsaw,VA	Bo Zhang				U	P	P	U						
Total Location Planted		9	10	10	14	11	7	16	5	5	6	7	5	6
TOTAL LOCATIONS REPORTING DATA		8	9	8	11	9	5	13	5	5	6	7	5	6

* U = Uniform Test; P = Preliminary Test

B. PLANTING DATES – 2022

Location*	PIV-S-E	PIV-S-L	PV-E	PV-L	PVI	PVII	PVIII	UIV-S-E	UIV-S-L	UV	UVI	UVII	UVIII
Belle Mina,AL***								27-Apr	28-Apr	11-May			
Fairhope,AL***						6-Jun	6-Jun					6-Jun	6-Jun
Tallassee,AL					17-May						17-May		
Keiser,AR**	14-May	14-May	14-May	14-May				14-May	14-May	14-May			
Stuttgart,AR**	12-May	12-May	12-May	12-May					12-May	12-May			
Athens,GA(A)					12-May	12-May	12-May				12-May	12-May	12-May
Athens,GA(B)												23-Jun	23-Jun
Plains,GA					1-Jun	1-Jun	1-Jun				1-Jun	1-Jun	1-Jun
McCune,KS***		22-Jun	22-Jun						22-Jun	22-Jun			
Pittsburg,KS		23-Jun	23-Jun						23-Jun	23-Jun			
Portageville,MO(A)**								10-May	10-May	10-May			
Portageville,MO(B)**	1-Jun	1-Jun	1-Jun					1-Jun	1-Jun	1-Jun			
Columbia,MO	13-May							13-May					
Starkville,MS**	NH	NH	NH	NH				NH	NH	NH			
Stoneville,MS**	29-Apr	29-Apr	29-Apr	29-Apr				29-Apr	29-Apr	29-Apr			
Jackson Springs, NC						7-Jun	7-Jun					7-Jun	7-Jun
Kinston,NC			1-Jun	1-Jun	1-Jun	2-Jun	2-Jun				1-Jun	1-Jun	2-Jun
Plymouth,NC					22-Jun	22-Jun				22-Jun	22-Jun	22-Jun	
Jackson,TN***	9-May	NH	9-May					9-May	NH	9-May			
Knoxville,TN	3-May	3-May	3-May	3-May				3-May	3-May	3-May			
Springfield,TN								1-Jun	1-Jun	1-Jun			
Orange,VA***	19-May	19-May							19-May	19-May			
Suffolk,VA										UV			
Warsaw,VA***			NH	NH					NH	NH			

*NR = Date not reported, trial harvested. NH = Not Harvested or Data not reported due to various problems.

** Locations with significant damage due to Dicamba herbicide.

*** Belle Mina - broken irrigation system; Fairhope - excessive rain, Athens - hard freeze; McCune - drought and freeze; Starkville - drought and dicamba; Jackson - rain after planting; Orange - deer damage; Warsaw - RoundUp damage.

C. HARVEST DATES – 2022

Location*	PIV-S-E	PIV-S-L	PV-E	PV-L	PVI	PVII	PVIII	UIV-S-E	UIV-S-L	UV	UVI	UVII	UVIII
Belle Mina,AL***								21-Sep	17-Oct	22-Oct			
Fairhope,AL***						2-Nov	10-Nov					2-Nov	2-Nov
Tallassee,AL					9-Nov						10-Nov		
Keiser,AR**	5-Oct	6-Oct	20-Oct	21-Oct				5-Oct	6-Oct	20-Oct			
Stuttgart,AR**	11-Oct	11-Oct	13-Oct	17-Oct					11-Oct	17-Oct			
Athens,GA(A)					3-Nov	3-Nov	3-Nov				3-Nov	3-Nov	3-Nov
Athens,GA(B)												9-Nov	9-Nov
Plains,GA					28-Oct	27-Oct	28-Oct				28-Oct	26-Oct	27-Oct
McCune,KS***		18-Nov	18-Nov						18-Nov	18-Nov			
Pittsburg,KS		16-Nov	16-Nov						16-Nov	16-Nov			
Portageville,MO(A)**								10-Oct	12-Oct	24-Oct			
Portageville,MO(B)**	14-Oct	19-Oct	19-Oct					14-Oct	14-Oct	19-Oct			
Columbia,MO	18-Oct							18-Oct					
Starkville,MS**/***	NH	NH	NH	NH				NH	NH	NH			
Stoneville,MS**	19-Sep	22-Sep	29-Sep	6-Oct				19-Sep	22-Sep	6-Oct			
Jackson Springs, NC						17-Nov	2-Dec					17-Nov	2-Dec
Kinston,NC			8-Nov	8-Nov	17-Nov	17-Nov	29-Nov				18-Nov	18-Nov	29-Nov
Plymouth,NC					9-Nov	22-Nov				2-Nov	22-Nov	22-Nov	
Jackson,TN***	3-Oct	NH	3-Oct					3-Oct	NH	20-Oct			
Knoxville,TN	6-Oct	19-Oct	3-Nov	8-Nov				6-Oct	20-Oct	4-Nov			
Springfield,TN								18-Oct	18-Oct	18-Oct			
Orange,VA***	18-Oct	18-Oct							18-Oct	NH			
Suffolk,VA										UV			
Warsaw,VA***			NH	NH					NH	NH			

*NR = Date not reported, trial harvested. NH = Not Harvested or Data not reported due to various problems.

** Locations with significant damage due to Dicamba herbicide.

*** Belle Mina - broken irrigation system; Fairhope - excessive rain, Athens - hard freeze; McCune - drought and freeze; Starkville - drought and dicamba; Jackson - rain after planting; Orange - deer damage; Warsaw - RoundUp damage.

D. AGRONOMIC CHARACTERISTICS OF LOCATIONS – 2022

2022 Location	Soil type	Row Spacing	Planted Length	Harvested Length	Trial Bordered	End Trim-med	# Rows Planted	# Rows Harvested	Prior Crop	Irri-gated
Belle Mina,AL	Decatur silt loan	36	20	20	Yes	No	4	2	Fallow	Yes
Fairhope,AL	Malbis fine sandy loan	38	20	18	Yes	Yes	4	2	Cotton	No
Tallassee,AL	Cahaba fine sandy loam	36	20	20	Yes	No	4	2	Corn	No
Keiser,AR	Sharkey silty clay	38	15	15	Yes	No	4	2	Corn	Yes
Stuttgart,AR	Crowley silt loam	30	15	15	Yes	No	4	2	Rice	Yes
Athens,GA(A)	Wickham sandy loam	30	16	12	Yes	Yes	4	2	Corn/Small Grains	Yes
Athens,GA(B)	Wickham sandy loam	30	16	12	Yes	Yes	4	2	Grain sorghum	Yes
Plains,GA	Tifton sandy loam	30	16	12	Yes	Yes	4	2	Soybean	Yes
McCune,KS	Parsons silt loam	30	12	12	Yes	No	4	2	Corn	No
Pittsburg,KS	Parsons silt loam	30	12	12	Yes	No	4	2	Corn	No
Portageville,MO(A)	Dundee silt loam	30	12	12	Yes	No	4	2	Soybean	Yes
Portageville,MO(B)	Sharkey clay	30	12	12	Yes	No	4	2	Soybean	Yes
Columbia,MO	Mexico-silt loam	30	12	12	Yes	No	4	2	Corn	No
Starkville,MS	Brooksville silty clay	19	18	16	Yes	Yes	3	3	Wheat	No
Stoneville,MS	Sharkey clay	26	19.5	17.5	Yes	Yes	5	3	Soybean	Yes
Jackson Springs, NC	Ailey loamy sand	38	12	10	Yes	Yes	4	2	Corn	Yes
Kinston,NC	Stallings loamy sand	30	16	14	Yes	Yes	4	2	Corn	No
Plymouth,NC	Portsmouth silt loam	38	12	10	Yes	Yes	4	2	Corn	No
Jackson,TN	Lexington silt loam/Collins silt loam	30	12	12	Yes	No	4	2	Soybeans	Yes /No
Knoxville,TN	Sequatchie silt loam	30	20	16	Yes	Yes	4	2	Corn	No
Springfield,TN	Staser silt loam	30	25	16	Yes	Yes	4	2	N/A	Yes
Orange,VA	LittleJoe Silt Loam	21	16	12	Yes	Yes	3	3	Turf	No
Suffolk,VA	Dragston fine sandy loam	15	24	17	Yes	Yes	6	4	Corn	No
Warsaw,VA	Kempsville loam	30	16	12	Yes	Yes	4	2	Tillage radish	No

E. WEATHER STATION INFORMATION – as of 2013

Location	Weather Station URL	Notes
Belle Mina, AL	national weather sevice	
Fairhope, AL	national weather sevice	
Tallassee, AL(A)	not reported	
Tallassee, AL(B)	not reported	
Pine Tree, AR	N/A	
Rohwer, AR	http://www.aragriculture.org/weather/default.asp	
Georgetown, DE	http://www.rec.udel.edu/TopLevel/Weather.htm	
Athens, GA (A)	http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GAWP	
Athens, GA (B)	http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GAWP	
Calhoun, GA	http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GACA	
Plains, GA	http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GAPL	
Tifton, GA	http://www.griffin.uga.edu/aemn/cgi-bin/AEMN.pl?site=GATI	
Ullin, IL	none	
McCune, KS	http://www.oznet.ksu.edu/wdl/	
Pittsburg, KS	http://www.oznet.ksu.edu/wdl/	
Princeton, KY	http://www.nass.usda.gov/Statistics_by_State/Kentucky/Publications/Agri-News/oct226.pdf	
Alexandria, LA	www.lsuagcenter.com/weather	
Bossier City, LA	www.lsuagcenter.com/weather/tabledata.asp	
Queenstown, MD	none	
Portageville, MO(A)	http://agebb.missouri.edu/weather/realtime/portageville.asp	
Portageville, MO(B)	http://agebb.missouri.edu/weather/realtime/portageville.asp	
Starkville, MS	http://www.deltaweather.msstate.edu/	
Stoneville, MS	http://www.deltaweather.msstate.edu/	Stoneville is at the end of the list of weather stations.
Jackson Springs, NC	http://www.nc-climate.ncsu.edu/cronos/index.php?station=JACK&temporal=daily	Sandhills Station, NC (Jackson Springs)
Kinston, NC	http://www.nc-climate.ncsu.edu/cronos/index.php?station=314689&temporal=D	Kinston, NC
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Blackville, SC(B)	http://www.ncdc.noaa.gov/crn/	
Clemson, SC	http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=KSCCLEMS1&graphspan=month&month=6&day=1&year=2007	
Florence, SC	not reported	
Jackson, TN	None on the web	
Knoxville, TN	www.ncdc.noaa.gov	Look on left menu for "Find a Station" for Knoxville Experiment Station
Springfield, TN	not reported	
Bardwell, TX	not reported	
Cooper, TX	not reported	
Orange, VA	not reported	
Petersburg, VA	http://www.accuweather.com/forecast-climo.asp?partner=30371&traveler=0&zipChg=1&zipcode=23841&metric=0	This only has the past two months of data
Suffolk, VA	not reported	
Warsaw, VA	http://www.ext.vt.edu/cgi-bin/WebObjects/Mesonet.woa/wa/lookupCoordinate?472,102	EVAREC is location name

METHODS

CULTURAL PRACTICES

Please see Soybean Nursery Information – Tables A, B, C, D, and E for details on locations including contacts, row spacing, plot dimensions, end trimming, planting dates, harvest dates, crop rotation, and weather station URLs. Cultural practices, including fertilization, chemical application and irrigation practices, varied at each location to conform to the normal practices of each collaborator. The uniform tests were planted with three (3) replications and the preliminary tests were planted with two (2) replications except three (3) replications were planted for PVI, PVII and PVIII.

AGRONOMIC CHARACTERISTICS

Height. Height (HT) in a plot was measured as the average length of plants in inches from the ground to the top extremity at maturity.

Lodging. Lodging (LOD) notes were recorded on a scale of 1 to 5 according to the following criteria:

1 - almost all plants erect
2 - either all plants leaning slightly, or a few plants down
3 - either all plants leaning moderately, or 25 to 50% of the plants down
4 - either all plants leaning considerably, or 50 to 80% of the plants down
5 - all plants down

Maturity. Maturity (MAT) was recorded as the date when 95% of the pods had reached mature pod color (Fehr and Caviness, 1977). Maturity in all summaries is expressed as days earlier (-) or later (+) than the reference variety. The reference variety in each test is the first entry in each test.

Yield. Please see Agronomic Characteristics of Locations for information on end trimming and which rows were harvested for yield data at each location. Actual seed weights were recorded after the seed of the strains had reached uniform moisture content or seed weight at harvest was adjusted to 13% moisture content. Seed weights were converted to bushels per acre (60 lbs/bu.) by using the appropriate conversion factor for each location with respect to harvested plot size.

Seed Quality. Seed quality was rated from 1 to 5 according to the following scale:

1 - very good; 2 - good; 3 - fair; 4 - poor; 5 - very poor

Factors considered in estimating seed quality were development of seed, wrinkling damage, and brightness. While the seed quality score indicates relative appearance of seed for strains at one location, considerable differences can exist among factors responsible for the poorer grades at different locations. Seed size for each strain was determined from a composite sample from all replications at a location. Seed size is reported as grams per 100 seed.

SEED COMPOSITION

Oil and Protein. Oil and protein (PRO) percentages were determined from representative locations of the uniform and preliminary tests. A 50 ml composite sample 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 20ml 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 known 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. There were no seed analyzed for amino acid this year.

Fatty Acids. Fatty acid analysis of strains known 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.

Destiny Hunt 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 0.1 gram of ground sample was used to extract sucrose, raffinose and stachyose and analyzed by High Performance Liquid Chromatography (HPLC). Four calibration standards are used: Standard Level 1: 75,7.5,18.75 ug/mL for sucrose, raffinose and stachyose, Standard Level 2: 150, 15, and 37.5 ug/mL for sucrose, raffinose and stachyose, Standard Level 3: 500, 50 and 125 ug/mL for sucrose, raffinose and stachyose and Standard Level 4: 1000, 100, and 250 ug/mL for sucrose, raffinose and stachyose. A reference standard is used as well: 4.90, 0.70 and 1.40 mg/mL of sucrose, raffinose and stachyose. Data is converted to percentage of sugars.

PEST ASSESSMENT

Root-knot Nematode. Screenings of strains of UIV-S - UVIII for reaction to southern root-knot nematode (*Meloidogyne incognita* (Kofoid and White) Chitwood) (SRK), peanut root-knot nematode (*Meloidogyne arenaria* (Neal) Chitwood) (PRK), and *Meloidogyne javanica (*Treub) Chitwood (JRK) were conducted in a greenhouse at the University of Georgia by Dr. Melissa G. Mitchum.

Four 3-day-old seedlings of each genotype were individually transplanted in a Ray Leach Cone-tainer (20.6 cm long) filled with heat-sterilized sandy loam soil to within 5 cm of the top. Eight Cone-tainers each of a susceptible and resistant standard cultivar were included in each test. Forty-nine Cone-tainers were placed in a RL-98 tray, filling every other row of the tray. The trays were placed on a greenhouse bench under supplemental light provided by 400-watt high pressure sodium lamps. Seven days after planting, each Cone-tainer was inoculated with 2500 root-knot nematode eggs collected using the 0.5% NaOCL (10% Clorox) method. A hole at a depth of 2-3 cm was poked on each side of the seedling. One ml of inoculum (1250 eggs/mL) was placed in each hole with a digital dispensing pump. Plants were overhead watered manually for 14 days following inoculation before being placed on a greenhouse bench in an automatic pan irrigation system. All plants were fertilized weekly with 20-20-20 (N = 20%, P = 8.7%, K = 16.6%) fertilizer solution.

Six weeks after inoculation, shoots were excised and root systems removed from the Cone-tainers and washed free of soil. For screening genotypes in the Uniform Tests, the total number of galls per root system was counted. The galls on each root system were converted to a gall index (GI) relative to the average number of galls on the susceptible check (GaSoy17) using a scale of 1-5 where 1 = <10% GI; 2=11-20%, 3=21-30%, 4=31-40%, 5 = >40% GI. The average GI across the four replications of each genotype is reported.

Soybean Cyst Nematode (SCN). Screening for plant reaction to soybean cyst nematode (Heterodera glycines Ichinohe) (SCN) populations was conducted in the greenhouse at the ARS-Crop Genetics Research Unit in Jackson, TN in 2022. Screening for SCN was done with HG Type 1.2.5.7 (race 2) and HG Type 2.5.7 (race 5). One seed of each soybean entry (UIVS-UVIII and PIV-S-PVIII) was planted in sterile soil mix with 5 replications per each SCN population. At the time of planting, approximately 2,500 eggs of the population being evaluated were added to each pot. Approximately four weeks after planting, plants were rated based on the number of cysts on the roots. The ratings were as follows: 1 (resistant, R) = 0-5 cysts on the root, 2 (moderately resistant, MR) = 6-10 cysts on the root, 3 (moderately susceptible, MS) = 11-20 cysts on the root, 4 (susceptible, S) = 21-40 cysts on the root, and 5 (highly susceptible, HS) = >40 cysts on the root. The 5 replications were averaged and if there were less than 4 plants to rate, the screening was repeated, and the data was not shown if there were less than 4 plants for the rating. The mean rating = (rating category x number of plants receiving rating)/total number of plants in that comparison.

In 2022 the HG Types of the populations were as follows: HG Type 1.2.5.7 (race 2) and HG Type 2.5.7 (race 5). 5601T was used as the standard susceptible along with Hutcheson as an additional susceptible. The standard index lines were included in every test to confirm characterization. For HG Type 1.2.5.7, 5601T had an average of 152 cysts per test and Hutcheson had 230. The female index for the cultures were as follows: Pickett FI 45(%), PI 548402 FI 25(%), PI 88788 FI 36(%), PI 90763 FI 0(%), PI 437654 FI 0(%), PI 209332 FI 95(%), PI 89772 FI 0(%), and PI 548316 FI 48(%). For HG Type 2.5.7, 5601T had an average of 270 cysts per test and Hutcheson had 323. The female index for the cultures were as follows: Pickett FI 63(%), PI 548402 FI 6(%), PI 88788 FI 45(%), PI 90763 FI 0(%), PI 437654 FI 0(%), PI 209332 FI 85(%), PI 89772 FI 0(%), and PI 548316 FI 90(%)..

Stem Canker (SC). Soybean strains from all tests were evaluated at the Delta Research and Extension Center, Stoneville, Mississippi for their reaction to *Diaporthe aspalathi* E. Jansen, Castl. & Crous (Syn D. *phaseolorum* var *meridionalis*) (SC), the fungus that causes southern stem canker. Strains were planted in non-replicated single-

row plots 1.8 m long. Inoculum was produced by aseptically culturing isolates. Autoclaved, flat toothpicks containing a single isolate from Mississippi known as LiDA18-2 [isolated in 2006 (not 2018 as reported in prior annual reports) from Stoneville, MS, and also known as MS-SSC91] were provided by Dr. Shuxian Li, USDA-ARS. Eight plants per plot were inoculated by forcing a toothpick through the stem in the upper one-third of a young plant. Lesion development on the stem at the inoculation site was observed and noted approximately every 2 weeks beginning with initial signs of disease on the susceptible checks. Final scores were determined when the susceptible checks had been killed by the disease, or the plot was near maturity. Plants having any external lesion were considered as susceptible. The final score was based on the overall appearance of all inoculated plants in a plot.

A rating of R = resistant, MR = moderately resistant, SS = segregating or somewhat susceptible, MS = moderately susceptible or S = susceptible was applied to each strain and derived based on a comparison of the final score with the disease level of the susceptible checks. Leaf symptoms were based on the presence or absence of interveinal chlorosis as observed on inoculated plants. The presence of main stem lesions was observed at or around the point of inoculation based on the presence of a toothpick. Individual soybean strains were rated as follows:

1. No plants exhibited external lesions, no leaf damage and no dead plants (R).
2. No plants exhibited external lesions. A few plants showed minor leaf symptoms (MR).
3. Segregating for susceptible and resistant plants based on stem lesion; **or** minor external lesions and minor leaf symptoms, but no dead plants (SS).
4. All plants exhibited external lesions, all plant have leaf symptoms, some plants are not dead (MS).
5. All plants exhibited external lesion and all plants dead (S).

Symptom development in 2022 was less severe than in most prior years. Fewer plants were completely dead in the checks. The score for susceptible checks AG4403, USDA-N6005, and resistant checks S16-7922 and NC-Dunphy were 4.3, 4.5, 1 and 1, respectively.

Sudden Death Syndrome (SDS). SDS, which is caused by the fungus *Fusarium virguliforme*. SDS screening was discontinued in 2017 due to a lack of funding.

STATISTICAL ANALYSES

Yield, maturity, height, lodging and quality data for each test were analyzed by location by analysis of variance using a mixed model (Proc Mixed in SAS software) with variety as the fixed effect and replication as random effect. Coefficient of variation (CV), LSD ($\alpha = 0.05$) and LSD ($\alpha = 0.10$) were calculated from the Proc Mixed output for yield. LSmeans are presented when multiple replications of data were available. Any location that does not have at least two replications of yield data is not included in the yield analysis. In the cases when only I replication of data was provided for variables other than yield, the actual values for that replication were presented.

Yield, maturity, height, lodging and quality for each test were analyzed over all locations for the uniform tests and the preliminary tests by analysis of variance using a mixed model (Proc Mixed in SAS software) with variety as a fixed effect and location, replication nested within location, and the interaction of location and variety as random effects. Coefficient of variation (CV), LSD ($\alpha = 0.05$) and LSD ($\alpha = 0.10$)(for yield only) were calculated from the Proc Mixed output. **Yield data from locations with a yield CV of over 15 were omitted from yield test means and yield ranks.**

The protein and oil data for a variety/strain at a location is the NIR analysis results from one composite sample of all replications for each entry at the location, except in 2019 and 2020 when certain trials in the Uniform Tests had replicated data. Size data is collected either for all replications, or as a composite sample. Arithmetic means are presented for composite samples and LSmeans are presented for replicated data. Protein, oil and size were analyzed by test by analysis of variance using a mixed model (Proc Mixed in SAS) with variety as a fixed effect and location; as a random effect. Coefficient of variation (CV) and average LSD ($\alpha = 0.05$) were calculated from the Proc Mixed output. LSmeans are presented for the test means.

The Rank column in the general summary tables indicated the relative ranking of the yield based on the average performance of a line across locations. Locations with a high yield CV value are not included in Rank calculations.

The Average Rank column in the general summary tables indicates the yield rank of a line based on the average of a line's rank at each individual location. Locations with a high yield CV value are not included in Average Rank calculations.

When a 2-year mean is missing from the general summary table for a Uniform Test, the strain/variety was not in the test for the prior year. In this case the 3-year mean is the average of two years.

TABLE 1 - PARENTAGE OF ENTRIES
UNIFORM GROUP IV-S-EARLY 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	AG43XF2	Commercial check	check		RRX	
2	AG38XF1	Commercial check	check		RRX	
3	LD15-3818	Commercial check	check		CONV	
4	S13-3851C	Commercial check	check		CONV	
5	S17-20605C	S13-16675 x S13-10592	Shannon		CONV	SC, HOLL
6	S19-10701C	S15-17108 x DA10x30-09F	Shannon		CONV	SCN, RKN, SC
7	S19-1987R	S14-15138RR x S15-8839RR	Shannon		RR1	SCN, RKN, SC
8	S19-2100R	S14-15146RR/STS x LD11-13948R	Shannon		RR1	SCN, RKN, SC
9	S19-2591R	S15-7174RR x LD11-13948R	Shannon		RR1	SC
10	S19-3530RY	S15-2702RY x S15-3772RY	Shannon		RR2	
11	TN19-4734R1	S12-2336 x S12-8223	Pantalone	F4	RR1	>47.5 Meal Protein
12	V17-0454	R05-3239 x TN09-008	B. Zhang	F4	CONV	
13	V17-2379R	S09-6201 x V11-3163	B. Zhang	F4	RR1	
14	V17-2478R	S10-11200 x V11-3163	B. Zhang	F4	RR1	

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 2 - GENERAL SUMMARY OF PERFORMANCE
UNIFORM TEST IV-S-EARLY 2022

STRAIN/		AVG.	YIELD†			PROTEIN‡			OIL‡		
VARIETY	RANK	RANK	2022	21-22	20-22	2022	20-22	20-22	2022.0	21-22	20-22
AG43XF2	1	3	65.9	.	.	33.4	.	.	20.6	.	.
AG38XF1	2	6	56.5	.	.	35.2	.	.	19.6	.	.
LD15-3818	14	11	43.0	44.8	.	34.2	34.8	.	20.8	20.9	.
S13-3851C	3	5	55.3	59.3	.	34.4	34.8	.	20.5	20.3	.
S17-20605C	5	5	54.9	59.1	.	35.4	35.8	.	20.4	20.5	.
S19-10701C	4	5	55.0	.	.	34.9	.	.	19.4	.	.
S19-1987R	11	11	47.1	.	.	35.1	.	.	19.4	.	.
S19-2100R	9	8	49.8	.	.	35.1	.	.	19.8	.	.
S19-2591R	6	8	51.5	.	.	34.7	.	.	20.1	.	.
S19-3530RY	7	7	51.5	.	.	33.0	.	.	20.8	.	.
TN19-4734R1	8	8	50.4	.	.	37.3	.	.	17.6	.	.
V17-0454	13	8	45.9	51.2	.	34.2	34.6	.	19.7	19.5	.
V17-2379R	12	12	46.1	.	.	34.3	.	.	20.1	.	.
V17-2478R	10	9	48.4	53.7	.	33.9	34.7	.	19.4	19.1	.
Mean	.	.	51.5	.	.	34.7	.	.	19.9	.	.
LSD(0.05)	.	.	8.1	.	.	0.8	.	.	0.5	.	.
CV(%)	.	.	17.6	.	.	2.3	.	.	2.3	.	.

†Data not included in the test mean: 2020 Belle Mina and Springfield; 2021 Knoxville; 2022 Knoxville. Certain field trials had damage consistent with Dicamba exposure, which may have resulted in an unfair yield advantage for check lines with Dicamba resistance.

‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

TABLE 3 - GENERAL SUMMARY OF PERFORMANCE -Part 2
UNIFORM TEST IV-S-EARLY 2022

STRAIN/ VARIETY	MEAL† PRO %	MAT INDEX	LOD	HT	SEED QUALITY	SEED SIZE	FL. COLOR	PUB. COLOR	POD COLOR
AG43XF2	45.7	0	1.2	32	1.9	14.7			
AG38XF1	47.6	-5	1.2	28	2.0	16.6			
LD15-3818	46.9	-7	1.1	24	2.3	14.9			
S13-3851C	47.1	3	1.7	28	1.5	15.7			
S17-20605C	48.3	4	3.0	33	1.6	13.2	W	G	T
S19-10701C	47.1	4	1.3	26	1.8	12.2	W	T	T
S19-1987R	47.3	-5	1.4	29	1.6	14.6	P	LtT	T
S19-2100R	47.5	1	1.6	33	1.4	15.1	P	T	T
S19-2591R	47.2	1	1.2	26	1.8	15.9	P	T	T
S19-3530RY	45.3	-3	1.3	28	1.9	15.8	W	G	T
TN19-4734R1	49.2	4	1.2	30	1.3	14.8	P	T	
V17-0454	46.3	4	1.2	20	1.4	15.4	P	T	
V17-2379R	46.9	5	1.8	31	1.6	14.0	P	G	
V17-2478R	45.6	6	1.4	32	1.7	14.3	P	G	
Mean	47.0	1	1.5	29	1.7	14.8			
LSD(0.05)	1.0	3	0.4	3	0.4	0.8			
CV(%)	2.1	438	32	13	29.0	6.3			

† Estimated meal protein content was added to the annual report in 2018.

TABLE 4 - GENERAL SUMMARY OF PEST REACTION
UNIFORM TEST IV-S-EARLY 2022

STRAIN/	SCN Cyst Score (1-5 Scale)†			RKN Gall Score (1-5 Scale)‡			SC	SC
VARIETY	Race 2	Race 3	Race 5	PRK	SRK	JRK	RATING	SCORE
AG43XF2	5	.	5	3.5	5.0	.	R	1
AG38XF1	5	.	5	2.3	5.0	.	R	1
LD15-3818	5	.	4	5.0	5.0	.	R	1
S13-3851C	5	.	5	3.0	4.3	.	R	1
S17-20605C	5	.	5	5.0	5.0	.	R	1
S19-10701C	5	.	3	4.8	3.5	.	R	1
S19-1987R	5	.	4	5.0	3.8	.	R	1
S19-2100R	4	.	5	5.0	4.8	.	R	1
S19-2591R	5	.	3	5.0	5.0	.		.
S19-3530RY	5	.	5	5.0	3.8	.		.
TN19-4734R1	5	.	4	5.0	4.3	.		.
V17-0454	5	.	4	5.0	5.0	.		.
V17-2379R	5	.	5	5.0	2.5	.		.
V17-2478R	5	.	5	4.0	5.0	.	R	1

†The race 2, 3, and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7, HG Type 0, and HG Type 2.5.7, respectively. Results for race 3 were omitted.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)MR = mixed reaction.

TABLE 5 - SEED YIELD (BUSHELS PER ACRE)
UNIFORM TEST IV-S-EARLY 2022 †

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR *	Knoxville, TN	Portageville, MO(A) *	Portageville, MO(B) *	Springfield, TN	Stoneville, MS *	Test Mean
AG43XF2	19.9	68.7	69.2	73.7	59.1	102.4	74.7	44.6	73.9	65.9
AG38XF1	17.5	55.6	52.3	67.5	51.6	84.6	65.5	46.4	62.6	56.5
LD15-3818	14.2	66.5	63.5	47.5	62.0	36.3	26.8	38.7	50.5	43.0
S13-3851C	21.5	64.8	65.6	55.9	73.4	71.0	40.8	50.0	72.8	55.3
S17-20605C	21.9	58.6	64.7	57.7	63.9	70.0	45.9	55.3	65.2	54.9
S19-10701C	23.3	53.3	64.8	62.1	61.8	63.8	52.0	52.9	68.0	55.0
S19-1987R	12.9	52.5	58.3	56.0	54.5	58.7	42.2	39.3	57.0	47.1
S19-2100R	19.9	57.6	51.0	52.9	59.3	70.2	51.4	46.2	49.0	49.8
S19-2591R	17.1	54.0	64.8	57.4	53.8	60.3	45.0	46.9	66.6	51.5
S19-3530RY	19.6	57.2	54.8	58.7	50.4	61.0	55.9	48.0	56.4	51.5
TN19-4734R1	19.9	57.4	49.5	52.3	60.8	68.1	44.3	49.7	61.7	50.4
V17-0454	22.8	60.3	67.0	53.3	42.0	24.9	36.9	49.3	53.2	45.9
V17-2379R	17.6	51.6		50.8	51.0	58.9	36.9	45.4	53.3	46.1
V17-2478R	26.8	52.6	56.5	47.5	61.2	65.8	37.4	45.6	55.1	48.4
Mean	19.6	57.9	60.1	56.7	57.5	64.0	46.8	47.0	60.4	51.5
LSD(0.05)	3.9	8.4	9.3	4.1	16.4	12.5	6.9	11.6	9.0	8.1
LSD(0.10)	3.3	6.9	7.7	3.4	13.6	10.3	5.7	9.6	7.5	6.7
CV(%)	12.0	8.3	8.8	4.3	16.6	11.6	8.7	14.7	8.9	17.6

†Data not included in the test mean: Knoxville.
* Locations with obvious damage consistent with exposure to the herbicide Dicamba.

TABLE 6 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	8/24	10/6	9/28	9/21	9/25	10/5	10/10	9/28	9/12	9/24
AG38XF1	0	-4	-6	-2	-10	-11	-4	-4	-7	-5
LD15-3818	0	-8	-9	-2	-9	-14	-3	-5	-12	-7
S13-3851C	15	0	1	4	0	4	2	-1	1	3
S17-20605C	17	0	4	8	0	5	2	1	2	4
S19-10701C	23	-1	-2	4	2	1	1	0	3	4
S19-1987R	0	-6	-7	-2	-9	-5	1	-4	-14	-5
S19-2100R	5	-1	0	5	-1	4	2	-3	0	1
S19-2591R	5	1	0	2	-1	2	1	-2	-2	1
S19-3530RY	1	-4	-6	-1	-3	-9	0	-2	-7	-3
TN19-4734R1	20	2	0	6	3	5	2	1	2	4
V17-0454	23	4	3	4	-1	-5	1	1	1	4
V17-2379R	18	-2		8	2	4	3	2	5	5
V17-2478R	22	3	3	8	3	5	5	1	6	6
Mean	11	-1	-2	3	-2	-1	1	-1	-2	1
LSD(0.05)	2	2	4	2	2	3	2	1	1	3
CV(%)	9	91	136	32	59	204	149	76	43	438

TABLE 7 - PLANT HEIGHT (INCHES)
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	22	30	35	40	29	37	30	30	31	32
AG38XF1	22	27	30	30	28	36	27	28	26	28
LD15-3818	19	28	30	29	28	16	17	27	23	24
S13-3851C	25	27	34	30	30	29	19	30	30	28
S17-20605C	25	39	41	34	30	30	25	36	32	33
S19-10701C	23	35	28	25	24	19	20	33	30	26
S19-1987R	24	35	36	27	32	25	23	32	33	29
S19-2100R	28	37	38	34	35	31	26	34	35	33
S19-2591R	20	36	31	28	28	24	18	27	24	26
S19-3530RY	25	30	35	29	29	23	23	31	30	28
TN19-4734R1	23	37	34	33	30	27	21	33	31	30
V17-0454	22	25	27	17	20	11	15	26	18	20
V17-2379R	26	38		35	32	27	21	36	29	31
V17-2478R	27	36	38	34	32	32	21	32	35	32
Mean	24	33	34	30	29	26	22	31	29	29
LSD(0.05)	3	2	4	5	5	4	3	5	6	3
CV(%)	8	3	7	10	10	8	8	9	9	13

TABLE 8 - PLANT LODGING (1-5)
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	1.0	1.5	1.0	1.0	2.2	1.0	1.0	1.0	1.5	1.2
AG38XF1	1.0	1.7	1.0	1.0	2.0	1.0	1.0	1.0	1.5	1.2
LD15-3818	1.0	1.3	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.1
S13-3851C	1.0	2.0	1.3	2.7	2.0	2.0	1.0	1.0	2.0	1.7
S17-20605C	1.0	3.5	4.0	4.0	3.2	4.0	2.7	1.0	3.5	3.0
S19-10701C	1.0	2.0	1.0	1.0	2.2	1.0	1.3	1.0	1.0	1.3
S19-1987R	1.0	2.2	1.7	1.0	2.7	1.0	1.0	1.0	1.5	1.4
S19-2100R	1.0	2.0	2.0	1.3	2.3	1.0	1.3	1.0	2.0	1.6
S19-2591R	1.0	1.5	1.0	1.0	2.2	1.0	1.0	1.0	1.0	1.2
S19-3530RY	1.0	1.8	1.0	1.0	2.2	1.0	1.0	1.0	1.5	1.3
TN19-4734R1	1.0	1.5	1.5	1.0	2.0	1.0	1.0	1.0	1.0	1.2
V17-0454	1.0	1.5	1.0	1.0	1.8	1.0	1.0	1.0	1.0	1.2
V17-2379R	1.0	2.8	.	2.7	2.7	2.0	1.0	1.0	1.0	1.8
V17-2478R	1.0	1.5	1.7	1.3	2.0	1.7	1.3	1.0	1.5	1.4
Mean	1.0	1.9	1.5	1.5	2.2	1.4	1.2	1.0	1.5	1.5
LSD(0.05)	.	0.4	0.5	0.5	0.4	0.5	0.7	.	1.0	0.4
CV(%)	0.0	11.4	19.7	20.6	10.3	22.0	33.1	0.0	30.9	31.7

TABLE 9 - SEED QUALITY (1-5)
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	3.7	1.0	2.7	1.3	1.0	2.0	2.0	1.2	.	1.9
AG38XF1	3.0	1.0	2.7	1.7	1.0	3.0	2.0	1.3	.	2.0
LD15-3818	3.7	1.0	3.7	2.0	1.7	2.0	2.0	1.7	.	2.3
S13-3851C	2.7	1.0	2.7	1.3	1.0	1.0	1.0	1.0	.	1.5
S17-20605C	2.7	1.0	2.0	1.3	1.2	1.7	1.7	1.0	.	1.6
S19-10701C	2.0	2.0	2.3	2.0	1.0	2.0	2.0	1.0	.	1.8
S19-1987R	2.7	2.0	2.3	1.3	1.0	1.7	1.0	1.2	.	1.6
S19-2100R	1.7	1.0	2.3	1.3	1.2	1.3	1.7	1.0	.	1.4
S19-2591R	3.0	2.0	2.7	1.3	1.3	1.7	1.3	1.0	.	1.8
S19-3530RY	3.0	1.0	2.7	1.7	1.5	2.0	1.7	1.3	.	1.9
TN19-4734R1	1.7	1.0	2.0	1.0	1.0	1.3	1.3	1.0	.	1.3
V17-0454	1.0	1.0	2.0	2.0	1.0	1.7	1.0	1.2	.	1.4
V17-2379R	2.0	2.0		1.3	1.0	1.7	1.7	1.0	.	1.6
V17-2478R	2.0	2.0	2.0	1.0	1.2	2.3	2.0	1.0	.	1.7
Mean	2.5	1.4	2.5	1.5	1.1	1.8	1.6	1.1	.	1.7
LSD(0.05)	0.8	.	0.8	0.7	0.3	0.7	0.6	0.3	.	0.4
CV(%)	19.5	.	19.2	28.3	15.1	24.1	23.7	16.6	.	29.3

TABLE 10 - SEED SIZE (GRAMS PER 100 SEED)
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	13.2	16.1	14.3	13.9	12.8	16.4	15.6	15.5	14.3	14.7
AG38XF1	14.7	17.5	16.0	17.1	14.0	17.8	17.7	17.6	16.7	16.6
LD15-3818	12.6	17.3	14.2	14.6	14.1	14.5	15.9	15.7	15.8	14.9
S13-3851C	14.1	18.0	15.7	14.5	13.1	17.2	15.9	16.9	15.9	15.7
S17-20605C	10.0	14.3	13.5	13.2	11.2	14.2	14.3	15.3	12.4	13.2
S19-10701C	12.0	12.6	11.7	11.7	10.4	12.8	12.6	13.1	13.3	12.2
S19-1987R	13.5	14.4	14.5	14.8	12.0	15.1	14.7	15.7	17.1	14.6
S19-2100R	13.0	17.0	15.2	13.5	13.6	16.7	15.9	16.3	15.2	15.1
S19-2591R	13.6	18.2	15.4	14.9	13.1	16.1	17.0	18.4	17.0	15.9
S19-3530RY	12.0	18.2	14.9	15.5	15.1	15.8	16.3	17.6	16.9	15.8
TN19-4734R1	12.7	16.6	14.7	13.4	14.6	14.9	16.3	16.1	13.4	14.8
V17-0454	13.2	17.0	16.0	13.7	13.5	15.7	16.0	17.1	16.9	15.4
V17-2379R	14.6	15.2	.	12.7	12.7	13.4	13.2	15.7	14.9	14.0
V17-2478R	12.4	14.9	14.9	13.6	13.6	15.5	14.1	16.5	13.2	14.3
Mean	13.0	16.2	14.7	14.1	13.1	15.4	15.4	16.2	15.2	14.8
LSD(0.05)	1.4	.	1.3	0.7	0.5	0.8	0.7	1.0	.	0.8
CV(%)	6.6	.	5.0	3.2	2.3	3.3	2.7	3.6	.	6.3

TABLE 11 - OIL (%)†
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	21.3	20.4	20.5	20.6	21.4	20.2	.	20.5	20.1	20.6
AG38XF1	20.0	19.6	19.3	19.2	20.0	19.0	.	19.8	20.0	19.6
LD15-3818	22.0	20.2	20.3	20.3	20.9	20.3	.	20.2	21.9	20.8
S13-3851C	21.5	20.1	19.5	20.3	20.7	19.2	.	20.8	22.2	20.5
S17-20605C	21.7	20.2	20.2	20.5	21.1	19.7	.	20.2	19.9	20.4
S19-10701C	20.8	19.1	19.0	18.9	19.2	18.9	.	19.4	20.1	19.4
S19-1987R	20.7	20.4	18.3	18.9	19.4	18.7	.	19.7	19.2	19.4
S19-2100R	20.9	20.2	19.3	19.6	20.3	19.4	.	20.1	18.6	19.8
S19-2591R	21.4	19.9	19.5	20.6	20.7	19.4	.	19.9	19.3	20.1
S19-3530RY	21.7	20.3	20.5	20.7	21.7	20.6	.	20.1	21.2	20.8
TN19-4734R1	18.9	17.3	17.2	18.0	18.4	16.6	.	17.7	17.2	17.6
V17-0454	20.4	19.2	19.3	19.8	19.7	19.8	.	19.8	19.7	19.7
V17-2379R	21.2	19.9		19.7	20.3	19.0	.	19.5	20.8	20.0
V17-2478R	20.0	19.3	19.1	19.3	20.2	18.7	.	19.5	19.0	19.4
Mean	20.9	19.7	19.4	19.7	20.3	19.3	.	19.8	19.9	19.9
LSD(0.05)	.	.	.	.	.	.	.	.	.	0.5
CV(%)	.	.	.	.	.	.	.	.	.	2.3

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 12 - PROTEIN (%)†
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	31.1	32.2	34.5	33.3	32.9	34.3	.	33.4	35.3	33.4
AG38XF1	33.0	33.7	36.8	35.3	35.4	35.6	.	34.2	37.5	35.2
LD15-3818	31.8	34.0	36.6	32.8	35.2	33.1	.	34.9	35.4	34.2
S13-3851C	30.8	33.5	36.7	34.1	34.1	37.1	.	33.3	35.8	34.4
S17-20605C	32.1	33.1	36.4	34.9	34.9	35.9	.	35.1	40.5	35.4
S19-10701C	31.6	33.5	36.8	36.0	35.4	35.8	.	33.9	36.1	34.9
S19-1987R	32.1	32.7	38.1	35.4	35.0	36.3	.	34.5	36.7	35.1
S19-2100R	32.0	33.6	37.0	34.7	35.2	35.8	.	34.7	37.5	35.1
S19-2591R	32.2	35.0	36.1	33.5	34.3	35.0	.	35.5	36.4	34.7
S19-3530RY	31.0	32.2	33.9	32.3	32.9	33.7	.	33.3	34.5	33.0
TN19-4734R1	33.8	36.8	39.2	37.2	37.0	38.7	.	37.3	38.2	37.3
V17-0454	32.4	33.4	35.7	33.5	34.9	35.1	.	34.0	34.8	34.2
V17-2379R	32.3	32.4	.	34.8	34.7	36.3	.	34.1	35.5	34.5
V17-2478R	31.2	32.3	35.4	33.8	33.0	35.5	.	32.8	36.9	33.9
Mean	31.9	33.4	36.4	34.4	34.6	35.6	.	34.4	36.5	34.7
LSD(0.05)	.	.	.	.	.	.	.	.	.	0.8
CV(%)	.	.	.	.	.	.	.	.	.	2.3

†Protein percentage reported on a 13% moisture basis beginning in 2015.

TABLE 13 - ESTIMATED MEAL PROTEIN (%)†
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	42.9	43.9	47.2	45.5	45.5	46.7	.	45.7	48.0	45.7
AG38XF1	44.8	45.5	49.6	47.4	48.1	47.8	.	46.3	50.9	47.6
LD15-3818	44.3	46.3	49.9	44.7	48.4	45.2	.	47.5	49.3	46.9
S13-3851C	42.6	45.5	49.5	46.5	46.8	50.0	.	45.7	50.0	47.1
S17-20605C	44.6	45.1	49.6	47.8	48.1	48.6	.	47.8	55.0	48.3
S19-10701C	43.3	45.0	49.4	48.3	47.6	48.0	.	45.7	49.1	47.1
S19-1987R	43.9	44.7	50.6	47.4	47.2	48.5	.	46.7	49.4	47.3
S19-2100R	43.9	45.8	49.8	46.9	48.0	48.3	.	47.2	50.1	47.5
S19-2591R	44.6	47.5	48.7	45.8	46.9	47.2	.	48.2	49.0	47.2
S19-3530RY	43.0	43.9	46.4	44.3	45.6	46.2	.	45.3	47.6	45.3
TN19-4734R1	45.3	48.4	51.4	49.4	49.3	50.5	.	49.2	50.1	49.2
V17-0454	44.2	44.9	48.1	45.4	47.2	47.6	.	46.1	47.1	46.3
V17-2379R	44.6	43.9	.	47.1	47.3	48.7	.	46.1	48.7	46.9
V17-2478R	42.4	43.5	47.6	45.4	44.9	47.5	.	44.3	49.5	45.6
Mean	43.9	45.3	49.1	46.6	47.2	47.9	.	46.6	49.6	47.0
LSD(0.05)	.	.	.	.	.	.	.	.	.	1.0
CV(%)	.	.	.	.	.	.	.	.	.	2.1

SUMMARY OF SEED FATTY ACIDS (%)
UNIFORM TEST IV-S-EARLY 2022 †

STRAIN/ VARIETY	Palmitic Acid	Stearic Acid	Oleic Acid	Linoleic Acid	Linolenic Acid
AG43XF2	10.2	4.5	23.6	55.4	6.3
AG38XF1	11.9	4.2	22.6	54.6	6.7
S17-20605C	7.3	3.1	79.1	5.9	4.7
Mean	9.8	3.9	41.8	38.6	5.9
LSD(0.05)	0.4	0.3	3.5	2.9	0.5
CV(%)	3.8	6.9	8.5	7.5	8.5

†Fatty acid percentage in seed oil reported beginning in 2017.

SEED PALMITIC ACID (%)
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	10.1	10.7	10.2	10.0	9.5	10.6	10.2	10.7	10.0	10.2
AG38XF1	12.4	11.9	11.7	11.9	11.9	12.0	11.3	11.5	12.3	11.9
S17-20605C	7.3	7.1	7.2	7.1	7.1	8.5	7.2	7.3	7.0	7.3
Mean	9.9	9.9	9.7	9.7	9.5	10.4	9.5	9.8	9.8	9.8
LSD(0.05)	.	.	.	.	.	.	.	.	.	0.4
CV(%)	.	.	.	.	.	.	.	.	.	3.8

SEED STEARIC ACID (%)
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	4.4	5.1	4.3	4.3	4.9	4.2	4.4	5.0	4.0	4.5
AG38XF1	4.0	4.7	3.9	3.8	4.5	4.5	4.0	4.9	3.3	4.2
S17-20605C	2.7	3.2	3.1	3.2	2.8	3.3	3.1	3.3	2.8	3.1
Mean	3.7	4.3	3.8	3.8	4.1	4.0	3.8	4.4	3.4	3.9
LSD(0.05)	.	.	.	.	.	.	.	.	.	0.3
CV(%)	.	.	.	.	.	.	.	.	.	6.9

SEED OLEIC ACID (%)
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	19.2	22.3	21.5	25.8	25.2	20.5	26.8	25.5	25.9	23.6
AG38XF1	18.6	22.1	22.3	22.9	21.7	22.6	25.7	26.9	20.3	22.6
S17-20605C	82.7	79.5	80.3	80.4	81.4	64.5	79.9	80.4	82.7	79.1
Mean	40.2	41.3	41.3	43.0	42.8	35.9	44.1	44.3	43.0	41.8
LSD(0.05)	.	.	.	.	.	.	.	.	.	3.5
CV(%)	.	.	.	.	.	.	.	.	.	8.5

SEED LINOLEIC ACID (%)
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	59.6	55.4	57.4	54.2	54.1	57.4	52.7	52.6	54.9	55.4
AG38XF1	57.5	53.8	55.4	54.8	54.9	54.1	52.7	50.7	58.1	54.6
S17-20605C	3.4	4.6	5.0	4.8	4.4	17.5	4.7	4.3	4.4	5.9
Mean	40.1	37.9	39.3	37.9	37.8	43.0	36.7	35.9	39.1	38.6
LSD(0.05)	.	.	.	.	.	.	.	.	.	2.9
CV(%)	.	.	.	.	.	.	.	.	.	7.5

SEED LINOLENIC ACID (%)
UNIFORM GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Belle Mina, AL	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Test Mean
AG43XF2	6.8	6.6	6.6	5.8	6.2	7.3	5.9	6.2	5.2	6.3
AG38XF1	7.5	7.6	6.8	6.6	7.0	6.8	6.4	6.0	5.9	6.7
S17-20605C	4.0	5.6	4.4	4.6	4.4	6.2	5.2	4.7	3.2	4.7
Mean	6.1	6.6	5.9	5.7	5.8	6.8	5.8	5.6	4.8	5.9
LSD(0.05)	.	.	.	.	.	.	.	.	.	0.5
CV(%)	.	.	.	.	.	.	.	.	.	8.5

INTENTIONALLY BLANK

TABLE 14 - PARENTAGE OF ENTRIES
UNIFORM GROUP IV-S-LATE 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	S16-7922	Commercial check	check		CONV	
2	AG46X6	Commercial check	check		RRX	
3	AG48X9	Commercial check	check		RRX	
4	AG48XF2	Commercial check	check		RRX	
5	DA13092-015F	DB04-10836 x JTN-5203	A. Gillen		CONV	
6	DA1539-109F	DB04-10836 x R10-5086	A. Gillen		CONV	
7	DA1541-102F	DA1036-14F x DA1030-09F	A. Gillen		CONV	
8	DS1061-25	R99-1613F x JTN-5203	J.R. Smith	F5	CONV	Resistant Reniform nematode
9	R18-14502	S09-13635/R12-712	A. Acuña		CONV	
10	S17-17644C	R09-430 x S11-20124	Shannon		CONV	SCN, RKN, SC
11	S17-2066C	S11-20124 x S13-11940	Shannon		CONV	SCN, SC
12	S18-3722R	S14-2088 x S14-15164GT	Shannon		RR1	SCN, SC
13	S18-6097C	Ellis x S12-4718	Shannon		CONV	SCN, RKN, SC
14	S18PR-190C	S11-16653 BC-2-102	Shannon		CONV	SCN, RKN, SC, HOLL
15	S19-19741C	S11-16653 BC-7-73	Shannon		CONV	SCN, RKN, SC, HOLL
16	TN18-4006	S09-9943 x 13-531-261 BC1F3	Pantalone	F4	CONV	HO
17	TN18-4047	NCC09-200719-1-37 x 2013-50,454	Pantalone	F4	CONV	
18	TN19-4053	TN11-5095 x HM11-W192	Pantalone	F4	CONV	>47.5 Meal Protein
19	TN19-4714R1	S12-2418 x S12-8223	Pantalone	F4	RR1	>47.5 Meal Protein
20	TN20-4050	TN14-5017 x S11-17025	Pantalone	F4	CONV	
21	TN20-4051	TN14-5017 x S11-17025	Pantalone	F4	CONV	
22	V16-0293	S08-17361 x JTN-4307	B. Zhang	F4	CONV	
23	V17-0460	JTN-5203 x Hanover (SCN)	B. Zhang	F4	CONV	

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 15 - GENERAL SUMMARY OF PERFORMANCE
UNIFORM TEST IV-S-LATE 2022

STRAIN/		AVG.	YIELD†			PROTEIN‡			OIL‡		
VARIETY	RANK	RANK	2022	21-22	20-22	2022	20-22	20-22	2022	21-22	20-22
S16-7922	8	7	56.4	65.2	63.5	34.4	35.2	35.1	19.5	19.4	19.3
AG46X6	2	7	65.2	68.4	66.5	34.8	34.9	34.9	19.6	19.5	19.5
AG48X9	1	5	67.6	74.2	70.3	34.9	35.0	34.8	19.5	19.8	19.7
AG48XF2	3	7	63.2	.	.	34.3	.	.	19.4	.	.
DA13092-015F	11	11	53.2	63.1	.	34.5	35.1	.	19.0	19.0	.
DA1539-109F	18	15	50.6	.	.	36.6	.	.	17.5	.	.
DA1541-102F	12	14	52.0	.	.	35.9	.	.	18.8	.	.
DS1061-25	9	12	54.4	.	.	34.6	.	.	19.9	.	.
R18-14502	6	8	57.1	.	.	35.9	.	.	18.4	.	.
S17-17644C	4	6	59.6	.	.	33.7	.	.	18.9	.	.
S17-2066C	7	9	56.5	.	.	34.3	.	.	18.5	.	.
S18-3722R	5	9	57.3	.	.	33.4	.	.	20.2	.	.
S18-6097C	15	14	51.6	62.2	.	34.6	35.3	.	19.2	19.1	.
S18PR-190C	17	14	51.0	.	.	35.3	.	.	19.8	.	.
S19-19741C	13	13	52.0	.	.	36.4	.	.	19.7	.	.
TN18-4006	19	16	50.1	.	.	35.7	.	.	19.7	.	.
TN18-4047	23	14	47.3	58.7	.	33.9	34.3	.	19.4	19.3	.
TN19-4053	14	15	51.7	.	.	37.3	.	.	18.7	.	.
TN19-4714R1	16	16	51.2	.	.	37.9	.	.	17.8	.	.
TN20-4050	21	17	47.6	.	.	34.0	.	.	19.8	.	.
TN20-4051	20	15	49.0	.	.	34.3	.	.	19.5	.	.
V16-0293	10	14	54.0	62.1	60.7	31.8	33.3	33.6	20.2	20.1	19.9
V17-0460	22	17	47.3	.	.	35.1	.	.	18.6	.	.
Mean	.	.	54.2	.	.	34.9	.	.	19.2	.	.
LSD(0.05)	.	.	7.1	.	.	0.9	.	.	0.5	.	.
CV(%)	.	.	17.5	.	.	2.9	.	.	2.8	.	.

†Data not included in the test mean: 2021 Bossier City and Orange; 2022 Belle Mina. Certain field trials had damage consistent with Dicamba exposure, which may have resulted in an unfair yield advantage for check lines with Dicamba resistance.

‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

TABLE 16 - GENERAL SUMMARY OF PERFORMANCE -Part 2
UNIFORM TEST IV-S-LATE 2022

STRAIN/ VARIETY	MEAL† PRO %	MAT INDEX	LOD	HT	SEED QUALITY	SEED SIZE	FL. COLOR	PUB. COLOR	POD COLOR
S16-7922	46.5	0	1.6	29	1.5	15.1			
AG46X6	47.0	-3	1.5	34	2.1	17.3			
AG48X9	47.2	-3	1.3	35	1.8	16.2			
AG48XF2	46.2	-3	1.6	33	1.4	16.6			
DA13092-015F	46.3	1	1.2	24	1.7	12.7	S	T	
DA1539-109F	48.3	0	1.4	26	1.8	14.5	P	G	
DA1541-102F	48.0	1	1.3	23	1.5	12.2	P	G	
DS1061-25	47.0	-2	1.6	34	1.5	13.6	P	Tw	Tn
R18-14502	47.8	-1	2.2	35	1.6	15.8	P	G	T
S17-17644C	45.2	-1	1.7	27	1.5	13.4	W	T	T
S17-2066C	45.7	0	1.4	28	1.4	14.5	W	T	T
S18-3722R	45.5	-1	1.6	32	1.6	14.4	W	T	T
S18-6097C	46.5	0	1.3	24	1.6	14.0	P	LtT	T
S18PR-190C	47.8	-2	1.3	23	1.6	14.8	P	G	T
S19-19741C	49.2	-3	1.4	27	1.6	15.0	W	G	T
TN18-4006	48.3	-2	1.3	29	1.8	16.2	W	T	
TN18-4047	45.7	0	1.1	20	1.7	14.7	P	G	
TN19-4053	49.9	2	2.0	37	2.0	17.0	P	G	
TN19-4714R1	50.1	-3	1.3	34	1.5	16.1	W	T	
TN20-4050	46.0	1	1.1	23	1.7	12.7	W	T	
TN20-4051	46.3	-1	1.4	22	1.5	13.3	W	G	
V16-0293	43.3	-1	1.3	32	1.4	16.4	W	T	
V17-0460	46.9	-2	1.1	22	1.6	14.0	W	T	
Mean	47.0	-1	1.4	28	1.6	14.8			
LSD(0.05)	1.2	2	0.4	4	0.6	0.8			
CV(%)	2.7	207	40	17	42.0	7.1			

† Estimated meal protein content was added to the annual report in 2018.

TABLE 17 - GENERAL SUMMARY OF PEST REACTION
UNIFORM TEST IV-S-LATE 2022

STRAIN/	SCN Cyst Score (1-5 Scale)†			RKN Gall Score (1-5 Scale)‡			SC	SC
VARIETY	Race 2	Race 3	Race 5	PRK	SRK	JRK	RATING	SCORE
S16-7922	3	.	3	3.0	2.8	.	R	1
AG46x6	4	.	3	1.3	5.0	.	R	1
AG48X9	4	.	4	3.0	5.0	.	R	1
AG48XF2	5	.	5	2.0	5.0	.	R	1
DA13092-015F	3	.	4	5.0	5.0	.	R	1
DA1539-109F	5	.	4	4.8	4.3	.	SS	3
DA1541-102F	5	.	5	5.0	4.8	.	R	1
DS1061-25	3	.	3	2.8	5.0	.	R	1
R18-14502	5	.	5	2.7	5.0	.	R	1
S17-17644C	1	.	1	2.5	3.8	.	R	1
S17-2066C	5	.	5	1.3	3.3	.	R	1
S18-3722R	5	.	4	5.0	4.8	.	R	1
S18-6097C	1	.	2	1.8	3.7	.	R	1
S18PR-190C	1	.	1	2.8	3.0	.	R	1
S19-19741C	2	.	1	2.8	5.0	.	R	1
TN18-4006	4	.	5	5.0	5.0	.	R	1
TN18-4047	5	.	4	5.0	5.0	.	R	1
TN19-4053	4	.	5	5.0	4.8	.	R	1
TN19-4714R1	5	.	5	4.7	4.5	.	R	1
TN20-4050	1	.	1	5.0	5.0	.	SS	3
TN20-4051	1	.	1	5.0	2.8	.	SS	3
V16-0293	5	.	4	5.0	5.0	.	R	1
V17-0460	4	.	2	5.0	5.0	.	MS	4

†The race 2, 3, and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7, HG Type 0, and HG Type 2.5.7, respectively. Results for race 3 were omitted.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)MR = mixed reaction.

TABLE 18 - SEED YIELD (BUSHELS PER ACRE)
UNIFORM TEST IV-S-LATE 2022 †

STRAIN/ VARIETY	Belle Mina, AL	Keiser, AR *	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(A) *
S16-7922	14.0	64.0	60.5	26.1	65.8	45.6	61.3
AG46X6	14.7	69.7	60.4	18.8	82.6	41.0	93.5
AG48X9	18.5	73.5	83.8	23.3	77.0	44.6	95.4
AG48XF2	14.7	58.1	64.0	20.1	66.9	36.3	95.5
DA13092-015F	13.8	62.1	55.1	25.2	77.4	43.1	46.4
DA1539-109F	24.9	57.4	49.4	24.0	64.4	33.6	49.8
DA1541-102F	23.9	51.2	55.7	20.7	74.3	37.2	53.5
DS1061-25	14.8	50.3	46.3	24.5	70.0	42.9	79.0
R18-14502	19.5	59.2	63.7	25.1	60.8	43.4	79.9
S17-17644C	20.6	67.0	69.1	27.2	65.8	43.6	78.4
S17-2066C	15.0	55.8	60.4	26.8	68.1	39.6	69.6
S18-3722R	23.5	59.8	65.1	19.6	86.1	43.9	67.1
S18-6097C	25.2	55.8	48.6	18.2	66.6	42.3	45.4
S18PR-190C	15.6	46.6	55.3	21.1	71.1	45.4	53.2
S19-19741C	14.6	49.1	46.7	22.1	53.2	45.2	64.2
TN18-4006	7.7	47.7	51.4	19.7	53.1	35.4	63.2
TN18-4047	18.4	58.0	50.4	21.0	60.0	44.8	33.5
TN19-4053	17.0	54.3	54.3	18.7	58.2	39.2	64.6
TN19-4714R1	8.1	43.9	61.1	16.3	56.8	32.8	78.9
TN20-4050	16.3	53.8	30.9	23.3	65.0	42.8	58.6
TN20-4051	10.7	47.3	51.5	22.1	74.8	42.6	42.8
V16-0293	18.8	57.3	55.2	20.9	81.7	36.4	71.2
V17-0460	13.2	52.1	36.5	19.1	74.7	40.1	40.5
Mean	16.7	56.3	55.4	21.9	68.5	40.9	64.6
LSD(0.05)	11.0	10.9	12.8	2.6	17.0	4.1	13.9
LSD(0.10)	9.1	9.0	10.7	2.1	14.1	3.4	11.6
CV(%)	38.3	11.6	14.1	7.1	15.1	6.0	13.1

†Data not included in the test mean: Belle Mina.
* Locations with obvious damage consistent with exposure to the herbicide Dicamba.

TABLE 18 - SEED YIELD (BUSHELS PER ACRE) (continued)
UNIFORM TEST IV-S-LATE 2022 †

STRAIN/ VARIETY	Portageville, MO(B) *	Springfield, TN	Stoneville, MS *	Stuttgart, AR *	Test Mean
S16-7922	47.8	56.8	56.7	79.1	56.4
AG46X6	75.8	52.5	74.7	81.0	65.2
AG48X9	78.1	52.2	66.7	81.3	67.6
AG48XF2	74.7	61.6	73.8	81.0	63.2
DA13092-015F	37.0	56.1	58.0	72.0	53.2
DA1539-109F	43.0	51.5	63.4	70.1	50.6
DA1541-102F	43.3	56.7	55.6	72.1	52.0
DS1061-25	46.3	53.5	56.8	74.6	54.4
R18-14502	50.2	54.7	58.3	75.6	57.1
S17-17644C	49.9	60.2	59.9	74.5	59.6
S17-2066C	55.4	55.8	56.6	76.9	56.5
S18-3722R	43.7	58.6	55.9	72.9	57.3
S18-6097C	44.5	58.0	63.0	73.2	51.6
S18PR-190C	38.1	48.5	56.3	74.4	51.0
S19-19741C	43.3	60.8	62.9	72.2	52.0
TN18-4006	44.3	56.5	56.0	73.3	50.1
TN18-4047	22.5	56.2	50.1	76.5	47.3
TN19-4053	47.6	58.6	.	66.8	51.7
TN19-4714R1	.	53.7	52.0	73.7	51.2
TN20-4050	29.1	50.1	48.8	73.4	47.6
TN20-4051	29.9	55.6	48.9	75.1	49.0
V16-0293	41.1	50.8	51.0	74.0	54.0
V17-0460	35.0	51.3	44.7	78.6	47.3
Mean	46.4	55.2	57.7	74.9	54.2
LSD(0.05)	7.8	10.6	7.3	8.1	7.1
LSD(0.10)	6.5	8.9	6.1	6.8	5.9
CV(%)	10.2	11.7	7.4	6.1	17.5

TABLE 19 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Keiser, AR	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(A)	Portageville, MO(B)
S16-7922	9/19	9/29	10/3	9/25	9/15	10/11	10/16
AG46X6	-6	-2	1	-4	-4	-3	-2
AG48X9	-4	-2	-2	-5	-5	-3	-2
AG48XF2	-6	-3	0	-4	-3	-4	-2
DA13092-015F	1	0	5	0	0	-1	-1
DA1539-109F	0	0	1	-1	-1	-1	0
DA1541-102F	4	-1	2	2	2	-3	-1
DS1061-25	0	-4	0	-2	-1	-2	-3
R18-14502	-1	0	3	-6	-4	1	-3
S17-17644C	0	0	0	-1	1	-2	0
S17-2066C	4	-2	-2	1	0	-1	-1
S18-3722R	3	-1	2	-4	-3	0	-1
S18-6097C	4	-1	3	-1	-3	-2	-1
S18PR-190C	-3	-2	-3	0	-2	-4	-4
S19-19741C	-4	-5	-3	0	-3	-6	-4
TN18-4006	-4	0	2	-4	-4	-1	-2
TN18-4047	2	-1	5	2	-1	-3	-2
TN19-4053	4	0	3	3	1	1	-1
TN19-4714R1	-3	-3	0	-5	-5	0	-2
TN20-4050	2	0	7	0	0	0	-2
TN20-4051	-3	-2	4	1	0	-4	-1
V16-0293	2	0	1	-4	-3	2	-1
V17-0460	-4	-3	-2	2	1	-3	-2
Mean	0	-1	1	-1	-2	-2	-2
LSD(0.05)	2	1	1	4	3	3	2
CV(%)	226	50	55	165	108	92	62

TABLE 19 - RELATIVE MATURITY (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Springfield, TN	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	10/5	9/17	9/28	9/29
AG46X6	-4	1	-2	-3
AG48X9	-2	-1	0	-3
AG48XF2	-2	-1	-4	-3
DA13092-015F	1	1	-1	1
DA1539-109F	3	0	-1	0
DA1541-102F	2	2	0	1
DS1061-25	-1	-3	-4	-2
R18-14502	-1	2	-3	-1
S17-17644C	0	0	-2	-1
S17-2066C	0	0	-3	0
S18-3722R	-2	1	-4	-1
S18-6097C	0	2	-1	0
S18PR-190C	-3	-1	-1	-2
S19-19741C	-2	-6	-2	-3
TN18-4006	-2	-1	-4	-2
TN18-4047	2	1	-1	0
TN19-4053	2	3	1	2
TN19-4714R1	-2	-2	-4	-3
TN20-4050	0	0	-1	1
TN20-4051	2	-5	-2	-1
V16-0293	0	1	-3	-1
V17-0460	-2	-3	-5	-2
Mean	-1	0	-2	-1
LSD(0.05)	2	5	3	2
CV(%)	204	544	88	207

TABLE 20 - PLANT HEIGHT (INCHES)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(A)
S16-7922	25	24	34	30	36	43	20
AG46X6	30	43	36	21	41	28	39
AG48X9	26	44	38	24	42	30	43
AG48XF2	28	42	37	24	38	26	40
DA13092-015F	25	18	23	21	38	29	14
DA1539-109F	28	20	29	24	34	35	15
DA1541-102F	21	18	25	17	36	29	15
DS1061-25	28	37	39	23	39	30	34
R18-14502	33	39	43	25	41	32	31
S17-17644C	26	21	30	25	36	35	18
S17-2066C	29	25	29	25	36	37	19
S18-3722R	25	36	39	23	43	31	25
S18-6097C	26	19	22	22	36	33	13
S18PR-190C	16	20	27	22	36	31	14
S19-19741C	25	24	29	20	37	36	18
TN18-4006	27	29	37	21	37	29	25
TN18-4047	14	17	21	18	34	26	11
TN19-4053	34	37	43	24	39	38	33
TN19-4714R1	30	39	39	24	40	31	34
TN20-4050	27	17	21	18	35	28	17
TN20-4051	18	16	23	19	37	30	13
V16-0293	31	34	37	25	39	29	29
V17-0460	24	18	20	19	35	27	15
Mean	26	28	31	22	38	32	23
LSD(0.05)	6	3	6	4	7	3	5
CV(%)	13	6	11	12	11	6	13

TABLE 20 - PLANT HEIGHT (INCHES) (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	18	34	27	34	30
AG46X6	34	31	35	38	34
AG48X9	32	32	38	40	35
AG48XF2	29	32	31	38	33
DA13092-015F	16	27	29	29	24
DA1539-109F	17	27	23	34	26
DA1541-102F	17	28	23	29	23
DS1061-25	23	34	39	43	34
R18-14502	25	38	37	38	35
S17-17644C	19	30	27	33	27
S17-2066C	22	28	25	34	28
S18-3722R	24	34	35	43	32
S18-6097C	18	28	19	27	24
S18PR-190C	14	24	23	29	23
S19-19741C	18	33	23	29	27
TN18-4006	21	36	29	33	29
TN18-4047	14	21	15	28	20
TN19-4053	25	41	43	46	37
TN19-4714R1	22	38	38	43	34
TN20-4050	14	25	21	29	23
TN20-4051	15	23	16	28	22
V16-0293	24	32	33	41	32
V17-0460	18	26	20	27	22
Mean	21	31	28	34	29
LSD(0.05)	3	6	5	4	4
CV(%)	9	12	9	6	17

TABLE 21 - PLANT LODGING (1-5)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(A)
S16-7922	1.0	1.0	2.2	1.0	4.3	1.3	1.0
AG46X6	1.0	1.3	2.2	1.0	1.7	1.0	2.0
AG48X9	1.0	1.0	2.2	1.0	1.3	1.0	1.0
AG48XF2	1.0	2.0	2.3	1.0	2.3	1.0	1.7
DA13092-015F	1.0	1.3	1.5	1.0	2.7	1.0	1.0
DA1539-109F	1.0	1.0	2.0	1.0	3.7	1.0	1.0
DA1541-102F	1.0	1.0	1.7	1.0	2.7	1.0	1.0
DS1061-25	1.0	2.0	2.0	1.0	3.0	1.0	2.3
R18-14502	1.0	3.0	3.2	1.0	3.7	1.0	4.3
S17-17644C	1.0	1.0	2.5	1.0	5.0	1.7	1.3
S17-2066C	1.0	1.0	2.2	1.0	3.3	1.0	1.3
S18-3722R	1.0	1.3	2.2	1.0	2.3	1.0	2.0
S18-6097C	1.0	1.0	1.7	1.0	3.7	1.0	1.0
S18PR-190C	1.0	1.0	1.5	1.0	3.3	1.0	1.0
S19-19741C	1.0	1.0	1.5	1.0	4.3	1.0	1.0
TN18-4006	1.0	1.3	2.2	1.0	2.0	1.0	2.0
TN18-4047	1.0	1.0	1.5	1.0	2.0	1.0	1.0
TN19-4053	1.0	2.7	2.3	1.0	3.3	1.0	3.3
TN19-4714R1	1.0	1.0	2.0	1.0	2.0	1.0	2.0
TN20-4050	1.0	1.0	1.7	1.0	1.7	1.0	1.0
TN20-4051	1.0	1.0	1.5	1.0	4.3	1.0	1.0
V16-0293	1.0	1.0	2.2	1.0	1.7	1.0	1.7
V17-0460	1.0	1.0	1.5	1.0	2.0	1.0	1.0
Mean	1.0	1.3	2.0	1.0	2.9	1.0	1.6
LSD(0.05)	.	0.7	0.4	0.0	1.6	0.3	0.5
CV(%)	0.0	30.9	12.5	1.2	34.7	16.1	20.3

TABLE 21 - PLANT LODGING (1-5) (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	1.7	1.0	1.5	1.3	1.6
AG46X6	2.0	1.0	2.0	2.0	1.5
AG48X9	1.7	1.0	2.0	1.3	1.3
AG48XF2	1.7	1.0	2.5	1.5	1.6
DA13092-015F	1.0	1.0	1.0	1.0	1.2
DA1539-109F	1.0	1.0	1.5	1.3	1.4
DA1541-102F	1.0	1.0	1.5	1.0	1.3
DS1061-25	1.0	1.0	1.8	1.0	1.6
R18-14502	1.7	1.0	2.0	2.0	2.2
S17-17644C	1.7	1.0	1.5	1.3	1.7
S17-2066C	1.0	1.0	1.5	1.0	1.4
S18-3722R	1.0	1.0	2.0	3.3	1.6
S18-6097C	1.0	1.0	1.0	1.3	1.3
S18PR-190C	1.0	1.0	1.0	1.0	1.3
S19-19741C	1.0	1.0	1.5	1.0	1.4
TN18-4006	1.0	1.0	1.0	1.0	1.3
TN18-4047	1.0	1.0	1.0	1.0	1.1
TN19-4053	1.3	1.0	2.0	2.7	2.0
TN19-4714R1	1.0	1.0	1.8	1.0	1.3
TN20-4050	1.0	1.0	1.0	1.0	1.1
TN20-4051	1.0	1.0	1.0	1.0	1.4
V16-0293	1.0	1.0	2.0	1.3	1.3
V17-0460	1.0	1.0	1.0	1.0	1.1
Mean	1.2	1.0	1.5	1.4	1.4
LSD(0.05)	0.6	.	0.8	0.7	0.4
CV(%)	28.8	0.0	25.1	27.1	40.1

TABLE 22 - SEED QUALITY (1-5)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(A)
S16-7922	2.0	1.3	1.0	.	2.3	2.0	1.3
AG46X6	3.7	1.3	1.5	.	1.0	2.0	3.0
AG48X9	3.3	2.0	1.2	.	1.0	2.0	2.0
AG48XF2	2.7	1.3	1.0	.	1.0	1.0	1.3
DA13092-015F	1.0	1.0	1.0	.	4.7	2.0	1.3
DA1539-109F	1.7	1.3	1.2	.	3.7	2.0	2.0
DA1541-102F	1.0	2.0	1.0	.	1.0	2.0	2.0
DS1061-25	3.0	1.0	1.2	.	1.0	2.0	1.0
R18-14502	2.0	1.3	1.0	.	1.0	2.0	2.3
S17-17644C	1.7	1.0	1.0	.	1.0	2.0	2.0
S17-2066C	2.0	1.0	1.0	.	1.0	2.0	1.3
S18-3722R	1.7	1.3	1.0	.	1.0	3.0	2.0
S18-6097C	2.3	1.3	1.0	.	1.0	2.0	2.0
S18PR-190C	2.2	1.3	1.0	.	1.0	2.0	2.0
S19-19741C	2.3	1.7	1.0	.	1.0	2.0	2.0
TN18-4006	2.0	1.7	1.2	.	1.0	2.0	2.0
TN18-4047	2.5	1.7	1.2	.	1.0	3.0	2.0
TN19-4053	1.0	1.7	1.0	.	5.0	2.0	2.0
TN19-4714R1	1.3	1.3	1.0	.	1.0	2.0	2.0
TN20-4050	1.0	1.0	1.0	.	3.7	2.0	2.0
TN20-4051	1.1	1.0	1.0	.	2.3	2.0	2.0
V16-0293	0.9	1.3	1.3	.	1.0	1.0	2.0
V17-0460	1.0	1.3	1.7	.	1.3	2.0	2.0
Mean	1.9	1.4	1.1	.	1.7	2.0	1.9
LSD(0.05)	0.6	0.6	0.3	.	1.1	.	0.6
CV(%)	18.9	28.1	14.5	.	38.6	.	17.9

TABLE 22 - SEED QUALITY (1-5) (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	1.0	1.0	.	1.3	1.5
AG46X6	2.0	1.2	.	3.1	2.1
AG48X9	1.3	1.0	.	2.3	1.8
AG48XF2	1.0	1.0	.	2.2	1.4
DA13092-015F	1.3	1.0	.	1.7	1.7
DA1539-109F	2.0	1.0	.	1.3	1.8
DA1541-102F	1.7	1.0	.	2.3	1.5
DS1061-25	1.7	1.0	.	1.3	1.5
R18-14502	1.7	1.0	.	2.0	1.6
S17-17644C	2.0	1.0	.	1.7	1.5
S17-2066C	1.7	1.0	.	1.7	1.4
S18-3722R	1.0	1.0	.	2.7	1.6
S18-6097C	1.3	1.2	.	2.0	1.6
S18PR-190C	2.0	1.0	.	1.7	1.6
S19-19741C	2.0	1.0	.	1.3	1.6
TN18-4006	2.0	1.2	.	3.0	1.8
TN18-4047	2.0	1.0	.	1.7	1.7
TN19-4053	2.0	1.0	.	2.7	2.0
TN19-4714R1	.	1.0	.	2.1	1.5
TN20-4050	2.0	1.0	.	1.7	1.7
TN20-4051	1.7	1.0	.	1.3	1.5
V16-0293	1.7	1.0	.	2.0	1.4
V17-0460	2.0	1.2	.	2.3	1.6
Mean	1.7	1.0	.	2.0	1.6
LSD(0.05)	0.6	0.2	.	0.9	0.6
CV(%)	22.0	11.5	.	24.1	41.9

TABLE 23 - SEED SIZE (GRAMS PER 100 SEED)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	*Belle Mina, AL*	*Keiser, AR*	*Knoxville, TN*	*McCune, KS*	*Orange, VA*	*Pittsburg, KS*	*Portageville, MO(A)*
S16-7922	16.6	13.6	14.1	.	19.0	13.8	15.0
AG46X6	15.8	16.2	15.5	.	18.7	16.4	18.3
AG48X9	16.1	15.0	15.2	.	20.0	14.7	16.9
AG48XF2	17.3	14.6	14.9	.	19.3	16.7	17.3
DA13092-015F	11.0	11.5	12.1	.	17.0	11.5	14.0
DA1539-109F	12.2	14.4	13.5	.	19.0	12.9	15.3
DA1541-102F	10.4	11.2	12.1	.	14.3	11.5	13.5
DS1061-25	13.3	12.4	12.0	.	17.0	13.1	13.4
R18-14502	16.7	14.3	14.9	.	20.7	15.3	15.8
S17-17644C	15.6	11.8	12.8	.	14.7	12.0	13.2
S17-2066C	14.7	13.4	13.8	.	17.7	13.2	15.2
S18-3722R	14.5	12.7	14.0	.	19.3	14.3	14.0
S18-6097C	14.0	12.1	13.0	.	16.7	14.7	14.3
S18PR-190C	16.1	13.6	13.0	.	17.7	13.7	13.8
S19-19741C	14.0	14.6	13.8	.	17.0	14.5	15.5
TN18-4006	15.9	14.1	16.5	.	19.3	15.0	16.2
TN18-4047	17.7	12.5	14.2	.	15.7	13.8	15.1
TN19-4053	17.5	15.2	16.1	.	21.3	15.2	18.2
TN19-4714R1	17.0	15.3	14.8	.	18.7	15.1	15.8
TN20-4050	11.0	11.1	12.4	.	17.7	11.1	13.4
TN20-4051	16.0	10.8	11.9	.	17.0	12.7	12.6
V16-0293	17.3	14.5	15.3	.	21.0	15.5	16.5
V17-0460	13.1	11.9	12.7	.	19.0	13.4	14.4
Mean	14.9	13.3	13.9	.	18.2	13.9	15.1
LSD(0.05)	1.4	0.5	0.8	.	2.5	.	1.1
CV(%)	5.4	2.4	3.5	.	8.5	.	4.6

TABLE 23 - SEED SIZE (GRAMS PER 100 SEED) (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	14.9	16.4	12.4	14.8	15.1
AG46X6	19.0	18.6	17.3	18.4	17.3
AG48X9	16.1	17.0	13.4	16.8	16.2
AG48XF2	16.9	18.0	14.7	16.6	16.6
DA13092-015F	13.2	13.2	10.5	12.9	12.7
DA1539-109F	14.8	14.5	12.3	15.4	14.5
DA1541-102F	12.5	13.3	10.4	12.4	12.2
DS1061-25	13.7	14.7	11.5	14.7	13.6
R18-14502	14.9	16.8	13.3	14.8	15.8
S17-17644C	14.1	14.5	12.1	13.2	13.4
S17-2066C	14.4	15.2	12.3	14.7	14.5
S18-3722R	13.7	15.4	11.5	14.7	14.4
S18-6097C	14.3	13.7	13.5	14.4	14.0
S18PR-190C	14.7	16.4	12.9	15.8	14.8
S19-19741C	15.3	16.2	13.7	16.1	15.0
TN18-4006	15.5	18.4	15.4	16.1	16.2
TN18-4047	14.5	15.2	13.2	15.6	14.7
TN19-4053	16.8	18.2	14.8	15.9	17.0
TN19-4714R1	.	17.3	14.2	17.1	16.1
TN20-4050	13.7	13.4	10.7	12.0	12.7
TN20-4051	14.1	14.5	10.5	12.6	13.3
V16-0293	16.5	17.1	13.8	15.9	16.4
V17-0460	14.6	14.1	12.3	15.0	14.0
Mean	14.9	15.8	12.9	15.0	14.8
LSD(0.05)	0.8	1.2	.	0.7	0.8
CV(%)	3.2	4.6	.	2.4	7.1

TABLE 24 - OIL (%)†
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(A)
S16-7922	21.0	19.3	20.4	.	18.9	19.3	19.2
AG46X6	21.0	19.6	19.7	.	19.3	19.8	19.2
AG48X9	20.9	20.0	20.0	.	18.4	18.1	19.5
AG48XF2	20.7	19.1	19.9	.	20.0	19.5	19.4
DA13092-015F	20.5	19.0	19.3	.	18.5	18.7	18.9
DA1539-109F	19.3	17.4	18.2	.	16.7	18.1	17.5
DA1541-102F	20.3	19.1	19.3	.	18.8	18.2	18.6
DS1061-25	20.8	20.3	20.8	.	19.6	19.5	19.8
R18-14502	19.4	18.6	18.9	.	17.1	18.6	17.6
S17-17644C	20.4	19.2	20.2	.	18.2	19.0	18.9
S17-2066C	20.4	18.4	19.5	.	17.8	17.9	18.3
S18-3722R	20.8	21.2	21.4	.	19.5	19.4	19.6
S18-6097C	20.2	19.2	19.9	.	18.1	19.5	19.1
S18PR-190C	21.0	20.1	20.7	.	19.2	18.7	19.8
S19-19741C	21.0	20.1	20.5	.	19.2	18.7	19.3
TN18-4006	21.0	19.8	20.3	.	19.0	19.6	19.2
TN18-4047	20.4	19.6	20.0	.	19.2	19.3	19.0
TN19-4053	19.9	19.1	19.9	.	18.2	19.0	18.5
TN19-4714R1	19.2	18.1	19.2	.	16.8	16.7	17.3
TN20-4050	21.1	20.1	20.3	.	18.9	19.5	19.9
TN20-4051	20.9	19.8	19.6	.	18.9	19.3	19.3
V16-0293	21.1	19.8	20.8	.	23.5	18.9	19.1
V17-0460	19.7	19.1	18.9	.	18.6	18.8	17.0
Mean	20.5	19.4	19.9		18.8	18.9	18.9
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 24 - OIL (%)† (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	.	18.4	19.5	19.8	19.5
AG46X6	.	19.5	18.9	18.9	19.6
AG48X9	.	19.5	19.8	19.4	19.5
AG48XF2	.	19.5	18.3	18.4	19.4
DA13092-015F	.	19.0	18.4	18.7	19.0
DA1539-109F	.	17.3	16.7	16.8	17.5
DA1541-102F	.	18.1	18.1	18.3	18.8
DS1061-25	.	19.4	18.9	19.8	19.9
R18-14502	.	18.5	18.2	18.8	18.4
S17-17644C	.	18.7	19.2	16.1	18.9
S17-2066C	.	17.6	18.7	17.8	18.5
S18-3722R	.	20.0	20.3	19.9	20.2
S18-6097C	.	19.1	18.7	18.8	19.2
S18PR-190C	.	19.7	20.0	19.4	19.8
S19-19741C	.	19.6	19.9	19.3	19.7
TN18-4006	.	20.2	19.2	19.2	19.7
TN18-4047	.	19.1	19.2	19.0	19.4
TN19-4053	.	18.2	18.0	18.1	18.7
TN19-4714R1	.	17.8	17.5	17.3	17.8
TN20-4050	.	19.5	18.9	19.6	19.8
TN20-4051	.	19.5	18.8	19.2	19.5
V16-0293	.	19.3	19.8	19.2	20.2
V17-0460	.	19.0	18.1	18.5	18.6
Mean	.	19.0	18.8	18.7	19.2
LSD(0.05)	.	.	.	.	0.5
CV(%)	.	.	.	.	2.8

TABLE 25 - PROTEIN (%)†
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(A)
S16-7922	33.1	34.8	33.4	.	33.4	33.4	35.4
AG46X6	33.6	34.5	34.3	.	34.4	33.7	36.3
AG48X9	32.3	34.1	34.4	.	36.3	35.8	35.1
AG48XF2	31.9	35.0	33.6	.	32.5	33.4	35.7
DA13092-015F	32.8	35.1	33.4	.	35.0	33.5	35.2
DA1539-109F	33.9	37.8	35.7	.	37.0	34.5	37.1
DA1541-102F	34.4	35.5	34.9	.	34.8	36.9	36.7
DS1061-25	32.8	34.0	34.2	.	34.7	33.4	34.4
R18-14502	34.6	35.4	35.7	.	37.2	34.7	37.9
S17-17644C	32.6	33.1	33.0	.	33.6	32.9	34.3
S17-2066C	31.6	34.5	32.9	.	34.0	33.6	35.0
S18-3722R	33.1	32.2	31.9	.	34.4	32.7	34.3
S18-6097C	33.0	34.9	33.3	.	35.4	32.2	35.5
S18PR-190C	34.2	34.9	33.9	.	35.5	35.2	36.3
S19-19741C	34.3	36.9	35.2	.	36.5	35.6	37.7
TN18-4006	34.0	35.1	35.4	.	37.1	34.7	35.9
TN18-4047	32.8	33.6	32.9	.	33.4	33.2	34.7
TN19-4053	36.1	37.0	36.1	.	37.8	34.7	37.3
TN19-4714R1	36.1	38.6	35.6	.	39.6	36.8	38.6
TN20-4050	32.1	33.9	33.6	.	34.7	33.9	33.5
TN20-4051	32.8	33.9	33.7	.	34.3	34.4	34.5
V16-0293	31.9	23.0	32.3	.	29.6	33.3	33.8
V17-0460	34.0	34.0	35.1	.	35.5	33.8	35.0
Mean	33.4	34.4	34.1	.	35.1	34.2	35.7
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

†Protein percentage reported on a 13% moisture basis beginning in 2015.

TABLE 25 - PROTEIN (%)† (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	.	34.9	35.3	35.9	34.4
AG46X6	.	34.4	35.6	36.2	34.8
AG48X9	.	34.9	34.8	36.7	34.9
AG48XF2	.	34.0	36.1	36.3	34.3
DA13092-015F	.	34.1	35.0	36.5	34.5
DA1539-109F	.	36.3	37.7	39.4	36.6
DA1541-102F	.	36.1	36.1	37.4	35.9
DS1061-25	.	35.2	36.0	36.8	34.6
R18-14502	.	35.7	36.0	35.9	35.9
S17-17644C	.	33.8	35.0	35.4	33.7
S17-2066C	.	35.0	34.9	36.9	34.3
S18-3722R	.	33.6	33.5	35.0	33.4
S18-6097C	.	35.1	35.4	36.7	34.6
S18PR-190C	.	35.2	35.8	36.5	35.3
S19-19741C	.	35.7	37.1	38.3	36.4
TN18-4006	.	35.4	36.7	37.2	35.7
TN18-4047	.	33.4	35.0	35.7	33.9
TN19-4053	.	39.7	38.6	38.4	37.3
TN19-4714R1	.	37.6	39.3	38.9	37.9
TN20-4050	.	34.4	34.7	35.1	34.0
TN20-4051	.	34.7	34.4	36.2	34.3
V16-0293	.	33.6	33.8	35.2	31.8
V17-0460	.	35.1	36.8	36.9	35.1
Mean	.	35.1	35.8	36.7	34.9
LSD(0.05)	.	.	.	.	0.9
CV(%)	.	.	.	.	2.9

TABLE 26 - ESTIMATED MEAL PROTEIN (%)†
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(A)
S16-7922	45.5	46.8	45.6	.	44.8	44.9	47.6
AG46X6	46.3	46.7	46.4	.	46.3	45.6	48.8
AG48X9	44.5	46.4	46.8	.	48.4	47.5	47.4
AG48XF2	43.8	47.1	45.5	.	44.1	45.2	48.1
DA13092-015F	44.9	47.0	45.0	.	46.7	44.7	47.2
DA1539-109F	45.7	49.8	47.5	.	48.2	45.8	48.8
DA1541-102F	46.9	47.7	47.0	.	46.6	49.0	49.1
DS1061-25	45.0	46.4	47.0	.	46.9	45.1	46.7
R18-14502	46.6	47.3	47.8	.	48.8	46.4	49.9
S17-17644C	44.6	44.6	44.9	.	44.6	44.1	46.0
S17-2066C	43.2	45.9	44.4	.	45.0	44.5	46.5
S18-3722R	45.5	44.4	44.1	.	46.5	44.1	46.4
S18-6097C	45.0	46.9	45.1	.	47.0	43.5	47.7
S18PR-190C	47.1	47.6	46.4	.	47.8	47.0	49.2
S19-19741C	47.2	50.2	48.1	.	49.2	47.5	50.7
TN18-4006	46.8	47.5	48.2	.	49.7	46.9	48.3
TN18-4047	44.8	45.4	44.6	.	45.0	44.7	46.5
TN19-4053	49.0	49.7	49.0	.	50.2	46.6	49.7
TN19-4714R1	48.5	51.2	47.9	.	51.7	47.9	50.8
TN20-4050	44.2	46.1	45.8	.	46.5	45.8	45.5
TN20-4051	45.1	45.9	45.6	.	46.0	46.3	46.4
V16-0293	43.9	31.1	44.3	.	42.1	44.6	45.5
V17-0460	46.0	45.7	47.0	.	47.4	45.2	45.8
Mean	45.7	46.4	46.3	.	46.9	45.8	47.8
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

TABLE 26 - ESTIMATED MEAL PROTEIN (%)† (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	.	46.5	47.7	48.6	46.5
AG46X6	.	46.5	47.7	48.5	47.0
AG48X9	.	47.1	47.1	49.4	47.2
AG48XF2	.	45.8	48.0	48.3	46.2
DA13092-015F	.	45.8	46.6	48.8	46.3
DA1539-109F	.	47.8	49.2	51.5	48.3
DA1541-102F	.	47.9	47.9	49.8	48.0
DS1061-25	.	47.5	48.2	49.9	47.0
R18-14502	.	47.7	47.8	48.0	47.8
S17-17644C	.	45.2	47.0	45.9	45.2
S17-2066C	.	46.1	46.7	48.7	45.7
S18-3722R	.	45.7	45.7	47.5	45.5
S18-6097C	.	47.1	47.3	49.1	46.5
S18PR-190C	.	47.6	48.6	49.2	47.8
S19-19741C	.	48.3	50.4	51.6	49.2
TN18-4006	.	48.2	49.4	50.0	48.3
TN18-4047	.	44.9	47.1	48.0	45.7
TN19-4053	.	52.7	51.1	50.9	49.9
TN19-4714R1	.	49.7	51.8	51.1	50.1
TN20-4050	.	46.4	46.5	47.4	46.0
TN20-4051	.	46.9	46.1	48.7	46.3
V16-0293	.	45.3	45.9	47.4	43.3
V17-0460	.	47.1	48.9	49.2	46.9
Mean	.	47.1	47.9	49.0	47.0
LSD(0.05)	.	.	.	.	1.2
CV(%)	.	.	.	.	2.7

SUMMARY OF SEED FATTY ACIDS (%)
UNIFORM TEST IV-S-LATE 2022 †

STRAIN/ VARIETY	Palmitic Acid	Stearic Acid	Oleic Acid	Linoleic Acid	Linolenic Acid
S16-7922	11.1	3.4	25.3	54.2	6.0
AG46x6	12.1	4.0	19.9	57.0	7.0
S18PR-190C	7.1	3.3	80.3	7.1	2.3
S19-19741C	7.2	3.5	80.9	6.4	2.0
TN18-4006	7.4	3.4	80.2	5.4	3.7
Mean	9.0	3.5	57.3	26.0	4.2
LSD(0.05)	0.4	0.1	4.1	3.6	0.4
CV(%)	4.7	4.6	8.0	15.5	9.9

†Fatty acid percentage in seed oil reported beginning in 2017.

SEED PALMITIC ACID (%)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS
S16-7922	11.5	.	11.2	11.1	.	10.5	11.2
AG46x6	12.1	.	11.9	12.9	.	11.9	12.3
S18PR-190C	6.8	.	7.0	6.8	.	7.2	7.1
S19-19741C	6.9	.	7.4	7.3	.	7.3	6.9
TN18-4006	7.3	.	7.0	7.1	.	6.9	6.7
Mean	8.9	.	8.9	9.0	.	8.8	8.9
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

SEED STEARIC ACID (%)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS
S16-7922	3.3	.	3.5	3.2	.	2.9	4.9
AG46x6	4.0	.	3.8	4.0	.	3.7	4.9
S18PR-190C	3.2	.	3.2	3.0	.	2.8	4.0
S19-19741C	3.6	.	3.7	3.2	.	3.2	4.9
TN18-4006	3.4	.	3.4	3.1	.	3.1	4.2
Mean	3.5	.	3.5	3.3	.	3.2	4.6
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

SEED PALMITIC ACID (%) (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-7922	10.4	11.2	11.5	11.3	10.8	.	11.1
AG46x6	11.9	12.4	12.2	11.8	11.7	.	12.1
S18PR-190C	7.4	7.2	7.1	7.2	6.7	.	7.1
S19-19741C	7.4	7.2	6.9	7.4	6.9	.	7.2
TN18-4006	6.9	7.4	8.7	7.5	8.7	.	7.4
Mean	8.8	9.1	9.3	9.0	9.0	.	9.0
LSD(0.05)	.	.	.	.	.	.	0.4
CV(%)	.	.	.	.	.	.	4.7

SEED STEARIC ACID (%) (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-7922	3.5	3.5	3.7	3	3	.	3.4
AG46x6	4.2	3.9	4.1	4	4	.	4.0
S18PR-190C	3.6	3.2	3.7	3	3	.	3.3
S19-19741C	3.6	3.4	3.7	3	3	.	3.5
TN18-4006	3.5	3.4	3.5	3	3	.	3.4
Mean	3.7	3.5	3.7	3	3	.	3.5
LSD(0.05)	.	.	.	.	.	.	0.1
CV(%)	.	.	.	.	.	.	4.6

SEED OLEIC ACID (%)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS
S16-7922	23.4	.	25.4	23.4	.	22.7	23.8
AG46x6	20.5	.	19.0	16.3	.	18.2	22.3
S18PR-190C	82.3	.	81.9	81.8	.	76.3	77.7
S19-19741C	82.2	.	81.0	82.0	.	76.7	77.6
TN18-4006	84.6	.	85.0	83.6	.	84.6	83.5
Mean	58.6	.	58.4	57.4	.	55.7	57.0
LSD(0.05)	.	.	.	.	.		
CV(%)	.	.	.	.	.		

SEED LINOLEIC ACID (%)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS
S16-7922	55.7	.	54.0	56.2	.	56.7	54.1
AG46x6	56.8	.	58.5	59.0	.	57.7	53.0
S18PR-190C	5.6	.	6.0	6.3	.	11.4	8.9
S19-19741C	5.5	.	6.0	5.5	.	10.4	8.3
TN18-4006	1.5	.	1.3	2.4	.	1.8	1.9
Mean	25.0	.	25.2	25.9	.	27.6	25.2
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

SEED LINOLENIC ACID (%)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS
S16-7922	6.0	.	6.0	6.1	.	7.2	6.0
AG46x6	6.6	.	6.8	7.8	.	8.4	7.5
S18PR-190C	2.0	.	2.0	2.0	.	2.2	2.3
S19-19741C	1.9	.	1.9	2.0	.	2.4	2.4
TN18-4006	3.2	.	3.3	3.8	.	3.6	3.6
Mean	3.9	.	4.0	4.3	.	4.8	4.4
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.		.	.

SEED OLEIC ACID (%) (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-7922	26.1	26.2	24.6	29.9	27.7	.	25.3
AG46x6	21.6	19.9	19.3	21.5	20.1	.	19.9
S18PR-190C	75.5	79.3	84.6	81.8	81.7	.	80.3
S19-19741C	79.6	81.6	80.7	84.0	83.7	.	80.9
TN18-4006	83.9	83.7	68.8	85.6	58.5	.	80.2
Mean	57.3	58.1	55.6	60.6	54.3	.	57.3
LSD(0.05)	.	.	.	.	.	.	4.1
CV(%)	.	.	.	.	.	.	8.0

SEED LINOLEIC ACID (%) (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-7922	53.9	53.3	54.0	51.3	52.8	.	54.2
AG46x6	55.5	57.2	57.2	57.1	58.0	.	57.0
S18PR-190C	10.9	8.0	1.5	6.1	6.4	.	7.1
S19-19741C	7.3	5.9	6.5	3.9	4.4	.	6.4
TN18-4006	1.9	1.9	14.8	1.2	24.9	.	5.4
Mean	25.9	25.2	26.8	23.9	29.3	.	26.0
LSD(0.05)	.	.	.	.	.	.	3.6
CV(%)	.	.	.	.	.	.	15.5

SEED LINOLENIC ACID (%) (continued)
UNIFORM GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-7922	6.0	5.9	6.3	4.9	5.5	.	6.0
AG46x6	6.9	6.7	7.2	6.0	6.5	.	7.0
S18PR-190C	2.5	2.3	3.2	2.1	2.0	.	2.3
S19-19741C	2.1	2.0	2.1	1.8	1.7	.	2.0
TN18-4006	3.8	3.7	4.1	2.8	4.7	.	3.7
Mean	4.3	4.1	4.6	3.5	4.1		4.2
LSD(0.05)	.	.	.	.	.	.	0.4
CV(%)	.	.	.	.	.	.	9.9

TABLE 27 - PARENTAGE OF ENTRIES
PRELIMINARY GROUP IV-S-EARLY 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	AG43XF2	Commercial check			RRX	
2	AG38XF1	Commercial check			RRX	
3	LD15-3818	Commercial check			CONV	
4	S13-3851C	Commercial check			CONV	
5	JTN-4122	5002T x PI 494182	C. Smallwood	F12	CONV	new SCN resistance source PI 494182, 50% PI
6	S19-5296	S13-3851 x S15-8839RR	Shannon		RR2	SCN, SC
7	S19-2082	S14-15146RR/STS x LD11-13948R	Shannon		RR1	SCN, SC
8	S19-7867	S13-10590 x S15-9779RR	Shannon		RR1	SCN, RKN, SC
9	S19-5563	S14-9051RR x LD11-13948R	Shannon		RR2	SCN, SC
10	S19-2594	S15-7174RR x LD11-13948R	Shannon		RR1	SCN, SC
11	S19-1176	S15-7499RR x S15-9779RR	Shannon		RR1	SCN, SC
12	SA18-10815	LG11-6210 x SA13-2699	A. Scaboo	F5	CONV	Rhg1b,BSR,SC
13	SA18-11346	SA13-3135 x LD11-2170	A. Scaboo	F5	CONV	Rhg1b,SC
14	SA18-12086	LD07-3395bf x SA13-1363	A. Scaboo	F5	CONV	Rhg1a,Rhg4,SC
15	SA18-14143	SA13-1363 x LD11-2170	A. Scaboo	F5	CONV	Rhg1b,BSR,SC
16	SA19-10248	SA13-1310 x LD11-2170	A. Scaboo	F5	CONV	Rhg1b,Rps1k,BSR,SC
17	SA19-10772	SA13-2926 x LD11-2170	A. Scaboo	F5	CONV	Rps1k,BSR,SC
18	SA19-12580	U14-924158 x LD11-2170	A. Scaboo	F5	CONV	Rhg1b,BSR,SC
19	SA19-7246	SA13-1385 x U14-924158	A. Scaboo	F5	CONV	Rhg1b,SC
20	SA19-24408	F3 SA13-2699 x KB13-15 F3 14-224	A. Scaboo	F5	CONV	HOLL, Rhg1b,SC
21	TN19-4012	LG11-6760 x TN15-4038	V. Pantalone	F4	CONV	
22	TN18-4005	S09-9943 x 13-531-261 BC1F3	V. Pantalone	F4	CONV	
23	TN19-4003	LG11-6760 x TN15-4038	V. Pantalone	F4	CONV	
24	TN20-4007	LG11-6760 x S15-12949	V. Pantalone	F4	CONV	
25	V18-2720HOR2	V12-0253R2 x S09-12096	B. Zhang		RR2	
26	V18-3782R	V12-0956 x V11-2187	B. Zhang		RR1	

† Conv= Conventional(non-transgenic),E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 28 - GENERAL SUMMARY OF PERFORMANCE
PRELIMINARY TEST IV-S-EARLY 2022

STRAIN/ VARIETY	SEED YIELD†	RANK	AVG. RANK	MAT. INDEX	LOD	HT	SCN Cyst Score (1-5)‡ Race 2	Race 3	Race 5	SC RATING	SC SCORE
AG43XF2	78.5	1	3	0	1.5	34	4	.	5	R	1
AG38XF1	72.5	3	6	-5	1.2	32	4	.	5	R	1
LD15-3818	56.0	17	17	-6	1.3	27	4	.	5	R	1
S13-3851C	72.9	2	4	1	2.4	33	3	.	5	R	1
JTN-4122	48.9	24	20	1	2.2	30	3	.	2	R	1
S19-5296	68.2	5	8	-5	1.6	33	5	.	3	S	5
S19-2082	68.0	6	8	-1	2.6	38	3	.	4	R	1
S19-7867	71.8	4	4	-2	2.7	34	3	.	1	R	1
S19-5563	65.6	9	11	-2	2.6	36	5	.	3	R	1
S19-2594	64.9	10	10	0	2.3	32	3	.	5	R	1
S19-1176	67.7	8	8	-1	1.6	31	4	.	3	R	1
SA18-10815	54.5	20	18	-8	1.9	30	4	.	5	R	1
SA18-11346	51.6	21	20	-9	1.3	26	3	.	5	R	1
SA18-12086	51.4	22	19	-5	1.4	26	3	.	4	R	1
SA18-14143	59.8	13	13	-7	1.3	30	4	.	5	R	1
SA19-10248	54.5	19	19	-7	1.5	27	3	.	4	R	1
SA19-10772	58.0	15	16	-7	1.3	27	3	.	5	R	1
SA19-12580	56.7	16	17	-8	1.5	27	.	.	4	R	1
SA19-7246	55.0	18	18	-8	1.2	26	3	.	5	R	1
SA19-24408	63.0	11	11	-7	1.3	28	3	.	4	R	1
TN19-4012	46.0	25	22	-4	1.8	29	.	.	.	R	1
TN18-4005	59.2	14	14	-1	1.5	31	.	.	4	R	1
TN19-4003	50.5	23	22	0	1.8	32	.	.	5	R	1
TN20-4007	35.9	26	23	2	3.5	38	4	.	4		.
V18-2720HOR2	67.9	7	8	1	2.8	39	5	.	5	R	1
V18-3782R	61.5	12	12	1	2.5	34	2	.	5	R	1
Mean	60.0	.	.	-3	2	31	.	.	.		.
LSD(0.05)	10.8	.	.	2	0.6	3	.	.	.		.
CV(%)	16.1	.	.	75	38.8	11	.	.	.		.

†Data not included in the yield mean: Jackson, Keiser, and Knoxville

TABLE 29 - GENERAL SUMMARY OF PERFORMANCE (continued)
PRELIMINARY TEST IV-S-EARLY 2022

STRAIN/ VARIETY	SEED QUALITY	SEED SIZE	PROTEIN§ %	OIL§ %	MEAL PRO%	FL COLOR	PUB. COLOR	POD COLOR
AG43XF2	1.7	15.1	34.3	20.4	46.9			
AG38XF1	1.9	16.9	35.5	19.3	47.8			
LD15-3818	2.3	15.1	34.4	20.7	47.1			
S13-3851C	1.8	16.5	35.5	19.4	47.8			
JTN-4122	1.8	11.8	35.7	18.9	47.8	W	T	
S19-5296	1.9	15.9	35.3	20.0	47.9	P	LtT	T
S19-2082	1.9	15.3	35.6	19.2	48.0	W	T	T
S19-7867	2.1	17.0	34.1	20.1	46.4	P	T	T
S19-5563	2.0	15.5	34.0	20.1	46.3	P	LtT	T
S19-2594	1.9	17.4	35.2	20.1	47.9	P	T	T
S19-1176	2.2	16.1	35.4	19.3	47.7	W	LtT	T
SA18-10815	1.9	14.1	35.3	19.4	47.6	W	G	T
SA18-11346	2.4	16.7	35.1	20.2	47.8	P	G	Br
SA18-12086	2.2	14.6	34.0	20.1	46.3	W	G	T
SA18-14143	1.8	13.5	33.3	21.6	46.2	P	Lt	Br
SA19-10248	2.1	16.8	35.7	20.8	49.0	P	Lt	Br
SA19-10772	2.1	14.9	33.7	20.9	46.3	P	Lt	T
SA19-12580	2.0	16.8	34.9	19.8	47.2	P	Lt	Br
SA19-7246	2.0	14.3	33.6	20.6	45.9	W	Lt	T
SA19-24408	1.7	13.3	36.3	19.6	49.1	P	G	T
TN19-4012	1.4	13.4	32.9	19.9	44.7	W	Lt	
TN18-4005	2.0	16.9	36.8	18.9	49.4	W	G	
TN19-4003	1.7	13.3	35.1	18.4	46.8	W	Lt	
TN20-4007	1.9	12.4	36.6	18.8	48.9	P	T	
V18-2720HOR2	1.2	13.6	33.0	20.6	45.1	P	G	
V18-3782R	1.3	13.1	33.5	20.6	45.8	W	T	
Mean	1.9	15.0	34.8	19.9	47.2			
LSD(0.05)	0.5	1.2	0.9	0.6	1.1			
CV(%)	28.6	8.1	2.7	2.8	2.3			

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

TABLE 30 - SEED YIELD (BUSHELS PER ACRE)
PRELIMINARY GROUP IV-S-EARLY 2022 †

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR *	Knoxville, TN	Orange, VA	Portageville, MO(B) *	Stoneville, MS *	Stuttgart, AR *	Test Mean
AG43XF2	72.3	67.9	68.8	37.9	77.8	85.8	71.5	85.3	78.5
AG38XF1	61.1	58.4	60.9	46.5	72.6	73.1	73.1	82.6	72.5
LD15-3818	62.5	69.1	40.8	57.9	59.2	38.0	51.8	68.5	56.0
S13-3851C	73.8	68.4	49.8	68.5	74.5	55.9	74.4	85.7	72.9
JTN-4122	47.4	51.8	33.7	29.7	32.9	40.5	51.8	72.1	48.9
S19-5296	72.7	70.3	37.8	45.2	69.1	57.8	65.8	75.5	68.2
S19-2082	69.8	69.3	50.3	49.4	68.9	61.3	67.0	72.9	68.0
S19-7867	74.1	71.1	50.9	67.9	76.8	62.6	68.6	76.9	71.8
S19-5563	65.4	67.1	51.7	51.0	66.6	60.6	65.3	69.6	65.6
S19-2594	67.1	58.9	40.0	67.5	66.5	49.4	61.6	80.1	64.9
S19-1176	68.2	60.1	56.0	55.5	69.3	64.1	62.3	74.8	67.7
SA18-10815	54.2	54.8	41.1	55.0	54.6	52.5	47.3	63.6	54.5
SA18-11346	44.1	56.1	31.8	35.5	65.9	45.2	46.6	56.4	51.6
SA18-12086	62.5	55.0	31.5	52.2	60.5	24.8	36.4	72.8	51.4
SA18-14143	56.7	55.6	50.2	53.9	71.3	47.6	47.9	77.0	59.8
SA19-10248	56.8	58.1	47.2	36.5	52.9	41.8	46.8	74.4	54.5
SA19-10772	67.6	51.8	38.5	39.1	61.9	44.9	43.4	72.3	58.0
SA19-12580	59.0	48.6	43.3	37.9	64.2	39.2	50.9	70.3	56.7
SA19-7246	57.3	47.0	40.1	39.6	75.9	42.5	39.4	60.0	55.0
SA19-24408	62.0	56.8	46.9	41.7	83.9	49.6	55.7	64.0	63.0
TN19-4012	42.3	.	34.7	28.0	39.1	46.1	44.0	58.5	46.0
TN18-4005	61.3	46.7	47.6	40.1	69.7	45.8	55.7	63.4	59.2
TN19-4003	57.9	.	37.4	34.7	53.9	35.9	41.7	63.2	50.5
TN20-4007	57.9	36.0	17.1	36.9	63.1	31.7	14.9	15.9	35.9
V18-2720HOR2	58.6	51.9	45.1	67.4	79.4	50.2	66.9	84.2	67.9
V18-3782R	59.2	57.2	33.4	45.1	50.3	62.9	59.4	75.8	61.5
Mean	61.2	57.8	43.3	46.9	64.6	50.4	54.2	69.8	60.0
LSD(0.05)	10.7	19.7	13.9	21.2	17.8	12.5	12.6	9.9	10.8
LSD(0.10)	8.9	16.3	11.6	17.6	14.8	10.4	10.5	8.2	9.1
CV(%)	8.1	15.7	15.7	22.0	12.9	12.0	11.3	6.9	16.1

† Data not included in the test mean: Jackson, Keiser, and Knoxville

* Locations with obvious damage consistent with exposure to the herbicide Dicamba. The Dicamba resistant checks (all the AG lines) may have had a yield advantage.

TABLE 31 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	10/8	10/1	9/21	9/21	.	10/10	9/11	9/17	9/26
AG38XF1	-5	-9	-2	-6	.	-6	-5	-5	-5
LD15-3818	-9	-14	-3	-6	.	-5	-8	-1	-6
S13-3851C	-2	0	1	5	.	2	3	-2	1
JTN-4122	-2	2	3	3	.	-2	1	5	1
S19-5296	-7	-7	-3	-4	.	-4	-8	-5	-5
S19-2082	-3	-4	2	-5	.	-1	4	-1	-1
S19-7867	-4	-5	1	-2	.	-1	-1	0	-2
S19-5563	-5	-5	0	1	.	-2	-1	-1	-2
S19-2594	-3	-4	3	0	.	1	2	3	0
S19-1176	-3	-5	0	3	.	0	0	-2	-1
SA18-10815	-9	-11	-3	-7	.	-7	-12	-8	-8
SA18-11346	-14	-13	-3	-7	.	-9	-8	-11	-9
SA18-12086	-5	-7	-3	-6	.	-6	-1	-8	-5
SA18-14143	-13	-11	-2	-6	.	-9	-8	-5	-7
SA19-10248	-11	-13	-3	-7	.	-6	-5	-5	-7
SA19-10772	-9	-9	-3	-7	.	-5	-6	-8	-7
SA19-12580	-13	-12	-2	-7	.	-10	-6	-8	-8
SA19-7246	-12	-12	-3	-7	.	-9	-14	-5	-8
SA19-24408	-9	-9	-2	-6	.	-7	-6	-8	-7
TN19-4012	-7		-1	-2	.	-2	-5	-4	-4
TN18-4005	-5	2	0	-1	.	0	0	0	-1
TN19-4003	0		1	0	.	0		2	0
TN20-4007	3	2	2	6	.	0		0	2
V18-2720HOR2	-1	-2	1	6	.	0	1	1	1
V18-3782R	-1	0	3	3	.	-1	3	1	1
Mean	-6	-6	-1	-2	.	-3	-3	-3	-3
LSD(0.05)	4	5	1	4	.	3	6	8	2
CV(%)	30	41	93	88	.	47	63	148	75

TABLE 32 - PLANT HEIGHT (INCHES)
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	32	32	41	26	39	37	30	34	34
AG38XF1	27	31	35	25	42	34	27	33	32
LD15-3818	26	31	21	25	35	19	25	34	27
S13-3851C	31	37	35	30	47	25	30	34	33
JTN-4122	40	28	26	24	44	21	24	32	30
S19-5296	32	40	30	28	47	23	28	36	33
S19-2082	39	40	38	35	50	30	38	39	38
S19-7867	34	38	32	33	44	22	36	36	34
S19-5563	35	36	34	35	48	25	33	40	36
S19-2594	34	36	28	31	45	22	28	33	32
S19-1176	33	36	30	28	44	22	25	32	31
SA18-10815	29	31	25	28	44	20	28	34	30
SA18-11346	28	29	20	22	41	19	24	27	26
SA18-12086	27	28	21	23	42	17	20	30	26
SA18-14143	29	30	35	24	42	21	26	32	30
SA19-10248	28	29	22	23	41	18	25	32	27
SA19-10772	28	26	20	24	42	22	24	30	27
SA19-12580	29	29	23	23	45	20	24	29	27
SA19-7246	29	27	21	24	42	21	22	28	26
SA19-24408	29	31	25	24	42	20	28	32	28
TN19-4012	34	.	30	25	41	20	26	27	29
TN18-4005	32	33	30	27	44	25	25	30	31
TN19-4003	40	.	31	29	43	20	29	33	32
TN20-4007	43	41	36	38	55	25	34	36	38
V18-2720HOR2	37	46	39	36	46	24	40	43	39
V18-3782R	34	36	34	34	46	27	31	35	34
Mean	32	33	29	28	44	23	28	33	31
LSD(0.05)	3	6	7	5	7	4	5	5	3
CV(%)	5	8	12	9	8	9	8	8	11

TABLE 33 - PLANT LODGING (1-5)
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	1.5	1.5	1.0	2.2	1.5	2.0	1.5	1.0	1.5
AG38XF1	1.5	1.0	1.0	2.2	1.0	1.0	1.0	1.0	1.2
LD15-3818	1.5	1.5	1.0	2.0	1.5	1.0	1.0	1.0	1.3
S13-3851C	1.8	2.0	3.5	2.2	4.0	2.0	2.0	2.0	2.4
JTN-4122	3.3	2.7	1.0	2.0	5.0	2.0	1.0	1.0	2.2
S19-5296	2.0	1.5	1.0	2.2	2.5	1.5	1.0	1.0	1.6
S19-2082	2.5	2.5	2.0	2.5	2.5	3.5	2.0	3.0	2.6
S19-7867	2.0	2.5	2.5	2.2	3.0	3.0	2.0	4.0	2.7
S19-5563	2.0	2.5	2.0	2.5	2.5	3.5	2.0	4.0	2.6
S19-2594	2.0	2.5	2.5	2.7	2.0	2.0	1.5	3.0	2.3
S19-1176	2.0	2.0	1.0	2.2	1.5	2.0	1.0	1.0	1.6
SA18-10815	1.5	1.0	2.0	2.2	4.5	1.5	1.5	1.0	1.9
SA18-11346	1.0	1.0	1.0	2.0	2.0	1.5	1.0	1.0	1.3
SA18-12086	1.5	1.0	1.0	2.0	2.5	1.0	1.0	1.0	1.4
SA18-14143	1.3	1.0	1.0	2.0	2.5	1.0	1.0	1.0	1.3
SA19-10248	1.8	1.0	1.0	2.0	3.0	1.0	1.0	1.0	1.5
SA19-10772	1.8	1.0	1.0	2.0	1.5	1.0	1.0	1.0	1.3
SA19-12580	1.8	1.5	1.0	2.0	2.0	1.5	1.0	1.0	1.5
SA19-7246	1.5	1.0	1.0	2.0	1.0	1.0	1.0	1.0	1.2
SA19-24408	1.5	1.0	1.0	2.5	1.0	1.0	1.0	1.0	1.3
TN19-4012	2.0	.	2.0	2.0	3.0	1.0	2.0	1.0	1.8
TN18-4005	2.0	1.7	1.0	2.0	2.0	1.5	1.0	1.0	1.5
TN19-4003	2.5	.	1.0	2.0	3.5	1.0	1.0	1.5	1.8
TN20-4007	3.3	4.0	3.5	2.7	5.0	3.0	.	3.5	3.5
V18-2720HOR2	2.0	3.5	2.5	2.2	3.5	2.5	2.0	4.0	2.8
V18-3782R	2.0	2.5	3.5	2.2	3.0	2.0	1.5	3.0	2.5
Mean	1.9	1.8	1.6	2.2	2.6	1.7	1.3	1.7	1.9
LSD(0.05)	0.5	1.1	1.6	0.6	2.6	1.1	0.6	0.4	0.6
CV(%)	12.1	27.5	47.0	13.3	49.3	30.1	22.3	11.1	38.8

TABLE 34 - SEED QUALITY (1-5)
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	1.0	2.5	2.0	1	2.0	1.5	.	2.0	1.7
AG38XF1	2.0	3.0	2.0	1	1.0	1.5	.	3.0	1.9
LD15-3818	1.0	3.0	3.0	2	1.5	2.0	.	3.5	2.3
S13-3851C	2.0	3.0	1.5	1	1.0	1.5	.	2.5	1.8
JTN-4122	2.0	3.0	2.0	1	1.0	2.0	.	1.5	1.8
S19-5296	1.0	3.0	2.0	1	1.0	2.0	.	2.5	1.9
S19-2082	1.0	3.0	2.0	2	1.0	2.0	.	2.5	1.9
S19-7867	1.0	3.0	3.0	1	1.0	2.0	.	3.0	2.1
S19-5563	2.0	3.5	1.5	1	1.5	1.5	.	3.0	2.0
S19-2594	2.0	2.5	2.0	1	1.0	2.0	.	2.5	1.9
S19-1176	2.0	3.0	2.0	2	1.0	2.0	.	3.5	2.2
SA18-10815	1.0	3.0	2.5	1	1.5	1.0	.	2.5	1.9
SA18-11346	2.0	3.5	2.5	2	2.5	1.0	.	3.5	2.4
SA18-12086	2.0	3.0	2.5	2	1.5	1.0	.	4.0	2.2
SA18-14143	1.0	3.0	1.5	1	1.1	2.0	.	2.5	1.8
SA19-10248	2.0	3.0	2.5	2	1.5	1.0	.	3.0	2.1
SA19-10772	2.0	3.0	1.5	2	2.1	2.0	.	3.0	2.1
SA19-12580	2.0	3.5	2.5	1	1.0	1.0	.	3.0	2.0
SA19-7246	2.0	3.0	2.0	1	1.0	1.5	.	3.5	2.0
SA19-24408	1.0	2.5	1.5	1	1.0	1.5	.	3.0	1.7
TN19-4012	1.0	.	1.5	1	1.0	1.5	.	1.5	1.4
TN18-4005	2.0	3.0	2.0	2	1.5	1.0	.	3.0	2.0
TN19-4003	1.0	.	1.5	1	1.0	2.0	.	2.5	1.7
TN20-4007	2.0	2.5	1.5	1	2.0	1.5	.	3.0	1.9
V18-2720HOR2	1.0	2.0	1.0	1	1.0	1.5	.	1.0	1.2
V18-3782R	1.0	2.0	1.0	1	1.0	2.0	.	1.0	1.3
Mean	1.5	2.9	1.9	1	1.3	1.6	.	2.7	1.9
LSD(0.05)	.	0.9	1.3	0	1.0	0.9	.	1.1	0.5
CV(%)	.	13.8	32.6	16	36.0	26.1	.	19.7	28.6

TABLE 35 - SEED SIZE (GRAMS PER 100 SEED)
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	17.6	15.2	14.8	13	14.5	16.0	14.0	15.3	15.1
AG38XF1	18.7	15.9	16.7	15	18.0	18.0	15.5	17.3	16.9
LD15-3818	16.9	14.2	14.1	14	17.0	16.0	13.8	14.7	15.1
S13-3851C	18.1	15.8	14.8	14	19.5	16.2	16.3	17.3	16.5
JTN-4122	11.6	12.2	11.0	11	13.5	12.8	9.9	12.5	11.8
S19-5296	17.9	15.9	14.2	13	18.5	16.6	15.5	15.3	15.9
S19-2082	17.6	15.2	13.6	12	18.0	15.1	14.1	16.3	15.3
S19-7867	18.4	16.7	15.0	13	23.0	17.3	15.9	16.6	17.0
S19-5563	18.0	14.0	13.6	12	20.5	15.3	15.2	15.3	15.5
S19-2594	18.1	15.4	15.3	13	24.5	17.3	16.9	18.0	17.4
S19-1176	18.5	15.9	15.3	14	21.0	16.7	11.6	15.8	16.1
SA18-10815	16.9	12.6	12.8	12	17.0	14.7	14.0	13.2	14.1
SA18-11346	18.4	15.0	15.7	13	18.5	18.3	18.5	15.9	16.7
SA18-12086	16.9	13.2	12.8	12	17.0	15.0	15.9	14.4	14.6
SA18-14143	16.9	12.5	12.7	11	14.0	14.0	13.2	13.1	13.5
SA19-10248	18.6	14.9	15.9	15	19.0	17.9	18.4	15.3	16.8
SA19-10772	18.5	12.2	14.1	13	15.0	15.9	15.5	14.9	14.9
SA19-12580	21.2	15.3	14.8	14	18.0	17.0	18.5	16.3	16.8
SA19-7246	16.0	12.4	13.4	13	16.5	14.9	15.8	12.7	14.3
SA19-24408	16.0	12.0	12.4	12	16.5	13.2	12.3	12.3	13.3
TN19-4012	12.9	.	11.9	13	15.5	13.9	12.6	14.6	13.4
TN18-4005	19.1	16.1	15.8	16	18.5	16.6	17.0	16.9	16.9
TN19-4003	15.1	.	12.5	13	14.0	14.2	12.3	13.2	13.3
TN20-4007	10.3	13.1	10.8	11	15.0	13.0	11.4	14.3	12.4
V18-2720HOR2	14.2	12.8	12.7	12	15.5	13.0	.	15.1	13.6
V18-3782R	14.3	13.1	11.5	12	15.0	14.7	11.3	13.4	13.1
Mean	16.8	14.3	13.7	13	17.4	15.5	14.6	15.0	15.0
LSD(0.05)	.	1.3	0.6	1	2.5	0.7	.	0.5	1.2
CV(%)	.	4.3	2.1	4	6.6	2.2	.	1.7	8.1

TABLE 36 - OIL (%)†
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	20.2	20.4	20.8	21.6	19.8	19.7	20.4	20.5	20.4
AG38XF1	19.4	19.4	19.1	20.2	19.7	19.1	19.0	18.8	19.3
LD15-3818	20.0	20.6	20.0	20.8	20.4	20.4	21.9	21.6	20.7
S13-3851C	19.8	19.3	19.8	19.9	19.7	20.1	19.3	17.1	19.4
JTN-4122	17.7	18.8	19.3	19.3	18.7	18.9	19.1	19.4	18.9
S19-5296	19.5	19.7	20.3	20.2	19.9	20.1	19.9	20.6	20.0
S19-2082	19.8	18.5	20.0	19.0	19.4	19.5	18.6	19.1	19.2
S19-7867	20.3	19.8	20.2	20.9	19.4	20.0	20.0	20.0	20.1
S19-5563	20.4	19.6	20.2	21.0	19.7	19.9	20.1	19.9	20.1
S19-2594	20.4	20.0	20.1	20.6	19.8	20.5	19.5	20.1	20.1
S19-1176	19.1	19.1	19.8	19.8	18.7	19.1	19.3	19.8	19.3
SA18-10815	19.8	19.0	18.4	20.3	18.7	18.9	20.2	20.3	19.4
SA18-11346	20.8	20.0	19.2	20.5	20.0	19.8	20.2	20.9	20.2
SA18-12086	20.4	21.0	19.8	19.7	19.7	20.5	18.8	20.7	20.1
SA18-14143	21.5	21.7	21.1	22.6	20.3	21.5	21.7	22.1	21.6
SA19-10248	20.6	21.8	20.3	21.4	19.6	20.1	21.6	21.1	20.8
SA19-10772	20.5	21.0	19.8	21.0	20.5	20.9	20.0	23.2	20.9
SA19-12580	17.7	19.8	19.4	21.0	20.2	20.4	19.1	20.6	19.8
SA19-7246	20.4	20.4	19.4	21.6	20.4	20.3	20.8	21.5	20.6
SA19-24408	19.8	19.7	18.7	20.4	18.9	19.7	19.7	20.2	19.6
TN19-4012	20.3	.	19.1	20.7	19.5	19.7	20.2	20.0	19.9
TN18-4005	18.9	18.6	19.0	19.6	18.7	18.5	19.2	18.7	18.9
TN19-4003	17.9	.	18.2	19.3	18.1	18.3	18.1	18.7	18.4
TN20-4007	18.6	18.8	19.5	19.4	17.2	19.1	18.6	18.9	18.8
V18-2720HOR2	20.8	20.6	20.7	21.3	19.7	20.3	20.5	20.4	20.6
V18-3782R	20.8	20.6	20.5	21.2	20.6	20.0	20.1	20.7	20.6
Mean	19.8	19.9	19.7	20.5	19.5	19.8	19.8	20.2	19.9
LSD(0.05)	.	.	.	.	.	.	.	.	0.6
CV(%)	.	.	.	.	.	.	.	.	2.8

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 37 - PROTEIN (%)†
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	33.0	35.2	33.3	33.7	35.0	34.9	35.3	34.1	34.3
AG38XF1	34.7	36.2	35.3	35.2	33.6	34.7	37.4	37.0	35.5
LD15-3818	35.4	34.9	34.1	34.9	34.3	34.3	34.9	32.3	34.4
S13-3851C	34.0	37.1	35.5	34.6	34.9	33.1	36.7	38.0	35.5
JTN-4122	36.4	36.6	35.1	35.2	35.9	34.3	36.1	35.9	35.7
S19-5296	35.1	36.1	34.7	35.7	35.0	34.7	36.4	34.5	35.3
S19-2082	34.6	38.2	34.5	34.6	35.8	34.1	37.2	36.3	35.6
S19-7867	32.2	35.5	33.6	33.8	35.7	33.3	34.5	34.1	34.1
S19-5563	32.8	34.8	33.4	33.5	34.9	33.3	34.5	34.9	34.0
S19-2594	33.7	36.0	34.6	35.6	35.4	33.8	36.4	36.4	35.2
S19-1176	34.4	36.6	34.3	35.8	35.9	34.4	36.4	35.4	35.4
SA18-10815	33.9	36.0	35.1	35.2	36.8	35.5	35.8	34.1	35.3
SA18-11346	33.6	34.8	36.2	35.1	35.8	35.2	36.7	33.6	35.1
SA18-12086	33.4	33.9	33.2	33.5	34.1	33.5	37.7	33.1	34.0
SA18-14143	32.2	33.6	33.0	32.5	34.6	33.0	35.3	32.5	33.3
SA19-10248	35.4	33.6	35.0	35.4	36.9	36.2	38.9	34.1	35.7
SA19-10772	33.5	33.4	33.7	33.8	33.8	32.8	37.0	31.7	33.7
SA19-12580	34.8	36.6	34.8	33.8	34.4	33.6	37.4	33.5	34.9
SA19-7246	33.4	34.6	33.9	32.5	34.1	33.2	35.5	31.3	33.6
SA19-24408	35.6	35.7	36.7	36.0	37.2	35.8	38.2	35.2	36.3
TN19-4012	31.2	.	33.7	33.3	33.3	32.7	32.7	33.1	32.9
TN18-4005	34.3	38.2	36.3	36.6	37.9	35.8	37.6	38.1	36.8
TN19-4003	34.7	.	34.4	35.2	35.6	35.1	35.9	34.4	35.1
TN20-4007	35.1	38.0	35.4	35.8	38.9	34.7	36.8	37.8	36.6
V18-2720HOR2	31.1	33.9	32.8	31.4	34.7	32.3	33.6	34.2	33.0
V18-3782R	31.9	34.2	33.4	32.5	33.5	34.0	34.1	34.1	33.5
Mean	33.9	35.6	34.5	34.4	35.3	34.2	36.1	34.6	34.8
LSD(0.05)	.	.	.	.	.	.	.	.	0.9
CV(%)	.	.	.	.	.	.	.	.	2.7

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 38 - ESTIMATED MEAL PROTEIN (%)†
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	45.0	48.0	45.7	46.8	47.3	47.2	48.2	46.6	46.9
AG38XF1	46.8	48.9	47.4	47.9	45.4	46.6	50.2	49.5	47.8
LD15-3818	48.1	47.8	46.3	47.9	46.9	46.8	48.6	44.8	47.1
S13-3851C	46.1	50.0	48.1	46.9	47.2	45.0	49.4	49.8	47.8
JTN-4122	48.1	49.0	47.2	47.3	48.0	46.0	48.6	48.4	47.8
S19-5296	47.4	48.9	47.3	48.5	47.4	47.2	49.4	47.2	47.9
S19-2082	46.8	51.0	46.9	46.4	48.2	46.0	49.7	48.8	48.0
S19-7867	43.9	48.1	45.8	46.4	48.2	45.3	46.8	46.4	46.4
S19-5563	44.8	47.0	45.5	46.1	47.2	45.2	47.0	47.3	46.3
S19-2594	46.0	48.9	47.1	48.7	48.0	46.2	49.1	49.6	47.9
S19-1176	46.3	49.2	46.5	48.5	48.0	46.2	49.0	48.0	47.7
SA18-10815	45.9	48.3	46.8	47.9	49.2	47.5	48.7	46.4	47.6
SA18-11346	46.1	47.2	48.6	48.0	48.6	47.7	49.9	46.1	47.8
SA18-12086	45.6	46.6	44.9	45.4	46.1	45.8	50.4	45.3	46.3
SA18-14143	44.6	46.7	45.4	45.6	47.2	45.7	49.0	45.3	46.2
SA19-10248	48.4	46.7	47.8	49.0	49.9	49.3	53.9	46.9	49.0
SA19-10772	45.7	46.0	45.6	46.5	46.1	45.1	50.3	44.8	46.3
SA19-12580	45.9	49.6	46.9	46.4	46.9	45.9	50.2	45.9	47.2
SA19-7246	45.6	47.2	45.8	45.1	46.5	45.3	48.7	43.3	45.9
SA19-24408	48.3	48.4	49.1	49.1	49.8	48.5	51.7	47.9	49.1
TN19-4012	42.6	.	45.3	45.6	44.9	44.2	44.6	44.9	44.7
TN18-4005	45.9	51.0	48.7	49.5	50.7	47.7	50.5	51.0	49.4
TN19-4003	45.9	.	45.7	47.4	47.2	46.6	47.6	45.9	46.8
TN20-4007	46.8	50.9	47.7	48.2	51.0	46.6	49.2	50.7	48.9
V18-2720HOR2	42.7	46.4	44.9	43.4	46.9	44.0	46.0	46.7	45.1
V18-3782R	43.8	46.8	45.6	44.8	45.9	46.1	46.4	46.7	45.8
Mean	45.9	48.3	46.6	47.1	47.6	46.3	49.0	47.1	47.2
LSD(0.05)	.	.	.	.	.	.	.	.	1.1
CV(%)	.	.	.	.	.	.	.	.	2.3

† Estimated meal protein percentage is reported on a 13% moisture basis.

SUMMARY OF SEED FATTY ACIDS (%)
PRELIMINARY TEST IV-S-EARLY 2022 †

STRAIN/ VARIETY	Palmitic Acid	Stearic Acid	Oleic Acid	Linoleic Acid	Linolenic Acid
AG43XF2	10.2	4.3	24.6	54.5	6.4
AG38XF1	11.9	4.3	22.8	54.2	6.8
SA19-24408	7.2	3.5	82.5	4.5	2.3
Mean	9.8	4.0	43.3	37.7	5.2
LSD(0.05)	0.4	0.3	3.8	3.2	0.4
CV(%)	3.3	5.5	7.6	7.6	7.1

† Fatty acid percentage in seed oil reported beginning in 2017.

SEED PALMITIC ACID (%)
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	10.9	10.1	9.3	10.3	10.2	.	10.4	10.4	10.2
AG38XF1	12.0	12.0	11.9	12.3	11.4	.	12.0	11.7	11.9
SA19-24408	7.2	7.1	7.3	7.3	7.1	.	7.1	7.3	7.2
Mean	10.0	9.7	9.5	10.0	9.6	.	9.8	9.8	9.8
LSD(0.05)	.	.	.	.	.	.	.	.	0.4
CV(%)	.	.	.	.	.	.	.	.	3.3

SEED STEARIC ACID (%)
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	4.9	4.7	3.9	4.4	4.3	.	4.2	3.9	4.3
AG38XF1	4.8	4.7	3.8	4.3	4.2	.	4.2	3.9	4.3
SA19-24408	3.5	3.5	3.5	3.7	3.3	.	3.5	3.5	3.5
Mean	4.4	4.3	3.7	4.1	3.9	.	4.0	3.8	4.0
LSD(0.05)	.	.	.	.	.	.	.	.	0.3
CV(%)	.	.	.	.	.	.	.	.	5.5

SEED OLEIC ACID (%)
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	20.0	22.4	35.5	22.4	27.3	.	23.3	21.2	24.6
AG38XF1	21.0	24.8	21.4	19.4	24.9	.	26.8	21.4	22.8
SA19-24408	81.8	82.7	82.9	81.6	82.9	.	83.9	81.7	82.5
Mean	40.9	43.3	46.6	41.1	45.0	.	44.7	41.4	43.3
LSD(0.05)	.	.	.	.	.	.	.	.	3.8
CV(%)	.	.	.	.	.	.	.	.	7.6

SEED LINOLEIC ACID (%)
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	56.7	56.6	45.3	55.9	52.1	.	56.5	57.9	54.5
AG38XF1	54.4	51.9	56.1	56.6	52.4	.	51.9	56.2	54.2
SA19-24408	4.9	4.4	4.1	5.0	4.5	.	3.6	5.3	4.5
Mean	38.7	37.6	35.2	39.2	36.3	.	37.3	39.8	37.7
LSD(0.05)	.	.	.	.	.	.	.	.	3.2
CV(%)	.	.	.	.	.	.	.	.	7.6

SEED LINOLENIC ACID (%)
PRELIMINARY GROUP IV-S-EARLY 2022

STRAIN/ VARIETY	Columbia, MO	Jackson, TN	Keiser, AR	Knoxville, TN	Orange, VA	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
AG43XF2	7.5	6.2	5.9	7.0	6.1	.	5.6	6.5	6.4
AG38XF1	7.8	6.7	6.8	7.4	7.1	.	5.1	6.8	6.8
SA19-24408	2.6	2.3	2.2	2.5	2.2	.	1.9	2.2	2.3
Mean	5.9	5.0	5.0	5.6	5.1	.	4.2	5.2	5.2
LSD(0.05)	.	.	.	.	.	.	.	.	0.4
CV(%)	.	.	.	.	.	.	.	.	7.1

TABLE 39 - PARENTAGE OF ENTRIES
PRELIMINARY GROUP IV-S-LATE 2022

Ent	*Strain/Variety*	*Parentage*	*Source*	*Fn*	*Trans-genic†*	*Special Traits‡*
1	S16-7922	Commercial check			CONV	
2	AG46X6	Commercial check			RRX	
3	AG48X9	Commercial check			RRX	
4	AG48XF2	Commercial check			RRX	
5	DA1601-18	DA0865-88F x Osage	A. Gillen		CONV	
6	DA1643-01-10	DA0841-193F x DA0939-17F	A. Gillen		CONV	
7	DA1644-320F	DA09x39-17F x 5002T	A. Gillen		CONV	
8	DA1644-418F	DA09x39-17F x 5002T	A. Gillen		CONV	
9	DS72-12	(DT98-9102 x PI 587982A) x PI 424546A	J.R. Smith	F5	CONV	Heat tolerant, high water-use eff., 75% PI
10	K19-1185	K15-70 / K15-45	Schaupaugh	F5	CONV	
11	K19-2402	S12-2418 / K11-2363B	Schaupaugh	F5	CONV	
12	K19-2440	S12-2418 / K11-2363B	Schaupaugh	F5	CONV	
13	K19-3059	K11-2363B / R10-2622	Schaupaugh	F5	CONV	
14	K19-3494	K12-1355 / R10-2436	Schaupaugh	F5	CONV	
15	K19-3543	K12-1355 / R10-2436	Schaupaugh	F5	CONV	
16	K19-5494	LG11-2963 / K13-1845	Schaupaugh	F5	CONV	
17	R18C-11151	FNA1.31/LD10-14205:132	A. Acuna		CONV	
18	R19-39444	LG13-4321/R11-7141:44	A. Acuna		CONV	
19	S19-10414	TN14-5021 x S14-6391			CONV	SCN, SC
20	S19-10710	S15-17108 x DA10x30-09F			CONV	RKN, SC
21	S19-12409	S14-6391 x K14-1358			CONV	SCN, SC
22	S19-12459	S14-6391 x K14-1358			CONV	SCN, RKN, SC
23	S19-14058	S14-3831 x S11-20124			CONV	SCN, RKN
24	S19-19743	S11-16653 BC-15-53			CONV	SCN, RKN, SC, HOLL
25	TN19-4023	LG11-6760 x TN15-4038	V. Pantalone	F4	CONV	
26	TN19-4731R1	S12-2336 x S12-8223	V. Pantalone	F4	RR1	
27	TN20-4041	TN14-5017 x S11-17025	V. Pantalone	F4	CONV	
28	TN21-4667	DA10x30-09F x TN15-4011	V. Pantalone	F4	CONV	
29	TN21-4809	Ellis(4) x TN13-5001LL x Ellis(4) x TN10-4037-HO-530-214HO	V. Pantalone	F4	CONV	
30	V16-0248DI	R99-1613F x R05-4114	B. Zhang		CONV	
31	V18-0482DT	V11-0730 x Jindou 19	B. Zhang		CONV	
32	V18-0678	V12-4831 x R10-5086	B. Zhang		CONV	
33	V18-2376	V11-0730 x Ellis	B. Zhang		CONV	
34	V18-3081HP	S11-20967 x V11-3522	B. Zhang		CONV	

† Conv= Conventional(non-transgenic),E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 40 - GENERAL SUMMARY OF PERFORMANCE
PRELIMINARY TEST IV-S-LATE 2022

STRAIN/ VARIETY	SEED YIELD†	RANK	AVG. RANK	MAT. INDEX	LOD	HT	SCN Cyst Score (1-5)‡ Race 2	Race 3	Race 5	SC RATING	SC SCORE
S16-7922	58.6	9	10	0	1.9	33	5	.	3	R	1
AG46X6	65.0	2	7	-3	1.3	36	4	.	4	R	1
AG48X9	65.4	1	5	-2	1.4	35	4	.	4	R	1
AG48XF2	64.3	3	9	-2	1.7	34	5	.	5	R	1
DA1601-18	56.5	13	15	-1	1.4	23	5	.	5	R	1
DA1643-01-10	54.1	21	21	-1	1.6	26	3	.	5	R	1
DA1644-320F	55.5	16	17	-1	1.4	22	5	.	5	MS	4
DA1644-418F	52.1	26	23	0	1.5	25	4	.	5	MS	4
DS72-12	47.4	31	29	-2	2.3	31	5	.	5	MS	4
K19-1185	47.0	32	27	-1	1.6	22	3	.	3	R	1
K19-2402	61.2	5	11	-4	1.4	30	3	.	5	R	1
K19-2440	58.4	10	13	-5	1.4	27	3	.	5	R	1
K19-3059	56.9	12	15	-2	1.4	25	5	.	5	R	1
K19-3494	57.0	11	16	-3	1.3	28	4	.	5	R	1
K19-3543	54.6	19	18	0	1.7	28	5	.	5	R	1
K19-5494	54.8	18	19	-4	1.2	21	4	.	5	R	1
R18C-11151	51.2	27	23	-1	1.4	34	4	.	5	R	1
R19-39444	59.0	8	12	-1	1.7	38	5	.	5	R	1
S19-10414	54.1	20	20	-3	1.7	34	5	.	5	R	1
S19-10710	55.6	15	17	0	1.5	30	3	.	4	R	1
S19-12409	62.1	4	7	-3	2.0	38	4	.	5	R	1
S19-12459	59.7	6	11	-2	2.1	37	4	.	5	R	1
S19-14058	59.6	7	9	1	1.6	30	1	.	1	MS	4
S19-19743	54.9	17	14	-1	1.7	26	2	.	1	R	1
TN19-4023	52.5	23	22	4	2.3	38	4	.	5	R	1
TN19-4731R1	50.8	29	24	-1	1.7	36	5	.	5	R	1
TN20-4041	42.8	34	30	1	1.3	21	1	.	1	MS	4
TN21-4667	52.2	25	19	2	1.5	28	1	.	1	SS	3
TN21-4809	46.6	33	28	-4	2.2	36	4	.	5	R	1
V16-0248DI	53.3	22	20	-2	1.4	22	4	.	5	R	1
V18-0482DT	49.0	30	26	-3	1.2	20	4	.	5	R	1
V18-0678	56.0	14	18	10	1.4	29	4	.	5	R	1
V18-2376	50.9	28	23	-1	1.2	21	4	.	5	R	1
V18-3081HP	52.4	24	17	-3	1.3	32	3	.	5	R	1
Mean	55.1	.	.	-1	2	29	.	.	.		.
LSD(0.05)	6.8	.	.	3	0.6	4	.	.	.		.
CV(%)	14.8	.	.	247	43.6	16	.	.	.		.

†Data not included in the yield mean:

TABLE 41 - GENERAL SUMMARY OF PERFORMANCE (continued)
PRELIMINARY TEST IV-S-LATE 2022

STRAIN/ VARIETY	SEED QUALITY	SEED SIZE	PROTEIN§ %	OIL§ %	MEAL PRO%	FL COLOR	PUB. COLOR	POD COLOR
S16-7922	1.3	14.3	34.9	19.0	46.9			
AG46X6	1.8	16.7	34.7	19.6	46.9			
AG48X9	1.4	15.6	35.0	19.4	47.2			
AG48XF2	1.8	16.2	34.3	19.0	46.1			
DA1601-18	1.5	12.1	35.2	18.9	47.1	P	T	T
DA1643-01-10	1.5	12.6	35.2	18.9	47.1	P	T	T
DA1644-320F	1.3	14.3	35.0	19.6	47.3	P	T	T
DA1644-418F	1.4	12.9	35.3	19.4	47.6	W	T	T
DS72-12	1.9	14.5	36.0	17.5	47.4	W	Tw	Tn
K19-1185	1.4	14.2	34.5	19.2	46.5			
K19-2402	1.6	17.2	36.5	19.3	49.1			
K19-2440	1.8	15.7	34.9	19.2	46.9			
K19-3059	1.6	14.8	34.5	19.7	46.7			
K19-3494	1.8	16.4	35.8	19.1	48.1			
K19-3543	1.5	13.7	33.9	19.1	45.6			
K19-5494	1.6	12.7	36.4	17.9	48.1			
R18C-11151	1.4	13.8	34.8	19.1	46.8	S	L	B
R19-39444	1.5	15.2	34.3	19.2	46.2	P	L	T
S19-10414	2.2	14.1	36.0	18.3	47.9	W	T	T
S19-10710	1.4	13.0	36.0	18.5	48.0	W	T	T
S19-12409	1.7	15.7	35.4	18.2	47.1	W	T	T
S19-12459	1.8	16.8	36.5	18.8	48.8	W	T	T
S19-14058	1.3	13.9	35.2	18.2	46.8	W	G	T
S19-19743	1.4	15.7	36.1	19.5	48.7	W	G	T
TN19-4023	2.1	13.2	33.9	19.2	45.7	W	G	
TN19-4731R1	1.4	13.2	35.5	18.6	47.4	P	T	
TN20-4041	1.7	13.4	35.7	18.9	47.9	W	G	
TN21-4667	1.3	11.3	33.9	18.6	45.3	W	T	
TN21-4809	1.6	13.6	36.3	19.4	49.0	W	G	
V16-0248DI	1.5	13.4	36.8	18.5	49.0	P	G	
V18-0482DT	1.6	13.0	35.1	19.7	47.6	W	T	
V18-0678	2.5	13.1	36.4	19.5	49.1	P	G	
V18-2376	1.5	12.9	35.1	19.0	47.2	W	G	
V18-3081HP	1.2	14.7	36.0	18.5	48.0	W	LT	
Mean	1.6	14.2	35.3	19.0	47.4			
LSD(0.05)	0.6	1.0	0.8	0.5	1.0			
CV(%)	38.8	7.2	2.2	2.6	2.0			

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

TABLE 42 - SEED YIELD (BUSHELS PER ACRE)
PRELIMINARY GROUP IV-S-LATE 2022 †

STRAIN/ VARIETY	*Keiser, AR **	*Knoxville, TN*	*McCune, KS*	*Orange, VA*	*Pittsburg, KS*	*Portageville, MO(B) **	*Stoneville, MS **	*Stuttgart, AR **	*Test Mean*
S16-7922	59.4	67.8	27.5	75.9	43.9	59.1	55.3	80.0	58.6
AG46x6	66.0	64.8	23.8	82.0	41.2	82.7	70.9	88.9	65.0
AG48X9	62.7	70.9	27.8	84.8	43.3	80.7	68.8	84.6	65.4
AG48XF2	65.7	80.5	20.4	75.6	38.5	77.3	70.3	86.5	64.3
DA1601-18	56.7	72.0	26.4	81.2	40.1	41.3	62.2	72.2	56.5
DA1643-01-10	51.3	74.1	22.4	71.0	36.9	40.3	59.9	76.6	54.1
DA1644-320F	63.0	69.1	24.6	69.8	41.0	50.4	52.1	73.9	55.5
DA1644-418F	51.7	45.9	20.0	74.7	34.5	54.9	61.3	73.8	52.1
DS72-12	55.2	50.4	18.4	57.4	29.8	49.7	46.7	71.8	47.4
K19-1185	49.6	59.3	19.0	55.7	41.3	37.0	47.2	67.2	47.0
K19-2402	55.8	83.2	25.1	82.4	38.1	63.4	64.9	76.8	61.2
K19-2440	63.5	70.1	21.9	73.0	43.4	48.7	62.8	83.7	58.4
K19-3059	58.8	67.4	23.5	68.4	39.2	58.6	60.3	79.5	56.9
K19-3494	63.0	79.9	17.3	63.8	34.8	59.6	58.6	79.2	57.0
K19-3543	56.3	67.8	24.9	70.4	40.4	50.6	49.9	76.3	54.6
K19-5494	51.6	76.1	22.5	82.5	38.2	40.4	55.5	72.0	54.8
R18C-11151	47.9	55.3	25.4	71.4	34.4	51.8	54.9	68.3	51.2
R19-39444	56.2	67.9	24.8	84.6	39.2	62.8	58.4	78.3	59.0
S19-10414	51.8	62.0	22.9	71.7	34.1	58.9	54.8	76.8	54.1
S19-10710	61.4	57.2	24.6	73.7	37.5	56.9	60.7	72.8	55.6
S19-12409	64.0	63.9	28.7	75.1	47.1	70.3	64.4	83.4	62.1
S19-12459	58.3	59.1	23.2	83.4	41.6	66.2	68.2	77.9	59.7
S19-14058	63.8	63.2	29.3	77.6	43.4	67.8	51.8	80.3	59.6
S19-19743	61.0	54.9	28.4	62.1	44.7	56.9	52.2	79.0	54.9
TN19-4023	54.4	54.5	20.3	87.0	40.0	55.0	39.6	69.3	52.5
TN19-4731R1	42.0	63.0	22.9	80.4	36.4	51.9	46.1	63.9	50.8
TN20-4041	49.5	29.4	21.7	52.0	38.5	42.4	43.5	65.2	42.8
TN21-4667	57.0	58.1	26.1	49.1	43.7	54.3	51.1	72.7	52.2
TN21-4809	47.2	55.1	24.5	58.2	26.5	45.6	48.6	67.2	46.6
V16-0248DI	53.0	79.4	26.7	63.3	37.9	41.6	49.5	75.0	53.3
V18-0482DT	45.3	54.3	19.1	77.5	35.8	33.1	49.7	77.3	49.0
V18-0678	58.3	53.4	22.5	89.6	39.9	63.3	46.1	74.7	56.0
V18-2376	49.0	54.7	21.3	81.0	42.3	37.7	50.0	71.7	50.9
V18-3081HP	59.6	39.2	23.8	57.8	47.5	57.6	58.1	75.9	52.4
Mean	56.2	62.5	23.6	72.5	39.2	54.9	55.7	75.7	55.1
LSD(0.05)	12.0	18.4	3.1	18.8	5.9	14.2	6.8	9.2	6.8
LSD(0.10)	10.0	15.3	2.6	15.6	4.9	11.8	5.7	7.7	5.7
CV(%)	10.5	14.5	6.6	12.6	7.4	12.7	6.0	6.0	14.8

† Data not included in the test mean:

* Locations with obvious damage consistent with exposure to the herbicide Dicamba. The Dicamba reistant checks (all the AG lines) may have had a yield advantage.

TABLE 43 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	*Keiser, AR*	*Knoxville, TN*	*McCune, KS*	*Orange, VA*	*Pittsburg, KS*	*Portageville, MO(B)*	*Stoneville, MS*	*Stuttgart, AR*	*Test Mean*
S16-7922	9/29	10/2	9/22	.	9/14	10/16	9/18	9/24	9/27
AG46x6	-3	-2	-5	.	-5	-3	0	0	-3
AG48X9	-3	-1	-5	.	-4	-3	0	0	-2
AG48XF2	-5	0	-1	.	-6	-3	0	-2	-2
DA1601-18	-3	0	0	.	0	-4	-1	1	-1
DA1643-01-10	-2	0	3	.	-3	-3	-1	1	-1
DA1644-320F	-1	-1	0	.	-2	-2	-1	0	-1
DA1644-418F	-2	5	4	.	-5	-4	0	2	0
DS72-12	-6	1	0	.	-3	-3	-4	0	-2
K19-1185	-2	2	1	.	-1	-6	0	2	-1
K19-2402	-2	-2	-5	.	-6	-6	-4	-6	-4
K19-2440	-4	-1	-7	.	-9	-5	-4	-2	-5
K19-3059	-4	0	-3	.	-1	-6	-1	1	-2
K19-3494	-4	2	-5	.	-5	-5	-2	-2	-3
K19-3543	-3	5	0	.	0	-5	-1	2	0
K19-5494	-3	-2	-3	.	-6	-6	-7	-1	-4
R18C-11151	-2	-1	0	.	-2	-5	1	0	-1
R19-39444	-1	0	-1	.	0	-4	-3	-1	-1
S19-10414	-3	-2	-4	.	-4	-4	-2	-1	-3
S19-10710	-1	4	1	.	-1	-2	0	-3	0
S19-12409	-1	-2	-5	.	-4	-3	-1	-2	-3
S19-12459	-1	-1	0	.	-2	-3	-3	-5	-2
S19-14058	-1	2	1	.	1	1	0	2	1
S19-19743	-2	2	-2	.	-2	-4	-1	3	-1
TN19-4023	0	9	8	.	1	1	3	5	4
TN19-4731R1	0	4	-3	.	-5	-2	0	0	-1
TN20-4041	-1	6	0	.	1	-3	1	5	1
TN21-4667	0	6	3	.	1	1	1	1	2
TN21-4809	-3	3	-7	.	-4	-6	-8	0	-4
V16-0248DI	-3	-2	1	.	0	-6	-3	-1	-2
V18-0482DT	-5	2	-3	.	-5	-5	-1	-3	-3
V18-0678	32	11	10	.	8	1	3	5	10
V18-2376	-1	2	-2	.	-4	-3	0	2	-1
V18-3081HP	-6	2	-4	.	-3	-2	-4	-6	-3
Mean	-2	2	-1	.	-2	-3	-1	0	-1
LSD(0.05)	3	2	4	.	3	3	2	4	3
CV(%)	92	68	226	.	78	46	69	1630	247

TABLE 44 - PLANT HEIGHT (INCHES)
PRELIMINARY GROUP IV-S-LATE 2021

STRAIN/ VARIETY	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	26	33	28	42	38	32	31	37	33
AG46x6	45	39	26	42	29	35	35	38	36
AG48X9	44	40	26	41	29	34	35	36	35
AG48XF2	40	39	23	41	25	36	31	37	34
DA1601-18	16	21	19	36	25	26	21	24	23
DA1643-01-10	16	25	20	42	29	26	22	28	26
DA1644-320F	18	22	15	32	27	25	16	26	22
DA1644-418F	18	18	20	42	31	20	22	33	25
DS72-12	32	33	20	41	30	28	36	33	31
K19-1185	19	24	15	30	24	23	16	23	22
K19-2402	30	38	21	38	25	25	31	35	30
K19-2440	28	27	20	42	25	19	28	30	27
K19-3059	19	23	22	38	29	19	22	28	25
K19-3494	28	32	20	40	25	21	26	34	28
K19-3543	24	32	22	41	32	20	22	32	28
K19-5494	14	25	14	41	23	15	19	22	21
R18C-11151	34	40	19	45	29	26	40	44	34
R19-39444	37	42	24	50	35	26	45	46	38
S19-10414	37	37	26	44	33	27	36	34	34
S19-10710	27	27	23	42	35	22	30	38	30
S19-12409	38	41	30	51	34	28	40	42	38
S19-12459	38	37	32	48	36	31	37	39	37
S19-14058	25	32	27	39	35	23	26	32	30
S19-19743	21	23	22	38	31	18	27	26	26
TN19-4023	38	37	27	49	38	28	45	46	38
TN19-4731R1	38	41	24	44	31	29	39	43	36
TN20-4041	14	18	16	30	27	17	16	27	21
TN21-4667	28	29	20	38	30	21	28	33	28
TN21-4809	38	44	27	43	33	26	38	42	36
V16-0248DI	19	24	16	38	24	16	15	25	22
V18-0482DT	13	21	17	33	25	13	16	25	20
V18-0678	26	27	24	42	32	24	26	34	29
V18-2376	15	22	18	33	27	15	15	26	21
V18-3081HP	34	26	26	43	32	24	34	35	32
Mean	27	30	22	40	30	24	28	33	29
LSD(0.05)	3	8	4	8	4	11	6	5	4
CV(%)	5	14	9	10	7	22	11	7	16

TABLE 45 - PLANT LODGING (1-5)
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	1.0	2.0	1.0	5.0	1.0	2.0	1.5	1.5	1.9
AG46x6	1.0	2.3	1.0	1.0	1.0	2.0	1.5	1.0	1.3
AG48X9	1.0	2.0	1.0	1.0	1.0	2.5	1.5	1.5	1.4
AG48XF2	2.0	2.3	1.0	1.5	1.0	2.0	2.0	1.5	1.7
DA1601-18	1.0	1.5	1.0	3.5	1.0	1.0	1.0	1.0	1.4
DA1643-01-10	1.0	1.8	1.0	4.5	1.0	1.5	1.0	1.0	1.6
DA1644-320F	1.0	1.5	1.0	3.5	1.0	1.5	1.0	1.0	1.4
DA1644-418F	1.0	1.5	1.0	4.5	1.0	1.0	1.0	1.0	1.5
DS72-12	1.5	2.5	1.0	5.0	1.0	2.0	2.5	3.0	2.3
K19-1185	1.0	1.5	1.0	5.0	1.0	1.0	1.0	1.0	1.6
K19-2402	1.0	2.3	1.0	2.0	1.0	1.0	2.0	1.0	1.4
K19-2440	1.0	2.0	1.0	2.0	1.0	1.5	2.0	1.0	1.4
K19-3059	1.0	1.5	1.0	4.0	1.0	1.0	1.0	1.0	1.4
K19-3494	1.0	2.0	1.0	2.0	1.0	1.0	1.5	1.0	1.3
K19-3543	1.0	2.0	1.0	5.0	1.0	1.0	1.5	1.0	1.7
K19-5494	1.0	1.5	1.0	2.0	1.0	1.0	1.0	1.0	1.2
R18C-11151	1.0	2.0	1.0	2.0	1.0	1.0	1.5	1.5	1.4
R19-39444	1.0	1.8	1.0	4.0	1.0	1.0	2.0	2.0	1.7
S19-10414	2.0	2.3	1.0	2.0	1.0	2.0	1.8	1.5	1.7
S19-10710	1.0	1.5	1.0	4.0	1.0	1.5	1.0	1.0	1.5
S19-12409	2.0	2.5	1.0	3.0	1.0	2.0	2.0	2.5	2.0
S19-12459	2.0	2.3	1.0	3.5	1.0	3.5	2.0	1.5	2.1
S19-14058	1.0	1.5	1.0	4.5	1.0	1.5	1.5	1.0	1.6
S19-19743	1.0	1.8	1.0	5.0	1.0	1.0	1.5	1.0	1.7
TN19-4023	3.0	1.5	1.0	5.0	1.0	1.0	2.5	3.5	2.3
TN19-4731R1	2.5	2.0	1.0	2.5	1.0	1.0	2.0	1.5	1.7
TN20-4041	1.0	1.5	1.0	3.0	1.0	1.0	1.0	1.0	1.3
TN21-4667	1.0	2.0	1.0	3.9	1.0	1.0	1.0	1.0	1.5
TN21-4809	3.0	2.0	1.0	3.5	1.0	1.5	2.5	3.0	2.2
V16-0248DI	1.0	1.5	1.0	3.5	1.0	1.0	1.0	1.0	1.4
V18-0482DT	1.0	1.5	1.0	2.0	1.0	1.0	1.0	1.0	1.2
V18-0678	1.0	1.5	1.0	3.0	1.0	1.5	1.0	1.0	1.4
V18-2376	1.0	1.5	1.0	2.0	1.0	1.0	1.0	1.0	1.2
V18-3081HP	1.0	1.5	1.0	2.5	1.0	1.0	1.5	1.0	1.3
Mean	1.3	1.8	1.0	3.2	1.0	1.4	1.5	1.4	1.6
LSD(0.05)	0.3	0.4	.	2.4	.	1.3	0.9	1.0	0.6
CV(%)	13.0	11	0.0	35.7	0.0	46.7	28.5	36	43.6

TABLE 46 - SEED QUALITY (1-5)
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	1.0	1.0	.	1	2.0	2.0	.	1.0	1.3
AG46x6	2.0	1.0	.	1	2.0	2.0	.	3.0	1.8
AG48X9	1.0	1.2	.	1	3.0	1.0	.	1.5	1.4
AG48XF2	1.5	1.0	.	1	3.0	2.0	.	2.5	1.8
DA1601-18	1.5	1.0	.	1	3.0	1.0	.	1.5	1.5
DA1643-01-10	1.0	1.0	.	1	3.0	1.5	.	1.5	1.5
DA1644-320F	1.0	1.0	.	2	2.0	1.0	.	1.5	1.3
DA1644-418F	1.5	1.0	.	1	2.0	2.0	.	1.0	1.4
DS72-12	2.5	1.0	.	1	3.0	1.5	.	2.5	1.9
K19-1185	1.5	1.0	.	1	2.0	1.0	.	2.0	1.4
K19-2402	1.0	1.0	.	2	3.0	2.0	.	1.5	1.6
K19-2440	1.5	1.0	.	1	3.0	2.0	.	2.5	1.8
K19-3059	1.5	1.0	.	1	2.0	2.0	.	2.0	1.6
K19-3494	1.5	1.8	.	1	3.0	1.0	.	2.5	1.8
K19-3543	1.0	1.0	.	1	2.0	2.5	.	1.5	1.5
K19-5494	1.5	1.0	.	1	3.0	1.0	.	2.5	1.6
R18C-11151	1.5	1.0	.	1	2.0	1.0	.	2.0	1.4
R19-39444	1.0	1.2	.	2	2.0	1.0	.	2.0	1.5
S19-10414	1.5	1.5	.	2	4.0	2.0	.	2.5	2.2
S19-10710	1.0	1.0	.	2	2.0	2.0	.	1.0	1.4
S19-12409	1.0	1.5	.	2	3.0	1.0	.	2.5	1.7
S19-12459	1.0	1.5	.	2	3.0	2.0	.	2.0	1.8
S19-14058	1.0	1.0	.	1	2.0	1.5	.	1.5	1.3
S19-19743	1.0	1.2	.	2	2.0	1.0	.	1.5	1.4
TN19-4023	1.5	1.0	.	5	2.0	2.0	.	1.0	2.1
TN19-4731R1	0.8	1.0	.	1	2.0	2.0	.	1.5	1.4
TN20-4041	1.0	1.0	.	2	3.0	2.0	.	1.5	1.7
TN21-4667	1.0	1.0	.	1	2.0	1.5	.	1.5	1.3
TN21-4809	1.0	1.0	.	2	3.0	2.0	.	1.5	1.6
V16-0248DI	1.5	1.0	.	1	3.0	2.0	.	1.0	1.5
V18-0482DT	1.5	1.0	.	2	3.0	1.5	.	1.5	1.6
V18-0678	1.5	1.0	.	5	4.0	2.0	.	1.5	2.5
V18-2376	1.5	1.0	.	1	3.0	1.5	.	1.5	1.5
V18-3081HP	1.0	1.0	.	2	2.0	1.0	.	1.0	1.2
Mean	1.3	1.1	.	1.4	2.6	1.6	.	1.7	1.6
LSD(0.05)	0.9	0.2	.	1	.	0.7	.	1.2	0.6
CV(%)	33	11.1	.	36	.	20.0	.	33.4	38.8

TABLE 47 - SEED SIZE (GRAMS PER 100 SEED)
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	13.6	14.1	.	19.0	11.9	14.8	12.4	14.0	14.3
AG46x6	16.3	15.2	.	21.0	15.1	18.2	17.0	14.3	16.7
AG48X9	14.6	15.1	.	18.0	15.4	16.4	13.8	16.3	15.6
AG48XF2	15.0	16.6	.	18.0	15.3	17.5	14.4	16.3	16.2
DA1601-18	11.0	12.8	.	13.5	10.7	12.7	10.6	13.3	12.1
DA1643-01-10	11.5	13.2	.	15.0	10.8	13.8	10.3	13.5	12.6
DA1644-320F	13.8	14.2	.	17.0	13.0	15.4	12.2	14.6	14.3
DA1644-418F	12.3	13.8	.	14.5	11.8	13.8	11.1	13.1	12.9
DS72-12	13.4	15.3	.	16.5	12.2	15.3	12.3	16.1	14.5
K19-1185	13.3	15.6	.	14.5	12.3	14.7	13.5	15.5	14.2
K19-2402	16.6	17.1	.	18.5	16.3	17.7	16.2	18.0	17.2
K19-2440	15.2	14.4	.	18.5	14.5	16.2	14.2	17.1	15.7
K19-3059	14.0	15.3	.	16.5	13.6	15.8	12.7	15.7	14.8
K19-3494	16.4	14.4	.	17.5	15.1	18.1	16.0	17.5	16.4
K19-3543	13.0	13.5	.	16.0	11.7	14.7	12.6	14.0	13.7
K19-5494	11.6	11.4	.	13.5	12.1	13.0	12.4	15.1	12.7
R18C-11151	12.4	12.5	.	16.5	14.8	14.8	11.4	14.1	13.8
R19-39444	14.9	14.3	.	17.0	13.4	16.1	13.4	17.0	15.2
S19-10414	13.1	12.4	.	16.5	13.1	14.9	13.1	15.7	14.1
S19-10710	12.5	12.3	.	16.0	13.0	13.7	10.5	13.2	13.0
S19-12409	15.2	14.8	.	18.0	16.0	15.8	14.0	16.2	15.7
S19-12459	16.0	15.7	.	18.0	16.8	18.0	.	17.9	16.8
S19-14058	13.0	13.7	.	16.5	12.4	14.8	12.2	14.5	13.9
S19-19743	14.7	15.4	.	18.5	15.1	16.7	13.7	16.1	15.7
TN19-4023	11.3	14.0	.	18.5	11.7	12.7	10.9	12.8	13.2
TN19-4731R1	11.6	14.0	.	15.0	13.4	14.0	11.1	13.3	13.2
TN20-4041	11.5	13.3	.	16.0	12.9	14.5	11.6	13.9	13.4
TN21-4667	11.1	13.1	.	12.7	9.1	11.8	9.0	11.5	11.3
TN21-4809	12.4	13.9	.	15.5	12.8	14.0	12.4	14.1	13.6
V16-0248DI	12.1	13.1	.	15.5	12.4	14.8	11.1	14.8	13.4
V18-0482DT	11.8	11.5	.	17.0	11.3	14.2	11.3	13.9	13.0
V18-0678	11.9	13.2	.	19.5	11.8	12.7	11.1	11.3	13.1
V18-2376	10.8	11.8	.	15.5	11.2	13.7	13.9	14.1	12.9
V18-3081HP	13.3	15.4	.	17.5	14.6	14.9	10.3	16.6	14.7
Mean	13.2	14.0	.	16.7	13.2	15.0	12.5	14.8	14.2
LSD(0.05)	0.4	1.3	.	2.4	.	0.7	.	0.5	1.0
CV(%)	1.6	4.6	.	6.9	.	2.4	.	1.7	7.2

TABLE 48 - OIL (%)†
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	19.3	20.2	.	18.3	18.5	18.5	19.3	19.1	19.0
AG46x6	19.6	22.0	.	19.4	19.2	18.6	19.2	19.1	19.6
AG48X9	19.8	20.0	.	19.3	19.0	18.8	19.8	19.1	19.4
AG48XF2	19.3	20.0	.	16.3	20.1	19.5	18.9	18.6	19.0
DA1601-18	19.2	19.6	.	17.9	19.3	18.3	18.8	19.0	18.9
DA1643-01-10	19.5	19.9	.	18.1	18.4	18.5	19.4	18.8	18.9
DA1644-320F	19.9	20.2	.	18.9	19.8	19.1	19.8	19.8	19.6
DA1644-418F	19.8	20.3	.	18.8	19.6	18.7	19.3	19.3	19.4
DS72-12	18.8	18.5	.	17.0	16.3	17.5	17.3	17.0	17.5
K19-1185	20.1	19.2	.	18.8	19.2	19.3	18.7	19.3	19.2
K19-2402	19.8	19.7	.	20.7	18.9	19.1	17.8	18.6	19.3
K19-2440	19.7	20.5	.	18.0	19.7	19.7	17.6	19.0	19.2
K19-3059	20.4	20.1	.	18.7	20.2	19.6	19.5	19.2	19.7
K19-3494	19.6	20.4	.	18.2	18.6	18.8	18.1	20.0	19.1
K19-3543	19.8	19.4	.	18.4	19.5	18.9	19.1	19.1	19.1
K19-5494	18.3	18.1	.	17.5	17.7	18.4	17.6	17.8	17.9
R18C-11151	19.6	20.1	.	18.9	18.7	18.9	18.6	19.0	19.1
R19-39444	19.6	20.6	.	18.2	18.4	18.7	19.5	19.3	19.2
S19-10414	19.6	19.0	.	17.9	17.5	17.8	18.0	18.1	18.3
S19-10710	18.9	19.5	.	18.1	19.0	17.6	18.5	18.1	18.5
S19-12409	19.1	18.5	.	17.7	18.8	18.0	17.5	17.7	18.2
S19-12459	19.1	19.7	.	18.4	19.1	17.9	.	18.6	18.8
S19-14058	18.6	19.9	.	17.9	18.0	16.1	18.6	18.5	18.2
S19-19743	20.2	20.5	.	18.7	18.5	19.4	19.7	19.6	19.5
TN19-4023	20.0	20.1	.	18.5	19.2	18.9	19.1	19.0	19.2
TN19-4731R1	19.0	20.0	.	18.3	18.3	18.1	18.6	18.3	18.6
TN20-4041	20.0	19.8	.	17.8	18.9	18.4	18.5	18.7	18.9
TN21-4667	18.8	19.6	.	18.4	18.4	18.2	18.5	18.3	18.6
TN21-4809	19.9	20.1	.	18.4	18.6	19.6	19.6	19.7	19.4
V16-0248DI	19.0	19.1	.	17.6	18.7	18.4	18.5	18.5	18.5
V18-0482DT	20.1	20.2	.	19.5	20.1	19.3	19.4	19.6	19.7
V18-0678	19.7	20.5	.	19.5	19.8	18.8	19.4	18.6	19.5
V18-2376	19.8	19.9	.	18.3	18.4	18.5	18.8	19.4	19.0
V18-3081HP	18.9	19.5	.	17.5	18.7	18.2	18.7	18.3	18.5
Mean	19.5	19.8	.	18.3	18.8	18.6	18.8	18.8	19.0
LSD(0.05)	.	.	.	.	.	.	.	.	0.5
CV(%)	.	.	.	.	.	.	.	.	2.6

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 49 - PROTEIN (%)†
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	34.5	34.0	.	35.2	34.5	34.8	35.5	36.0	34.9
AG46x6	34.5	33.7	.	33.8	34.6	35.9	35.3	35.3	34.7
AG48X9	34.4	34.6	.	34.5	35.1	35.7	34.4	36.5	35.0
AG48XF2	34.3	32.6	.	33.1	35.0	34.1	34.3	37.0	34.3
DA1601-18	35.3	33.8	.	36.6	33.6	35.3	35.1	36.6	35.2
DA1643-01-10	34.0	34.1	.	36.8	35.2	35.1	34.8	36.1	35.2
DA1644-320F	35.3	33.1	.	35.8	33.3	35.0	35.4	36.8	35.0
DA1644-418F	35.0	34.5	.	36.4	34.1	36.0	35.4	35.8	35.3
DS72-12	33.8	34.4	.	37.0	36.8	35.8	36.7	37.5	36.0
K19-1185	33.2	34.4	.	35.0	34.9	32.9	35.3	36.0	34.5
K19-2402	34.3	38.4	.	35.3	37.1	35.2	37.7	37.4	36.5
K19-2440	33.4	32.5	.	37.0	35.3	33.6	37.1	35.3	34.9
K19-3059	33.7	33.8	.	36.5	33.7	34.1	34.3	35.6	34.5
K19-3494	34.5	34.7	.	37.6	35.1	35.4	37.0	36.4	35.8
K19-3543	33.4	33.7	.	35.4	33.3	33.1	33.6	34.8	33.9
K19-5494	35.1	35.6	.	37.0	35.8	36.0	37.2	37.9	36.4
R18C-11151	34.2	33.1	.	35.4	35.1	34.5	35.4	36.1	34.8
R19-39444	33.2	33.8	.	35.2	34.5	34.2	34.7	34.9	34.3
S19-10414	33.9	35.7	.	37.5	36.9	36.0	35.4	36.9	36.0
S19-10710	35.0	35.4	.	36.2	34.7	36.8	36.2	37.3	36.0
S19-12409	34.2	35.5	.	36.7	33.6	34.6	37.3	36.3	35.4
S19-12459	36.1	35.7	.	36.5	35.0	37.2	.	38.3	36.5
S19-14058	35.6	33.5	.	35.4	35.0	35.0	35.2	36.9	35.2
S19-19743	35.2	34.9	.	35.9	36.2	36.1	36.5	37.6	36.1
TN19-4023	32.7	33.3	.	34.6	33.1	32.9	35.1	36.0	33.9
TN19-4731R1	34.7	33.9	.	35.9	34.9	35.8	36.4	36.8	35.5
TN20-4041	34.5	34.9	.	36.5	35.4	35.2	36.1	37.5	35.7
TN21-4667	33.8	32.8	.	32.8	34.8	33.7	34.3	35.3	33.9
TN21-4809	35.3	35.7	.	37.9	35.8	35.6	36.9	36.9	36.3
V16-0248DI	36.7	36.2	.	37.7	35.9	36.3	36.3	38.3	36.8
V18-0482DT	34.3	34.6	.	35.6	34.6	34.8	35.6	36.3	35.1
V18-0678	35.4	35.3	.	37.2	36.3	36.6	35.7	38.2	36.4
V18-2376	34.0	34.2	.	35.6	35.1	35.2	35.4	36.5	35.1
V18-3081HP	35.0	35.2	.	39.3	34.2	35.0	36.2	37.2	36.0
Mean	34.5	34.5	.	36.0	34.9	35.1	35.7	36.6	35.3
LSD(0.05)	.	.	.	.	.	.	.	.	0.8
CV(%)	.	.	.	.	.	.	.	.	2.2

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 50 - ESTIMATED MEAL PROTEIN (%)†
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	46.5	46.3	.	46.9	46.0	46.3	47.7	48.3	46.9
AG46x6	46.6	46.9	.	45.6	46.5	47.9	47.5	47.5	46.9
AG48X9	46.6	47.0	.	46.4	47.1	47.8	46.6	49.1	47.2
AG48XF2	46.2	44.4	.	43.1	47.6	46.1	45.9	49.4	46.1
DA1601-18	47.4	45.7	.	48.5	45.3	47.0	47.0	49.1	47.1
DA1643-01-10	45.9	46.3	.	48.9	46.9	46.9	46.9	48.3	47.1
DA1644-320F	47.9	45.1	.	48.0	45.1	47.0	48.0	49.9	47.3
DA1644-418F	47.5	47.0	.	48.8	46.1	48.1	47.6	48.3	47.6
DS72-12	45.3	45.9	.	48.4	47.7	47.2	48.2	49.1	47.4
K19-1185	45.1	46.2	.	46.9	46.9	44.3	47.2	48.5	46.5
K19-2402	46.6	52.0	.	48.4	49.7	47.3	49.8	50.0	49.1
K19-2440	45.3	44.5	.	49.0	47.8	45.5	48.9	47.4	46.9
K19-3059	46.1	46.0	.	48.8	45.9	46.0	46.3	47.9	46.7
K19-3494	46.7	47.3	.	49.9	46.9	47.4	49.1	49.4	48.1
K19-3543	45.2	45.4	.	47.1	45.0	44.4	45.1	46.8	45.6
K19-5494	46.6	47.3	.	48.7	47.3	47.9	49.0	50.1	48.1
R18C-11151	46.2	45.0	.	47.4	46.9	46.3	47.2	48.4	46.8
R19-39444	44.9	46.2	.	46.8	46.0	45.7	46.8	46.9	46.2
S19-10414	45.8	47.8	.	49.6	48.6	47.6	46.9	49.0	47.9
S19-10710	46.9	47.8	.	48.1	46.5	48.6	48.3	49.5	48.0
S19-12409	45.9	47.4	.	48.5	45.0	45.8	49.1	47.9	47.1
S19-12459	48.5	48.3	.	48.6	46.9	49.3	.	51.1	48.8
S19-14058	47.6	45.4	.	46.9	46.3	45.3	47.1	49.1	46.8
S19-19743	48.0	47.8	.	48.0	48.3	48.6	49.4	50.8	48.7
TN19-4023	44.4	45.2	.	46.2	44.5	44.1	47.1	48.3	45.7
TN19-4731R1	46.6	46.0	.	47.7	46.4	47.5	48.6	48.9	47.4
TN20-4041	46.8	47.3	.	48.3	47.4	46.8	48.2	50.1	47.9
TN21-4667	45.2	44.4	.	43.7	46.3	44.8	45.8	47.0	45.3
TN21-4809	47.9	48.6	.	50.4	47.8	48.1	49.8	50.0	49.0
V16-0248DI	49.2	48.6	.	49.7	47.9	48.4	48.4	51.0	49.0
V18-0482DT	46.7	47.2	.	48.1	47.0	46.8	48.0	49.1	47.6
V18-0678	47.8	48.2	.	50.2	49.2	49.0	48.1	51.0	49.1
V18-2376	46.1	46.5	.	47.3	46.7	46.9	47.3	49.2	47.2
V18-3081HP	46.9	47.6	.	51.7	45.7	46.5	48.4	49.4	48.0
Mean	46.6	46.7	.	48.0	46.8	46.9	47.7	49.0	47.4
LSD(0.05)	.	.	.	.	.	.	.	.	1.0
CV(%)	.	.	.	.	.	.	.	.	2.0

† Estimated meal protein percentage is reported on a 13% moisture basis.

SUMMARY OF SEED FATTY ACIDS (%)
PRELIMINARY TEST IV-S-LATE 2022 †

STRAIN/ VARIETY	Palmitic Acid	Stearic Acid	Oleic Acid	Linoleic Acid	Linolenic Acid
S16-7922	11.1	3.3	25.5	54.4	5.8
AG46x6	12.3	4.2	21.9	54.8	6.9
S19-19743	7.1	3.3	79.2	8.3	2.2
TN21-4809	7.3	3.5	78.0	8.4	2.9
Mean	9.4	3.6	51.1	31.5	4.4
LSD(0.05)	0.6	0.3	5.6	4.9	0.5
CV(%)	5.4	6.0	8.9	12.6	8.6

† Fatty acid percentage in seed oil reported beginning in 2017.

SEED PALMITIC ACID (%)
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	.	10.9	12.0	.	10.5	11.3	.	11.3	10.3	11.1
AG46x6	.	12.4	12.5	.	11.8	13.4	.	12.1	11.5	12.3
S19-19743	.	6.8	7.3	.	7.3	7.4	.	7.0	6.9	7.1
TN21-4809	.	6.8	6.7	.	7.7	8.6	.	6.6	7.4	7.3
Mean	.	9.2	9.6	.	9.3	10.2	.	9.2	9.0	9.4
LSD(0.05)	.	.	.	.	.	.	.	.	.	0.6
CV(%)	.	.	.	.	.	.	.	.	.	5.4

SEED STEARIC ACID (%)
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	.	3.6	3.1	.	3.1	4.0	.	2.6	3.2	3.3
AG46x6	.	4.1	4.3	.	4.2	5.1	.	3.7	3.7	4.2
S19-19743	.	3.5	3.2	.	3.0	4.0	.	2.8	3.3	3.3
TN21-4809	.	3.5	3.2	.	3.2	4.1	.	3.4	3.5	3.5
Mean	.	3.7	3.4	.	3.4	4.3	.	3.1	3.4	3.6
LSD(0.05)	.	.	.	.	.	.	.	.	.	0.3
CV(%)	.	.	.	.	.	.	.	.	.	6.0

SEED OLEIC ACID (%)
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	.	25.6	21.4	.	24.6	24.5	.	28.0	29.1	25.5
AG46x6	.	20.6	21.7	.	21.1	20.3	.	18.7	28.6	21.9
S19-19743	.	80.3	80.1	.	74.5	75.5	.	83.4	81.1	79.2
TN21-4809	.	84.6	85.2	.	70.7	67.1	.	85.8	74.3	78.0
Mean	.	52.8	52.1	.	47.7	46.9	.	54.0	53.3	51.1
LSD(0.05)	.	.	.	.	.	.	.	.	.	5.6
CV(%)	.	.	.	.	.	.	.	.	.	8.9

SEED LINOLEIC ACID (%)
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	.	54.3	57.3	.	55.5	54.2	.	53.0	51.9	54.4
AG46x6	.	56.0	54.8	.	55.0	53.9	.	59.0	50.2	54.8
S19-19743	.	7.5	7.3	.	12.8	10.3	.	4.9	6.7	8.3
TN21-4809	.	2.7	2.5	.	15.0	16.7	.	2.1	11.4	8.4
Mean	.	30.1	30.5	.	34.6	33.8	.	29.7	30.0	31.5
LSD(0.05)	.	.	.	.	.	.	.	.	.	4.9
CV(%)	.		.	.	.	.	.	.	.	12.6

SEED LINOLENIC ACID (%)
PRELIMINARY GROUP IV-S-LATE 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Test Mean
S16-7922	.	5.5	6.3	.	6.2	6.0	.	5.1	5.5	5.8
AG46x6	.	6.9	6.6	.	7.9	7.3	.	6.5	6.0	6.9
S19-19743	.	2.0	2.2	.	2.4	2.7	.	1.8	2.0	2.2
TN21-4809	.	2.6	2.3	.	3.5	3.5	.	2.1	3.4	2.9
Mean	.	4.2	4.4	.	5.0	4.9	.	3.9	4.2	4.4
LSD(0.05)	.	.	.	.	.	.	.	.	.	0.5
CV(%)	.	.	.	.	.	.	.	.	.	8.6

TABLE 51 - PARENTAGE OF ENTRIES
UNIFORM GROUP V 2022

Ent	*Strain/Variety*	*Parentage*	*Source*	*Fn*	*Trans-genic†*	*Special Traits‡*
1	S16-14869	Commercial check	check		CONV	
2	AG53XF2	Commercial check	check		RRX	
3	AG55XF0	Commercial check	check		RRX	
4	TN09-008	Commercial check	check		CONV	
5	TN11-5140	Commercial check	check		CONV	
6	AG56XF2	Commercial check	check		RRX	
7	DA13099-008F	(DA07x22-23) x 5002T	A. Gillen		CONV	Diversity, 25% PI 587880A
8	DA1405-212-3F	DA09c003-45-182F x KB12-1#70-152	A. Gillen		CONV	HOLN
9	DA1539-1010F	DB04-10836 x R10-5086	A. Gillen		CONV	
10	DS49-142	(DT98-9102 x PI 603756) x Jake	J.R. Smith	F5	CONV	Tolerant mature seed damage, 25% Exotic
11	K18-6652	N10-7404 / R10-2622	Schapaugh		CONV	
12	N16-8564	Osage x Holiday	B. Fallen	F4	CONV	Protein
13	N17-1791	HR09-397 x R06-3789	R. Mian		CONV	High protein, Indeterminate
14	N17-2488	R05-655 x NC-Miller	R. Mian		CONV	High oil
15	N17-2496	R05-655 x NC-Miller	R. Mian		CONV	High oil
16	N17-2520	R09-4095 x NC-Miller	R. Mian		CONV	High oil
17	N18-235	Ellis x R10-3536	R. Mian		CONV	High oil
18	N18-952	UA5814HP x N09-9	R. Mian		CONV	High protein
19	NDPJE-14-194	N07-14221 x Clifford	B. Fallen	F4	CONV	12.5% PI 416937
20	NDPJE-14-217	N07-14221 x Clifford	B. Fallen	F4	CONV	Diversity
21	R18-3332	S09-10871/R05-3239	A. Acuna		CONV	12.5% PI 416937
22	S17-2509C	S11-20124 x S13-11940	Shannon		CONV	SCN, RKN, SC
23	S18-6013C	S12-4718 x S14-2088	Shannon		CONV	SCN, RKN, SC
24	S18-6328C	S11-20124 x S13-4214	Shannon		CONV	SCN, SC
25	S19-18135L	G13LL-44 x S12-4718C	Shannon		LL	SC
26	S19-19923C	S11-16653 BC	Shannon		CONV	SCN, RKN, SC, HOLL
27	TN18-4049	NCC09-200719-1-37 x 2013-50,454	Pantalone	F4	CONV	>47.5 Meal protein
28	TN18-4051	NCC09-200719-1-37 x 2013-50,454	Pantalone	F4	CONV	
29	TN18-4130	Ellis(4) x TN13-5001LL x Ellis(4) x TN10-4037-HO-530-214HO	Pantalone	F4	CONV	HOLN
30	TN19-4074	TN14-4001 x TN14-4402	Pantalone	F4	CONV	
31	TN19-4100	TN09-008 x Ellis	Pantalone	F4	CONV	
32	V15-1815DI	Ozark x G08-PR-394	B. Zhang	F4	CONV	12.5 % (PI 423912)
33	V15-2261ST	Hanover x V09-0673	B. Zhang	F4	CONV	
34	V16-0157	Hutcheson x LV 75	B. Zhang	F4	CONV	50% (LV 75)
35	V16-1485ST	S09-9943 x UA 5612	B. Zhang	F4	CONV	
36	V17-2361R	S09-6201 x V11-3163	B. Zhang	F4	RR1	
37	V17-2933R	V11-2149 x S08-9942RR	B. Zhang	F4	RR1	

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 52 - GENERAL SUMMARY OF PERFORMANCE
UNIFORM TEST V 2022

STRAIN/ VARIETY	RANK	AVG. RANK	YIELD† 2022	YIELD† 21-22	YIELD† 20-22	PROTEIN‡ 2022	PROTEIN‡ 20-22	PROTEIN‡ 20-22	OIL‡ 2022	OIL‡ 21-22	OIL‡ 20-22
S16-14869	3	7	57.8	65.0	64.0	34.6	34.7	34.5	19.4	19.4	19.3
AG53XF2	4	15	57.2	.	.	33.2	.	.	19.9	.	.
AG55XF0	6	12	56.6	.	.	35.0	.	.	18.8	.	.
TN09-008	29	22	49.1	54.3	54.6	32.6	33.1	33.0	19.8	19.5	19.4
TN11-5140	21	21	50.8	57.8	56.8	35.5	35.5	35.3	19.0	19.0	19.0
AG56XF2	2	8	59.2	.	.	34.4	.	.	18.8	.	.
DA13099-008F	8	13	54.8	61.4	59.6	35.0	35.0	34.9	19.6	19.5	19.4
DA1405-212-3F	30	24	49.1	.	.	35.8	.	.	19.0	.	.
DA1539-1010F	11	15	52.7	.	.	34.8	.	.	19.3	.	.
DS49-142	36	34	41.8	46.6	.	36.5	36.6	.	18.5	18.5	.
K18-6652	9	13	54.5	.	.	34.8	.	.	18.7	.	.
N16-8564	26	20	49.3	55.5	55.4	35.5	35.8	35.8	19.6	19.2	19.0
N17-1791	35	29	45.8	.	.	39.4	.	.	18.2	.	.
N17-2488	19	19	51.5	54.0	.	33.8	33.9	.	20.8	20.6	.
N17-2496	24	24	49.6	57.6	.	33.6	33.6	.	20.5	20.4	.
N17-2520	12	16	52.6	57.0	56.7	34.4	34.3	34.4	21.0	21.0	20.7
N18-235	15	18	51.9	.	.	34.4	.	.	20.2	.	.
N18-952	32	27	47.9	.	.	39.1	.	.	18.1	.	.
NDPJE-14-194	23	19	50.4	.	51.3	35.2	.	35.4	19.2	.	19.0
NDPJE-14-217	13	18	52.6	59.4	58.5	35.5	35.5	35.4	18.8	19.0	19.0
R18-3332	28	24	49.2	.	.	34.9	.	.	18.7	.	.
S17-2509C	7	11	55.4	.	.	34.8	.	.	19.6	.	.
S18-6013C	1	6	59.5	.	.	34.3	.	.	19.8	.	.
S18-6328C	5	9	56.9	.	.	34.9	.	.	19.1	.	.
S19-18135L	10	14	54.2	.	.	35.2	.	.	19.0	.	.
S19-19923C	18	17	51.6	.	.	36.6	.	.	19.1	.	.
TN18-4049	17	17	51.8	58.4	.	34.7	34.9	.	19.3	19.2	.
TN18-4051	16	20	51.9	.	.	35.9	.	.	18.5	.	.
TN18-4130	33	20	47.5	.	.	35.7	.	.	19.2	.	.
TN19-4074	31	24	48.9	.	.	36.5	.	.	18.4	.	.
TN19-4100	34	24	46.4	.	.	35.0	.	.	18.8	.	.
V15-1815DI	14	18	51.9	59.7	58.3	34.7	34.8	34.7	19.5	19.7	19.7
V15-2261ST	25	24	49.4	55.7	56.2	36.1	36.5	36.4	19.4	19.2	19.1
V16-0157	22	21	50.5	.	.	36.6	.	.	18.9	.	.
V16-1485ST	37	34	41.8	50.5	.	36.1	36.0	.	17.7	17.9	.
V17-2361R	20	21	51.1	56.4	.	36.6	37.0	.	18.8	18.5	.
V17-2933R	27	26	49.2	56.7	.	33.6	33.6	.	19.9	20.0	.
Mean	.	.	51.4	.	.	35.3	.	.	19.2	.	.
LSD(0.05)	.	.	5.7	.	.	0.7	.	.	0.4	.	.
CV(%)	.	.	13.7	.	.	2.3	.	.	2.7	.	.

†Data not included in the test mean: 2020 Belle Mina and Bossier City; 2021 Bossier City and Jackson; 2022 Belle Mina, Jackson, Knoxville, Portageville(B), and Suffolk. Certain field trials had damage consistent with Dicamba exposure, which may have resulted in an unfair yield advantage for check lines with dicamba resistance.

‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

TABLE 53 - GENERAL SUMMARY OF PERFORMANCE -Part 2
UNIFORM TEST V 2022

STRAIN/ VARIETY	MEAL† PRO %	MAT INDEX	LOD	HT	SEED QUALITY	SEED SIZE	FL. COLOR	PUB. COLOR	POD COLOR
S16-14869	46.6	0	1.5	30	1.8	14.3			
AG53XF2	45.1	-1	1.3	35	1.8	15.7			
AG55XF0	46.9	1	1.3	29	1.6	15.5			
TN09-008	44.2	1	1.1	24	1.8	15.4			
TN11-5140	47.7	6	1.3	29	1.7	13.7			
AG56XF2	46.1	1	1.3	31	1.7	15.7			
DA13099-008F	47.4	1	1.2	24	1.8	15.1	P	T	T
DA1405-212-3F	48.0	1	1.3	25	1.7	11.8	W	T	T
DA1539-1010F	46.9	1	1.2	21	1.5	12.8	P	T	
DS49-142	48.6	-1	1.8	31	1.7	13.9	P	Lt	Br
K18-6652	46.4	0	1.2	27	1.8	14.7			
N16-8564	48.0	1	1.1	22	1.7	13.2	P	G	
N17-1791	52.3	3	2.1	37	1.9	16.5	P	T	
N17-2488	46.4	1	1.1	23	1.9	17.3	P	G	
N17-2496	46.0	3	1.1	25	1.7	15.4	P	G	
N17-2520	47.3	3	1.2	27	1.8	19.1	P	T	
N18-235	46.9	0	1.1	25	1.8	13.6	W	G	
N18-952	51.8	4	1.4	28	1.7	14.6	P	T	
NDPJE-14-194	47.4	3	1.4	25	1.7	15.6	P	T	
NDPJE-14-217	47.5	2	1.3	25	1.8	15.9	P	T	
R18-3332	46.6	-1	1.4	35	2.0	17.8	W	T	T
S17-2509C	47.1	-1	1.3	27	1.7	16.1	W	T	T
S18-6013C	46.5	2	1.2	25	1.7	14.2	W	T	T
S18-6328C	46.8	0	1.3	28	1.6	13.7	P	LtT	T
S19-18135L	47.3	3	1.2	25	1.6	14.0	W	T	T
S19-19923C	49.1	-2	1.1	23	1.8	15.4	W	G	T
TN18-4049	46.7	2	1.2	25	1.9	14.6	P	G	
TN18-4051	47.9	2	1.2	24	1.7	13.8	P	G	
TN18-4130	48.0	1	1.1	22	1.5	12.1	W	G	
TN19-4074	48.6	0	1.2	26	1.9	12.6	P	G	
TN19-4100	46.8	2	1.1	21	1.6	13.3	W	G	
V15-1815DI	46.8	1	1.1	25	1.6	15.3	P	G	
V15-2261ST	48.7	1	1.1	24	1.8	14.2	P	G	
V16-0157	49.0	1	1.2	25	1.5	14.5	W	T	
V16-1485ST	47.7	8	2.4	35	1.8	13.6	P	G	
V17-2361R	49.0	-2	1.4	35	2.1	15.3	P	G	
V17-2933R	45.6	-2	1.7	37	1.6	12.7	P	LT	
Mean	47.4	1	1.3	27	1.7	14.7			
LSD(0.05)	0.9	1	0.3	2	0.3	0.8			
CV(%)	2.1	184	38	14	25.0	7.4			

† Estimated meal protein content was added to the annual report in 2018.

TABLE 54 - GENERAL SUMMARY OF PEST REACTION
UNIFORM TEST V 2022

STRAIN/	SCN Cyst Score (1-5 Scale)†			RKN Gall Score (1-5 Scale)‡			SC	SC
VARIETY	Race 2	Race 3	Race 5	PRK	SRK	JRK	RATING	SCORE
S16-14869	4	.	5	1.0	1.0	.	R	1
AG53XF2	4	.	5	5.0	5.0	.	R	1
AG55XF0	4	.	4	2.8	2.5	.	R	1
TN09-008	1	.	1	5.0	5.0	.	MS	4
TN11-5140	5	.	5	4.5	1.8	.	R	1
AG56XF2	5	.	5	2.3	2.0	.	R	1
DA13099-008F	4	.	5	2.0	5.0	.	R	1
DA1405-212-3F	4	.	5	1.0	3.0	.	R	1
DA1539-1010F	4	.	5	4.5	3.0	.	R	1
DS49-142	4	.	5	1.0	.	.	MS	4
K18-6652	4	.	5	5.0	5.0	.	R	1
N16-8564	4	.	5	5.0	5.0	.	SS	3
N17-1791	4	.	4	5.0	5.0	.	R	1
N17-2488	4	.	5	4.8	4.3	.	SS	3
N17-2496	4	.	5	5.0	4.8	.	R	1
N17-2520	4	.	5	5.0	4.8	.	R	1
N18-235	4	.	5	2.5	3.8	.	R	1
N18-952	5	.	5	5.0	5.0	.	R	1
NDPJE-14-194	4	.	5	5.0	4.5	.	SS	3
NDPJE-14-217	4	.	5	5.0	.	.	SS	3
R18-3332	4	.	5	5.0	5.0	.	R	1
S17-2509C	3	.	5	1.0	2.5	.	R	1
S18-6013C	4	.	5	1.8	4.3	.	R	1
S18-6328C	1	.	1	3.0	4.8	.	R	1
S19-18135L	3	.	3	2.5	5.0	.	R	1
S19-19923C	1	.	2	3.0	2.3	.	R	1
TN18-4049	3	.	5	4.5	5.0	.	R	1
TN18-4051	5	.	5	3.5	4.3	.	SS	3
TN18-4130	5	.	5	3.3	1.5	.	R	1
TN19-4074	5	.	4	2.7	4.5	.	SS	3
TN19-4100	1	.	1	5.0	4.8	.	R	1
V15-1815DI	5	.	4	4.5	5.0	.	R	1
V15-2261ST	5	.	5	5.0	5.0	.	R	1
V16-0157	4	.	4	1.5	5.0	.	R	1
V16-1485ST	5	.	5	5.0	5.0	.	SS	3
V17-2361R	5	.	5	3.8	5.0	.	R	1
V17-2933R	5	.	4	5.0	4.5	.	R	1

†The race 2, 3, and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7, HG Type 0, and HG Type 2.5.7, respectively. Results for race 3 were omitted.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)MR = mixed reaction.

TABLE 55 - SEED YIELD (BUSHELS PER ACRE)
UNIFORM TEST V 2022 †

STRAIN/ VARIETY	*Belle Mina, AL*	*Jackson, TN*	*Keiser, AR **	*Knoxville, TN*	*McCune, KS*	*Pittsburg, KS*	*Plymouth, NC*
S16-14869	18.3	61.5	70.8	58.7	23.9	47.7	47.6
AG53XF2	23.5	56.0	78.4	57.1	19.3	41.1	33.3
AG55XF0	24.9	50.0	70.7	59.6	20.9	43.4	49.1
TN09-008	14.6	59.4	59.2	54.9	19.4	48.3	45.9
TN11-5140	27.8	51.7	60.7	61.6	18.6	41.4	42.1
AG56XF2	19.9	55.7	74.3	58.7	22.5	39.3	51.6
DA13099-008F	28.4	53.6	69.0	46.1	23.3	42.8	42.8
DA1405-212-3F	20.7	54.6	64.8	53.5	18.7	40.6	39.4
DA1539-1010F	20.2	56.8	64.6	51.8	22.8	46.0	49.4
DS49-142	18.3	25.4	45.3	39.0	16.9	35.2	32.4
K18-6652	27.9	65.6	62.7	56.1	24.5	47.4	42.9
N16-8564	21.2	50.9	49.9	45.6	23.6	44.6	31.9
N17-1791	19.5	50.3	48.6	54.7	21.5	38.9	31.3
N17-2488	23.1	58.1	62.8	56.1	16.2	42.8	46.6
N17-2496	24.8	45.1	60.3	57.9	17.7	37.8	48.2
N17-2520	18.8	60.6	65.0	59.9	22.0	46.2	33.7
N18-235	21.1	51.7	60.1	49.8	22.3	42.9	48.0
N18-952	29.4	53.0	57.7	42.4	20.3	35.4	43.9
NDPJE-14-194	15.7	54.7	61.6	66.0	21.9	43.7	42.9
NDPJE-14-217	18.6	55.4	68.0	51.8	20.2	44.9	40.4
R18-3332	20.9	43.3	60.7	60.8	20.0	44.1	34.2
S17-2509C	21.4	63.8	68.7	68.6	24.6	48.4	42.9
S18-6013C	19.7	60.6	72.0	65.4	22.3	46.3	50.4
S18-6328C	25.3	53.6	67.5	61.2	23.3	44.3	40.1
S19-18135L	19.8	37.2	63.0	61.5	17.6	45.8	51.5
S19-19923C	13.7	59.1	65.1	44.3	22.3	50.0	34.5
TN18-4049	22.2	57.8	58.1	52.5	22.6	44.8	46.0
TN18-4051	23.3	50.5	56.9	50.2	22.0	40.0	43.8
TN18-4130	19.3	56.6	47.0	49.3	24.9	49.8	49.0
TN19-4074	24.2	38.8	62.4	46.1	21.3	40.4	37.9
TN19-4100	18.5	54.1	51.2	56.8	19.6	51.3	45.7
V15-1815DI	31.7	48.4	58.3	55.2	19.5	44.4	53.1
V15-2261ST	15.6	47.1	58.0	69.4	16.6	43.6	42.4
V16-0157	27.2	55.8	57.9	60.5	18.8	48.3	45.9
V16-1485ST	26.2	46.2	54.1	51.4	15.7	26.5	37.5
V17-2361R	13.1	54.6	59.5	53.8	19.5	45.0	31.9
V17-2933R	20.3	51.0	55.2	62.3	15.5	39.6	30.0
Mean	21.6	52.7	61.4	55.4	20.6	43.3	42.2
LSD(0.05)	8.3	19.3	6.6	15.9	3.3	4.9	7.9
LSD(0.10)	7.0	16.1	5.5	13.3	2.7	4.1	6.6
CV(%)	23.7	19.6	6.5	17.6	9.8	6.9	11.3

†Data not included in the test mean: Belle Mina, Jackson, Knoxville, Portageville(B), and Suffolk.
* Locations with obvious damage consistent with exposure to the herbicide Dicamba.

TABLE 55 - SEED YIELD (BUSHELS PER ACRE) (continued)
UNIFORM TEST V 2022 †

STRAIN/ VARIETY	Portageville, MO(A) *	Portageville, MO(B) *	Springfield, TN	Stoneville, MS *	Stuttgart, AR *	Suffolk, VA	Test Mean
S16-14869	75.1	50.9	56.4	59.4	81.6	67.8	57.8
AG53XF2	89.4	69.7	51.8	60.7	83.4	66.2	57.2
AG55XF0	84.0	70.1	56.7	51.4	76.6	64.5	56.6
TN09-008	49.8	39.5	55.4	44.3	70.4	67.3	49.1
TN11-5140	63.5	44.4	56.3	43.6	80.3	60.7	50.8
AG56XF2	83.3	73.4	60.5	57.7	84.1	60.0	59.2
DA13099-008F	67.7	44.8	57.2	58.9	77.5	60.8	54.8
DA1405-212-3F	51.1	40.2	50.5	52.6	74.9	45.0	49.1
DA1539-1010F	53.0	39.2	47.1	62.5	76.5	62.8	52.7
DS49-142	60.4	46.7	43.7	41.7	59.1	46.9	41.8
K18-6652	62.6	53.2	56.5	50.0	89.1	51.1	54.5
N16-8564	53.9	28.6	52.9	61.6	75.9	40.7	49.3
N17-1791	65.3	44.0	50.3	.	64.0	60.6	45.8
N17-2488	53.9	39.7	54.6	53.4	81.5	67.6	51.5
N17-2496	57.0	42.0	52.8	50.1	72.6	79.0	49.6
N17-2520	67.6	54.2	54.0	55.9	76.8	57.7	52.6
N18-235	54.6	37.6	51.6	60.0	75.9	62.0	51.9
N18-952	62.2	44.1	48.4	46.0	69.6	63.0	47.9
NDPJE-14-194	46.2	42.1	59.2	52.7	74.8	49.4	50.4
NDPJE-14-217	70.2	52.8	47.9	48.8	80.4	64.1	52.6
R18-3332	73.0	53.3	51.7	46.2	63.7	24.4	49.2
S17-2509C	68.9	50.1	57.0	58.7	74.2	68.6	55.4
S18-6013C	74.2	45.9	60.2	59.2	91.6	64.9	59.5
S18-6328C	73.0	53.4	61.7	62.7	82.2	71.8	56.9
S19-18135L	68.0	52.0	55.9	52.0	79.8	64.1	54.2
S19-19923C	61.0	43.4	52.1	52.1	75.9	67.7	51.6
TN18-4049	61.4	39.2	57.8	49.8	73.7	55.9	51.8
TN18-4051	68.8	39.2	53.3	59.4	71.0	54.8	51.9
TN18-4130	43.2	27.1	55.2	46.2	64.5	55.1	47.5
TN19-4074	56.0	39.0	48.5	47.9	76.3	53.7	48.9
TN19-4100	44.8	29.3	55.5	40.5	63.2	58.4	46.4
V15-1815DI	57.2	35.3	55.1	50.2	77.8	63.8	51.9
V15-2261ST	55.1	36.5	50.6	51.8	76.7	64.2	49.4
V16-0157	48.7	35.5	52.3	60.6	71.3	68.2	50.5
V16-1485ST	52.8	23.5	41.9	.	62.9	58.0	41.8
V17-2361R	72.5	48.2	52.9	51.7	75.5	63.4	51.1
V17-2933R	71.9	45.3	54.9	52.6	74.0	65.2	49.2
Mean	62.7	44.7	53.5	52.9	75.1	60.0	51.4
LSD(0.05)	11.1	15.8	10.0	9.9	8.0	19.6	5.7
LSD(0.10)	9.2	13.2	8.4	8.3	6.7	16.3	4.8
CV(%)	10.8	21.6	11.5	11.4	6.5	16.8	13.7

TABLE 56 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	*Belle Mina, AL*	*Jackson, TN*	*Keiser, AR*	*Knoxville, TN*	*McCune, KS*	*Pittsburg, KS*	*Plymouth, NC*
S16-14869	9/26	10/3	10/2	10/12	9/26	9/17	10/14
AG53XF2	-2	-1	0	-1	-3	-5	4
AG55XF0	2	3	2	2	1	4	-1
TN09-008	0	1	1	2	1	1	2
TN11-5140	4	11	3	4	3	9	4
AG56XF2	0	3	1	2	-1	3	-4
DA13099-008F	0	1	1	1	2	5	-4
DA1405-212-3F	2	1	2	2	0	-1	-2
DA1539-1010F	2	0	1	1	0	2	1
DS49-142	-2	0	1	0	-1	-2	-4
K18-6652	-2	1	0	-1	-1	3	1
N16-8564	-1	3	1	0	1	3	5
N17-1791	3	5	3	2	-1	4	5
N17-2488	1	2	0	-1	3	3	2
N17-2496	2	3	2	1	3	7	3
N17-2520	0	3	3	1	0	5	5
N18-235	-1	-2	1	-1	-1	-2	-1
N18-952	3	6	3	2	2	5	4
NDPJE-14-194	0	3	2	1	2	4	3
NDPJE-14-217	1	3	2	0	2	3	2
R18-3332	-1	0	-1	0	-1	1	-6
S17-2509C	-1	-1	0	-1	-2	0	-2
S18-6013C	0	0	2	0	2	3	3
S18-6328C	-1	2	1	0	0	-1	1
S19-18135L	-1	3	4	1	2	4	2
S19-19923C	0	-1	1	0	-4	-4	2
TN18-4049	4	3	2	-1	2	5	0
TN18-4051	2	3	2	2	0	2	2
TN18-4130	1	0	2	1	-2	-3	3
TN19-4074	-1	0	2	0	-1	-2	-2
TN19-4100	0	3	1	-1	2	2	4
V15-1815DI	0	3	1	1	1	3	1
V15-2261ST	-2	2	2	2	4	0	3
V16-0157	2	0	2	4	0	3	-2
V16-1485ST	7	13	5	3	6	14	7
V17-2361R	-1	-1	0	-9	-1	-3	-2
V17-2933R	-2	0	1	-8	-1	-4	-4
Mean	0	2	1	0	0	2	1
LSD(0.05)	1	3	1	1	3	2	6
CV(%)	153	82	51	155	338	77	283

TABLE 56 - RELATIVE MATURITY (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	*Portageville, MO(A)*	*Portageville, MO(B)*	*Springfield, TN*	*Stuttgart, AR*	*Suffolk, VA*	*Test Mean*
S16-14869	10/12	10/13	10/8	9/29	10/15	10/5
AG53XF2	-4	0	-1	-3	-1	-1
AG55XF0	0	3	1	-2	0	1
TN09-008	-3	2	-1	4	-1	1
TN11-5140	2	7	5	5	10	6
AG56XF2	-1	2	0	1	0	1
DA13099-008F	-1	2	3	-1	1	1
DA1405-212-3F	2	3	-1	1	0	1
DA1539-1010F	-2	2	2	0	3	1
DS49-142	-2	2	0	-4	-7	-1
K18-6652	-1	2	3	-1	1	0
N16-8564	-2	4	0	2	0	1
N17-1791	5	4	0	1	5	3
N17-2488	-3	2	2	2	1	1
N17-2496	0	4	4	2	6	3
N17-2520	1	5	3	5	3	3
N18-235	-3	3	3	-2	0	0
N18-952	3	3	2	4	5	4
NDPJE-14-194	1	8	3	4	8	3
NDPJE-14-217	0	3	2	1	3	2
R18-3332	-2	2	-1	-5	0	-1
S17-2509C	-4	2	0	-1	0	-1
S18-6013C	1	3	4	1	2	2
S18-6328C	-2	2	0	-1	-1	0
S19-18135L	3	5	1	6	1	3
S19-19923C	-5	-1	-1	-3	-3	-2
TN18-4049	-2	3	3	0	5	2
TN18-4051	0	3	3	0	3	2
TN18-4130	-1	2	2	1	2	1
TN19-4074	0	3	-1	1	2	0
TN19-4100	1	4	3	1	3	2
V15-1815DI	-2	3	2	2	1	1
V15-2261ST	-2	1	2	2	0	1
V16-0157	-1	7	0	1	-1	1
V16-1485ST	6	12	5	11		8
V17-2361R	1	2	-1	-5	-2	-2
V17-2933R	0	4	-1	-4	-2	-2
Mean	0	3	1	1	1	1
LSD(0.05)	3	2	2	4	3	1
CV(%)	487	48	79	366	116	184

TABLE 57 - PLANT HEIGHT (INCHES)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Pittsburg, KS	Plymouth, NC
S16-14869	30	30	23	29	29	37	41
AG53XF2	30	33	43	34	22	32	40
AG55XF0	30	25	31	24	23	33	37
TN09-008	29	25	16	21	22	32	31
TN11-5140	30	29	21	28	24	35	39
AG56XF2	29	28	33	28	24	34	37
DA13099-008F	26	23	18	23	21	30	32
DA1405-212-3F	26	24	18	26	21	32	32
DA1539-1010F	23	21	16	21	18	27	29
DS49-142	30	29	29	27	24	36	36
K18-6652	29	27	17	26	27	35	34
N16-8564	25	20	15	20	20	29	27
N17-1791	31	41	38	39	23	34	45
N17-2488	25	25	19	22	19	28	33
N17-2496	25	24	19	24	21	28	32
N17-2520	30	27	22	25	20	33	35
N18-235	27	25	18	23	22	35	34
N18-952	27	28	19	27	24	34	41
NDPJE-14-194	26	24	18	25	20	31	33
NDPJE-14-217	27	23	18	24	20	31	33
R18-3332	32	39	34	43	22	33	43
S17-2509C	28	27	19	28	23	35	37
S18-6013C	28	24	17	25	21	30	34
S18-6328C	29	24	22	31	22	32	37
S19-18135L	26	26	22	23	22	30	31
S19-19923C	26	23	18	25	20	32	29
TN18-4049	26	23	17	27	20	29	34
TN18-4051	25	25	19	26	20	29	30
TN18-4130	25	19	13	21	21	30	30
TN19-4074	29	24	17	27	22	35	37
TN19-4100	24	22	13	22	17	29	29
V15-1815DI	26	25	20	26	18	30	34
V15-2261ST	26	27	17	26	20	28	34
V16-0157	27	24	20	26	21	31	35
V16-1485ST	32	37	38	41	23	35	40
V17-2361R	31	38	34	39	22	37	41
V17-2933R	37	40	37	42	21	33	45
Mean	28	27	22	27	22	32	35
LSD(0.05)	3	4	3	5	4	3	5
CV(%)	7	7	8	12	10	6	8

TABLE 57 - PLANT HEIGHT (INCHES) (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	*Portageville, MO(A)*	*Portageville, MO(B)*	*Springfield, TN*	*Stoneville, MS*	*Stuttgart, AR*	*Suffolk, VA*	*Test Mean*
S16-14869	19	23	31	27	33	36	30
AG53XF2	43	33	33	34	37	36	35
AG55XF0	31	26	34	21	28	35	29
TN09-008	15	17	26	23	23	31	24
TN11-5140	21	20	34	23	33	36	29
AG56XF2	30	29	31	29	30	37	31
DA13099-008F	15	17	28	22	27	30	24
DA1405-212-3F	17	16	29	21	28	34	25
DA1539-1010F	14	14	24	18	26	26	21
DS49-142	28	23	38	30	32	40	31
K18-6652	17	19	31	24	27	32	27
N16-8564	15	13	28	21	24	24	22
N17-1791	38	26	37	45	45	46	37
N17-2488	17	16	25	23	26	30	24
N17-2496	18	19	30	24	31	32	25
N17-2520	20	21	37	21	28	34	27
N18-235	18	17	30	22	28	31	25
N18-952	18	19	33	22	30	37	28
NDPJE-14-194	13	20	30	26	28	29	25
NDPJE-14-217	22	18	27	26	30	32	25
R18-3332	27	26	35	42	38	42	35
S17-2509C	17	18	29	30	31	35	27
S18-6013C	18	19	28	22	26	31	25
S18-6328C	18	22	31	26	31	34	28
S19-18135L	18	20	28	23	27	28	25
S19-19923C	15	16	24	17	26	27	23
TN18-4049	16	20	31	22	27	34	25
TN18-4051	16	17	28	23	28	30	24
TN18-4130	14	14	28	16	24	27	22
TN19-4074	15	18	32	21	29	35	26
TN19-4100	14	13	25	15	22	27	21
V15-1815DI	18	16	27	24	27	35	25
V15-2261ST	16	16	25	19	30	31	24
V16-0157	21	15	28	21	25	33	25
V16-1485ST	34	26	35	31	46	42	36
V17-2361R	32	25	35	40	38	39	35
V17-2933R	34	25	40	38	45	46	37
Mean	21	20	30	25	30	34	27
LSD(0.05)	6	4	6	10	5	6	2
CV(%)	19	12	11	20	9	9	14

TABLE 58 - PLANT LODGING (1-5)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	*Belle Mina, AL*	*Jackson, TN*	*Keiser, AR*	*Knoxville, TN*	*McCune, KS*	*Pittsburg, KS*	*Plymouth, NC*
S16-14869	1.0	1.3	1.0	1.7	1.0	1.3	2.0
AG53XF2	1.0	1.0	1.0	1.5	1.0	1.0	2.0
AG55XF0	1.0	1.0	1.0	1.7	1.0	1.0	1.8
TN09-008	1.0	1.0	1.0	1.5	1.0	1.0	1.0
TN11-5140	1.0	1.3	1.0	1.8	1.0	1.0	2.0
AG56XF2	1.0	1.3	1.0	1.5	1.0	1.0	2.0
DA13099-008F	1.0	1.0	1.0	1.5	1.0	1.0	1.8
DA1405-212-3F	1.0	1.0	1.0	1.7	1.0	1.0	1.5
DA1539-1010F	1.0	1.0	1.0	1.7	1.0	1.0	1.5
DS49-142	1.0	2.0	1.3	2.0	1.0	1.0	2.3
K18-6652	1.0	1.0	1.0	1.5	1.0	1.0	1.8
N16-8564	1.0	1.0	1.0	1.5	1.0	1.0	1.3
N17-1791	1.0	2.0	3.0	2.0	1.0	1.0	2.5
N17-2488	1.0	1.0	1.0	1.5	1.0	1.0	1.5
N17-2496	1.0	1.0	1.0	1.5	1.0	1.0	1.3
N17-2520	1.0	1.0	1.0	1.5	1.0	1.0	2.0
N18-235	1.0	1.0	1.0	1.5	1.0	1.0	1.8
N18-952	1.0	1.0	1.0	1.8	1.0	1.0	2.0
NDPJE-14-194	1.0	1.0	1.0	1.7	1.0	1.0	1.8
NDPJE-14-217	1.0	1.0	1.0	1.5	1.0	1.0	1.8
R18-3332	1.0	1.3	1.0	2.0	1.0	1.0	2.0
S17-2509C	1.0	1.0	1.0	1.8	1.0	1.0	1.8
S18-6013C	1.0	1.0	1.0	1.5	1.0	1.0	2.0
S18-6328C	1.0	1.0	1.0	1.8	1.0	1.0	2.3
S19-18135L	1.0	1.0	1.0	1.7	1.0	1.0	1.3
S19-19923C	1.0	1.0	1.0	1.5	1.0	1.0	1.5
TN18-4049	1.0	1.0	1.0	1.5	1.0	1.0	1.5
TN18-4051	1.0	1.0	1.0	1.5	1.0	1.0	1.5
TN18-4130	1.0	1.0	1.0	1.5	1.0	1.0	1.3
TN19-4074	1.0	1.0	1.0	1.5	1.0	1.3	2.0
TN19-4100	1.0	1.0	1.0	1.5	1.0	1.0	1.3
V15-1815DI	1.0	1.0	1.0	1.5	1.0	1.0	1.5
V15-2261ST	1.0	1.0	1.0	1.5	1.0	1.0	1.5
V16-0157	1.0	1.0	1.0	2.0	1.0	1.0	1.8
V16-1485ST	1.0	3.0	1.7	2.3	1.0	1.0	2.0
V17-2361R	1.0	1.3	1.3	1.8	1.0	1.0	2.3
V17-2933R	1.0	1.5	1.7	2.0	1.0	1.0	2.5
Mean	1.0	1.2	1.1	1.7	1.0	1.0	1.8
LSD(0.05)	.	0.5	0.4	0.4	.	0.2	0.5
CV(%)	0.0	21.7	23.0	13.7	0.0	13.2	15.0

TABLE 58 - PLANT LODGING (1-5) (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Suffolk, VA	Test Mean
S16-14869	2.3	1.7	1.0	1.0	1.0	2.7	1.5
AG53XF2	1.7	1.3	1.0	2.0	1.0	1.3	1.3
AG55XF0	2.3	1.3	1.0	1.5	1.0	1.0	1.3
TN09-008	1.7	1.0	1.0	1.0	1.0	1.0	1.1
TN11-5140	2.3	1.0	1.0	1.0	1.0	2.0	1.3
AG56XF2	2.0	1.7	1.0	1.0	1.0	1.0	1.3
DA13099-008F	1.7	1.0	1.0	1.0	1.0	2.0	1.2
DA1405-212-3F	3.0	1.3	1.0	1.0	1.0	2.0	1.3
DA1539-1010F	2.0	1.3	1.0	1.0	1.0	1.7	1.2
DS49-142	3.3	3.0	1.0	2.0	1.3	3.0	1.8
K18-6652	1.7	1.0	1.0	1.0	1.0	2.0	1.2
N16-8564	1.0	1.0	1.0	1.0	1.0	2.0	1.1
N17-1791	4.0	1.0	1.0	3.0	2.7	3.0	2.1
N17-2488	1.7	1.0	1.0	1.0	1.0	1.0	1.1
N17-2496	1.0	1.0	1.0	1.5	1.0	1.3	1.1
N17-2520	1.7	1.3	1.0	1.0	1.0	1.7	1.2
N18-235	1.0	1.0	1.0	1.0	1.0	1.5	1.1
N18-952	1.7	1.3	1.0	1.0	1.0	3.0	1.4
NDPJE-14-194	2.0	1.7	1.0	2.0	1.0	2.3	1.4
NDPJE-14-217	1.7	1.0	1.0	1.5	1.0	2.0	1.3
R18-3332	1.0	1.0	1.0	2.0	1.0	2.5	1.4
S17-2509C	1.7	1.0	1.0	1.5	1.0	2.5	1.3
S18-6013C	1.7	1.0	1.0	1.0	1.0	1.0	1.2
S18-6328C	1.7	1.3	1.0	1.5	1.0	2.0	1.3
S19-18135L	2.0	1.0	1.0	1.5	1.0	1.0	1.2
S19-19923C	1.0	1.3	1.0	1.0	1.0	1.3	1.1
TN18-4049	1.7	1.0	1.0	1.0	1.0	1.5	1.2
TN18-4051	2.0	1.3	1.0	1.0	1.0	1.0	1.2
TN18-4130	1.3	1.0	1.0	1.0	1.0	1.0	1.1
TN19-4074	1.0	1.0	1.0	1.0	1.0	2.0	1.2
TN19-4100	1.3	1.0	1.0	1.0	1.0	1.0	1.1
V15-1815DI	1.0	1.3	1.0	1.0	1.0	1.0	1.1
V15-2261ST	1.3	1.0	1.0	1.0	1.0	1.0	1.1
V16-0157	2.0	1.0	1.0	1.0	1.0	1.0	1.2
V16-1485ST	4.3	1.7	1.0	2.0	7.0	3.0	2.4
V17-2361R	2.0	1.0	1.0	2.0	1.0	1.5	1.4
V17-2933R	3.7	1.7	1.0	2.0	1.7	2.0	1.7
Mean	1.9	1.2	1.0	1.3	1.2	1.7	1.3
LSD(0.05)	1.1	0.6	.	0.8	1.0	1.1	0.3
CV(%)	36.7	30.6	0.0	28.1	51.1	30.7	38.2

TABLE 59 - SEED QUALITY (1-5)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Pittsburg, KS	Plymouth, NC
S16-14869	1.7	2.0	2.0	1.0	.	3.0	1.5
AG53XF2	3.0	2.0	1.7	1.0	.	2.0	2.0
AG55XF0	2.0	2.0	2.0	1.0	.	2.0	1.5
TN09-008	2.0	2.0	2.3	1.0	.	3.0	2.0
TN11-5140	2.0	1.7	1.7	1.2	.	4.0	1.5
AG56XF2	2.7	2.0	1.7	1.0	.	2.0	1.5
DA13099-008F	2.0	2.0	1.7	1.0	.	3.0	1.5
DA1405-212-3F	2.7	1.7	1.7	1.3	.	2.0	1.5
DA1539-1010F	2.0	2.0	1.3	1.0	.	2.0	1.5
DS49-142	2.0	3.0	1.7	1.3	.	2.0	1.5
K18-6652	2.0	2.0	2.0	1.3	.	3.0	1.5
N16-8564	2.0	2.0	1.7	1.0	.	3.0	1.5
N17-1791	2.7	2.0	1.7	1.2	.	4.0	2.0
N17-2488	3.0	1.3	1.7	1.0	.	2.0	2.0
N17-2496	2.0	1.3	1.3	1.0	.	4.0	1.5
N17-2520	2.0	2.0	2.0	1.2	.	2.0	1.5
N18-235	2.3	2.0	2.0	1.3	.	3.0	1.5
N18-952	2.3	2.0	1.7	1.2	.	3.0	1.5
NDPJE-14-194	2.0	2.0	1.3	1.2	.	3.0	1.5
NDPJE-14-217	2.0	2.0	2.0	1.0	.	4.0	1.5
R18-3332	3.0	2.7	1.3	1.2	.	3.0	2.3
S17-2509C	2.3	2.0	1.7	1.0	.	2.0	1.5
S18-6013C	2.0	2.0	1.7	1.0	.	3.0	1.5
S18-6328C	2.0	2.0	2.0	1.0	.	2.0	1.5
S19-18135L	2.7	1.0	1.3	1.0	.	2.0	1.5
S19-19923C	3.0	1.7	1.7	1.2	.	3.0	2.2
TN18-4049	2.7	2.0	1.7	1.2	.	4.0	1.5
TN18-4051	2.0	2.0	2.0	1.0	.	2.0	1.5
TN18-4130	2.0	2.0	1.7	1.0	.	2.0	1.5
TN19-4074	2.0	2.0	2.0	1.2	.	3.0	1.5
TN19-4100	2.0	1.0	1.3	1.2	.	3.0	1.5
V15-1815DI	2.3	2.0	1.3	1.0	.	2.0	1.5
V15-2261ST	2.0	2.0	1.7	1.2	.	2.0	1.5
V16-0157	2.3	1.3	1.0	1.3	.	2.0	1.5
V16-1485ST	2.0	2.0	1.3	1.2	.	4.0	1.5
V17-2361R	3.0	2.3	2.3	1.8	.	2.0	2.8
V17-2933R	3.0	2.0	1.3	1.0	.	1.0	1.8
Mean	2.3	1.9	1.7	1.1	.	2.6	1.6
LSD(0.05)	0.5	0.6	0.8	0.4	.	.	0.2
CV(%)	13.7	15.6	28.0	20.0	.	.	5.8

TABLE 59 - SEED QUALITY (1-5) (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Suffolk, VA	Test Mean
S16-14869	2.0	2.0	1.0	.	1.7	2.0	1.8
AG53XF2	1.7	1.0	1.2	.	1.7	2.0	1.8
AG55XF0	1.7	1.0	1.0	.	1.7	2.0	1.6
TN09-008	1.3	1.0	1.0	.	2.3	2.0	1.8
TN11-5140	2.0	1.3	1.0	.	1.3	1.3	1.7
AG56XF2	1.7	1.3	1.0	.	2.0	2.0	1.7
DA13099-008F	2.0	1.7	1.2	.	2.0	2.0	1.8
DA1405-212-3F	2.0	1.3	1.0	.	1.0	2.0	1.7
DA1539-1010F	1.3	1.0	1.0	.	1.0	2.0	1.5
DS49-142	1.7	1.0	1.0	.	1.7	3.0	1.7
K18-6652	2.0	1.3	1.0	.	1.7	2.0	1.8
N16-8564	2.0	1.0	1.0	.	2.3	2.0	1.7
N17-1791	2.0	1.3	1.2	.	1.7	2.0	1.9
N17-2488	2.0	2.0	1.0	.	2.7	2.0	1.9
N17-2496	2.0	1.7	1.2	.	1.3	2.0	1.7
N17-2520	2.0	1.3	1.0	.	2.3	2.0	1.8
N18-235	1.0	1.0	1.0	.	2.0	2.5	1.8
N18-952	2.0	1.0	1.0	.	1.3	2.0	1.7
NDPJE-14-194	2.0	1.7	1.0	.	1.7	2.0	1.7
NDPJE-14-217	2.0	1.0	1.2	.	1.7	2.0	1.8
R18-3332	1.7	1.7	1.0	.	2.7	2.0	2.0
S17-2509C	2.0	1.3	1.0	.	1.7	2.0	1.7
S18-6013C	2.0	1.7	1.2	.	1.3	2.0	1.7
S18-6328C	1.0	1.0	1.0	.	1.7	2.0	1.6
S19-18135L	1.7	1.7	1.0	.	1.0	2.0	1.6
S19-19923C	1.0	1.0	1.2	.	2.0	2.3	1.8
TN18-4049	1.7	1.7	1.0	.	1.7	2.0	1.9
TN18-4051	1.7	1.7	1.3	.	1.7	2.0	1.7
TN18-4130	1.0	1.0	1.0	.	1.3	2.0	1.5
TN19-4074	2.0	2.0	1.0	.	2.0	2.0	1.9
TN19-4100	1.7	1.7	1.0	.	1.7	2.0	1.6
V15-1815DI	1.0	1.0	1.0	.	1.7	3.0	1.6
V15-2261ST	2.0	2.0	1.0	.	2.0	2.0	1.8
V16-0157	1.0	1.0	1.0	.	1.7	2.0	1.5
V16-1485ST	1.3	2.0	1.2	.	1.7	2.3	1.8
V17-2361R	1.3	1.0	1.0	.	2.7	2.5	2.1
V17-2933R	1.0	1.0	1.0	.	2.3	2.0	1.6
Mean	1.7	1.4	1.0	.	1.8	2.1	1.7
LSD(0.05)	0.6	0.6	0.2	.	1.0	0.5	0.3
CV(%)	20.5	28.1	13.6	.	32.9	11.9	25.2

TABLE 60 - SEED SIZE (GRAMS PER 100 SEED)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	*Belle Mina, AL*	*Jackson, TN*	*Keiser, AR*	*Knoxville, TN*	*McCune, KS*	*Pittsburg, KS*	*Plymouth, NC*
S16-14869	14.1	14.2	13.7	12.9	.	13.9	15.4
AG53XF2	17.5	15.6	14.7	13.5	.	15.7	17.4
AG55XF0	17.1	15.0	15.6	14.8	.	14.0	14.6
TN09-008	14.3	14.9	13.9	14.0	.	14.2	17.1
TN11-5140	15.2	13.1	12.3	13.2	.	11.3	13.8
AG56XF2	15.9	14.5	15.5	14.0	.	13.2	14.5
DA13099-008F	15.9	14.9	14.4	13.4	.	13.0	14.6
DA1405-212-3F	12.2	11.3	10.8	10.4	.	11.1	11.1
DA1539-1010F	12.8	12.0	12.2	11.6	.	12.1	12.9
DS49-142	15.5	13.8	13.3	13.7	.	12.1	13.8
K18-6652	13.9	13.7	13.0	13.1	.	14.7	15.6
N16-8564	13.1	13.0	13.1	11.6	.	12.0	13.0
N17-1791	18.2	14.6	15.1	16.2	.	15.9	17.5
N17-2488	17.1	16.1	15.8	16.5	.	15.4	18.0
N17-2496	17.1	13.2	14.3	14.3	.	13.9	15.1
N17-2520	18.9	18.9	18.3	17.5	.	16.8	20.7
N18-235	11.3	13.5	12.4	12.0	.	13.8	13.7
N18-952	15.5	14.2	13.5	14.5	.	12.9	14.5
NDPJE-14-194	15.9	14.8	13.7	14.5	.	14.6	15.9
NDPJE-14-217	16.2	15.4	15.5	15.0	.	16.1	15.5
R18-3332	19.1	17.5	17.3	17.1	.	17.9	17.5
S17-2509C	14.9	15.6	15.1	14.0	.	14.5	17.3
S18-6013C	13.3	13.8	12.8	13.1	.	12.6	15.7
S18-6328C	14.5	13.1	13.2	13.0	.	12.9	14.3
S19-18135L	15.8	13.4	12.9	13.6	.	14.2	14.1
S19-19923C	13.3	15.2	14.6	12.9	.	15.5	16.3
TN18-4049	18.3	13.0	13.0	12.9	.	12.5	14.1
TN18-4051	15.5	11.9	12.2	12.4	.	12.3	14.2
TN18-4130	11.7	12.2	11.5	11.6	.	11.1	12.1
TN19-4074	12.5	11.6	12.3	11.0	.	12.5	12.7
TN19-4100	14.2	13.3	12.7	11.6	.	13.2	12.9
V15-1815DI	16.9	14.4	14.7	14.1	.	12.5	15.1
V15-2261ST	15.4	14.5	13.9	12.9	.	13.9	13.7
V16-0157	16.1	14.2	13.9	13.1	.	13.0	14.5
V16-1485ST	15.1	14.0	13.0	14.4	.	13.0	13.0
V17-2361R	14.5	14.9	14.3	14.3	.	15.6	16.1
V17-2933R	15.2	12.2	11.3	12.5	.	12.2	13.3
Mean	15.3	14.1	13.8	13.5	.	13.7	14.9
LSD(0.05)	2.4	1.1	0.7	1.0	.	.	0.9
CV(%)	9.7	4.0	2.9	4.5	.	.	3.8

TABLE 60 - SEED SIZE (GRAMS PER 100 SEED) (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Suffolk, VA	Test Mean
S16-14869	15.3	14.3	14.6	12.7	15.2	15.7	14.3
AG53XF2	15.2	14.2	16.1	16.4	16.5	16.6	15.7
AG55XF0	16.7	15.8	15.2	16.2	15.5	16.1	15.5
TN09-008	15.6	15.9	15.6	16.9	15.4	17.7	15.4
TN11-5140	14.5	13.4	14.5	14.5	12.5	16.1	13.7
AG56XF2	17.2	15.0	16.6	19.5	15.9	16.7	15.7
DA13099-008F	16.4	16.3	15.7	14.5	14.7	17.0	15.1
DA1405-212-3F	12.6	12.3	12.2	15.0	11.5	12.3	11.8
DA1539-1010F	13.9	12.7	13.6	12.0	12.4	15.1	12.8
DS49-142	15.2	13.6	14.8	10.8	13.4	15.2	13.9
K18-6652	13.7	14.5	16.4	14.8	15.4	17.8	14.7
N16-8564	13.8	13.0	13.7	13.2	13.9	15.9	13.2
N17-1791	16.5	16.2	18.3	14.3	14.9	19.5	16.5
N17-2488	17.1	17.5	18.9	19.4	16.9	19.0	17.3
N17-2496	15.3	14.7	16.8	16.6	15.2	18.1	15.4
N17-2520	19.8	18.3	20.6	17.1	19.8	21.8	19.1
N18-235	14.3	14.6	15.5	13.0	13.9	15.4	13.6
N18-952	16.4	15.1	15.5	11.1	13.2	18.0	14.6
NDPJE-14-194	14.8	16.2	18.1	14.1	15.2	19.3	15.6
NDPJE-14-217	16.0	16.0	17.8	11.3	15.8	18.9	15.9
R18-3332	16.9	18.0	20.5	14.7	17.7	19.3	17.8
S17-2509C	16.3	17.1	18.3	14.4	16.7	18.2	16.1
S18-6013C	14.6	13.6	16.1	12.2	15.8	16.3	14.2
S18-6328C	14.3	13.7	14.6	12.3	13.3	14.8	13.7
S19-18135L	13.3	13.1	16.4	12.1	13.9	15.0	14.0
S19-19923C	15.5	15.6	18.2	14.7	16.8	16.9	15.4
TN18-4049	13.3	13.7	15.5	16.3	14.3	18.1	14.6
TN18-4051	14.0	13.1	14.2	15.4	13.6	16.4	13.8
TN18-4130	12.5	13.1	12.7	9.9	13.2	13.7	12.1
TN19-4074	13.0	13.6	13.2	11.2	13.5	14.6	12.6
TN19-4100	12.4	13.7	14.7	10.8	13.9	16.4	13.3
V15-1815DI	15.0	15.5	16.2	12.6	16.0	19.6	15.3
V15-2261ST	14.6	14.5	14.6	12.1	14.2	16.2	14.2
V16-0157	14.3	14.5	15.1	12.7	15.1	16.8	14.5
V16-1485ST	13.0	11.9	14.2	10.5	13.3	16.9	13.6
V17-2361R	15.5	14.4	16.9	12.3	17.1	17.6	15.3
V17-2933R	12.4	12.4	12.9	11.1	12.7	13.5	12.7
Mean	14.9	14.6	15.8	13.7	14.8	16.8	14.7
LSD(0.05)	0.9	0.8	0.9	.	0.7	1.9	0.8
CV(%)	3.5	3.3	3.4	.	3.0	5.6	7.4

TABLE 61 - OIL (%)†
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Pittsburg, KS	Plymouth, NC
S16-14869	21.0	19.4	19.3	20.5	.	18.4	18.4
AG53XF2	21.8	20.1	20.4	20.6	.	19.7	17.8
AG55XF0	19.9	18.9	19.2	19.6	.	18.4	18.7
TN09-008	21.0	19.6	20.1	19.5	.	19.4	19.7
TN11-5140	20.6	19.0	19.2	19.9	.	19.8	18.5
AG56XF2	20.0	19.0	18.8	19.4	.	18.3	18.5
DA13099-008F	20.7	19.7	20.2	20.4	.	19.3	18.9
DA1405-212-3F	20.2	19.1	19.4	19.2	.	19.2	18.6
DA1539-1010F	21.2	19.4	19.5	20.1	.	19.0	18.3
DS49-142	19.8	18.5	19.7	19.1	.	18.7	17.8
K18-6652	20.1	18.9	18.9	19.5	.	18.6	18.0
N16-8564	20.8	19.7	20.1	19.9	.	18.8	19.0
N17-1791	19.6	17.6	18.8	18.4	.	19.6	17.2
N17-2488	21.8	20.7	21.2	21.3	.	20.6	20.2
N17-2496	21.7	20.1	20.7	20.9	.	20.7	19.6
N17-2520	22.0	20.7	21.5	21.7	.	20.7	20.7
N18-235	21.8	19.7	20.5	20.5	.	19.6	19.8
N18-952	20.3	17.2	18.2	18.5	.	18.7	17.0
NDPJE-14-194	20.8	19.3	19.3	19.3	.	19.0	18.7
NDPJE-14-217	20.0	19.7	20.1	19.5	.	19.1	18.3
R18-3332	20.3	17.8	19.3	19.4	.	18.4	18.1
S17-2509C	20.8	19.8	20.1	20.2	.	18.6	19.1
S18-6013C	21.7	20.2	19.9	20.5	.	18.8	18.8
S18-6328C	20.7	18.9	19.4	19.7	.	18.2	18.5
S19-18135L	20.3	19.2	19.7	19.9	.	18.0	18.0
S19-19923C	20.3	19.3	19.0	19.3	.	18.5	18.5
TN18-4049	21.0	19.1	19.4	19.4	.	19.8	18.7
TN18-4051	20.3	18.6	18.7	18.8	.	18.6	18.0
TN18-4130	20.2	19.5	19.3	19.4	.	18.7	18.6
TN19-4074	20.3	18.4	18.6	18.2	.	18.5	17.6
TN19-4100	20.5	19.0	19.2	18.8	.	19.3	17.7
V15-1815DI	21.5	19.5	19.6	17.4	.	19.7	19.9
V15-2261ST	21.4	19.1	19.9	19.7	.	19.4	18.0
V16-0157	20.2	18.6	19.0	19.4	.	18.0	18.4
V16-1485ST	18.7	17.5	19.2	17.8	.	18.1	16.7
V17-2361R	19.9	18.5	19.3	19.4	.	19.9	17.3
V17-2933R	21.6	20.5	20.1	20.8	.	19.6	19.7
Mean	20.7	19.2	19.6	19.6	.	19.1	18.5
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 61 - OIL (%)† (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Suffolk, VA	Test Mean
S16-14869	19.5	.	18.8	19.3	19.0	.	19.4
AG53XF2	19.8	.	19.9	19.5	19.6	.	19.9
AG55XF0	18.1	.	18.1	18.8	18.7	.	18.8
TN09-008	19.7	.	19.4	19.5	19.6	.	19.8
TN11-5140	16.9	.	18.7	18.8	18.2	.	19.0
AG56XF2	18.0	.	18.4	18.7	18.6	.	18.8
DA13099-008F	19.4	.	18.4	19.3	19.6	.	19.6
DA1405-212-3F	18.3	.	19.1	18.7	18.4	.	19.0
DA1539-1010F	18.8	.	18.7	19.1	18.9	.	19.3
DS49-142	17.5	.	18.3	18.6	17.5	.	18.5
K18-6652	18.5	.	17.7	18.1	18.6	.	18.7
N16-8564	19.5	.	19.5	19.3	19.1	.	19.6
N17-1791	18.9	.	18.3	16.7	17.4	.	18.2
N17-2488	20.6	.	20.4	20.5	20.3	.	20.8
N17-2496	20.3	.	20.7	20.2	19.9	.	20.5
N17-2520	20.6	.	20.2	21.1	20.2	.	21.0
N18-235	20.4	.	19.5	20.0	20.1	.	20.2
N18-952	18.1	.	17.8	17.7	17.0	.	18.1
NDPJE-14-194	19.2	.	18.7	18.9	18.6	.	19.2
NDPJE-14-217	19.4	.	19.4	19.1	13.7	.	18.8
R18-3332	18.5	.	18.3	18.5	18.0	.	18.7
S17-2509C	19.5	.	19.3	19.5	19.4	.	19.6
S18-6013C	19.4	.	19.1	19.8	19.5	.	19.8
S18-6328C	19.0	.	18.8	19.1	18.8	.	19.1
S19-18135L	18.6	.	18.7	19.1	18.8	.	19.0
S19-19923C	19.0	.	19.4	19.0	18.6	.	19.1
TN18-4049	18.8	.	18.9	19.4	19.0	.	19.3
TN18-4051	18.1	.	18.2	18.2	18.0	.	18.5
TN18-4130	19.1	.	18.5	19.5	18.8	.	19.2
TN19-4074	18.3	.	18.5	18.0	17.9	.	18.4
TN19-4100	18.4	.	18.7	18.1	18.4	.	18.8
V15-1815DI	20.1	.	19.8	18.6	19.2	.	19.5
V15-2261ST	19.3	.	19.5	19.2	18.8	.	19.4
V16-0157	19.4	.	18.8	18.4	18.5	.	18.9
V16-1485ST	17.4	.	17.4	17.0	17.1	.	17.7
V17-2361R	18.4	.	18.6	18.3	18.0	.	18.8
V17-2933R	18.7	.	19.6	19.3	19.0	.	19.9
Mean	19.0	.	18.9	18.9	18.6	.	19.2
LSD(0.05)	.	.	.	.	.	.	0.4
CV(%)	.	.	.	.	.	.	2.7

TABLE 62 - PROTEIN (%)†
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Pittsburg, KS	Plymouth, NC
S16-14869	32.6	35.5	35.0	33.3	.	34.1	36.1
AG53XF2	31.0	34.3	32.0	31.6	.	31.5	37.0
AG55XF0	34.2	36.0	33.1	34.5	.	33.1	36.4
TN09-008	30.9	33.5	32.0	33.2	.	32.0	32.7
TN11-5140	33.3	35.6	35.0	35.0	.	34.7	36.4
AG56XF2	33.1	34.7	34.1	34.4	.	31.5	35.5
DA13099-008F	33.8	35.5	33.8	34.7	.	34.8	36.1
DA1405-212-3F	34.4	36.6	34.6	36.3	.	34.6	36.8
DA1539-1010F	32.1	35.5	34.5	34.1	.	34.2	36.6
DS49-142	35.1	38.5	33.9	36.9	.	35.1	37.1
K18-6652	31.7	35.5	34.4	33.9	.	33.1	35.0
N16-8564	33.7	36.3	34.2	35.4	.	35.1	36.9
N17-1791	37.8	40.2	37.7	40.0	.	38.1	40.3
N17-2488	32.9	34.3	32.6	33.7	.	33.2	35.1
N17-2496	31.1	34.4	32.9	33.6	.	34.8	34.5
N17-2520	32.9	36.0	32.5	34.4	.	33.6	35.6
N18-235	32.4	35.2	34.1	34.4	.	34.0	35.6
N18-952	35.7	40.9	38.9	38.8	.	37.9	40.2
NDPJE-14-194	32.2	36.9	34.2	35.5	.	34.4	36.8
NDPJE-14-217	33.8	35.8	34.0	35.8	.	34.4	37.1
R18-3332	32.4	38.0	33.6	33.2	.	33.5	36.6
S17-2509C	32.9	35.3	33.7	33.7	.	34.0	36.8
S18-6013C	31.7	35.3	33.6	33.4	.	34.7	36.6
S18-6328C	33.2	34.9	34.8	33.9	.	34.6	35.8
S19-18135L	33.7	35.2	33.4	34.1	.	35.7	36.5
S19-19923C	36.0	37.5	36.3	36.6	.	35.1	38.8
TN18-4049	32.6	35.9	34.1	34.5	.	33.3	35.6
TN18-4051	34.1	36.7	35.6	34.8	.	34.8	37.0
TN18-4130	34.7	36.6	35.7	35.1	.	35.1	36.7
TN19-4074	34.8	37.5	36.2	37.3	.	35.7	38.3
TN19-4100	33.1	35.4	33.8	35.4	.	33.6	35.7
V15-1815DI	32.3	36.3	35.5	34.2	.	33.7	35.0
V15-2261ST	32.8	38.0	35.6	36.2	.	35.1	38.7
V16-0157	34.8	38.3	37.0	36.5	.	34.6	37.8
V16-1485ST	34.4	37.1	32.9	35.9	.	36.3	36.7
V17-2361R	36.7	37.6	34.8	36.2	.	33.4	39.1
V17-2933R	30.9	33.9	32.4	32.5	.	33.8	35.2
Mean	33.4	36.2	34.4	34.9	.	34.4	36.6
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

†Protein percentage reported on a 13% moisture basis beginning in 2015.

TABLE 62 - PROTEIN (%)† (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Suffolk, VA	Test Mean
S16-14869	34.3	.	34.3	34.7	35.9	.	34.6
AG53XF2	33.2	.	33.6	33.2	35.2	.	33.2
AG55XF0	36.9	.	35.1	34.7	36.1	.	35.0
TN09-008	33.3	.	32.2	32.7	33.8	.	32.6
TN11-5140	36.8	.	36.1	35.4	37.2	.	35.5
AG56XF2	36.0	.	34.3	34.5	36.2	.	34.4
DA13099-008F	34.5	.	36.0	35.0	36.3	.	35.0
DA1405-212-3F	36.6	.	35.3	35.9	36.9	.	35.8
DA1539-1010F	35.7	.	34.6	34.5	36.6	.	34.8
DS49-142	38.2	.	35.9	34.8	39.1	.	36.5
K18-6652	33.9	.	35.8	38.5	35.8	.	34.8
N16-8564	35.2	.	35.2	36.1	37.1	.	35.5
N17-1791	38.2	.	38.8	41.1	41.4	.	39.4
N17-2488	34.2	.	33.9	34.1	34.5	.	33.8
N17-2496	34.0	.	32.6	33.5	35.1	.	33.6
N17-2520	35.4	.	34.4	33.8	35.6	.	34.4
N18-235	33.9	.	35.0	34.5	35.3	.	34.4
N18-952	39.6	.	38.4	38.8	41.3	.	39.1
NDPJE-14-194	35.2	.	35.3	35.5	36.5	.	35.2
NDPJE-14-217	35.3	.	34.6	35.1	39.1	.	35.5
R18-3332	34.6	.	34.8	35.4	36.4	.	34.9
S17-2509C	35.0	.	34.7	35.1	36.8	.	34.8
S18-6013C	34.3	.	34.3	33.6	35.7	.	34.3
S18-6328C	35.2	.	34.9	35.0	36.3	.	34.9
S19-18135L	36.5	.	35.3	35.1	37.0	.	35.2
S19-19923C	36.0	.	35.0	36.6	37.7	.	36.6
TN18-4049	35.2	.	35.2	33.4	36.7	.	34.7
TN18-4051	36.5	.	35.9	35.6	38.0	.	35.9
TN18-4130	35.2	.	36.3	34.9	37.0	.	35.7
TN19-4074	36.5	.	36.4	33.8	38.1	.	36.5
TN19-4100	34.6	.	35.1	36.9	36.0	.	35.0
V15-1815DI	34.4	.	33.8	35.1	36.4	.	34.7
V15-2261ST	36.4	.	35.3	36.3	36.9	.	36.1
V16-0157	36.2	.	34.3	37.6	38.4	.	36.6
V16-1485ST	35.6	.	36.6	39.2	36.9	.	36.1
V17-2361R	35.7	.	35.8	38.1	38.8	.	36.6
V17-2933R	34.6	.	34.0	34.6	34.5	.	33.6
Mean	35.5	.	35.1	35.5	36.8	.	35.3
LSD(0.05)	.	.	.	.	.	.	0.7
CV(%)	.	.	.	.	.	.	2.3

TABLE 63 - ESTIMATED MEAL PROTEIN (%)†
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Pittsburg, KS	Plymouth, NC
S16-14869	44.8	47.9	47.1	45.6	.	45.4	48.1
AG53XF2	43.0	46.6	43.7	43.2	.	42.7	48.9
AG55XF0	46.3	48.3	44.5	46.7	.	44.1	48.7
TN09-008	42.6	45.3	43.6	44.8	.	43.1	44.2
TN11-5140	45.6	47.8	47.1	47.5	.	47.0	48.5
AG56XF2	45.0	46.6	45.6	46.4	.	42.0	47.3
DA13099-008F	46.3	48.1	46.0	47.4	.	46.8	48.4
DA1405-212-3F	46.9	49.2	46.6	48.8	.	46.5	49.1
DA1539-1010F	44.2	47.8	46.6	46.3	.	45.9	48.6
DS49-142	47.6	51.4	45.9	49.5	.	47.0	49.1
K18-6652	43.2	47.6	46.1	45.8	.	44.1	46.3
N16-8564	46.2	49.2	46.6	48.1	.	47.0	49.5
N17-1791	51.1	53.0	50.5	53.3	.	51.5	52.9
N17-2488	45.7	46.9	45.0	46.6	.	45.4	47.8
N17-2496	43.2	46.7	45.0	46.1	.	47.7	46.6
N17-2520	45.8	49.3	45.0	47.7	.	46.0	48.7
N18-235	45.1	47.6	46.7	47.0	.	46.0	48.3
N18-952	48.7	53.6	51.7	51.8	.	50.7	52.6
NDPJE-14-194	44.2	49.7	46.1	47.7	.	46.1	49.1
NDPJE-14-217	45.9	48.5	46.2	48.3	.	46.2	49.3
R18-3332	44.2	50.2	45.3	44.8	.	44.6	48.6
S17-2509C	45.1	47.9	45.8	45.9	.	45.4	49.4
S18-6013C	44.0	48.0	45.5	45.7	.	46.5	49.1
S18-6328C	45.5	46.8	47.0	45.9	.	45.9	47.8
S19-18135L	45.9	47.4	45.2	46.3	.	47.3	48.3
S19-19923C	49.0	50.5	48.7	49.3	.	46.9	51.7
TN18-4049	44.8	48.2	46.0	46.6	.	45.2	47.6
TN18-4051	46.5	49.0	47.5	46.6	.	46.4	49.1
TN18-4130	47.3	49.4	48.1	47.3	.	47.0	49.0
TN19-4074	47.5	50.0	48.4	49.5	.	47.5	50.4
TN19-4100	45.3	47.5	45.5	47.4	.	45.3	47.1
V15-1815DI	44.7	49.1	47.9	45.0	.	45.6	47.5
V15-2261ST	45.4	51.0	48.4	49.0	.	47.3	51.3
V16-0157	47.4	51.1	49.7	49.2	.	45.9	50.4
V16-1485ST	46.0	48.9	44.3	47.4	.	48.2	47.9
V17-2361R	49.9	50.1	46.8	48.8	.	45.3	51.4
V17-2933R	42.9	46.4	44.0	44.6	.	45.8	47.6
Mean	45.8	48.7	46.5	47.2	.	46.1	48.8
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

TABLE 63 - ESTIMATED MEAL PROTEIN (%)† (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Suffolk, VA	Test Mean
S16-14869	46.3	.	45.8	46.7	48.2	.	46.6
AG53XF2	45.0	.	45.5	44.8	47.5	.	45.1
AG55XF0	48.9	.	46.5	46.4	48.3	.	46.9
TN09-008	45.1	.	43.4	44.1	45.7	.	44.2
TN11-5140	48.1	.	48.3	47.4	49.4	.	47.7
AG56XF2	47.7	.	45.7	46.2	48.3	.	46.1
DA13099-008F	46.5	.	47.9	47.2	49.0	.	47.4
DA1405-212-3F	48.7	.	47.4	48.0	49.1	.	48.0
DA1539-1010F	47.8	.	46.2	46.3	49.0	.	46.9
DS49-142	50.4	.	47.8	46.4	51.5	.	48.6
K18-6652	45.2	.	47.2	51.2	47.7	.	46.4
N16-8564	47.5	.	47.5	48.6	49.8	.	48.0
N17-1791	51.2	.	51.6	53.7	54.4	.	52.3
N17-2488	46.8	.	46.2	46.6	47.1	.	46.4
N17-2496	46.4	.	44.6	45.6	47.7	.	46.0
N17-2520	48.5	.	46.9	46.6	48.6	.	47.3
N18-235	46.3	.	47.2	46.9	48.0	.	46.9
N18-952	52.5	.	50.8	51.2	54.1	.	51.8
NDPJE-14-194	47.3	.	47.1	47.6	48.7	.	47.4
NDPJE-14-217	47.6	.	46.6	47.1	49.3	.	47.5
R18-3332	46.1	.	46.3	47.3	48.3	.	46.6
S17-2509C	47.3	.	46.7	47.4	49.6	.	47.1
S18-6013C	46.2	.	46.1	45.5	48.2	.	46.5
S18-6328C	47.3	.	46.7	47.0	48.6	.	46.8
S19-18135L	48.6	.	47.2	47.1	49.6	.	47.3
S19-19923C	48.3	.	47.2	49.1	50.3	.	49.1
TN18-4049	47.1	.	47.2	45.0	49.3	.	46.7
TN18-4051	48.4	.	47.7	47.4	50.3	.	47.9
TN18-4130	47.2	.	48.4	47.2	49.5	.	48.0
TN19-4074	48.6	.	48.6	44.8	50.4	.	48.6
TN19-4100	46.1	.	46.9	49.0	48.0	.	46.8
V15-1815DI	46.7	.	45.8	46.8	49.0	.	46.8
V15-2261ST	49.0	.	47.7	48.9	49.4	.	48.7
V16-0157	48.9	.	45.8	50.1	51.2	.	49.0
V16-1485ST	46.8	.	48.1	51.3	48.4	.	47.7
V17-2361R	47.6	.	47.8	50.6	51.4	.	49.0
V17-2933R	46.2	.	45.9	46.5	46.3	.	45.6
Mean	47.6	.	47.0	47.6	49.2	.	47.4
LSD(0.05)	.	.	.	.	.	.	0.9
CV(%)	.	.	.	.	.	.	2.1

SUMMARY OF SEED FATTY ACIDS (%)
UNIFORM TEST V 2022 †

STRAIN/ VARIETY	Palmitic Acid	Stearic Acid	Oleic Acid	Linoleic Acid	Linolenic Acid
S16-14869	11.5	3.6	24.1	54.3	6.4
AG53XF2	10.2	4.6	24.3	53.9	7.0
DA1405-212-3F	7.4	3.0	80.1	7.0	2.5
S19-19923C	7.2	3.5	79.6	7.5	2.2
TN18-4130	7.7	3.0	74.9	11.5	2.9
Mean	8.8	3.5	56.6	26.9	4.2
LSD(0.05)	0.5	0.3	5.6	4.7	0.5
CV(%)	6.2	8.6	11.5	20.1	14.3

†Fatty acid percentage in seed oil reported beginning in 2017.

SEED PALMITIC ACID (%)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS
S16-14869	11.6	11.7	11.7	11.7	.	.	11.4
AG53XF2	10.5	9.9	10.2	10.8	.	.	10.5
DA1405-212-3F	6.8	7.1	7.4	7.2	.	.	7.1
S19-19923C	7.2	7.1	7.1	7.1	.	.	7.1
TN18-4130	6.7	7.2	8.1	6.8	.	.	7.5
Mean	8.6	8.6	8.9	8.7	.	.	8.7
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

SEED STEARIC ACID (%)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS
S16-14869	3.4	3.6	3.8	3.2	.	.	5.6
AG53XF2	4.5	4.2	4.7	4.4	.	.	6.3
DA1405-212-3F	2.9	3.0	3.4	2.7	.	.	3.9
S19-19923C	3.4	3.5	3.6	3.2	.	.	4.3
TN18-4130	2.8	2.8	3.0	2.8	.	.	3.3
Mean	3.4	3.4	3.7	3.3	.	.	4.7
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.		.	.

SEED PALMITIC ACID (%) (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Plymouth, NC	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-14869	11.2	11.3	11.6	11.8	11.4	11.3	.	11.5
AG53XF2	9.2	10.5	10.3	10.7	9.9	10.0	.	10.2
DA1405-212-3F	6.9	7.6	7.4	7.3	7.4	9.3	.	7.4
S19-19923C	6.7	7.3	8.0	7.0	7.2	7.1	.	7.2
TN18-4130	8.2	7.0	7.0	8.0	8.7	9.3	.	7.7
Mean	8.5	8.7	8.9	9.0	8.9	9.4	.	8.8
LSD(0.05)	.	.	.	.	.	.	.	0.5
CV(%)	.	.	.	.	.	.	.	6.2

SEED STEARIC ACID (%) (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Plymouth, NC	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-14869	3.1	4.1	3.2	3.7	2.8	3.7	.	3.6
AG53XF2	4.4	4.7	4.5	4.8	3.6	4.3	.	4.6
DA1405-212-3F	2.7	2.9	2.8	3.4	2.6	3.1	.	3.0
S19-19923C	3.1	3.8	3.4	4.0	2.7	3.1	.	3.5
TN18-4130	2.8	2.9	3.0	3.0	3.1	3.1		3.0
Mean	3.2	3.7	3.4	3.8	3.0	3.5	.	3.5
LSD(0.05)	.	.	.	.	.	.	.	0.3
CV(%)	.	.	.	.	.	.	.	8.6

SEED OLEIC ACID (%)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS
S16-14869	22.9	23.2	24.5	22.9	.	.	24.8
AG53XF2	23.7	26.6	23.6	22.0	.	.	24.6
DA1405-212-3F	84.3	82.4	83.0	82.6	.	.	81.0
S19-19923C	82.2	81.7	81.4	82.0	.	.	76.9
TN18-4130	86.0	85.0	68.5	85.5	.	.	72.8
Mean	59.8	59.8	56.2	59.0	.	.	56.0
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

SEED LINOLEIC ACID (%)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS
S16-14869	55.5	55.1	53.8	55.9	.	.	52.0
AG53XF2	54.3	52.8	54.7	55.3	.	.	51.6
DA1405-212-3F	4.1	5.3	3.7	5.4	.	.	5.5
S19-19923C	5.1	5.8	5.8	5.5	.	.	9.3
TN18-4130	2.6	3.1	17.1	3.0	.	.	13.2
Mean	24.3	24.4	27.0	25.0	.	.	26.3
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

SEED LINOLENIC ACID (%)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Belle Mina, AL	Jackson, TN	Keiser, AR	Knoxville, TN	McCune, KS	Orange, VA	Pittsburg, KS
S16-14869	6.6	6.5	6.2	6.3	.	.	6.2
AG53XF2	7.0	6.4	6.8	7.5	.	.	7.0
DA1405-212-3F	1.9	2.2	2.4	2.2	.	.	2.5
S19-19923C	2.1	2.0	2.0	2.2	.	.	2.4
TN18-4130	1.9	2.0	3.3	1.9	.	.	3.2
Mean	3.9	3.8	4.2	4.0	.	.	4.2
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

SEED OLEIC ACID (%) (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Plymouth, NC	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-14869	24.9	24.5	21.8	22.8	27.6	25.4	.	24.1
AG53XF2	28.8	21.9	25.1	24.0	25.2	22.0	.	24.3
DA1405-212-3F	84.8	80.5	81.7	80.8	83.0	56.8	.	80.1
S19-19923C	82.3	77.9	64.0	79.7	84.7	82.6	.	79.6
TN18-4130	66.6	84.2	84.8	72.7	61.6	56.0	.	74.9
Mean	57.5	57.8	55.5	56.0	56.4	48.6	.	56.6
LSD(0.05)	.	.	.	.	.	.	.	5.6
CV(%)	.	.	.	.	.	.	.	11.5

SEED LINOLEIC ACID (%) (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Plymouth, NC	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-14869	54.3	53.6	56.7	55.0	52.1	53.7	.	54.3
AG53XF2	51.0	55.6	52.8	53.4	55.0	56.4	.	53.9
DA1405-212-3F	3.7	6.3	5.7	5.8	4.8	26.4	.	7.0
S19-19923C	5.8	8.5	21.1	7.1	3.6	5.1	.	7.5
TN18-4130	18.5	3.6	3.3	13.1	22.5	27.1	.	11.5
Mean	26.7	25.5	27.9	26.9	27.6	33.8	.	26.9
LSD(0.05)	.	.	.	.	.	.	.	4.7
CV(%)	.	.	.	.	.	.	.	20.1

SEED LINOLENIC ACID (%) (continued)
UNIFORM GROUP V 2022

STRAIN/ VARIETY	Plymouth, NC	Portageville, MO(A)	Portageville, MO(B)	Springfield, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-14869	6.5	6.4	6.7	6.7	6.1	6.0	.	6.4
AG53XF2	6.6	7.3	7.3	7.1	6.4	7.3	.	7.0
DA1405-212-3F	1.9	2.7	2.4	2.7	2.1	4.4	.	2.5
S19-19923C	2.0	2.5	3.4	2.2	1.8	2.0	.	2.2
TN18-4130	3.9	2.3	1.9	3.2	4.1	4.5	.	2.9
Mean	4.2	4.2	4.3	4.4	4.1	4.8	.	4.2
LSD(0.05)	.	.	.	.	.	.	.	0.5
CV(%)	.	.	.	.	.	.	.	14.3

TABLE 64 - PARENTAGE OF ENTRIES
PRELIMINARY GROUP V-EARLY 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	S16-14869	Commercial check			CONV	
2	AG53XF2	Commercial check			RRX	
3	AG55XF0	Commercial check			RRX	
4	TN09-008	Commercial check			CONV	
5	DA1644-303F	DA09x39-17F x 5002T	A. Gillen		CONV	
6	K179228-5	K12-1355 / S14-17636	Schapaugh	F5	CONV	
7	K179233-16	K12-1355 / S14-17636	Schapaugh	F5	CONV	
8	K19-1190	K15-70 / K15-45	Schapaugh	F5	CONV	
9	K19-3177	K12-1348 / N10-7404	Schapaugh	F5	CONV	
10	K19-3419	K12-1355 / N10-7404	Schapaugh	F5	CONV	
11	K19-3522	K12-1355 / R10-2436	Schapaugh	F5	CONV	
12	K19-4498	LG13-4001 / K12-1355	Schapaugh	F5	CONV	
13	N19-1097	N06-06 x R11-8346	R. Mian		CONV	High protein
14	R18-10491	R09-3742/R10-28	A. Acuna		CONV	
15	R18-10519	R09-3742/R10-28	A. Acuna		CONV	
16	R18-10919	R11-2282/R12-3684	A. Acuna		CONV	
17	R18C-11127	FNA1.31/LD10-14205:108	A. Acuna		CONV	
18	R18C-11272	FNA1.31/LD10-14205:253	A. Acuna		CONV	
19	S19-12537	S13-10590 x K14-1717	Shannon		CONV	SCN, RKN, SC
20	S19-14797	S11-16653 x S15-11985	Shannon		CONV	SCN, RKN, SC
21	S19-14829	S11-16653 x S15-11985	Shannon		CONV	SCN, RKN, SC
22	S19-1826	S14-15138RR x LD11-13948R	Shannon		RR1	SCN, SC
23	S19-19764	S11-16653 BC-12-36	Shannon		CONV	SCN, SC, HOLL
24	S19-2354	S15-8856RR x LD11-13948R	Shannon		RR1	SCN, RKN, SC
25	TN18-5040	TN10-4404 x LG06-5798	V. Pantalone	F4	CONV	LN
26	TN19-4752R1	S12-2418 x S12-8223	V. Pantalone	F4	RR1	>47.5 Meal Protein
27	TN20-5012	TN12-4098 x Ellis(4)-HOLL	V. Pantalone	F4	CONV	LN
28	TN20-5020	TN14-5017 x S11-17025	V. Pantalone	F4	CONV	
29	TN21-5002	S13-10590 x Ellis-HOLL	V. Pantalone	F4	CONV	
30	V16-1706R2	04-05-N41 x RR2Y	B. Zhang		RR2	
31	V17-2926R	V11-2149 x S08-9942RR	B. Zhang		RR1	
32	V18-2423	Ellis x Md 99-6226	B. Zhang		CONV	
33	V18-4040HP	V11-3485 x R11-8346	B. Zhang		CONV	
34	V18-4411R2DI	V12-0287R2 x R09-1418	B. Zhang		RR2	

† Conv= Conventional(non-transgenic),E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 65 - GENERAL SUMMARY OF PERFORMANCE
PRELIMINARY TEST V-EARLY 2022

STRAIN/ VARIETY	SEED YIELD†	RANK	AVG. RANK	MAT. INDEX	LOD	HT	SCN Cyst Score (1-5)‡ Race 2	Race 3	Race 5	SC RATING	SC SCORE
S16-14869	57.6	3	10	0	1.3	29	3	.	3	R	1
AG53XF2	59.7	1	10	-1	1.3	36	3	.	5	R	1
AG55XF0	56.8	4	12	1	1.1	29	1	.	3	R	1
TN09-008	52.5	17	18	1	1.1	24	1	.	1	SS	3
DA1644-303F	50.0	21	21	-1	1.3	26	5	.	5	R	1
K179228-5	52.3	18	16	1	1.3	24	5	.	5	R	1
K179233-16	48.6	28	22	0	1.4	25	3	.	5	R	1
K19-1190	48.9	25	22	-1	1.1	21	5	.	5	MS	4
K19-3177	54.8	8	11	0	1.1	25	1	.	1	R	1
K19-3419	53.1	15	16	0	1.3	25	4	.	5	R	1
K19-3522	53.1	16	16	2	1.3	25	4	.	3	SS	3
K19-4498	53.6	14	14	0	1.4	24	5	.	5	R	1
N19-1097	48.0	30	25	2	1.2	29	3	.	5	R	1
R18-10491	50.4	20	21	0	1.3	29	4	.	5	R	1
R18-10519	48.6	27	24	1	1.3	27	4	.	5	SS	3
R18-10919	47.9	31	21	2	1.3	28	5	.	4	R	1
R18C-11127	48.7	26	22	-2	1.2	32	.	.	5	R	1
R18C-11272	51.3	19	19	0	1.6	34	3	.	5	R	1
S19-12537	57.8	2	9	0	1.6	33	3	.	3	R	1
S19-14797	55.3	7	13	1	1.2	28	3	.	4	R	1
S19-14829	54.0	12	13	0	1.1	23	2	.	1	R	1
S19-1826	55.4	6	14	-2	1.3	28	4	.	5	SS	3
S19-19764	56.4	5	11	0	1.2	27	2	.	4	R	1
S19-2354	53.7	13	14	-1	1.3	27	3	.	3	SS	3
TN18-5040	49.2	24	21	1	1.1	24	1	.	5	R	1
TN19-4752R1	46.8	33	24	-1	1.4	38	2	.	3	R	1
TN20-5012	54.0	11	14	3	1.1	23	4	.	5	S	5
TN20-5020	47.0	32	22	0	1.1	23	1	.	1	MS	4
TN21-5002	54.2	10	13	1	1.4	35	4	.	5	R	1
V16-1706R2	54.3	9	15	1	1.1	26	.	.	3	R	1
V17-2926R	48.0	29	26	-1	1.4	38	4	.	5	R	1
V18-2423	49.4	23	18	-1	1.1	21	4	.	5	R	1
V18-4040HP	44.3	34	28	1	1.1	25	.	.	5	R	1
V18-4411R2DI	49.7	22	21	0	1.1	21	4	.	5	R	1
Mean	51.9	.	.	0	1.2	27	.	.	.		.
LSD(0.05)	5.9	.	.	1	0.2	3	.	.	.		.
CV(%)	14.6	.	.	674	25.9	15	.	.	.		.

†Data not included in the yield mean:

TABLE 66 - GENERAL SUMMARY OF PERFORMANCE (continued)
PRELIMINARY TEST V-EARLY 2022

STRAIN/ VARIETY	SEED QUALITY	SEED SIZE	PROTEIN§ %	OIL§ %	MEAL PRO%	FL COLOR	PUB. COLOR	POD COLOR
S16-14869	1.8	14.0	34.6	19.3	46.7			
AG53XF2	1.8	15.0	33.0	19.7	44.6			
AG55XF0	1.8	15.2	34.4	19.0	46.1			
TN09-008	1.7	15.3	32.9	19.5	44.5			
DA1644-303F	1.8	13.2	35.0	18.9	46.9	W	T	T
K179228-5	1.6	14.7	36.2	19.7	49.1			
K179233-16	1.6	14.4	35.8	20.2	48.7			
K19-1190	1.9	12.5	33.8	19.3	45.5			
K19-3177	1.6	13.7	34.1	18.5	45.5			
K19-3419	1.7	12.4	34.0	19.4	45.9			
K19-3522	1.7	12.4	35.7	19.1	48.0			
K19-4498	1.5	11.5	34.2	19.8	46.3			
N19-1097	1.7	13.9	37.1	18.8	49.6	P	T	
R18-10491	1.6	13.5	38.2	18.5	50.9	P	G	T
R18-10519	1.7	12.7	37.7	18.2	50.0	P	G	T
R18-10919	1.9	13.8	35.8	18.8	47.9	P	T	B
R18C-11127	1.9	12.7	34.1	20.4	46.6	P	L	T
R18C-11272	1.5	13.3	35.7	18.9	47.9	P	L	B
S19-12537	1.7	15.2	34.7	19.5	46.9	W	G	T
S19-14797	1.9	14.9	35.4	19.1	47.6	P	T	T
S19-14829	1.6	14.4	34.8	20.0	47.2	W	T	T
S19-1826	1.6	15.4	35.3	19.4	47.6	W	LtT	T
S19-19764	1.6	14.6	36.2	18.7	48.5	W	T	T
S19-2354	1.7	11.6	35.8	18.3	47.6	P	T	T
TN18-5040	1.8	13.7	34.7	18.9	46.5	P	T	
TN19-4752R1	1.6	16.3	35.7	18.9	47.8	W	T	
TN20-5012	1.5	11.8	33.6	19.1	45.2	W	T	
TN20-5020	1.8	15.4	35.0	19.8	47.5	W	T	
TN21-5002	1.7	12.3	35.3	19.2	47.6		G	
V16-1706R2	1.8	14.6	34.2	19.0	45.9	W	T	
V17-2926R	1.7	11.9	33.8	19.7	45.8	P	LT	
V18-2423	1.5	12.4	35.0	18.8	46.9	W	G	
V18-4040HP	1.5	14.4	37.5	17.8	49.6	P	T	
V18-4411R2DI	2.2	17.2	37.0	18.7	49.5	P	G	
Mean	1.7	13.8	35.2	19.1	47.3			
LSD(0.05)	0.3	0.7	0.8	0.5	0.9			
CV(%)	23.7	5.6	2.2	2.4	1.8			

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

TABLE 67 - SEED YIELD (BUSHELS PER ACRE)
PRELIMINARY GROUP V-EARLY 2022 †

STRAIN/ VARIETY	Jackson, TN	Keiser, AR *	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B) *
S16-14869	58.4	68.5	47.2	80.1	26.8	43.4	58.5
AG53XF2	67.9	73.3	44.3	74.7	22.5	38.8	73.9
AG55XF0	59.3	71.1	43.7	71.1	24.3	43.2	66.7
TN09-008	66.6	57.8	51.5	67.2	22.1	50.0	35.6
DA1644-303F	58.3	64.7	41.9	58.8	20.6	39.1	34.7
K179228-5	56.1	63.3	46.6	54.0	25.5	45.8	38.4
K179233-16	50.8	58.4	44.2	56.3	27.5	44.0	31.5
K19-1190	59.8	64.2	39.9	57.2	19.0	42.8	27.3
K19-3177	67.0	64.6	41.6	68.8	29.3	50.1	31.8
K19-3419	54.7	61.0	45.1	77.9	30.7	42.5	36.4
K19-3522	53.2	61.8	51.6	72.4	23.1	48.1	40.5
K19-4498	59.3	54.8	46.3	76.3	28.6	44.2	38.3
N19-1097	50.5	60.6	30.6	65.4	23.6	35.1	40.1
R18-10491	51.0	56.6	41.0	54.4	24.0	34.9	52.2
R18-10519	58.4	55.6	37.8	52.3	22.1	37.5	41.5
R18-10919	58.4	61.1	44.0	59.8	25.3	38.7	44.2
R18C-11127	56.7	58.6	47.1	45.4	20.1	38.1	40.6
R18C-11272	56.9	58.7	51.1	55.4	23.0	41.3	41.1
S19-12537	66.4	67.2	43.3	73.4	24.5	44.6	53.3
S19-14797	66.8	70.0	41.9	64.8	23.5	42.1	56.6
S19-14829	64.0	70.0	52.5	51.2	24.3	48.5	46.4
S19-1826	68.0	64.6	34.3	67.6	21.8	41.8	51.5
S19-19764	70.6	68.0	44.1	72.9	21.1	45.7	42.9
S19-2354	54.2	66.1	53.2	60.9	24.4	39.8	51.4
TN18-5040	57.1	54.2	35.7	71.2	23.7	44.0	24.8
TN19-4752R1	51.1	47.8	35.0	46.9	22.9	38.0	45.7
TN20-5012	63.8	65.9	57.1	71.8	26.9	43.8	35.5
TN20-5020	50.1	44.2	48.1	54.1	23.7	47.1	36.0
TN21-5002	55.0	64.0	47.9	59.1	25.7	46.2	56.1
V16-1706R2	59.4	65.4	48.8	68.1	19.7	41.2	54.3
V17-2926R	49.5	56.0	38.5	55.7	22.4	35.9	44.8
V18-2423	59.2	59.1	49.1	46.3	23.9	45.7	32.3
V18-4040HP	56.4	51.5	48.5	48.3	13.7	39.7	30.6
V18-4411R2DI	60.1	56.8	46.6	59.5	21.0	40.6	33.7
Mean	58.7	61.3	44.7	62.3	23.5	42.4	43.2
LSD(0.05)	15.3	6.4	9.2	15.7	4.9	5.7	10.7
LSD(0.10)	12.7	5.3	7.6	13.1	4.1	4.7	8.9
CV(%)	12.4	5.1	10.1	12.4	10.2	6.6	12.2

† Data not included in the test mean:

* Locations with obvious damage consistent with exposure to the herbicide Dicamba. The Dicamba reistant checks (all the AG lines) may have had a yield advantage.

TABLE 67 - SEED YIELD (BUSHELS PER ACRE) (continued)
PRELIMINARY GROUP V-EARLY 2022 †

STRAIN/ VARIETY	*Stoneville, MS **	*Stuttgart, AR **	*Test Mean*
S16-14869	63.4	71.7	57.6
AG53XF2	59.7	82.4	59.7
AG55XF0	56.2	76.2	56.8
TN09-008	51.9	69.8	52.5
DA1644-303F	53.5	78.5	50.0
K179228-5	68.2	73.3	52.3
K179233-16	51.9	72.4	48.6
K19-1190	59.3	70.6	48.9
K19-3177	60.7	79.6	54.8
K19-3419	51.9	78.0	53.1
K19-3522	56.1	71.3	53.1
K19-4498	57.9	76.8	53.6
N19-1097	51.4	74.5	48.0
R18-10491	63.5	75.6	50.4
R18-10519	57.9	74.6	48.6
R18-10919	52.9	47.0	47.9
R18C-11127	56.2	75.3	48.7
R18C-11272	68.4	65.8	51.3
S19-12537	72.0	76.0	57.8
S19-14797	55.3	77.1	55.3
S19-14829	55.0	74.3	54.0
S19-1826	69.4	79.4	55.4
S19-19764	61.6	81.0	56.4
S19-2354	58.1	75.3	53.7
TN18-5040	58.5	73.6	49.2
TN19-4752R1	55.8	78.0	46.8
TN20-5012	46.4	75.0	54.0
TN20-5020	57.7	61.9	47.0
TN21-5002	59.1	74.4	54.2
V16-1706R2	48.0	83.6	54.3
V17-2926R	55.2	72.4	48.0
V18-2423	52.8	76.4	49.4
V18-4040HP	41.5	68.9	44.3
V18-4411R2DI	54.0	74.7	49.7
Mean	57.1	74.0	51.9
LSD(0.05)	16.1	16.3	5.9
LSD(0.10)	13.4	13.6	4.9
CV(%)	13.8	10.8	14.6

TABLE 68 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)
S16-14869	9/29	10/3	10/12	10/12	9/25	9/15	10/16
AG53XF2	2	-2	-1	-1	-1	-3	-2
AG55XF0	5	1	-1	2	1	4	0
TN09-008	5	1	1	1	2	-1	0
DA1644-303F	0	1	-5	1	-3	-2	-2
K179228-5	5	0	0	-1	1	0	1
K179233-16	4	0	0	-1	0	-1	-1
K19-1190	4	-1	-3	-1	0	-1	-4
K19-3177	4	1	-3	-1	-1	1	0
K19-3419	4	1	-1	-1	-2	-1	-3
K19-3522	5	2	1	1	1	5	0
K19-4498	4	1	-1	-1	0	-1	-1
N19-1097	4	2	0	2	1	0	1
R18-10491	4	1	0	0	0	0	0
R18-10519	5	2	-1	0	0	3	-1
R18-10919	5	2	0	3	-1	5	1
R18C-11127	4	-2	-5	-1	-3	-3	-4
R18C-11272	4	0	-1	-1	-1	-2	0
S19-12537	5	-2	-2	-1	-3	-2	0
S19-14797	4	0	1	0	4	2	-1
S19-14829	2	1	-2	-1	2	0	-1
S19-1826	2	-1	-5	0	-1	-4	-2
S19-19764	4	2	-2	-1	0	-1	0
S19-2354	-4	0	-3	-1	1	-1	0
TN18-5040	5	-1	-4	-1	2	2	0
TN19-4752R1	5	-1	-2	-1	-4	-5	-2
TN20-5012	9	2	3	3	1	4	-1
TN20-5020	3	-1	-2	1	1	0	-3
TN21-5002	7	0	-1	2	1	0	1
V16-1706R2	0	1	0	1	5	0	0
V17-2926R	7	1	-3	0	-3	-6	0
V18-2423	0	0	-4	2	-1	-1	-3
V18-4040HP	5	1	-1	1	0	-1	-2
V18-4411R2DI	1	-1	-1	0	1	1	-3
Mean	3	0	-1	0	0	0	-1
LSD(0.05)	6	1	3	1	4	3	2
CV(%)	84	213	96	391	12737	1616	94

TABLE 68 - RELATIVE MATURITY (continued)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Stoneville, MS	Stuttgart, AR	Test Mean
S16-14869	.	9/29	10/3
AG53XF2	.	-1	-1
AG55XF0	.	1	1
TN09-008	.	4	1
DA1644-303F	.	-1	-1
K179228-5	.	0	1
K179233-16	.	-4	0
K19-1190	.	1	-1
K19-3177	.	0	0
K19-3419	.	0	0
K19-3522	.	5	2
K19-4498	.	0	0
N19-1097	.	7	2
R18-10491	.	0	0
R18-10519	.	3	1
R18-10919	.	5	2
R18C-11127	.	-3	-2
R18C-11272	.	1	0
S19-12537	.	1	0
S19-14797	.	1	1
S19-14829	.	-1	0
S19-1826	.	-3	-2
S19-19764	.	3	0
S19-2354	.	1	-1
TN18-5040	.	5	1
TN19-4752R1	.	-2	-1
TN20-5012	.	6	3
TN20-5020	.	-1	0
TN21-5002	.	2	1
V16-1706R2	.	1	1
V17-2926R	.	1	-1
V18-2423	.	2	-1
V18-4040HP	.	2	1
V18-4411R2DI	.	4	0
Mean	.	1	0
LSD(0.05)	.	3	1
CV(%)	.	158	674

TABLE 69 - PLANT HEIGHT (INCHES)
PRELIMINARY GROUP V-EARLY 2021

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)
S16-14869	29	23	32	30	27	37	21
AG53XF2	34	46	42	38	24	32	37
AG55XF0	25	33	34	24	20	34	32
TN09-008	23	17	33	25	20	32	21
DA1644-303F	28	20	32	23	21	35	18
K179228-5	22	21	32	23	18	33	18
K179233-16	23	23	34	28	21	32	17
K19-1190	21	18	28	20	15	29	13
K19-3177	24	24	32	28	22	32	19
K19-3419	26	20	31	24	24	33	17
K19-3522	27	21	29	25	21	33	18
K19-4498	26	20	28	26	19	29	19
N19-1097	34	22	31	30	25	35	21
R18-10491	30	22	36	34	21	34	24
R18-10519	31	19	33	33	21	34	21
R18-10919	31	23	36	31	24	35	21
R18C-11127	37	32	33	37	23	31	21
R18C-11272	38	37	34	40	18	33	21
S19-12537	36	36	35	38	19	32	24
S19-14797	28	22	35	28	22	36	21
S19-14829	25	21	28	20	21	27	22
S19-1826	30	32	36	28	20	26	21
S19-19764	27	22	31	29	23	33	20
S19-2354	27	21	35	27	22	31	21
TN18-5040	24	15	31	28	22	29	22
TN19-4752R1	40	44	49	39	21	36	30
TN20-5012	24	18	29	20	24	30	18
TN20-5020	24	18	34	24	17	33	19
TN21-5002	41	35	38	38	20	32	25
V16-1706R2	26	24	31	26	24	34	19
V17-2926R	42	37	45	42	27	32	28
V18-2423	21	14	29	18	21	28	14
V18-4040HP	27	18	32	24	17	31	18
V18-4411R2DI	26	17	26	21	17	25	20
Mean	29	24	33	28	21	32	21
LSD(0.05)	5	4	.	6	5	4	5
CV(%)	9	9	.	11	12	6	12

TABLE 69 - PLANT HEIGHT (INCHES) (continued)
PRELIMINARY GROUP V-EARLY 2021

STRAIN/ VARIETY	Stoneville, MS	Stuttgart, AR	Test Mean
S16-14869	30	34	29
AG53XF2	35	39	36
AG55XF0	30	34	29
TN09-008	20	26	24
DA1644-303F	25	31	26
K179228-5	20	30	24
K179233-16	21	29	25
K19-1190	19	25	21
K19-3177	22	25	25
K19-3419	23	28	25
K19-3522	27	29	25
K19-4498	24	27	24
N19-1097	26	35	29
R18-10491	27	34	29
R18-10519	22	33	27
R18-10919	26	32	28
R18C-11127	30	46	32
R18C-11272	40	45	34
S19-12537	35	41	33
S19-14797	27	35	28
S19-14829	21	28	23
S19-1826	28	33	28
S19-19764	29	30	27
S19-2354	28	30	27
TN18-5040	22	28	24
TN19-4752R1	39	47	38
TN20-5012	22	27	23
TN20-5020	20	25	23
TN21-5002	40	45	35
V16-1706R2	24	28	26
V17-2926R	42	47	38
V18-2423	20	24	21
V18-4040HP	28	29	25
V18-4411R2DI	18	25	21
Mean	27	32	27
LSD(0.05)	10	5	3
CV(%)	18	8	15

TABLE 70 - PLANT LODGING (1-5)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)
S16-14869	1.5	1.0	1.5	2.0	1.0	1.0	1.0
AG53XF2	1.0	1.0	1.3	1.5	1.0	1.0	2.5
AG55XF0	1.0	1.0	1.3	1.5	1.0	1.0	1.0
TN09-008	1.0	1.0	1.3	1.5	1.0	1.0	1.5
DA1644-303F	1.5	1.0	1.0	1.5	1.0	1.0	1.5
K179228-5	2.0	1.0	1.5	1.5	1.0	1.0	1.0
K179233-16	2.0	1.0	1.8	1.8	1.0	1.0	1.0
K19-1190	1.0	1.0	1.0	1.5	1.0	1.0	1.0
K19-3177	1.0	1.0	1.0	1.5	1.0	1.0	1.0
K19-3419	1.0	1.0	1.5	2.0	1.0	1.0	1.5
K19-3522	1.5	1.0	1.8	1.8	1.0	1.0	1.0
K19-4498	2.0	1.0	1.5	2.0	1.0	1.0	1.5
N19-1097	1.5	1.0	1.0	1.8	1.0	1.0	1.5
R18-10491	1.5	1.0	1.3	2.0	1.0	1.0	1.0
R18-10519	2.0	1.0	1.3	2.3	1.0	1.0	1.0
R18-10919	1.5	1.0	1.5	1.8	1.0	1.0	1.5
R18C-11127	1.0	1.0	1.0	1.8	1.0	1.0	1.0
R18C-11272	1.5	2.5	1.3	1.8	1.0	1.0	1.0
S19-12537	1.5	1.5	1.5	2.3	1.0	1.0	2.5
S19-14797	1.0	1.0	1.5	1.8	1.0	1.0	1.0
S19-14829	1.0	1.0	1.3	1.5	1.0	1.0	1.0
S19-1826	1.5	1.0	1.3	2.0	1.0	1.0	1.0
S19-19764	1.5	1.0	1.5	1.5	1.0	1.0	1.0
S19-2354	2.0	1.0	1.5	1.5	1.0	1.0	1.5
TN18-5040	1.0	1.0	1.0	1.5	1.0	1.0	1.5
TN19-4752R1	2.0	1.0	1.5	2.0	1.0	1.0	1.5
TN20-5012	1.0	1.0	1.0	1.5	1.0	1.0	1.0
TN20-5020	1.0	1.0	1.0	1.5	1.0	1.0	1.0
TN21-5002	2.0	1.0	1.3	1.5	1.0	1.0	1.5
V16-1706R2	0.9	1.0	1.5	1.5	1.0	1.0	1.0
V17-2926R	0.9	2.0	1.5	2.0	1.0	1.0	1.0
V18-2423	1.0	1.0	1.0	1.5	1.0	1.0	1.0
V18-4040HP	1.0	1.0	1.3	1.5	1.0	1.0	1.0
V18-4411R2DI	1.0	1.0	1.0	1.8	1.0	1.0	1.0
Mean	1.3	1.1	1.3	1.7	1.0	1.0	1.2
LSD(0.05)	0.9	0.3	0.3	0.5	.	.	0.8
CV(%)	32.7	15.5	13.3	13.0	0.0	0.0	30.0

TABLE 70 - PLANT LODGING (1-5) (continued)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Stoneville, MS	Stuttgart, AR	Test Mean
S16-14869	1.8	1.0	1.3
AG53XF2	1.8	1.0	1.3
AG55XF0	1.2	1.0	1.1
TN09-008	1.0	1.0	1.1
DA1644-303F	2.0	1.0	1.3
K179228-5	1.8	1.0	1.3
K179233-16	1.8	1.0	1.4
K19-1190	1.0	1.0	1.1
K19-3177	1.0	1.0	1.1
K19-3419	1.2	1.0	1.3
K19-3522	1.5	1.0	1.3
K19-4498	1.2	1.0	1.4
N19-1097	1.0	1.0	1.2
R18-10491	1.5	1.5	1.3
R18-10519	1.2	1.0	1.3
R18-10919	1.2	1.0	1.3
R18C-11127	1.8	1.0	1.2
R18C-11272	2.0	2.0	1.6
S19-12537	2.0	1.5	1.6
S19-14797	1.5	1.0	1.2
S19-14829	1.0	1.0	1.1
S19-1826	2.0	1.0	1.3
S19-19764	1.0	1.0	1.2
S19-2354	1.2	1.0	1.3
TN18-5040	1.0	1.0	1.1
TN19-4752R1	2.0	1.0	1.4
TN20-5012	1.0	1.5	1.1
TN20-5020	1.0	1.0	1.1
TN21-5002	2.0	1.5	1.4
V16-1706R2	1.2	1.0	1.1
V17-2926R	1.8	1.5	1.4
V18-2423	1.0	1.0	1.1
V18-4040HP	1.0	1.0	1.1
V18-4411R2DI	1.0	1.0	1.1
Mean	1.4	1.1	1.2
LSD(0.05)	0.6	0.7	0.2
CV(%)	21.6	33.0	25.9

TABLE 71 - SEED QUALITY (1-5)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)
S16-14869	2.0	2.0	1.8	1.3	.	3.0	2.0
AG53XF2	2.0	2.5	2.0	1.0	.	2.0	1.0
AG55XF0	2.0	2.0	1.5	1.3	.	3	2.0
TN09-008	2.0	2.0	1.8	1.0	.	2.0	1.5
DA1644-303F	2.0	1.5	1.5	1.0	.	3.0	2.0
K179228-5	1.5	1.5	1.5	1.3	.	3.0	1.5
K179233-16	2.0	1.5	1.5	1.3	.	2.0	2.0
K19-1190	2.0	2.5	1.5	1.0	.	3.0	2.0
K19-3177	1.5	1.5	1.5	1.0	.	2.0	2.0
K19-3419	2.0	1.5	1.5	1.0	.	3.0	2.0
K19-3522	2.0	1.0	1.5	1.0	.	3.0	1.5
K19-4498	1.5	1.0	1.8	1.0	.	2.0	2.0
N19-1097	2.0	1.5	1.5	1.0	.	3.0	2.0
R18-10491	2.0	1.5	1.5	1.0	.	2.0	1.0
R18-10519	2.0	1.5	1.5	1.0	.	2.0	2.0
R18-10919	2.0	1.0	1.5	1.0	.	4.0	2.0
R18C-11127	2.0	2.0	1.5	1.3	.	3.0	2.0
R18C-11272	2.0	1.5	1.5	1.0	.	2.0	1.0
S19-12537	2.0	1.5	2.0	1.0	.	2.0	2.0
S19-14797	2.0	2.0	1.5	1.3	.	3.0	2.0
S19-14829	1.5	1.5	1.5	1.3	.	3.0	2.0
S19-1826	1.5	1.5	1.5	1.3	.	2.0	2.0
S19-19764	1.5	2.5	1.5	1.0	.	3.0	1.0
S19-2354	2.0	1.5	1.5	1.0	.	2.0	2.0
TN18-5040	2.0	1.5	1.5	1.0	.	3.0	2.0
TN19-4752R1	1.5	1.5	2.0	1.0	.	3.0	1.5
TN20-5012	1.0	1.0	1.5	1.0	.	3.0	1.5
TN20-5020	2.0	2.5	1.5	1.0	.	3.0	2.0
TN21-5002	1.5	1.5	1.5	1.0	.	3.0	2.0
V16-1706R2	1.9	2.0	1.5	1.0	.	3.0	2.0
V17-2926R	1.9	1.5	1.5	1.0	.	3	2.0
V18-2423	1.5	1.5	1.5	1.0	.	3.0	1.5
V18-4040HP	1.5	1.5	1.5	1.0	.	2.0	2.0
V18-4411R2DI	2.0	2.5	1.5	1.5	.	4.0	2.0
Mean	1.8	1.7	1.6	1.1	.	2.7	1.8
LSD(0.05)	0.8	1.1	0.2	0.3	.	.	0.6
CV(%)	19.8	30.9	6.7	16.0	.	.	16.6

TABLE 71 - SEED QUALITY (1-5) (continued)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Stoneville, MS	Stuttgart, AR	Test Mean
S16-14869	.	1.0	1.8
AG53XF2	.	2.0	1.8
AG55XF0	.	1.0	1.8
TN09-008	.	1.5	1.7
DA1644-303F	.	1.5	1.8
K179228-5	.	1.5	1.6
K179233-16	.	1.0	1.6
K19-1190	.	1.5	1.9
K19-3177	.	1.5	1.6
K19-3419	.	1.0	1.7
K19-3522	.	2.0	1.7
K19-4498	.	1.0	1.5
N19-1097	.	1.0	1.7
R18-10491	.	2.0	1.6
R18-10519	.	1.5	1.7
R18-10919	.	2.0	1.9
R18C-11127	.	1.5	1.9
R18C-11272	.	1.5	1.5
S19-12537	.	1.5	1.7
S19-14797	.	2.0	1.9
S19-14829	.	1.0	1.6
S19-1826	.	1.5	1.6
S19-19764	.	1.0	1.6
S19-2354	.	1.5	1.7
TN18-5040	.	1.5	1.8
TN19-4752R1	.	1.0	1.6
TN20-5012	.	1.5	1.5
TN20-5020	.	1.0	1.8
TN21-5002	.	1.5	1.7
V16-1706R2	.	1.5	1.8
V17-2926R	.	1.0	1.7
V18-2423	.	1.0	1.5
V18-4040HP	.	1.0	1.5
V18-4411R2DI	.	2.5	2.2
Mean	.	1.4	1.7
LSD(0.05)	.	0.8	0.3
CV(%)	.	27.9	23.7

TABLE 72 - SEED SIZE (GRAMS PER 100 SEED)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)
S16-14869	12.9	14.0	14.8	14.4	.	13.8	15.1
AG53XF2	14.7	15.0	15.5	15.0	.	16.1	15.3
AG55XF0	14.6	15.7	15.9	16.2	.	13.9	15.7
TN09-008	14.9	13.5	19.1	14.5	.	14.5	16.7
DA1644-303F	12.7	13.6	13.8	13.6	.	12.9	14.4
K179228-5	14.5	14.7	16.6	14.6	.	13.1	15.5
K179233-16	13.7	14.7	16.5	13.6	.	14.1	15.8
K19-1190	12.6	11.5	13.2	12.4	.	12.4	13.9
K19-3177	13.8	12.9	15.5	13.5	.	13.3	13.9
K19-3419	11.4	11.3	13.3	12.5	.	13.1	13.8
K19-3522	11.5	11.3	14.0	12.6	.	13.2	12.7
K19-4498	11.3	11.0	12.9	11.5	.	10.3	12.3
N19-1097	12.7	13.7	13.4	15.4	.	13.0	15.1
R18-10491	12.5	13.3	13.8	14.0	.	13.4	14.5
R18-10519	13.0	11.5	13.3	13.1	.	12.5	13.8
R18-10919	12.9	13.5	14.6	14.0	.	13.1	15.1
R18C-11127	12.4	12.2	13.3	11.9	.	13.6	13.7
R18C-11272	12.5	12.8	14.8	13.5	.	13.2	14.3
S19-12537	15.5	14.2	17.1	13.6	.	15.9	15.9
S19-14797	15.5	14.9	15.4	13.9	.	15.2	15.6
S19-14829	14.9	13.5	15.3	14.1	.	13.9	15.0
S19-1826	16.4	14.6	17.1	14.3	.	15.9	16.7
S19-19764	14.6	14.4	15.0	14.1	.	15.0	15.9
S19-2354	10.5	10.9	13.3	12.3	.	10.7	12.6
TN18-5040	14.0	13.5	13.3	13.4	.	14.4	15.2
TN19-4752R1	15.8	14.5	18.5	16.7	.	16.6	16.7
TN20-5012	11.7	12.3	12.5	12.1	.	10.0	12.9
TN20-5020	15.7	14.5	18.4	15.5	.	14.7	16.2
TN21-5002	12.0	11.2	12.9	12.1	.	13.3	12.6
V16-1706R2	12.8	15.0	16.4	14.5	.	13.0	15.6
V17-2926R	13.1	10.5	12.7	11.5	.	12.5	12.3
V18-2423	11.8	11.5	13.4	11.9	.	12.1	13.2
V18-4040HP	13.8	14.0	15.3	14.3	.	14.2	15.6
V18-4411R2DI	17.4	16.4	19.5	16.0	.	13.9	18.1
Mean	13.5	13.3	15.0	13.7	.	13.6	14.8
LSD(0.05)	1.7	0.5	1.0	0.9	.	.	0.7
CV(%)	5.9	1.8	3.2	3.3	.	.	2.2

TABLE 72 - SEED SIZE (GRAMS PER 100 SEED) (continued)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	*Stoneville, MS*	*Stuttgart, AR*	*Test Mean*
S16-14869	12.1	14.6	14.0
AG53XF2	13.5	15.3	15.0
AG55XF0	13.8	16.1	15.2
TN09-008	12.7	16.3	15.3
DA1644-303F	11.3	13.6	13.2
K179228-5	12.7	15.6	14.7
K179233-16	14.1	13.4	14.4
K19-1190	10.3	13.9	12.5
K19-3177	11.9	14.4	13.7
K19-3419	10.7	13.0	12.4
K19-3522	11.2	13.1	12.4
K19-4498	10.5	12.2	11.5
N19-1097	12.5	15.1	13.9
R18-10491	12.2	14.3	13.5
R18-10519	12.2	12.7	12.7
R18-10919	12.1	15.1	13.8
R18C-11127	11.2	13.7	12.7
R18C-11272	11.5	13.8	13.3
S19-12537	13.5	15.6	15.2
S19-14797	13.0	15.8	14.9
S19-14829	13.1	15.3	14.4
S19-1826	13.8	14.8	15.4
S19-19764	12.6	15.5	14.6
S19-2354	9.6	12.6	11.6
TN18-5040	11.7	14.4	13.7
TN19-4752R1	14.7	16.8	16.3
TN20-5012	10.4	12.6	11.8
TN20-5020	12.1	15.9	15.4
TN21-5002	10.9	13.4	12.3
V16-1706R2	12.2	16.5	14.6
V17-2926R	11.2	12.4	11.9
V18-2423	11.0	14.2	12.4
V18-4040HP	12.8	15.5	14.4
V18-4411R2DI	17.8	18.1	17.2
Mean	12.3	14.6	13.8
LSD(0.05)	.	0.5	0.7
CV(%)	.	1.8	5.6

TABLE 73 - OIL (%)†
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)
S16-14869	19.3	19.3	20.2	20.2	.	18.4	18.6
AG53XF2	20.2	20.4	19.9	20.2	.	19.2	18.8
AG55XF0	19.1	19.2	19.4	19.7	.	18.7	18.1
TN09-008	19.4	20.1	19.5	19.6	.	19.6	19.0
DA1644-303F	18.9	19.4	19.2	19.8	.	18.2	17.9
K179228-5	20.0	20.1	19.6	20.4	.	19.4	18.6
K179233-16	20.4	20.8	20.3	20.5	.	19.7	19.7
K19-1190	19.5	18.9	20.3	19.5	.	19.6	19.0
K19-3177	18.7	19.1	18.4	19.2	.	18.8	17.6
K19-3419	19.4	19.2	19.8	20.1	.	19.6	18.5
K19-3522	18.5	18.9	19.4	19.8	.	19.7	18.5
K19-4498	20.4	19.8	19.6	20.2	.	19.7	19.0
N19-1097	17.9	19.7	19.2	19.1	.	19.0	18.1
R18-10491	17.6	18.3	19.1	19.0	.	19.1	17.9
R18-10519	18.0	18.6	17.8	18.7	.	18.4	17.6
R18-10919	18.9	19.4	19.0	19.6	.	18.2	17.8
R18C-11127	20.6	21.0	20.7	20.4	.	20.2	21.0
R18C-11272	19.0	19.1	19.0	18.8	.	19.2	17.7
S19-12537	19.7	19.6	19.6	20.2	.	19.4	19.0
S19-14797	19.0	19.4	19.0	19.9	.	18.9	18.3
S19-14829	20.0	19.8	20.2	21.4	.	18.9	19.0
S19-1826	19.4	20.0	19.6	19.4	.	19.3	18.8
S19-19764	18.9	19.5	18.9	19.4	.	17.4	17.2
S19-2354	18.4	18.5	19.2	19.4	.	17.4	18.2
TN18-5040	18.8	19.5	19.0	19.2	.	19.5	18.7
TN19-4752R1	18.9	19.8	19.2	19.7	.	18.0	18.1
TN20-5012	19.3	19.4	18.8	20.2	.	18.4	18.1
TN20-5020	20.1	20.6	19.6	20.3	.	18.8	19.1
TN21-5002	19.7	19.8	19.8	20.0	.	18.2	17.7
V16-1706R2	.	19.7	19.2	19.8	.	18.5	18.1
V17-2926R	.	20.6	19.5	20.4	.	19.1	19.8
V18-2423	18.5	19.5	21.3	19.5	.	18.1	16.7
V18-4040HP	18.6	18.6	17.1	19.0	.	16.6	17.4
V18-4411R2DI	18.5	19.2	18.8	18.7	.	19.2	18.4
Mean	19.2	19.5	19.4	19.7	.	18.8	18.4
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 73 - OIL (%)† (continued)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Stoneville, MS	Stuttgart, AR	Test Mean
S16-14869	19.3	19.5	19.3
AG53XF2	19.9	19.2	19.7
AG55XF0	19.2	18.8	19.0
TN09-008	19.5	19.3	19.5
DA1644-303F	18.9	19.1	18.9
K179228-5	19.9	19.5	19.7
K179233-16	20.3	19.9	20.2
K19-1190	18.3	19.0	19.3
K19-3177	17.9	18.6	18.5
K19-3419	19.2	19.7	19.4
K19-3522	18.9	19.5	19.1
K19-4498	19.8	19.8	19.8
N19-1097	18.7	18.5	18.8
R18-10491	18.5	18.4	18.5
R18-10519	18.4	17.8	18.2
R18-10919	18.5	18.6	18.8
R18C-11127	19.6	20.1	20.4
R18C-11272	19.1	19.6	18.9
S19-12537	19.6	19.2	19.5
S19-14797	19.3	18.9	19.1
S19-14829	20.5	20.1	20.0
S19-1826	19.2	19.1	19.4
S19-19764	19.4	19.1	18.7
S19-2354	17.1	18.6	18.3
TN18-5040	17.5	18.7	18.9
TN19-4752R1	18.8	19.0	18.9
TN20-5012	19.4	19.6	19.1
TN20-5020	19.3	20.4	19.8
TN21-5002	19.2	19.4	19.2
V16-1706R2	18.8	19.2	19.0
V17-2926R	19.4	19.5	19.7
V18-2423	18.5	18.3	18.8
V18-4040HP	17.7	17.5	17.8
V18-4411R2DI	18.2	18.2	18.7
Mean	19.0	19.1	19.1
LSD(0.05)	.	.	0.5
CV(%)	.	.	2.4

TABLE 74 - PROTEIN (%)†
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)
S16-14869	36.5	34.9	33.9	33.6	.	33.7	34.2
AG53XF2	32.9	32.4	33.3	32.3	.	32.0	33.6
AG55XF0	35.2	34.0	34.4	33.7	.	33.2	34.2
TN09-008	33.5	32.6	34.9	31.7	.	31.9	33.1
DA1644-303F	35.9	34.1	35.9	34.2	.	34.6	35.7
K179228-5	36.6	35.7	37.5	35.5	.	34.8	36.1
K179233-16	36.7	35.3	36.5	34.9	.	35.6	35.5
K19-1190	34.9	33.6	32.4	33.2	.	32.3	34.2
K19-3177	34.7	33.3	35.4	33.1	.	32.6	34.3
K19-3419	35.1	34.3	33.8	33.6	.	32.5	34.3
K19-3522	37.9	35.9	36.0	34.9	.	34.2	35.8
K19-4498	34.0	34.3	35.0	33.9	.	32.8	34.5
N19-1097	39.3	35.0	36.9	36.9	.	35.9	37.7
R18-10491	40.8	37.4	39.8	37.1	.	36.3	38.4
R18-10519	39.3	36.6	38.6	37.6	.	36.3	37.8
R18-10919	37.1	34.8	35.5	34.7	.	34.8	36.4
R18C-11127	35.1	32.9	34.4	33.4	.	33.0	34.1
R18C-11272	36.4	35.2	37.3	35.5	.	34.4	36.8
S19-12537	35.3	34.9	35.9	33.3	.	34.1	34.0
S19-14797	36.5	35.1	35.4	34.7	.	34.8	34.8
S19-14829	36.0	35.6	35.0	33.0	.	33.8	34.3
S19-1826	35.8	34.5	36.2	34.5	.	33.9	35.7
S19-19764	37.3	35.4	37.8	35.8	.	35.7	35.4
S19-2354	37.1	34.7	35.1	34.2	.	36.6	35.0
TN18-5040	35.8	34.0	35.0	33.8	.	33.4	34.5
TN19-4752R1	36.8	33.6	36.2	34.7	.	35.2	36.5
TN20-5012	34.1	33.5	33.6	32.5	.	34.6	33.3
TN20-5020	35.4	34.4	36.6	34.7	.	34.4	35.1
TN21-5002	36.0	34.2	35.1	34.6	.	34.7	35.9
V16-1706R2	.	32.8	34.4	33.8	.	33.2	34.4
V17-2926R	.	31.3	35.8	32.3	.	34.3	33.1
V18-2423	36.7	33.8	31.6	34.2	.	34.7	39.1
V18-4040HP	36.9	37.1	39.1	36.4	.	36.0	38.1
V18-4411R2DI	37.8	35.7	37.8	36.5	.	35.9	36.2
Mean	36.2	34.5	35.6	34.4	.	34.3	35.4
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 74 - PROTEIN (%)† (continued)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Stoneville, MS	Stuttgart, AR	Test Mean
S16-14869	35.1	35.1	34.6
AG53XF2	33.1	34.2	33.0
AG55XF0	34.5	35.7	34.4
TN09-008	32.9	33.0	32.9
DA1644-303F	34.2	35.3	35.0
K179228-5	36.3	37.5	36.2
K179233-16	35.7	35.8	35.8
K19-1190	35.0	35.0	33.8
K19-3177	34.4	35.0	34.1
K19-3419	33.8	34.7	34.0
K19-3522	35.9	35.3	35.7
K19-4498	33.9	35.2	34.2
N19-1097	37.1	37.8	37.1
R18-10491	37.6	37.9	38.2
R18-10519	37.0	38.2	37.7
R18-10919	36.3	37.0	35.8
R18C-11127	34.7	35.1	34.1
R18C-11272	35.5	34.6	35.7
S19-12537	34.6	35.8	34.7
S19-14797	35.4	36.8	35.4
S19-14829	34.3	36.0	34.8
S19-1826	36.1	36.0	35.3
S19-19764	35.7	37.0	36.2
S19-2354	37.0	36.6	35.8
TN18-5040	35.9	35.4	34.7
TN19-4752R1	36.1	36.4	35.7
TN20-5012	33.5	33.9	33.6
TN20-5020	35.0	34.8	35.0
TN21-5002	36.1	36.2	35.3
V16-1706R2	34.7	35.2	34.2
V17-2926R	34.2	34.6	33.8
V18-2423	34.6	35.6	35.0
V18-4040HP	37.7	38.7	37.5
V18-4411R2DI	38.2	38.0	37.0
Mean	35.4	35.9	35.2
LSD(0.05)	.	.	0.8
CV(%)	.	.	2.2

TABLE 75 - ESTIMATED MEAL PROTEIN (%)†
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)
S16-14869	49.2	47.1	46.2	45.8	.	44.9	45.6
AG53XF2	44.7	44.3	45.2	44.0	.	43.0	45.0
AG55XF0	47.3	45.7	46.3	45.6	.	44.4	45.4
TN09-008	45.2	44.4	47.1	42.9	.	43.1	44.4
DA1644-303F	48.1	45.9	48.3	46.4	.	45.9	47.3
K179228-5	49.8	48.6	50.6	48.4	.	47.0	48.1
K179233-16	50.1	48.4	49.8	47.7	.	48.2	48.1
K19-1190	47.1	45.0	44.2	44.8	.	43.7	45.8
K19-3177	46.4	44.8	47.2	44.5	.	43.7	45.3
K19-3419	47.3	46.1	45.8	45.6	.	43.9	45.7
K19-3522	50.6	48.1	48.6	47.2	.	46.3	47.7
K19-4498	46.4	46.4	47.2	46.2	.	44.4	46.3
N19-1097	52.0	47.4	49.6	49.5	.	48.2	50.0
R18-10491	53.8	49.8	53.4	49.8	.	48.8	50.8
R18-10519	52.1	48.8	51.0	50.3	.	48.4	49.9
R18-10919	49.7	46.9	47.6	46.9	.	46.2	48.2
R18C-11127	48.0	45.2	47.1	45.6	.	44.9	46.9
R18C-11272	48.8	47.3	50.1	47.5	.	46.3	48.6
S19-12537	47.8	47.2	48.5	45.4	.	45.9	45.6
S19-14797	49.0	47.3	47.5	47.1	.	46.7	46.3
S19-14829	48.9	48.3	47.6	45.6	.	45.3	46.1
S19-1826	48.3	46.8	48.9	46.5	.	45.7	47.8
S19-19764	50.0	47.8	50.6	48.2	.	46.9	46.4
S19-2354	49.5	46.3	47.2	46.1	.	48.2	46.5
TN18-5040	48.0	45.8	46.9	45.5	.	45.2	46.1
TN19-4752R1	49.3	45.5	48.6	46.9	.	46.7	48.5
TN20-5012	45.9	45.2	45.0	44.3	.	46.0	44.2
TN20-5020	48.2	47.0	49.5	47.3	.	46.0	47.1
TN21-5002	48.8	46.4	47.5	47.0	.	46.2	47.5
V16-1706R2	.	44.4	46.3	45.8	.	44.2	45.6
V17-2926R	.	42.8	48.3	44.1	.	46.1	44.9
V18-2423	48.9	45.6	43.6	46.2	.	46.1	51.1
V18-4040HP	49.2	49.5	51.3	48.8	.	46.9	50.1
V18-4411R2DI	50.4	48.1	50.6	48.8	.	48.4	48.2
Mean	48.7	46.6	48.0	46.5	.	45.9	47.1
LSD(0.05)	.	.	.	.	.	.	.
CV(%)	.	.	.	.	.	.	.

† Estimated meal protein percentage is reported on a 13% moisture basis.

TABLE 75 - ESTIMATED MEAL PROTEIN (%)† (continued)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Stoneville, MS	Stuttgart, AR	Test Mean
S16-14869	47.3	47.4	46.7
AG53XF2	44.8	46.0	44.6
AG55XF0	46.4	47.8	46.1
TN09-008	44.4	44.4	44.5
DA1644-303F	45.8	47.4	46.9
K179228-5	49.2	50.6	49.1
K179233-16	48.6	48.7	48.7
K19-1190	46.5	47.0	45.5
K19-3177	45.6	46.7	45.5
K19-3419	45.5	46.9	45.9
K19-3522	48.1	47.7	48.0
K19-4498	46.0	47.7	46.3
N19-1097	49.6	50.4	49.6
R18-10491	50.1	50.4	50.9
R18-10519	49.2	50.5	50.0
R18-10919	48.5	49.4	47.9
R18C-11127	46.9	47.8	46.6
R18C-11272	47.7	46.9	47.9
S19-12537	46.8	48.2	46.9
S19-14797	47.7	49.3	47.6
S19-14829	47.0	49.0	47.2
S19-1826	48.5	48.4	47.6
S19-19764	48.1	49.7	48.5
S19-2354	48.5	48.8	47.6
TN18-5040	47.3	47.3	46.5
TN19-4752R1	48.4	48.8	47.8
TN20-5012	45.1	45.7	45.2
TN20-5020	47.2	47.5	47.5
TN21-5002	48.5	48.8	47.6
V16-1706R2	46.4	47.4	45.9
V17-2926R	46.2	46.7	45.8
V18-2423	46.1	47.3	46.9
V18-4040HP	49.8	51.1	49.6
V18-4411R2DI	50.7	50.5	49.5
Mean	47.4	48.2	47.3
LSD(0.05)	.	.	0.9
CV(%)	.	.	1.8

SUMMARY OF SEED FATTY ACIDS (%)
PRELIMINARY TEST V-EARLY 2022 †

STRAIN/ VARIETY	Palmitic Acid	Stearic Acid	Oleic Acid	Linoleic Acid	Linolenic Acid
S16-14869	11.5	7.5	20.6	54.1	6.2
AG53XF2	10.4	4.6	23.2	54.7	7.1
K179228-5	7.6	3.4	74.1	10.6	4.4
K179233-16	8.6	3.8	65.0	17.8	4.8
S19-19764	6.9	3.1	78.8	8.7	2.4
TN18-5040	11.0	3.8	21.6	60.8	2.8
TN20-5012	9.8	3.5	20.4	63.6	2.7
TN21-5002	7.3	3.0	79.7	7.6	2.3
Mean	9.1	4.1	47.9	34.7	4.1
LSD(0.05)	0.6	3.7	7.7	5.7	0.5
CV(%)	5.8	83.9	14.8	15.1	11.2

† Fatty acid percentage in seed oil reported beginning in 2017.

SEED PALMITIC ACID (%)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-14869	12.0	11.2	11.0	12.1	.	12.0	.	11.2	11.2	.	11.5
AG53XF2	10.3	10.4	9.8	10.7	.	11.2	.	10.2	10.2	.	10.4
K179228-5	9.5	7.5	7.0	6.9	.	7.2	.	7.4	7.7	.	7.6
K179233-16	10.7	8.7	8.5	8.0	.	8.3	.	7.2	8.8	.	8.6
S19-19764	7.4	6.6	6.5	6.9	.	7.1	.	7.4	6.6	.	6.9
TN18-5040	10.9	11.1	10.6	11.2	.	11.5	.	10.9	11.1	.	11.0
TN20-5012	10.0	9.5	9.2	10.3	.	9.8	.	10.0	9.5	.	9.8
TN21-5002	8.2	7.3	7.0	6.8	.	7.1	.	6.8	8.1	.	7.3
Mean	9.9	9.0	8.7	9.1	.	9.3	.	8.9	9.2	.	9.1
LSD(0.05)	.	.	.	.	.	.	.	.	.	.	0.6
CV(%)	.	.	.	.	.	.	.	.	.	.	5.8

SEED STEARIC ACID (%)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-14869	3.4	3.5	29.2	3.1	.	4.6	.	5.3	3.3	.	7.5
AG53XF2	4.3	4.6	4.0	4.7	.	6.4	.	3.9	4.3	.	4.6
K179228-5	3.9	3.9	3.2	3.4	.	3.4	.	2.8	3.3	.	3.4
K179233-16	3.8	3.9	3.8	4.2	.	4.5	.	3.3	3.5	.	3.8
S19-19764	3.3	3.2	2.8	3.0	.	3.5	.	3.0	3.0	.	3.1
TN18-5040	3.6	3.9	3.5	3.5	.	4.9	.	3.5	3.5	.	3.8
TN20-5012	3.3	3.7	3.1	3.4	.	4.4	.	3.1	3.5	.	3.5
TN21-5002	3.2	3.0	2.5	2.7	.	3.8	.	3.1	3.1	.	3.0
Mean	3.6	3.7	6.5	3.5	.	4.4	.	3.5	3.4	.	4.1
LSD(0.05)	.	.	.	.	.	.	.	.	.	.	3.7
CV(%)	.	.	.	.	.	.	.	.	.	.	83.9

SEED OLEIC ACID (%)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-14869	23.2	25.7	0.0	20.3	.	23.3	.	24.5	27.5	.	20.6
AG53XF2	23.5	23.7	25.4	22.3	.	22.7	.	23.7	21.2	.	23.2
K179228-5	52.2	70.7	81.1	81.8	.	77.3	.	82.6	72.6	.	74.1
K179233-16	37.2	61.9	66.8	72.6	.	67.6	.	84.6	64.0	.	65.0
S19-19764	72.5	80.9	82.3	81.0	.	76.9	.	75.8	82.5	.	78.8
TN18-5040	20.8	22.9	22.1	19.8	.	24.4	.	20.2	21.0	.	21.6
TN20-5012	19.1	20.9	20.1	17.6	.	21.5	.	19.9	23.4	.	20.4
TN21-5002	70.0	82.7	84.0	84.2	.	82.0	.	84.7	70.4	.	79.7
Mean	39.8	48.7	47.7	50.0	.	49.5	.	52.0	47.8	.	47.9
LSD(0.05)	.	.	.		.	.	.	.	.	.	7.7
CV(%)	.	.	.	.	.	.	.	.	.	.	14.8

SEED LINOLEIC ACID (%)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-14869	55.0	53.7	53.7	57.3	.	53.5	.	53.4	52.2	.	54.1
AG53XF2	55.2	54.6	53.7	54.7	.	52.4	.	55.6	56.9	.	54.7
K179228-5	29.0	13.7	4.2	3.8	.	7.3	.	3.9	12.1	.	10.6
K179233-16	42.1	20.4	16.3	10.9	.	14.2	.	1.7	18.9	.	17.8
S19-19764	13.9	7.2	6.3	6.9	.	9.8	.	11.2	5.8	.	8.7
TN18-5040	61.2	59.5	61.0	62.8	.	56.4	.	62.8	61.8	.	60.8
TN20-5012	65.0	63.4	64.9	66.0	.	61.3	.	64.5	60.2	.	63.6
TN21-5002	15.4	4.9	4.4	4.4	.	4.8	.	3.7	15.5	.	7.6
Mean	42.1	34.7	33.1	33.4	.	32.4	.	32.1	35.4	.	34.7
LSD(0.05)	.	.	.	.	.	.	.	.	.	.	5.7
CV(%)	.	.	.	.	.	.	.	.	.	.	15.1

SEED LINOLENIC ACID (%)
PRELIMINARY GROUP V-EARLY 2022

STRAIN/ VARIETY	Jackson, TN	Keiser, AR	Kinston, NC	Knoxville, TN	McCune, KS	Pittsburg, KS	Portageville, MO(B)	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
S16-14869	6.4	5.8	6.0	7.1	.	6.7	.	5.6	5.9	.	6.2
AG53XF2	6.7	6.7	7.2	7.7	.	7.3	.	6.7	7.4	.	7.1
K179228-5	5.4	4.2	4.5	4.0	.	4.8	.	3.3	4.3	.	4.4
K179233-16	6.2	5.1	4.6	4.2	.	5.5	.	3.1	4.8	.	4.8
S19-19764	3.0	2.0	2.1	2.2	.	2.6	.	2.7	2.0	.	2.4
TN18-5040	3.6	2.7	2.7	2.6	.	2.9	.	2.5	2.6	.	2.8
TN20-5012	2.6	2.4	2.7	2.7	.	3.0	.	2.4	3.4	.	2.7
TN21-5002	3.3	2.1	2.1	2.0	.	2.4	.	1.7	3.0	.	2.3
Mean	4.6	3.9	4.0	4.1	.	4.4	.	3.5	4.2	.	4.1
LSD(0.05)	.	.	.	.	.	.	.	.	.	.	0.5
CV(%)	.	.	.	.	.	.	.	.	.	.	11.2

INTENTIONALLY BLANK

TABLE 76 - PARENTAGE OF ENTRIES
PRELIMINARY GROUP V-LATE 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	AG55XF0	Commercial check			RRX	
2	TN11-5140	Commercial check			CONV	
3	AG56XF2	Commercial check			RRX	
4	N19-0811	G00-3213 x R11-7999	R. Mian		CONV	
5	N19-1095	N06-06 x R11-8346	R. Mian		CONV	
6	NDPJE-14-106	N07-14221 x Clifford	B. Fallen	F4	CONV	diversity, 12.5% PI 416937
7	NDPJE-14-133	N07-14221 x Clifford	B. Fallen	F4	CONV	diversity, 12.5% PI 416937
8	R18-11770	R10-230(4)/R09-1237LL	A. Acuna		CONV	
9	R18-11839	R10-230(4)/R09-1237LL	A. Acuna		CONV	
10	R18-67F	[R10-230(4)/UARK-282HO]/[R10-230(4)/R09-1237LL]	A. Acuna		CONV	
11	TC19HMUPRO-28	TC11POMUT-20 x TC11POMUT-7	B. Fallen	F4	CONV	protein
12	V16-1880R2	Ozark x RR2Y	B. Zhang			
13	V16-2057R	Glenn x S07-10311	B. Zhang			
14	V18-0400	R05-4114 x R09-430	B. Zhang			
15	V18-1255	Md 99-6226 x R11-8346	B. Zhang			
16	V19-1409RR	Ellis x V11-3392	B. Zhang			

† Conv= Conventional(non-transgenic),E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 77 - GENERAL SUMMARY OF PERFORMANCE
PRELIMINARY TEST V-LATE 2022

STRAIN/ VARIETY	SEED YIELD†	RANK	AVG. RANK	MAT. INDEX	LOD	HT	SCN Cyst Score (1-5)‡ Race 2	Race 3	Race 5	SC RATING	SC SCORE
AG55XF0	69.4	2	4	0	1.2	28	2	.	4	R	1
TN11-5140	60.3	12	11	4	1.3	24	5	.	5	R	1
AG56XF2	71.2	1	3	0	1.4	30	4	.	4	R	1
N19-0811	54.7	15	14	7	1.8	28	4	.	5	S	5
N19-1095	61.1	9	9	5	1.6	22	4	.	5	MS	4
NDPJE-14-106	63.5	6	7	1	1.3	27	3	.	5	S	5
NDPJE-14-133	66.4	4	6	3	1.5	24	3	.	5	S	5
R18-11770	60.8	10	10	3	1.5	28	4	.	5	R	1
R18-11839	61.7	8	9	0	1.4	26	5	.	5	R	1
R18-67F	60.7	11	9	2	1.3	22	4	.	5	R	1
TC19HMUPRO-28	59.0	14	11	-1	1.2	20	5	.	5	MS	4
V16-1880R2	59.0	13	11	-1	1.2	23	5	.	5	R	1
V16-2057R	53.7	16	15	5	1.4	27	3	.	5	R	1
V18-0400	65.9	5	5	-1	1.3	22	4	.	5	R	1
V18-1255	67.3	3	4	1	1.3	21	4	.	4	R	1
V19-1409RR	62.7	7	8	1	1.3	22	5	.	3	R	1
Mean	62.3	.	.	2	1.4	25	.	.	.		.
LSD(0.05)	7.1	.	.	2	0.5	4	.	.	.		.
CV(%)	8.8	.	.	76	31.0	15	.	.	.		.

†Data not included in the yield mean: Knoxville

TABLE 78 - GENERAL SUMMARY OF PERFORMANCE (continued)
PRELIMINARY TEST V-LATE 2022

STRAIN/ VARIETY	SEED QUALITY	SEED SIZE	PROTEIN§ %	OIL§ %	MEAL PRO%	FL COLOR	PUB. COLOR	POD COLOR
AG55XF0	1.2	14.8	35.0	19.1	47.0			
TN11-5140	1.4	13.3	35.0	19.2	47.1			
AG56XF2	1.4	15.5	34.5	19.0	46.3			
N19-0811	1.1	12.9	36.6	18.4	48.8	S	T	
N19-1095	1.5	12.5	35.9	19.0	48.2	P	T	
NDPJE-14-106	1.3	14.4	35.2	18.9	47.2	P	T	
NDPJE-14-133	1.4	14.9	35.5	19.3	47.8	P	T	
R18-11770	1.1	12.7	35.5	20.0	48.2	P	T	T
R18-11839	1.1	11.2	35.0	20.6	47.9	P	T	T
R18-67F	1.1	13.3	35.4	20.1	48.1	W	L	T
TC19HMUPRO-28	1.3	13.4	34.2	19.7	46.3	P	G	
V16-1880R2	1.2	14.9	35.3	19.2	47.5	P	G	
V16-2057R	1.2	13.3	34.8	19.1	46.7	W	T	
V18-0400	1.4	13.1	35.0	19.5	47.3	P	G	
V18-1255	1.2	13.5	35.7	19.2	48.1	P	T	
V19-1409RR	1.3	13.0	33.4	19.6	45.2	W	T	
Mean	1.3	13.5	35.1	19.4	47.4			
LSD(0.05)	0.3	0.8	1.0	0.5	1.2			
CV(%)	23.8	4.8	2.3	2.0	2.0			

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

TABLE 79 - SEED YIELD (BUSHELS PER ACRE)
PRELIMINARY GROUP V-LATE 2022 †

STRAIN/ VARIETY	*Keiser, AR **	*Kinston, NC*	*Knoxville, TN*	*Stoneville, MS **	*Stuttgart, AR **	*Test Mean*
AG55XF0	83.2	53.9	27.7	55.6	84.8	69.4
TN11-5140	65.5	47.6	33.9	49.0	79.3	60.3
AG56XF2	82.6	51.3	55.1	65.9	84.9	71.2
N19-0811	56.7	43.8	53.6	39.7	78.5	54.7
N19-1095	60.4	50.2	30.2	54.3	79.4	61.1
NDPJE-14-106	69.8	46.2	42.1	50.9	86.9	63.5
NDPJE-14-133	72.5	48.2	53.8	50.7	94.2	66.4
R18-11770	66.3	43.3	52.5	53.5	79.9	60.8
R18-11839	63.9	42.8	38.6	58.2	81.9	61.7
R18-67F	57.4	43.7	44.5	55.3	86.3	60.7
TC19HMUPRO-28	58.0	46.8	33.0	55.2	76.0	59.0
V16-1880R2	64.0	46.2	54.1	51.9	74.0	59.0
V16-2057R	56.0	42.4	57.1	37.2	79.3	53.7
V18-0400	63.2	50.6	49.4	64.4	85.5	65.9
V18-1255	69.8	57.4	50.7	59.7	82.2	67.3
V19-1409RR	67.6	45.2	8.1	57.5	80.6	62.7
Mean	66.1	47.5	42.8	53.7	82.1	62.3
LSD(0.05)	4.4	9.3	48.4	5.9	8.4	7.1
LSD(0.10)	3.6	7.7	39.6	4.9	6.9	5.9
CV(%)	3.1	9.2	47.5	5.1	4.8	8.8

† Data not included in the test mean: Knoxville

* Locations with obvious damage consistent with exposure to the herbicide Dicamba. The Dicamba reistant checks (all the AG lines) may have had a yield advantage.

TABLE 80 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	*Keiser, AR*	*Kinston, NC*	*Knoxville, TN*	*Stoneville, MS*	*Stuttgart, AR*	*Test Mean*
AG55XF0	10/3	10/10	10/14	.	10/3	10/8
TN11-5140	4	6	2	.	5	4
AG56XF2	0	1	0	.	1	0
N19-0811	4	9	5	.	9	7
N19-1095	5	5	2	.	9	5
NDPJE-14-106	1	2	0	.	3	1
NDPJE-14-133	4	2	3	.	3	3
R18-11770	3	3	2	.	6	3
R18-11839	0	-1	0	.	-1	0
R18-67F	3	0	1	.	4	2
TC19HMUPRO-28	0	-1	0	.	-2	-1
V16-1880R2	-1	-1	0	.	-2	-1
V16-2057R	4	7	3	.	8	5
V18-0400	-2	-1	0	.	-1	-1
V18-1255	1	1	0	.	4	1
V19-1409RR	2	1	0	.	3	1
Mean	2	2	1	.	3	2
LSD(0.05)	2	2	1	.	3	2
CV(%)	53	43	23	.	40	76

TABLE 81 - PLANT HEIGHT (INCHES)
PRELIMINARY GROUP V-LATE 2021

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Test Mean
AG55XF0	31	30	19	27	33	28
TN11-5140	20	33	19	22	28	24
AG56XF2	35	27	24	30	32	30
N19-0811	19	37	25	22	37	28
N19-1095	18	28	17	18	32	22
NDPJE-14-106	22	32	22	27	33	27
NDPJE-14-133	22	30	21	21	29	24
R18-11770	23	36	25	19	38	28
R18-11839	21	32	21	23	35	26
R18-67F	16	31	14	19	31	22
TC19HMUPRO-28	20	25	15	17	25	20
V16-1880R2	18	31	20	21	27	23
V16-2057R	18	30	26	24	36	27
V18-0400	17	26	18	19	29	22
V18-1255	17	29	20	18	24	21
V19-1409RR	20	28	13	22	28	22
Mean	21	30	20	21	31	25
LSD(0.05)	3	.	10	4	5	4
CV(%)	7	.	22	9	8	15

TABLE 82 - PLANT LODGING (1-5)
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Test Mean
AG55XF0	1.0	1.0	2.0	1.0	1.0	1.2
TN11-5140	1.0	1.3	2.0	1.0	1.0	1.3
AG56XF2	1.0	1.3	2.0	1.8	1.0	1.4
N19-0811	1.0	1.5	1.5	.	3.5	1.8
N19-1095	1.0	1.0	2.0	1.0	3.0	1.6
NDPJE-14-106	1.0	1.5	2.0	1.0	1.0	1.3
NDPJE-14-133	1.0	1.3	2.0	1.5	1.5	1.5
R18-11770	1.0	1.5	2.0	1.0	2.0	1.5
R18-11839	1.0	1.5	2.0	1.0	1.5	1.4
R18-67F	1.0	1.3	2.0	1.0	1.0	1.3
TC19HMUPRO-28	1.0	1.0	2.0	1.0	1.0	1.2
V16-1880R2	1.0	1.3	1.8	1.0	1.0	1.2
V16-2057R	1.0	1.3	2.0	.	1.5	1.4
V18-0400	1.0	1.5	2.0	1.0	1.0	1.3
V18-1255	1.0	1.3	2.0	1.0	1.0	1.3
V19-1409RR	1.0	1.2	2.0	1.0	1.0	1.3
Mean	1.0	1.3	2.0	1.1	1.4	1.4
LSD(0.05)	.	0.7	0.2	0.5	0.7	0.5
CV(%)	0.0	27.6	4.7	19.4	24.6	31.0

TABLE 83 - SEED QUALITY (1-5)
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Test Mean
AG55XF0	1.0	1.5	1.0	.	1.5	1.2
TN11-5140	1.5	1.5	1.0	.	1.5	1.4
AG56XF2	1.5	1.5	1.0	.	1.5	1
N19-0811	1.0	1.5	1.0	.	1.0	1.1
N19-1095	1.5	1.5	1.0	.	2.0	1.5
NDPJE-14-106	1.0	1.5	1.2	.	1.5	1.3
NDPJE-14-133	1.5	1.5	1.0	.	1.5	1.4
R18-11770	1.0	1.5	1.0	.	1.0	1.1
R18-11839	1.0	1.5	1.0	.	1.0	1.1
R18-67F	1.0	1.5	1.0	.	1.0	1.1
TC19HMUPRO-28	1.5	1.5	1.5	.	1.0	1.3
V16-1880R2	1.0	1.5	1.0	.	1.5	1.2
V16-2057R	1.0	1.5	1.0	.	1.5	1.2
V18-0400	1.5	1.5	1.0	.	1.5	1.4
V18-1255	1.5	1.5	1.0	.	1.0	1.2
V19-1409RR	1.5	1.5	1.3	.	1.0	1.3
Mean	1.3	1.5	1.1	.	1.3	1.3
LSD(0.05)	1.0	.	0.3	.	0.8	0.3
CV(%)	38.6	0.0	12.6	.	27.8	23.8

TABLE 84 - SEED SIZE (GRAMS PER 100 SEED)
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	*Keiser, AR*	*Kinston, NC*	*Knoxville, TN*	*Stoneville, MS*	*Stuttgart, AR*	*Test Mean*
AG55XF0	14.9	16.1	14.5	12.8	15.7	14.8
TN11-5140	12.9	14.5	14.4	10.9	13.5	13.3
AG56XF2	15.8	16.7	14.9	14.3	16.0	15.5
N19-0811	12.6	14.2	13.5	10.3	13.6	12.9
N19-1095	12.3	13.3	12.4	10.7	13.9	12.5
NDPJE-14-106	13.3	16.6	14.7	12.0	15.3	14.4
NDPJE-14-133	14.1	16.6	15.2	12.2	16.3	14.9
R18-11770	12.9	13.3	12.7	11.8	13.2	12.7
R18-11839	10.9	11.3	10.8	11.3	11.8	11.2
R18-67F	12.5	13.9	12.6	13.6	14.0	13.3
TC19HMUPRO-28	13.0	14.4	12.6	12.5	14.4	13.4
V16-1880R2	14.1	16.0	15.0	13.4	16.2	14.9
V16-2057R	12.5	14.5	13.5	11.6	14.2	13.3
V18-0400	12.2	14.6	12.9	11.3	14.4	13.1
V18-1255	13.2	14.6	12.9	12.2	14.8	13.5
V19-1409RR	13.0	13.8	12.3	11.8	14.1	13.0
Mean	13.1	14.7	13.4	12.0	14.4	13.5
LSD(0.05)	0.5	1.1	0.9	.	0.4	0.8
CV(%)	1.7	3.4	3.0	.	1.3	4.8

TABLE 85 - OIL (%)†
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Test Mean
AG55XF0	19.1	19.2	19.3	19.2	18.6	19.1
TN11-5140	18.7	19.6	19.3	19.3	18.9	19.2
AG56XF2	19.3	19.2	19.7	18.8	17.9	19.0
N19-0811	18.7	18.0	18.8	18.4	18.3	18.4
N19-1095	20.1	19.3	18.8	18.5	18.5	19.0
NDPJE-14-106	19.5	18.8	19.0	18.7	18.3	18.9
NDPJE-14-133	19.9	19.2	19.7	19.1	18.7	19.3
R18-11770	20.4	19.3	19.8	20.5	19.9	20.0
R18-11839	20.8	20.2	20.9	20.5	20.5	20.6
R18-67F	20.8	19.3	19.7	20.5	20.1	20.1
TC19HMUPRO-28	20.3	19.6	19.9	19.2	19.5	19.7
V16-1880R2	19.7	19.4	19.5	18.7	18.8	19.2
V16-2057R	19.9	18.5	19.6	18.5	19.2	19.1
V18-0400	20.3	19.3	19.7	19.1	19.2	19.5
V18-1255	19.1	19.6	19.7	18.8	18.8	19.2
V19-1409RR	19.8	19.6	20.0	19.0	19.5	19.6
Mean	19.8	19.2	19.6	19.2	19.0	19.4
LSD(0.05)	.	.	.	.	.	0.5
CV(%)	.	.	.	.	.	2.0

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 86 - PROTEIN (%)†
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Test Mean
AG55XF0	34.4	34.9	34.9	34.4	36.5	35.0
TN11-5140	35.5	34.6	35.1	34.6	35.3	35.0
AG56XF2	33.9	34.1	33.7	34.1	36.6	34.5
N19-0811	35.7	36.3	36.2	37.0	37.9	36.6
N19-1095	33.7	36.3	37.0	35.5	37.2	35.9
NDPJE-14-106	34.8	35.2	35.0	35.0	36.2	35.2
NDPJE-14-133	35.8	35.1	35.1	34.8	36.5	35.5
R18-11770	33.8	37.2	34.8	35.2	36.4	35.5
R18-11839	33.8	36.1	35.1	34.9	35.3	35.0
R18-67F	33.7	37.4	36.2	34.8	34.9	35.4
TC19HMUPRO-28	33.1	34.9	34.2	34.1	34.7	34.2
V16-1880R2	34.0	35.9	35.4	35.6	35.9	35.3
V16-2057R	32.8	35.1	33.7	37.3	35.0	34.8
V18-0400	34.0	36.4	34.5	34.9	35.3	35.0
V18-1255	35.4	36.2	34.5	35.5	37.1	35.7
V19-1409RR	32.9	33.7	33.0	33.9	33.7	33.4
Mean	34.2	35.6	34.9	35.1	35.9	35.1
LSD(0.05)	.	.	.	.	.	1.0
CV(%)	.	.	.	.	.	2.3

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 87 - ESTIMATED MEAL PROTEIN (%)†
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Test Mean
AG55XF0	46.2	46.9	47.0	46.2	48.7	47.0
TN11-5140	47.5	46.8	47.2	46.6	47.3	47.1
AG56XF2	45.7	45.8	45.6	45.7	48.5	46.3
N19-0811	47.7	48.0	48.5	49.3	50.4	48.8
N19-1095	45.9	48.9	49.5	47.3	49.6	48.2
NDPJE-14-106	47.1	47.1	46.9	46.8	48.2	47.2
NDPJE-14-133	48.7	47.2	47.5	46.7	48.8	47.8
R18-11770	46.1	50.1	47.1	48.1	49.4	48.2
R18-11839	46.4	49.2	48.2	47.7	48.2	47.9
R18-67F	46.3	50.3	49.0	47.6	47.5	48.1
TC19HMUPRO-28	45.1	47.2	46.4	45.9	46.9	46.3
V16-1880R2	46.0	48.4	47.7	47.5	48.0	47.5
V16-2057R	44.6	46.7	45.6	49.8	47.0	46.7
V18-0400	46.4	49.0	46.7	46.8	47.5	47.3
V18-1255	47.5	48.9	46.7	47.5	49.7	48.1
V19-1409RR	44.6	45.5	44.8	45.5	45.6	45.2
Mean	46.3	47.9	47.1	47.2	48.2	47.4
LSD(0.05)	.	.	.	.	.	1.2
CV(%)	.	.	.	.	.	2.0

† Estimated meal protein percentage is reported on a 13% moisture basis.

SUMMARY OF SEED FATTY ACIDS (%)
PRELIMINARY TEST V-LATE 2022 †

STRAIN/ VARIETY	Palmitic Acid	Stearic Acid	Oleic Acid	Linoleic Acid	Linolenic Acid
AG55XF0	11.6	3.6	21.9	55.6	7.3
TN11-5140	11.4	3.6	18.1	59.7	7.2
R18-11770	7.0	3.6	84.3	1.6	3.4
R18-11839	7.5	3.4	78.5	7.0	3.7
R18-67F	6.9	3.5	84.5	3.1	1.9
Mean	8.9	3.5	57.5	25.4	4.7
LSD(0.05)	0.7	0.2	8.3	7.1	0.9
CV(%)	5.9	4.8	10.7	21.2	14.0

† Fatty acid percentage in seed oil reported beginning in 2017.

SEED PALMITIC ACID (%)
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
AG55XF0	11.5	10.9	11.8	11.8	11.7	.	11.6
TN11-5140	11.9	11.2	11.3	11.2	11.3	.	11.4
R18-11770	6.7	7.0	6.7	7.3	7.3	.	7.0
R18-11839	9.3	7.2	6.8	7.1	7.1	.	7.5
R18-67F	6.8	6.8	6.7	7.0	7.1	.	6.9
Mean	9.2	8.6	8.7	8.9	8.9	.	8.9
LSD(0.05)	.	.	.	.	.	.	0.7
CV(%)	.	.	.	.	.	.	5.9

SEED STEARIC ACID (%)
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
AG55XF0	4.1	3.4	3.6	3.2	3.7	.	3.6
TN11-5140	4.0	3.4	3.8	3.4	3.5	.	3.6
R18-11770	3.7	3.4	3.8	3.6	3.4	.	3.6
R18-11839	3.5	3.4	3.2	3.3	3.4	.	3.4
R18-67F	3.6	3.4	3.9	3.5	3.3	.	3.5
Mean	3.8	3.4	3.7	3.4	3.5	.	3.5
LSD(0.05)	.	.	.	.	.	.	0.2
CV(%)	.	.	.	.	.	.	4.8

SEED OLEIC ACID (%)
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
AG55XF0	22.1	21.6	20.8	22.8	22.5	.	21.9
TN11-5140	17.7	18.4	17.1	19.1	18.1	.	18.1
R18-11770	83.4	85.3	85.6	84.5	83.0	.	84.3
R18-11839	53.5	84.4	84.9	85.4	84.2	.	78.5
R18-67F	84.0	84.1	84.4	85.1	85.0	.	84.5
Mean	52.1	58.8	58.5	59.4	58.6	.	57.5
LSD(0.05)	.	.	.	.	.	.	8.3
CV(%)	.	.	.	.	.	.	10.7

SEED LINOLEIC ACID (%)
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
AG55XF0	54.7	56.4	56.3	55.6	55.0	.	55.6
TN11-5140	57.8	59.2	62.5	59.5	59.4	.	59.7
R18-11770	2.8	0.4	0.5	1.7	2.8	.	1.6
R18-11839	28.1	1.5	2.0	1.2	1.9	.	7.0
R18-67F	3.7	3.6	3.0	2.5	2.7	.	3.1
Mean	29.4	24.2	24.9	24.1	24.3	.	25.4
LSD(0.05)	.	.	.	.	.	.	7.1
CV(%)	.	.	.	.	.	.	21.2

SEED LINOLENIC ACID (%)
PRELIMINARY GROUP V-LATE 2022

STRAIN/ VARIETY	Keiser, AR	Kinston, NC	Knoxville, TN	Stoneville, MS	Stuttgart, AR	Warsaw, VA	Test Mean
AG55XF0	7.6	7.6	7.5	6.6	7.1	.	7.3
TN11-5140	8.6	7.8	5.3	6.9	7.7	.	7.2
R18-11770	3.4	3.9	3.4	3.0	3.5	.	3.4
R18-11839	5.5	3.5	3.1	3.0	3.3	.	3.7
R18-67F	1.9	2.1	2.0	1.8	1.9	.	1.9
Mean	5.4	5.0	4.3	4.3	4.7	.	4.7
LSD(0.05)	.	.	.	.	.	.	0.9
CV(%)	.	.	.	.	.	.	14.0

TABLE 88 - PARENTAGE OF ENTRIES
UNIFORM GROUP VI 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	AG64X8 RR2X	Commercial check	check		RR2	
2	USDA-N6005	Commercial check	check		CONV	
3	NC-Dunphy	Commercial check	check		CONV	
4	NC-Dilday	Commercial check	check		CONV	
5	CZ6730	Commercial check	check		LL	
6	G16-8779	LG06-5920 x G00-3880	Zenglu Li	F4d	CONV	
7	G18-11901	Woodruff x N09-13128	Zenglu Li	F5d	CONV	
8	G18-3051R2	G10PR-224R2 x NCC07-8138	Zenglu Li	F5d	RR2	
9	G18-3118R2	G10PR-224R2 x NCC06-1090	Zenglu Li	F5d	RR2	
10	G18F3D-415	NC-Raleigh x JTN-4307	Zenglu Li	F4d	CONV	
11	N11-11924	NC-Roy x PI 291290	B. Fallen	F4	CONV	Diversity/protein,50% PI 291290
12	N11-7354	Nc-Roy x PI587696	B. Fallen	F4	CONV	Diversity, 50% PI 587696
13	N14-7254	G00-3213 x TCHM06-Morph-204	B. Fallen	F4	CONV	Protein
14	N16-10889	NC-Roy x N01-11771	B. Fallen	F4	CONV	Drought
15	N16-1286	NC-Roy-BC(4)HOLN	R. Mian		CONV	HOLN
16	N16-8876	N02-7002 x NMS4-1-45	B. Fallen	F4	CONV	Diversity/elevated protein, 25% Soja PI 366122
17	N17-2535	R09-4095 x NC-Miller	R. Mian		CONV	High oil
18	N18-1472	G00-3213 x N07-3297	R. Mian		CONV	High protein
19	N18-688	NCC06-1090 x UA5814HP	R. Mian		CONV	High protein
20	N18-719	NCC06-1090 x UA5814HP	R. Mian		CONV	High protein
21	N18-960	UA5814HP x N09-9	R. Mian		CONV	High oil
22	NC-Roy	Public cultivar	R. Mian		CONV	
23	N-STPR14-549	N6001 x Young	B. Fallen	F4	CONV	Diversity/protein, 12.5% Suzuyataka

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 89 - GENERAL SUMMARY OF PERFORMANCE
UNIFORM TEST VI 2022

STRAIN/		AVG.		YIELD†			PROTEIN‡			OIL‡	
VARIETY	RANK	RANK	2022	21-22	20-22	2022	20-22	20-22	2022	21-22	20-22
AG64X8 RR2X	3	9	53.6	58.7	57.0	35.7	35.2	35.2	18.7	18.9	18.9
USDA-N6005	1	6	55.1	58.8	.	36.6	36.9	.	17.9	17.8	.
NC-Dunphy	13	12	49.6	59.2	58.1	34.3	34.6	34.5	20.0	19.8	19.7
NC-Dilday	21	14	47.4	56.3	55.8	34.2	33.7	33.8	20.2	20.2	20.1
CZ6730	6	10	52.4	59.4	.	34.8	35.0	.	19.9	19.9	.
G16-8779	7	10	52.1	58.4	57.8	34.4	34.8	35.0	18.9	18.9	18.8
G18-11901	10	11	51.3	.	.	34.5	.	.	19.2	.	.
G18-3051R2	2	5	54.8	.	.	34.0	.	.	19.4	.	.
G18-3118R2	8	11	51.9	.	.	35.5	.	.	18.0	.	.
G18F3D-415	20	18	47.7	.	.	34.6	.	.	19.8	.	.
N11-11924	17	16	48.0	.	.	36.8	.	.	18.1	.	.
N11-7354	23	20	45.8	.	.	35.0	.	.	18.8	.	.
N14-7254	9	11	51.6	57.1	.	35.9	35.6	.	18.8	19.1	.
N16-10889	4	8	53.5	.	.	34.9	.	.	19.4	.	.
N16-1286	16	15	48.9	54.8	.	36.5	36.7	.	19.5	19.4	.
N16-8876	14	14	49.5	55.1	55.0	36.1	36.5	36.7	18.7	18.7	18.6
N17-2535	18	16	47.9	54.5	54.2	35.4	34.9	34.8	20.5	21.1	21.1
N18-1472	11	13	50.7	.	.	36.5	.	.	18.6	.	.
N18-688	19	14	47.7	.	.	35.9	.	.	19.4	.	.
N18-719	22	15	47.3	.	.	37.2	.	.	18.8	.	.
N18-960	5	8	53.2	.	.	37.0	.	.	20.0	.	.
NC-Roy	12	10	50.2	55.5	.	35.7	36.6	.	18.3	18.2	.
N-STPR14-549	15	14	49.2	.	.	37.3	.	.	18.9	.	.
Mean	.	.	50.4	.	.	35.6	.	.	19.1	.	.
LSD(0.05)	.	.	7.0	.	.	1.2	.	.	0.9	.	.
CV(%)	.	.	13.5	.	.	2.6	.	.	3.7	.	.

† Data not included in mean: 2020 Bossier City, Clemson and Tallassee; 2022 Tallassee.

‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

TABLE 90 - GENERAL SUMMARY OF PERFORMANCE -Part 2
UNIFORM TEST VI 2022

STRAIN/ VARIETY	MEAL† PRO %	MAT INDEX	LOD	HT	SEED QUALITY	SEED SIZE	FL. COLOR	PUB. COLOR	POD COLOR
AG64X8 RR2X	47.7	0	1.5	35	1.6	13.3			
USDA-N6005	48.5	1	1.1	31	1.7	12.3			
NC-Dunphy	46.6	-4	1.5	27	2.2	17.6			
NC-Dilday	46.5	-3	2.1	30	1.9	18.1			
CZ6730	47.3	2	1.5	34	1.7	14.6			
G16-8779	46.1	-1	1.1	30	2.1	15.9	P	T	BR
G18-11901	46.4	0	1.5	33	1.7	17.8	P	T	T
G18-3051R2	45.8	2	1.6	31	1.7	12.8	W	T	T
G18-3118R2	47.0	4	1.7	37	1.6	13.7	P	T	T
G18F3D-415	46.9	7	1.7	35	1.7	14.0	W	T	T
N11-11924	48.8	-1	2.2	35	1.7	13.1	W	G	
N11-7354	46.9	1	2.1	35	1.7	13.3	P	T	
N14-7254	48.1	1	1.8	33	1.8	14.3	W	T	
N16-10889	47.1	4	2.3	34	1.5	11.8	P	G	
N16-1286	49.2	2	1.7	32	1.4	12.2	W	G	
N16-8876	48.3	-2	1.9	33	1.6	13.4	P	G	
N17-2535	48.3	-3	1.5	32	2.3	18.0	P	T	
N18-1472	48.7	2	1.6	36	1.7	15.0	W	T	
N18-688	48.5	-3	2.1	34	2.0	18.4	W	T	
N18-719	49.9	0	1.9	29	2.0	18.7	P	G	
N18-960	50.1	-3	1.7	34	1.8	16.3	W	T	
NC-Roy	47.5	1	2.1	34	1.6	13.4	W	G	
N-STPR14-549	50.0	-4	2.0	35	1.9	15.2	P	G	
Mean	47.8	0	1.7	33	1.8	14.9			
LSD(0.05)	1.2	3	0.4	3	0.4	1.2			
CV(%)	2.0	3688	28	10	21.0	8.1			

† Estimated meal protein content was added to the annual report in 2018.

TABLE 91 - GENERAL SUMMARY OF PEST REACTION
UNIFORM TEST VI 2022

STRAIN/	SCN Cyst Score (1-5 Scale)†			RKN Gall Score (1-5 Scale)‡			SC	SC
VARIETY	Race 2	Race 3	Race 5	PRK	SRK	JRK	RATING	SCORE
AG64X8 RR2Xÿ	5	.	4	2.0	3.0	.	R	1
USDA-N6005	5	.	4	5.0	3.5	.	MS	4
NC-Dunphy	5	.	4	5.0	4.3	.	R	1
NC-Dilday	5	.	5	5.0	4.3	.	R	1
CZ6730	5	.	5	5.0	3.5	.	R	1
G16-8779	5	.	5	1.8	5.0	.	MS	4
G18-11901	5	.	5	3.5	1.3	.	MS	4
G18-3051R2	5	.	4	3.8	2.3	.	MS	4
G18-3118R2	3	.	3	1.3	3.5	.	R	1
G18F3D-415	5	.	3	3.5	2.8	.	R	1
N11-11924	5	.	5	3.3	3.3	.	MS	4
N11-7354	5	.	5	4.7	3.3	.	MS	4
N14-7254	5	.	5	4.5	5.0	.	SS	3
N16-10889	5	.	4	5.0	5.0	.	MS	4
N16-1286	5	.	4	4.0	3.3	.	MS	4
N16-8876	2	.	2	3.0	4.8	.	MS	4
N17-2535	5	.	5	4.8	4.5	.	R	1
N18-1472	5	.	5	3.3	2.8	.	MS	4
N18-688	5	.	5	3.3	3.3	.	R	1
N18-719	4	.	5	4.8	3.8	.	R	1
N18-960	5	.	5	5.0	3.5	.	R	1
NC-Roy	5	.	5	5.0	4.8	.	MS	4
N-STPR14-549	5	.	4	5.0	4.8	.	S	5

†The race 2, 3, and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7, HG Type 0, and HG Type 2.5.7, respectively. Results for race 3 were omitted.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)MR = mixed reaction.

TABLE 92 - SEED YIELD (BUSHELS PER ACRE)
UNIFORM TEST VI 2022 †

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	63.4	36.1	62.7	51.1	52.2	53.6
USDA-N6005	76.5	39.8	54.0	50.3	56.4	55.1
NC-Dunphy	65.8	44.2	48.6	39.8	48.7	49.6
NC-Dilday	67.4	37.3	49.1	36.1	47.3	47.4
CZ6730	63.8	36.9	60.2	48.9	44.0	52.4
G16-8779	59.8	45.1	58.0	45.3	63.2	52.1
G18-11901	61.7	41.4	51.7	50.2	55.2	51.3
G18-3051R2	68.2	40.1	64.6	46.4	72.2	54.8
G18-3118R2	62.2	35.4	59.9	50.2	57.1	51.9
G18F3D-415	59.5	32.6	57.5	41.2	61.9	47.7
N11-11924	66.0	34.0	54.7	37.4	63.5	48.0
N11-7354	59.8	34.1	46.0	43.4	51.6	45.8
N14-7254	61.2	37.6	62.2	45.2	49.0	51.6
N16-10889	63.3	37.3	64.4	48.9	61.0	53.5
N16-1286	65.8	35.0	56.3	38.7	55.8	48.9
N16-8876	60.4	42.5	50.5	44.7	41.8	49.5
N17-2535	64.0	36.9	47.3	43.4	50.7	47.9
N18-1472	62.6	34.7	56.8	48.8	68.4	50.7
N18-688	51.2	37.3	47.6	54.6	51.4	47.7
N18-719	66.0	34.2	42.5	46.4	59.0	47.3
N18-960	65.0	44.7	47.5	55.7	60.6	53.2
NC-Roy	66.0	38.3	51.8	44.8	59.8	50.2
N-STPR14-549	60.8	37.7	56.6	41.8	43.5	49.2
Mean	63.5	38.0	54.4	45.8	55.4	50.4
LSD(0.05)	10.6	6.7	11.3	7.9	23.0	7.0
LSD(0.10)	8.8	5.6	9.4	6.6	19.2	5.8
CV(%)	10.1	10.6	12.6	10.5	25.3	13.5

†Data not included in the test mean: Tallassee.

TABLE 93 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1) UNIFORM GROUP VI 2022

STRAIN/ VARIETY	*Kinston, NC*	*Plymouth, NC*	*Tallassee, AL*	*Test Mean*
AG64X8 RR2X	10/18	10/23	10/28	10/23
USDA-N6005	0	0	2	1
NC-Dunphy	-6	-5	-3	-4
NC-Dilday	-3	-3	-3	-3
CZ6730	1	1	3	2
G16-8779	-1	-2	-2	-1
G18-11901	-2	-2	1	0
G18-3051R2	0	5	1	2
G18-3118R2	4	8	3	4
G18F3D-415	5	13	5	7
N11-11924	0	-2	-1	-1
N11-7354	0	-1	3	1
N14-7254	0	-1	3	1
N16-10889	-1	8	5	4
N16-1286	0	4	3	2
N16-8876	-3	-2	-2	-2
N17-2535	-6	-1	-2	-3
N18-1472	1	2	2	2
N18-688	-5	-2	-3	-3
N18-719	-1	3	-1	0
N18-960	-5	-4	-2	-3
NC-Roy	-2	-1	3	1
N-STPR14-549	-5	-4	-3	-4
Mean	-1	1	1	0
LSD(0.05)	3	5	6	3
CV(%)	124	300	687	3688

TABLE 94 - PLANT HEIGHT (INCHES)
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	39	36	29	41	30	35
USDA-N6005	38	31	23	34	27	31
NC-Dunphy	30	28	18	31	27	27
NC-Dilday	41	30	21	31	26	30
CZ6730	43	35	25	38	29	34
G16-8779	34	34	22	35	27	31
G18-11901	36	37	27	36	29	33
G18-3051R2	34	35	24	36	29	31
G18-3118R2	41	41	32	41	30	37
G18F3D-415	34	38	32	40	33	35
N11-11924	38	38	28	43	28	35
N11-7354	37	39	29	41	31	35
N14-7254	37	33	29	36	31	33
N16-10889	35	38	29	37	32	34
N16-1286	36	35	24	35	30	32
N16-8876	35	35	28	38	30	33
N17-2535	35	35	26	39	26	32
N18-1472	39	40	29	43	31	36
N18-688	40	33	26	42	29	34
N18-719	32	31	22	33	25	29
N18-960	40	34	23	40	33	34
NC-Roy	37	38	27	42	29	34
N-STPR14-549	40	33	26	43	31	35
Mean	37	35	26	38	29	33
LSD(0.05)	6	5	5	5	5	3
CV(%)	10	6	11	6	11	10

TABLE 95 - PLANT LODGING (1-5)
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	1.7	1.2	1.0	2.0	1.7	1.5
USDA-N6005	1.0	1.3	1.0	1.3	1.0	1.1
NC-Dunphy	2.3	1.0	1.0	2.0	1.0	1.5
NC-Dilday	3.0	1.0	1.5	2.3	2.7	2.1
CZ6730	2.0	1.3	1.0	1.8	1.7	1.5
G16-8779	1.3	1.0	1.0	1.5	1.0	1.1
G18-11901	2.0	1.5	1.0	1.8	1.3	1.5
G18-3051R2	2.0	1.3	1.0	1.8	2.0	1.6
G18-3118R2	2.0	1.5	1.0	1.8	2.3	1.7
G18F3D-415	2.0	1.2	1.0	2.0	2.3	1.7
N11-11924	3.7	1.5	1.3	2.3	2.0	2.2
N11-7354	2.7	1.8	1.0	2.5	2.7	2.1
N14-7254	3.0	1.3	1.0	1.5	2.3	1.8
N16-10889	3.3	1.5	1.7	2.3	2.7	2.3
N16-1286	2.0	1.5	1.0	2.0	2.0	1.7
N16-8876	2.3	1.5	1.3	2.0	2.3	1.9
N17-2535	2.0	1.2	1.0	1.5	1.7	1.5
N18-1472	2.0	1.0	1.0	2.0	2.0	1.6
N18-688	3.3	1.3	1.0	2.0	2.7	2.1
N18-719	3.0	1.0	1.0	2.0	2.3	1.9
N18-960	2.3	1.3	1.3	2.0	1.7	1.7
NC-Roy	3.0	1.5	1.3	2.0	2.7	2.1
N-STPR14-549	3.0	1.3	1.7	2.0	2.0	2.0
Mean	2.4	1.3	1.1	1.9	2.0	1.7
LSD(0.05)	0.7	0.6	0.5	0.5	1.0	0.4
CV(%)	17.4	21.7	26.7	13.2	31.3	27.6

TABLE 96 - SEED QUALITY (1-5)
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	2.2	.	1.7	1.5	1.0	1.6
USDA-N6005	2.1	.	2.2	1.5	1.0	1.7
NC-Dunphy	3.5	.	2.7	1.7	1.0	2.2
NC-Dilday	2.7	.	2.5	1.5	1.0	1.9
CZ6730	2.0	.	2.2	1.5	1.0	1.7
G16-8779	3.5	.	2.7	1.5	1.0	2.1
G18-11901	2.5	.	2.0	1.5	1.0	1.7
G18-3051R2	2.2	.	2.2	1.5	1.0	1.7
G18-3118R2	2.3	.	1.5	1.5	1.0	1.6
G18F3D-415	2.8	.	1.7	1.5	1.0	1.7
N11-11924	2.5	.	2.0	1.5	1.0	1.7
N11-7354	2.8	.	1.7	1.5	1.0	1.7
N14-7254	3.3	.	1.5	1.5	1.0	1.8
N16-10889	2.0	.	1.5	1.5	1.0	1.5
N16-1286	1.7	.	1.3	1.5	1.0	1.4
N16-8876	2.2	.	1.8	1.5	1.0	1.6
N17-2535	3.5	.	2.3	2.3	1.0	2.3
N18-1472	2.4	.	2.0	1.5	1.0	1.7
N18-688	2.8	.	2.5	1.5	1.0	2.0
N18-719	2.7	.	2.2	2.2	1.0	2.0
N18-960	.	.	2.0	1.5	1.0	1.8
NC-Roy	2.5	.	1.5	1.5	1.0	1.6
N-STPR14-549	3.2	.	2.2	1.5	1.0	1.9
Mean	2.6	.	2.0	1.6	1.0	1.8
LSD(0.05)	0.9	.	0.6	0.2		0.4
CV(%)	19.0	.	17.3	6.6	0.0	21.4

TABLE 97 - SEED SIZE (GRAMS PER 100 SEED)
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	*Athens, GA(A)*	*Kinston, NC*	*Plains, GA*	*Plymouth, NC*	*Tallassee, AL*	*Test Mean*
AG64X8 RR2X	14.7	11.8	13.1	11.9	15.1	13.3
USDA-N6005	14.2	11.0	12.3	10.2	14.0	12.3
NC-Dunphy	19.6	15.1	17.9	15.7	19.7	17.6
NC-Dilday	19.9	16.2	17.0	18.1	19.4	18.1
CZ6730	16.4	12.7	14.3	12.9	16.9	14.6
G16-8779	18.4	12.9	15.6	13.1	19.6	15.9
G18-11901	17.8	15.9	17.4	17.1	20.9	17.8
G18-3051R2	14.9	10.8	12.0	10.3	15.8	12.8
G18-3118R2	16.3	12.8	12.1	13.4	14.0	13.7
G18F3D-415	15.5	12.4	12.2	12.6	17.1	14.0
N11-11924	15.6	11.5	12.7	11.6	14.4	13.1
N11-7354	16.6	11.6	12.2	12.2	14.0	13.3
N14-7254	17.9	11.8	12.9	11.9	17.1	14.3
N16-10889	13.3	10.4	11.5	10.4	13.4	11.8
N16-1286	14.2	10.8	11.3	11.4	13.3	12.2
N16-8876	16.2	11.8	13.3	11.5	14.1	13.4
N17-2535	19.5	16.8	19.2	18.0	16.6	18.0
N18-1472	16.5	13.0	14.8	13.9	17.0	15.0
N18-688	20.4	15.4	17.6	17.8	20.7	18.4
N18-719	20.0	15.9	17.0	17.9	22.8	18.7
N18-960	.	14.3	16.0	15.2	18.1	16.3
NC-Roy	15.0	11.9	12.6	12.4	15.1	13.4
N-STPR14-549	14.9	13.9	15.5	13.7	17.6	15.2
Mean	16.7	13.1	14.4	13.6	16.8	14.9
LSD(0.05)	1.6	0.9	1.0	1.0	2.4	1.2
CV(%)	5.5	3.3	4.1	4.6	8.7	8.1

TABLE 98 - OIL (%)†
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	19.6	18.2	19.2	16.8	19.6	18.7
USDA-N6005	18.8	17.6	17.8	16.5	19.0	17.9
NC-Dunphy	19.9	19.8	20.0	19.1	21.0	20.0
NC-Dilday	20.3	19.9	20.0	19.7	21.2	20.2
CZ6730	21.2	19.4	20.1	18.1	20.9	19.9
G16-8779	19.1	18.5	19.0	18.0	20.0	18.9
G18-11901	20.1	18.6	19.0	18.6	19.7	19.2
G18-3051R2	19.4	19.1	19.9	18.1	20.6	19.4
G18-3118R2	17.9	17.8	18.5	16.8	19.3	18.0
G18F3D-415	19.9	19.5	20.1	18.5	21.0	19.8
N11-11924	18.9	17.7	18.3	16.8	18.6	18.1
N11-7354	18.7	18.5	19.1	17.8	19.7	18.8
N14-7254	19.4	18.0	19.0	17.1	20.3	18.8
N16-10889	19.0	18.0	23.8	17.1	19.1	19.4
N16-1286	19.2	18.7	19.8	18.1	21.9	19.5
N16-8876	19.2	19.0	18.0	17.3	20.1	18.7
N17-2535	21.6	20.6	21.2	20.3	18.9	20.5
N18-1472	19.2	17.8	18.7	17.6	19.8	18.6
N18-688	19.8	19.1	20.0	17.7	20.6	19.4
N18-719	18.4	18.9	19.1	18.1	19.7	18.8
N18-960	.	20.3	20.1	18.6	21.1	20.1
NC-Roy	19.0	18.0	18.8	16.8	19.0	18.3
N-STPR14-549	19.2	18.5	19.0	18.0	19.8	18.9
Mean	19.4	18.8	19.5	17.9	20.0	19.1
LSD(0.05)	.	.	.	.	.	0.9
CV(%)	.	.	.	.	.	3.7

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 99 - PROTEIN (%)†
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	34.5	35.9	35.6	37.4	35.0	35.7
USDA-N6005	35.6	36.6	37.1	37.8	36.1	36.6
NC-Dunphy	33.9	33.7	34.4	35.8	33.9	34.3
NC-Dilday	33.5	33.1	34.3	34.4	35.5	34.2
CZ6730	32.8	34.9	35.1	37.0	34.3	34.8
G16-8779	34.5	33.6	33.7	36.4	33.6	34.4
G18-11901	32.7	34.6	34.9	35.7	34.5	34.5
G18-3051R2	34.5	33.3	33.6	34.8	33.6	34.0
G18-3118R2	36.0	34.3	35.0	37.0	35.1	35.5
G18F3D-415	35.1	34.2	33.7	36.1	34.2	34.6
N11-11924	36.2	36.2	37.0	37.7	37.0	36.8
N11-7354	35.3	34.5	35.2	35.7	34.5	35.0
N14-7254	35.4	36.4	35.4	38.1	34.4	35.9
N16-10889	34.7	35.9	31.1	37.0	36.0	34.9
N16-1286	36.9	36.4	36.1	38.3	34.6	36.5
N16-8876	35.5	35.6	36.6	36.9	35.8	36.1
N17-2535	34.4	34.4	34.2	36.1	37.7	35.4
N18-1472	36.6	37.0	36.2	37.1	35.6	36.5
N18-688	36.0	35.8	35.4	37.9	34.7	35.9
N18-719	37.6	36.4	37.6	37.9	36.8	37.2
N18-960	.	35.3	37.4	39.0	36.1	36.8
NC-Roy	32.4	36.2	35.6	38.1	36.2	35.7
N-STPR14-549	36.1	37.5	37.6	37.9	37.3	37.3
Mean	35.0	35.3	35.3	36.9	35.3	35.6
LSD(0.05)	.	.	.	.	.	1.2
CV(%)	.	.	.	.	.	2.6

†Protein percentage reported on a 13% moisture basis beginning in 2015.

TABLE 100 - ESTIMATED MEAL PROTEIN (%)†
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	46.7	47.7	48.0	48.8	47.4	47.7
USDA-N6005	47.7	48.3	49.0	49.1	48.3	48.5
NC-Dunphy	46.1	45.6	46.8	48.1	46.6	46.6
NC-Dilday	45.7	44.9	46.6	46.5	49.0	46.5
CZ6730	45.2	47.0	47.8	49.1	47.1	47.3
G16-8779	46.4	44.8	45.2	48.3	45.7	46.1
G18-11901	44.4	46.3	46.8	47.6	46.7	46.4
G18-3051R2	46.5	44.8	45.6	46.2	46.0	45.8
G18-3118R2	47.6	45.4	46.6	48.2	47.3	47.0
G18F3D-415	47.6	46.1	45.9	48.1	47.0	46.9
N11-11924	48.5	47.8	49.2	49.2	49.4	48.8
N11-7354	47.2	45.9	47.3	47.2	46.7	46.9
N14-7254	47.7	48.2	47.5	50.0	46.9	48.1
N16-10889	46.5	47.6	44.3	48.5	48.4	47.1
N16-1286	49.7	48.6	48.9	50.8	48.1	49.2
N16-8876	47.8	47.8	48.5	48.5	48.7	48.3
N17-2535	47.7	47.1	47.1	49.2	50.5	48.3
N18-1472	49.3	48.9	48.4	48.9	48.2	48.7
N18-688	48.8	48.1	48.1	50.0	47.5	48.5
N18-719	50.1	48.7	50.5	50.3	49.8	49.9
N18-960	.	48.1	50.9	52.1	49.8	50.1
NC-Roy	43.5	48.0	47.7	49.8	48.6	47.5
N-STPR14-549	48.6	50.0	50.4	50.3	50.5	50.0
Mean	47.2	47.2	47.7	48.9	48.0	47.8
LSD(0.05)	.	.	.	.	.	1.2
CV(%)	.	.	.	.	.	2.0

SUMMARY OF SEED FATTY ACIDS (%)
UNIFORM TEST VI 2022 †

STRAIN/ VARIETY	Palmitic Acid	Stearic Acid	Oleic Acid	Linoleic Acid	Linolenic Acid
AG64X8 RR2X	12.2	4.1	19.3	56.9	7.5
USDA-N6005	12.6	4.2	18.4	56.7	8.1
N16-1286	7.7	3.3	74.4	11.8	2.7
Mean	10.8	3.9	37.4	41.8	6.1
LSD(0.05)	0.9	0.3	13.6	11.9	1.1
CV(%)	5.7	4.8	26.4	20.6	12.9

†Fatty acid percentage in seed oil reported beginning in 2017.

SEED PALMITIC ACID (%)
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	12.6	11.4	12.5	12.1	12.4	12.2
USDA-N6005	12.7	12.6	12.5	12.2	13.0	12.6
N16-1286	7.3	7.3	7.2	7.1	9.7	7.7
Mean	10.9	10.4	10.7	10.5	11.7	10.8
LSD(0.05)	.	.	.	.	.	0.9
CV(%)	.	.	.	.	.	5.7

SEED STEARIC ACID (%)
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	4.1	4.0	4.2	4.0	4.3	4.1
USDA-N6005	4.1	4.0	4.3	4.0	4.7	4.2
N16-1286	3.6	3.2	3.3	3.3	3.2	3.3
Mean	4.0	3.7	3.9	3.7	4.1	3.9
LSD(0.05)	.	.	.	.	.	0.3
CV(%)	.	.	.	.	.	4.8

SEED OLEIC ACID (%)
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	17.8	21.5	19.0	18.4	19.7	19.3
USDA-N6005	18.0	18.3	18.1	17.8	19.7	18.4
N16-1286	82.9	81.7	83.4	80.0	44.1	74.4
Mean	39.6	40.5	40.2	38.7	27.9	37.4
LSD(0.05)	.	.	.	.	.	13.6
CV(%)	.	.	.	.	.	26.4

SEED LINOLEIC ACID (%)
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	57.9	55.8	56.8	57.4	56.8	56.9
USDA-N6005	56.5	56.8	57.4	57.5	55.6	56.7
N16-1286	3.9	5.5	4.1	7.3	38.3	11.8
Mean	39.4	39.3	39.4	40.7	50.2	41.8
LSD(0.05)	.	.	.	.	.	11.9
CV(%)	.	.	.	.	.	20.6

SEED LINOLENIC ACID (%)
UNIFORM GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	7.7	7.3	7.5	8.1	6.8	7.5
USDA-N6005	8.7	8.4	7.7	8.5	7.1	8.1
N16-1286	2.3	2.3	2.1	2.3	4.6	2.7
Mean	6.2	6.0	5.8	6.3	6.2	6.1
LSD(0.05)	.	.	.	.	.	1.1
CV(%)	.	.	.	.	.	12.9

INTENTIONALLY BLANK

TABLE 101 - PARENTAGE OF ENTRIES
PRELIMINARY GROUP VI 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	AG64X8 RR2X	Commercial check			RRX	
2	USDA-N6005	Commercial check			CONV	
3	NC-Dunphy	Commercial check			CONV	
4	NC-Dilday	Commercial check			CONV	
5	CZ6730	Commercial check			LL	
6	G19-11112	G13-6299 x Benning HP	Zenglu Li	F5d	CONV	
7	G19-11395	N05-7432 x Benning HP	Zenglu Li	F5d	CONV	
8	G19-11535	N11-7046 x Benning HP	Zenglu Li	F5d	CONV	
9	G19-11782	R12-514 x Benning HP	Zenglu Li	F5d	CONV	
10	G19-12361	N10-1031 x G14-8109	Zenglu Li	F5d	CONV	
11	G19-13615	G11-7013 x N10-764	Zenglu Li	F5d	CONV	
12	N11-10533	NC-Roy x PI 612717	B. Fallen	F4	CONV	diversity, 50% PI 612717
13	N14-7691	N6002 x NC-Roy	B. Fallen	F4	CONV	diversity/protein, 6.25% Fukuyataka, 6.5% Nakasennari
14	N14-7797	N6001 x NC-Roy	B. Fallen	F4	CONV	diversity/protein, 12.5% Suzuyataka
15	N16-10756	NMS4-44-329 x N7103	B. Fallen	F4	CONV	diversity/elevated protein, 25% Soja PI 366122
16	N17-30803	NC-Raleigh x PI597461B	B. Fallen	F4	CONV	diversity/elevated protein, 50% PI597461B
17	N19-0115	G00-3213 x HR10-2-559	R. Mian		CONV	High Meal High Yield
18	N19-0756	S13-1805 x N08-174	R. Mian		CONV	High Meal High Yield
19	N19-0806	G00-3213 x R11-7999	R. Mian		CONV	High Meal High Yield
20	N19-0818	G00-3213 x R11-7999	R. Mian		CONV	High Meal High Yield
21	N19-1253	TN08-100 x NC-Dunphy	R. Mian		CONV	High Meal High Yield
22	N19-1468	G11-7013 x NC-Dunphy	R. Mian		CONV	High Meal High Yield
23	STPR14-547	N6001 x Young	B. Fallen	F4	CONV	diversity, 12.5% SUZUYATAKA

† Conv= Conventional(non-transgenic),E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 102 - GENERAL SUMMARY OF PERFORMANCE
PRELIMINARY TEST VI 2022

STRAIN/ VARIETY	SEED YIELD†	RANK	AVG. RANK	MAT. INDEX	LOD	HT	SCN Cyst Score (1-5)‡ Race 2	Race 3	Race 5	SC RATING	SC SCORE
AG64X8 RR2X	51.4	11	11	0	1.7	38	5	.	5	R	1
USDA-N6005	50.8	15	12	-2	1.2	31	4	.	4	MS	4
NC-Dunphy	52.8	5	11	-4	1.6	27	5	.	5	R	1
NC-Dilday	50.8	14	11	-2	1.9	31	5	.	5	R	1
CZ6730	56.0	2	8	0	1.7	33	5	.	5	R	1
G19-11112	48.9	19	13	3	1.8	35	4	.	4	MS	4
G19-11395	48.6	20	17	5	1.8	36	5	.	5	MS	4
G19-11535	52.0	9	13	8	1.6	38	3	.	4	MS	4
G19-11782	51.1	12	13	2	1.6	36	3	.	4	R	1
G19-12361	52.1	8	13	5	1.4	35	5	.	5	R	1
G19-13615	51.0	13	14	0	2.0	33	4	.	4	S	5
N11-10533	45.6	23	16	4	1.9	32	4	.	4	S	5
N14-7691	47.2	22	18	2	2.5	37	3	.	5	R	1
N14-7797	47.4	21	16	1	2.4	37	4	.	5	R	1
N16-10756	52.3	6	11	-3	2.4	35	5	.	5	SS	3
N17-30803	50.8	16	13	-3	2.5	35	5	.	5	MS	4
N19-0115	51.7	10	13	4	1.9	34	4	.	5	MS	4
N19-0756	54.7	3	7	-2	2	32	5	.	3	MS	4
N19-0806	50.6	17	12	4	2.0	34	4	.	5	MS	4
N19-0818	52.3	7	9	4	1.9	36	4	.	5	MS	4
N19-1253	53.6	4	8	-2	1.5	31	4	.	5	R	1
N19-1468	56.1	1	6	4	1.9	38	4	.	4	R	1
STPR14-547	50.2	18	14	-2	2.2	36	4	.	5	SS	3
Mean	51.2	.	.	1	1.9	34	.	.	.		.
LSD(0.05)	8.7	.	.	5	0.5	4	.	.	.		.
CV(%)	16.2	.	.	307	28.2	11	.	.	.		.

†Data not included in the yield mean: Tallassee

TABLE 103 - GENERAL SUMMARY OF PERFORMANCE (continued)
PRELIMINARY TEST VI 2022

STRAIN/ VARIETY	SEED QUALITY	SEED SIZE	PROTEIN§ %	OIL§ %	MEAL PRO%	FL COLOR	PUB. COLOR	POD COLOR
AG64X8 RR2X	1.5	13.7	36.0	18.6	48.0			
USDA-N6005	1.4	12.8	36.8	17.8	48.7			
NC-Dunphy	2.0	17.4	34.9	19.5	47.1			
NC-Dilday	1.6	18.3	33.3	19.8	45.2			
CZ6730	1.5	14.6	35.0	20.0	47.6			
G19-11112	1.4	13.3	36.0	18.3	47.9	W	T	Br
G19-11395	1.5	14.3	36.0	18.4	47.9	P	T	T
G19-11535	1.7	15.1	38.0	17.9	50.3	W	G	Bl
G19-11782	1.7	15.0	36.4	18.7	48.6	P	T	Br
G19-12361	1.6	13.1	34.0	19.1	45.7	W	T	T
G19-13615	1.3	13.5	36.3	18.7	48.5	W	T	T
N11-10533	1.7	14.0	34.3	19.0	46.0	W	G	
N14-7691	1.7	15.2	37.4	17.7	49.3	P	G	
N14-7797	1.5	13.6	37.2	18.0	49.3	W	G	
N16-10756	1.6	13.9	36.9	17.9	48.8	W	G	
N17-30803	1.7	13.4	36.6	18.1	48.6	P	G	
N19-0115	1.6	16.9	37.8	19.0	50.8	W	T	
N19-0756	1.9	16.2	34.2	20.3	46.6	W	T	
N19-0806	1.6	15.9	38.3	18.3	50.9	W	T	
N19-0818	1.6	14.2	38.4	17.9	50.8	P	T	
N19-1253	1.6	17.5	35.9	19.1	48.2	P	G	
N19-1468	1.4	14.3	34.8	19.5	47.0	P	T	
STPR14-547	1.7	15.7	37.0	18.8	49.6	P	G	
Mean	1.6	14.9	36.1	18.7	48.3			
LSD(0.05)	0.4	1.0	0.9	0.6	1.0			
CV(%)	33.0	6.9	2.0	2.4	1.7			

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

TABLE 104 - SEED YIELD (BUSHELS PER ACRE)
PRELIMINARY GROUP VI 2022 †

STRAIN/ VARIETY	*Athens, GA(A)*	*Kinston, NC*	*Plains, GA*	*Plymouth, NC*	*Tallassee, AL*	*Test Mean*
AG64X8 RR2X	45.4	47.6	69.8	43.0	75.9	51.4
USDA-N6005	62.7	48.1	49.7	42.9	66.9	50.8
NC-Dunphy	54.4	55.1	58.8	42.8	59.0	52.8
NC-Dilday	66.6	47.3	43.1	46.3	45.6	50.8
CZ6730	69.3	46.5	62.7	45.8	81.0	56.0
G19-11112	61.1	48.8	47.3	38.2	70.4	48.9
G19-11395	54.6	41.8	62.7	35.3	70.1	48.6
G19-11535	59.0	44.4	62.4	42.1	83.7	52.0
G19-11782	55.8	45.0	64.1	39.4	64.5	51.1
G19-12361	52.3	42.0	65.3	48.7	74.9	52.1
G19-13615	52.3	46.6	68.4	36.6	71.9	51.0
N11-10533	66.3	44.9	35.3	36.1	52.9	45.6
N14-7691	57.9	44.3	53.1	33.5	41.1	47.2
N14-7797	50.1	48.2	53.7	37.6	52.6	47.4
N16-10756	59.7	47.3	58.0	44.3	58.0	52.3
N17-30803	53.6	47.4	64.1	38.2	61.5	50.8
N19-0115	57.4	45.0	62.0	42.3	80.6	51.7
N19-0756	57.7	52.1	59.4	49.7	56.1	54.7
N19-0806	52.4	49.1	52.6	48.4	75.5	50.6
N19-0818	54.7	52.7	55.2	46.5	61.8	52.3
N19-1253	63.1	49.3	52.9	49.3	83.0	53.6
N19-1468	59.4	52.4	67.3	45.2	78.0	56.1
STPR14-547	64.0	43.4	55.2	38.1	50.5	50.2
Mean	57.8	47.4	57.5	42.2	65.9	51.2
LSD(0.05)	14.3	6.9	13.3	8.1	27.4	8.7
LSD(0.10)	12.0	5.7	11.1	6.7	22.7	7.3
CV(%)	15.1	8.8	14.1	11.7	20.1	16.2

† Data not included in the test mean:Tallassee

TABLE 105 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
PRELIMINARY GROUP VI 2022

STRAIN/ VARIETY	*Athens, GA(A)*	*Kinston, NC*	*Plains, GA*	*Plymouth, NC*	*Tallassee, AL*	*Test Mean*
AG64X8 RR2X	.	10/21	.	10/27	10/28	10/25
USDA-N6005	.	-2	.	-5	2	-2
NC-Dunphy	.	-3	.	-8	-3	-4
NC-Dilday	.	1	.	-5	-3	-2
CZ6730	.	1	.	0	-1	0
G19-11112	.	4	.	4	2	3
G19-11395	.	5	.	7	2	5
G19-11535	.	6	.	7	10	8
G19-11782	.	4	.	5	-2	2
G19-12361	.	5	.	4	6	5
G19-13615	.	1	.	-3	3	0
N11-10533	.	5	.	7	0	4
N14-7691	.	4	.	8	-5	2
N14-7797	.	2	.	5	-3	1
N16-10756	.	-2	.	-5	-1	-3
N17-30803	.	-2	.	-5	-3	-3
N19-0115	.	5	.	3	4	4
N19-0756	.	-2	.	-8	4	-2
N19-0806	.	6	.	4	3	4
N19-0818	.	5	.	5	1	4
N19-1253	.	-3	.	-5	1	-2
N19-1468	.	4	.	4	6	4
STPR14-547	.	-2	.	-7	2	-2
Mean	.	2	.	0	1	1
LSD(0.05)	.	3	.	4	8	5
CV(%)	.	75	.	460	325	307

TABLE 106 - PLANT HEIGHT (INCHES)
PRELIMINARY GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	44	35	31	46	35	38
USDA-N6005	36	32	20	37	32	31
NC-Dunphy	30	20	24	37	25	27
NC-Dilday	31	26	28	43	28	31
CZ6730	39	30	27	39	31	33
G19-11112	39	35	26	43	32	35
G19-11395	35	35	32	44	35	36
G19-11535	43	34	32	44	37	38
G19-11782	34	38	30	46	33	36
G19-12361	41	34	27	40	35	35
G19-13615	36	33	27	40	31	33
N11-10533	33	29	24	42	33	32
N14-7691	32	38	34	45	37	37
N14-7797	35	33	32	48	35	37
N16-10756	35	34	29	44	35	35
N17-30803	32	36	31	44	33	35
N19-0115	33	33	28	44	31	34
N19-0756	38	30	22	41	27	32
N19-0806	32	33	27	48	32	34
N19-0818	37	37	28	43	36	36
N19-1253	35	29	23	40	28	31
N19-1468	42	38	30	42	35	38
STPR14-547	38	30	33	42	34	36
Mean	36	32	28	43	33	34
LSD(0.05)	6	6	6	5	4	4
CV(%)	10	8	14	6	5	11

TABLE 107 - PLANT LODGING (1-5)
PRELIMINARY GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	2.0	1.5	1.0	1.8	2.0	1.7
USDA-N6005	1.0	1.0	1.0	1.2	1.5	1.2
NC-Dunphy	2.0	1.3	1.0	1.8	2.0	2
NC-Dilday	2.7	1.0	1.0	2.0	2.5	1.9
CZ6730	2.0	1.8	1.0	2.0	1.5	1.7
G19-11112	2.0	1.5	1.0	2.0	2.5	1.8
G19-11395	2.0	1.8	1.0	2.0	2.5	1.8
G19-11535	2.0	1.8	1.0	1.8	1.5	1.6
G19-11782	2.0	1.3	1.0	1.5	2.0	1.6
G19-12361	1.3	1.8	1.0	1.0	2.0	1.4
G19-13615	2.0	2.3	1.0	2.0	3.0	2.0
N11-10533	2.3	1.8	1.0	2.3	2.5	1.9
N14-7691	3.0	2.0	1.7	2.3	3.5	2.5
N14-7797	3.0	2.3	1.3	2.0	3.5	2.4
N16-10756	3.7	2.0	1.3	2.0	3.0	2.4
N17-30803	3.3	2.0	2.0	2.0	3.0	2.5
N19-0115	2.7	1.5	1.0	1.8	2.5	1.9
N19-0756	2.0	1.0	1.0	2.0	1.5	1.5
N19-0806	2.0	2.0	1.0	1.8	3.5	2.0
N19-0818	2.0	1.5	1.0	2.0	3.0	1.9
N19-1253	1.0	1.3	1.0	1.8	2.5	1.5
N19-1468	2.3	1.8	1.0	2.0	2.5	1.9
STPR14-547	2.3	1.8	1.7	2.0	3.0	2.2
Mean	2.2	1.6	1.1	1.9	2.5	1.9
LSD(0.05)	0.7	0.7	0.4	0.5	2.2	0.5
CV(%)	18.0	22.2	20.7	12.5	43.4	28.2

TABLE 108 - SEED QUALITY (1-5)
PRELIMINARY GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	1.3	1.5	2.0	1.5	1.0	1.5
USDA-N6005	1.5	1.7	1.5	1.5	1.0	1.4
NC-Dunphy	2.7	1.5	3.1	1.5	1.0	2
NC-Dilday	1.3	1.5	2.2	1.7	1.0	1.6
CZ6730	1.5	1.5	2.0	1.5	1.0	1.5
G19-11112	1.3	1.5	1.7	1.7	1.0	1.4
G19-11395	1.0	1.7	1.2	1.5	2.5	1.5
G19-11535	2.0	1.5	1.7	1.7	2.0	1.7
G19-11782	2.2	1.5	2.0	1.5	1.0	1.7
G19-12361	1.0	1.7	1.3	1.7	2.5	1.6
G19-13615	1.2	1.5	1.3	1.5	1.0	1.3
N11-10533	2.0	1.7	2.0	1.5	1.0	1.7
N14-7691	2.2	1.5	2.0	1.5	1.0	1.7
N14-7797	1.7	1.5	1.8	1.5	1.0	1.5
N16-10756	1.3	1.5	2.0	1.5	1.5	1.6
N17-30803	1.8	1.5	2.0	1.5	2.0	1.7
N19-0115	1.5	1.7	2.0	1.5	1.0	1.6
N19-0756	2.7	1.5	2.3	1.5	1.5	1.9
N19-0806	1.3	1.7	1.8	1.8	1.5	1.6
N19-0818	1.5	1.5	2.2	1.5	1.0	1.6
N19-1253	2.2	1.5	1.7	1.5	1.0	1.6
N19-1468	1.0	1.7	1.8	1.5	1.0	1.4
STPR14-547	1.5	1.5	2.7	1.5	1.0	1.7
Mean	1.6	1.6	1.9	1.5	1.3	1.6
LSD(0.05)	1.1	0.3	0.9	0.2	1.5	0.4
CV(%)	40.0	10.3	28.2	8.6	57.5	33.0

TABLE 109 - SEED SIZE (GRAMS PER 100 SEED)
PRELIMINARY GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	15.5	13.3	13.2	11.2	15.3	13.7
USDA-N6005	14.6	12.5	12.6	9.4	14.9	12.8
NC-Dunphy	19.1	16.3	17.3	14.4	20.3	17.4
NC-Dilday	20.8	18.3	18.1	15.3	19.1	18.3
CZ6730	17.2	14.6	13.4	11.7	16.1	14.6
G19-11112	15.1	12.4	12.3	10.9	15.9	13.3
G19-11395	16.6	13.6	12.8	12.2	16.0	14.3
G19-11535	17.1	14.9	14.7	12.3	16.3	15.1
G19-11782	17.8	15.2	13.3	12.3	16.5	15.0
G19-12361	14.6	13.1	11.9	10.5	15.4	13.1
G19-13615	16.4	13.2	11.6	9.8	16.9	13.5
N11-10533	15.1	14.5	13.9	11.7	14.8	14.0
N14-7691	17.2	15.1	13.7	13.4	16.8	15.2
N14-7797	15.6	14.1	12.9	11.3	13.8	13.6
N16-10756	15.0	13.5	13.3	11.3	16.9	13.9
N17-30803	14.7	12.9	13.2	11.5	14.5	13.4
N19-0115	18.0	15.2	17.1	13.7	20.5	16.9
N19-0756	20.6	15.1	15.9	12.2	16.9	16.2
N19-0806	19.5	15.7	14.6	12.9	16.8	15.9
N19-0818	15.8	14.6	13.6	11.4	15.7	14.2
N19-1253	18.9	17.6	16.2	14.7	20.3	17.5
N19-1468	15.9	14.2	13.4	11.4	16.6	14.3
STPR14-547	17.9	15.5	15.5	12.6	16.9	15.7
Mean	16.9	14.6	14.1	12.1	16.6	14.9
LSD(0.05)	2.2	0.9	0.7	1.1	1.9	1.0
CV(%)	7.8	2.8	3.2	5.6	5.6	6.9

TABLE 110 - OIL (%)†
PRELIMINARY GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	18.8	18.1	19.3	16.9	19.8	18.6
USDA-N6005	18.1	17.7	18.0	16.6	18.8	17.8
NC-Dunphy	20.1	19.4	19.1	18.4	20.6	19.5
NC-Dilday	20.2	18.7	19.8	19.6	20.8	19.8
CZ6730	20.3	19.7	20.4	18.5	21.3	20.0
G19-11112	17.7	18.1	18.7	17.1	20.1	18.3
G19-11395	18.4	18.5	19.2	15.7	20.0	18.4
G19-11535	18.1	17.8	18.4	16.6	18.5	17.9
G19-11782	18.9	18.3	18.7	17.3	20.2	18.7
G19-12361	19.7	18.6	19.0	18.0	20.0	19.1
G19-13615	19.0	18.9	19.0	17.2	19.7	18.7
N11-10533	19.3	18.6	19.4	17.0	20.6	19.0
N14-7691	17.7	17.7	18.6	15.6	18.7	17.7
N14-7797	18.2	18.2	18.0	17.0	18.5	18.0
N16-10756	18.9	17.9	18.2	15.9	18.8	17.9
N17-30803	18.9	18.1	18.9	16.3	18.2	18.1
N19-0115	19.1	18.7	19.2	17.6	20.5	19.0
N19-0756	20.0	20.3	20.1	19.0	22.2	20.3
N19-0806	18.3	19.0	18.5	16.9	19.1	18.3
N19-0818	18.6	17.4	18.0	16.7	18.9	17.9
N19-1253	19.7	19.1	19.5	17.4	20.0	19.1
N19-1468	19.6	19.6	19.7	18.5	20.2	19.5
STPR14-547	19.3	19.2	18.4	17.3	19.9	18.8
Mean	19.0	18.6	19.0	17.3	19.8	18.7
LSD(0.05)	.	.	.	.	.	0.6
CV(%)	.	.	.	.	.	2.4

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 111 - PROTEIN (%)†
PRELIMINARY GROUP VI 2022

STRAIN/ VARIETY	Athens, GA(A)	Kinston, NC	Plains, GA	Plymouth, NC	Tallassee, AL	Test Mean
AG64X8 RR2X	35.7	36.0	35.4	37.6	35.1	36.0
USDA-N6005	36.3	36.3	37.0	37.7	36.6	36.8
NC-Dunphy	33.7	33.7	35.4	36.9	34.5	34.9
NC-Dilday	32.9	31.7	34.5	34.2	33.3	33.3
CZ6730	34.2	34.6	34.7	37.0	34.7	35.0
G19-11112	36.7	36.0	35.5	37.1	34.7	36.0
G19-11395	36.4	35.1	34.5	39.3	34.7	36.0
G19-11535	37.1	37.5	37.5	39.4	38.4	38.0
G19-11782	36.4	36.5	35.9	37.8	35.4	36.4
G19-12361	32.5	34.1	33.8	36.0	33.7	34.0
G19-13615	36.2	35.0	35.7	37.7	36.9	36.3
N11-10533	33.9	33.8	33.8	36.8	33.1	34.3
N14-7691	37.3	36.0	36.4	40.5	36.8	37.4
N14-7797	36.2	36.6	36.7	38.5	38.2	37.2
N16-10756	35.7	36.0	36.3	39.6	36.7	36.9
N17-30803	35.9	35.5	35.2	39.0	37.4	36.6
N19-0115	37.3	37.5	37.8	39.0	37.6	37.8
N19-0756	34.7	33.3	34.2	36.2	32.6	34.2
N19-0806	38.5	38.2	37.8	39.3	37.6	38.3
N19-0818	37.3	38.7	38.4	39.6	37.9	38.4
N19-1253	35.2	34.9	35.6	38.1	35.7	35.9
N19-1468	35.4	32.2	35.0	36.2	35.2	34.8
STPR14-547	36.2	36.0	38.0	38.8	36.1	37.0
Mean	35.7	35.4	35.9	37.9	35.8	36.1
LSD(0.05)	.	.	.	.	.	0.9
CV(%)	.	.	.	.	.	2.0

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 112 - ESTIMATED MEAL PROTEIN (%)†
PRELIMINARY GROUP VI 2022

STRAIN/ VARIETY	*Athens, GA(A)*	*Kinston, NC*	*Plains, GA*	*Plymouth, NC*	*Tallassee, AL*	*Test Mean*
AG64X8 RR2X	47.8	47.8	47.7	49.2	47.6	48.0
USDA-N6005	48.2	47.9	49.1	49.1	49.0	48.7
NC-Dunphy	45.8	45.5	47.6	49.1	47.3	47.1
NC-Dilday	44.8	42.3	46.7	46.2	45.7	45.2
CZ6730	46.7	46.9	47.3	49.3	48.0	47.6
G19-11112	48.5	47.7	47.4	48.7	47.2	47.9
G19-11395	48.4	46.8	46.4	50.7	47.1	47.9
G19-11535	49.2	49.6	50.0	51.4	51.2	50.3
G19-11782	48.8	48.5	48.0	49.6	48.3	48.6
G19-12361	44.1	45.6	45.3	47.8	45.7	45.7
G19-13615	48.6	46.9	47.9	49.5	49.9	48.5
N11-10533	45.6	45.1	45.6	48.3	45.3	46.0
N14-7691	49.3	47.6	48.5	52.1	49.2	49.3
N14-7797	48.1	48.6	48.7	50.4	50.9	49.3
N16-10756	47.9	47.6	48.2	51.2	49.1	48.8
N17-30803	48.1	47.1	47.2	50.6	49.7	48.6
N19-0115	50.1	50.1	50.8	51.5	51.4	50.8
N19-0756	47.2	45.3	46.5	48.6	45.5	46.6
N19-0806	51.1	51.2	50.4	51.4	50.6	50.9
N19-0818	49.9	50.9	50.9	51.7	50.8	50.8
N19-1253	47.7	46.8	48.0	50.1	48.5	48.2
N19-1468	47.8	43.5	47.3	48.3	47.9	47.0
STPR14-547	48.8	48.4	50.5	51.1	49.0	49.6
Mean	47.9	47.3	48.1	49.8	48.5	48.3
LSD(0.05)	.	.	.	.	.	1.0
CV(%)	.	.	.	.	.	1.7

† Estimated meal protein percentage is reported on a 13% moisture basis.

TABLE 113 - PARENTAGE OF ENTRIES
UNIFORM GROUP VII 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	AGS-738RR	Commercial check	check		RR1	
2	AG74X8 RR2X	Commercial check	check		RR2	
3	N7003CN	Commercial check	check		CONV	
4	NC-Wilder	Commercial check	check		CONV	
5	SH 7418LL	Commercial check	check		LL	
6	G17-11315	G08PR-394 x G00-3213	Zenglu Li	F5d	CONV	
7	G17-5173R2	G11PR-56238R2 x (G00-3880R2 x Benning EMGH)	Zenglu Li	F5d	RR2	
8	G17PR-1039HOLNR1	G06-3182RR-HOLL-B1	Zenglu Li	BC3F3d	RR1	
9	G17PR-1071HOLNR1	G06-3182RR-HOLL-B4	Zenglu Li	BC3F3d	RR1	
10	G18-3336R2	N08-391 x G10PR-56248R2	Zenglu Li	F5d	RR2	
11	G18-6534HOLNR2	[G10PR-224R2(4) x TN10-5002LL] x {G10PR-224R2(4) x [G00-3213 (4) x (17D x S08-14788)HO]}	Zenglu Li	BC3F3d	RR2	
12	G18-6669HOLNR2	[G11-1614R2(4) x TN10-5002LL] x {G11-1614R2(4) x [G00-3213 (4) x (17D x S08-14788)HO]}	Zenglu Li	BC3F3d	RR2	
13	G21-209E3	G17-11319 (4) x Enlist CTV-DVR 1002	Zenglu Li	BC3F3d	RR2,E3	
14	G21-229R2X	G12-2062R2 (4) x Dicamba RR2X	Zenglu Li	BC3F3d	RRX	
15	G21-230R2X	G12-2062R2 (4) x Dicamba RR2X	Zenglu Li	BC3F3d	RRX	
16	N09-13890	TCPR01-83 x N01-11136	B. Fallen	F4	CONV	Diversity/drought, 12.5% PI 416937, 25% PI 407859-2
17	N11-7405	Roy WG x PI587696 PT	B. Fallen	F4	CONV	Diversity, 50% PI 587697
18	N14-7142	G00-3213 x TCHM06-Morph-204	B. Fallen	F4	CONV	Protein
19	N16-10927	NC-Roy x N01-11771	B. Fallen	F4	CONV	Drought
20	N16-10962	NC-Roy x N01-11771	B. Fallen	F4	CONV	Drought

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 114 - GENERAL SUMMARY OF PERFORMANCE
UNIFORM TEST VII 2022

STRAIN/		*AVG.*	*YIELD†*			*PROTEIN‡*			*OIL‡*		
VARIETY	*RANK*	*RANK*	*2022*	*21-22*	*20-22*	*2022*	*20-22*	*20-22*	*2022*	*21-22*	*20-22*
AGS-738RR	12	11	50.6	54.9	53.8	34.0	34.1	34.3	18.8	19.1	19.0
AG74X8 RR2X	3	7	54.3	57.2	53.0	34.7	34.7	35.0	18.7	19.0	18.8
N7003CN	20	14	47.0	51.4	49.7	34.4	34.1	34.5	19.0	19.2	18.9
NC-Wilder	17	13	48.1	55.9	54.7	33.9	34.0	34.3	19.5	19.6	19.4
SH 7418LL	8	8	52.7	58.4	.	35.5	36.0	.	18.9	18.9	.
G17-11315	16	10	49.2	55.8	.	35.1	35.2	.	19.4	19.6	.
G17-5173R2	2	7	55.5	62.0	.	34.7	34.9	.	18.9	19.1	.
G17PR-1039HOLNR1	9	12	52.2	.	.	35.1	.	.	19.5	.	.
G17PR-1071HOLNR1	6	9	53.2	56.0	.	34.7	35.2	.	19.5	19.6	.
G18-3336R2	7	9	53.1	.	.	35.8	.	.	18.6	.	.
G18-6534HOLNR2	18	14	47.5	53.2	.	35.8	36.2	.	19.5	19.6	.
G18-6669HOLNR2	5	9	53.3	.	.	35.7	.	.	19.4	.	.
G21-209E3	14	14	49.9	.	.	35.7	.	.	19.3	.	.
G21-229R2X	4	8	53.5	.	.	36.9	.	.	18.2	.	.
G21-230R2X	1	6	56.5	.	.	36.0	.	.	18.2	.	.
N09-13890	11	10	51.0	54.0	.	34.9	35.1	.	19.0	19.1	.
N11-7405	19	16	47.1	.	.	34.4	.	.	18.3	.	.
N14-7142	15	11	49.6	54.4	.	35.2	35.5	.	18.6	18.8	.
N16-10927	10	10	51.9	.	.	35.0	.	.	18.1	.	.
N16-10962	13	12	50.5	.	.	35.6	.	.	18.5	.	.
Mean	.	.	51.3	.	.	35.2	.	.	18.9	.	.
LSD(0.05)	.	.	7.0	.	.	0.7	.	.	0.4	.	.
CV(%)	.	.	16.4	.	.	1.8	.	.	1.9	.	.

† Data not included in mean: 2021 Calhoun.

‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

TABLE 115 - GENERAL SUMMARY OF PERFORMANCE -Part 2
UNIFORM TEST VII 2022

STRAIN/ VARIETY	MEAL† PRO %	MAT INDEX	LOD	HT	SEED QUALITY	SEED SIZE	FL. COLOR	PUB. COLOR	POD COLOR
AGS-738RR	45.5	0	1.6	30	1.3	12.9			
AG74X8 RR2X	46.4	5	1.3	34	1.4	15.1			
N7003CN	46.1	4	1.9	30	1.6	16.3			
NC-Wilder	45.8	3	2.2	31	1.3	14.9			
SH 7418LL	47.6	2	1.5	32	1.3	15.5			
G17-11315	47.4	3	1.7	30	1.6	15.8	W	G	T
G17-5173R2	46.6	0	1.5	30	1.3	14.3	P	T	T
G17PR-1039HOLNR1	47.4	2	1.7	33	1.3	12.5	P	T	T
G17PR-1071HOLNR1	46.8	0	1.5	32	1.4	12.7	P	T	T
G18-3336R2	47.8	1	1.8	35	1.2	13.9	W	T	T
G18-6534HOLNR2	48.3	4	1.4	35	1.3	12.3	W	T	T
G18-6669HOLNR2	48.1	4	1.5	35	1.3	12.7	P	T	T
G21-209E3	48.1	5	1.4	31	1.6	13.2	W	G	T
G21-229R2X	49.0	3	1.9	34	1.5	14.5	P	T	T
G21-230R2X	47.9	4	1.9	34	1.3	15.0	P	T	T
N09-13890	46.9	3	1.5	32	1.5	14.9	P	T	
N11-7405	45.8	3	2.1	32	1.7	14.5	P	T	
N14-7142	47.0	7	2.4	35	1.2	15.0	P	G	
N16-10927	46.4	2	2.0	32	1.4	12.1	P	G	
N16-10962	47.5	2	2.0	34	1.6	13.7	W	G	
Mean	47.1	3	1.7	33	1.4	14.1			
LSD(0.05)	0.7	2	0.4	3	0.4	0.7			
CV(%)	1.5	66	27	10	27.0	5.9			

† Estimated meal protein content was added to the annual report in 2018.

TABLE 116 - GENERAL SUMMARY OF PEST REACTION
UNIFORM TEST VII 2022

STRAIN/	*SCN Cyst Score (1-5 Scale)†*			*RKN Gall Score (1-5 Scale)‡*			*SC*	*SC*
VARIETY	*Race 2*	*Race 3*	*Race 5*	*PRK*	*SRK*	*JRK*	*RATING*	*SCORE*
AGS-738RR	2	.	4	3.3	1.0	.	R	1
AG74X8 RR2X	5	.	4	3.5	1.3	.	R	1
N7003CN	1	.	1	4.8	1.0	.	MS	4
NC-Wilder	5	.	4	3.8	1.8	.	MS	4
SH 7418LL	5	.	5	2.8	1.7	.	MS	4
G17-11315	5	.	3	2.0	1.3	.	R	1
G17-5173R2	5	.	5	4.5	2.0	.	S	5
G17PR-1039HOLNR1	3	.	4	4.5	1.7	.	SS	3
G17PR-1071HOLNR1	3	.	3	3.8	1.3	.	SS	3
G18-3336R2	4	.	5	4.5	2.3	.	R	1
G18-6534HOLNR2	3	.	4	1.8	1.3	.	MS	4
G18-6669HOLNR2	4	.	3	5.0	2.0	.	S	5
G21-209E3	5	.	5	3.8	1.3	.	MS	4
G21-229R2X	4	.	5	2.3	2.0	.	MS	4
G21-230R2X	5	.	5	1.5	1.0	.	MS	4
N09-13890	5	.	4	4.8	1.3	.	R	1
N11-7405	4	.	5	4.8	5.0	.	MS	4
N14-7142	5	.	5	5.0	4.0	.	MS	4
N16-10927	5	.	5	4.8	4.8	.	R	1
N16-10962	5	.	5	4.5	3.8	.	R	1

†The race 2, 3, and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7, HG Type 0, and HG Type 2.5.7, respectively. Results for race 3 were omitted.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)MR = mixed reaction.

TABLE 117 - SEED YIELD (BUSHELS PER ACRE)
UNIFORM TEST VII 2022 †

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	54.8	52.0	36.6	61.8	50.4	56.4	42.1	50.6
AG74X8 RR2X	69.0	55.6	41.3	61.5	57.6	49.0	46.2	54.3
N7003CN	41.5	71.3	30.3	60.5	53.3	33.7	38.0	47.0
NC-Wilder	54.4	64.8	32.7	54.1	54.3	34.4	41.7	48.1
SH 7418LL	46.7	62.1	43.5	62.6	49.5	59.3	45.4	52.7
G17-11315	65.6	60.5	34.4	47.8	62.0	27.0	47.0	49.2
G17-5173R2	79.2	47.0	40.8	66.4	54.2	49.5	51.2	55.5
G17PR-1039HOLNR1	73.8	54.6	37.7	57.0	53.5	48.9	39.7	52.2
G17PR-1071HOLNR1	64.4	61.1	38.2	56.4	51.7	51.7	49.3	53.2
G18-3336R2	61.9	61.6	38.2	57.8	53.7	53.4	45.1	53.1
G18-6534HOLNR2	43.1	49.9	36.1	56.1	51.4	51.1	44.4	47.5
G18-6669HOLNR2	60.1	68.8	36.5	55.8	57.5	54.2	40.4	53.3
G21-209E3	59.8	59.2	31.2	59.1	45.2	51.0	43.9	49.9
G21-229R2X	51.3	59.5	47.7	61.0	58.8	53.6	42.7	53.5
G21-230R2X	65.7	67.7	44.9	59.4	54.7	62.8	40.0	56.5
N09-13890	55.3	60.8	33.2	61.9	53.3	45.7	46.5	51.0
N11-7405	62.1	59.2	22.8	46.8	51.4	47.2	39.8	47.1
N14-7142	54.2	66.4	30.6	41.5	53.9	54.3	46.1	49.6
N16-10927	70.8	63.2	36.8	49.7	45.2	51.9	45.7	51.9
N16-10962	65.5	59.8	26.3	57.3	51.6	52.4	40.7	50.5
Mean	60.0	60.3	36.0	56.7	53.2	49.4	43.8	51.3
LSD(0.05)	14.8	14.3	8.6	8.8	9.6	8.7	5.5	7.0
LSD(0.10)	12.3	11.9	7.2	7.3	8.0	7.3	4.5	5.9
CV(%)	14.9	14.4	14.5	9.3	10.9	10.7	7.6	16.4

†Data not included in the test mean:

TABLE 118 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plymouth, NC	Test Mean
AGS-738RR	10/15	10/17	10/19	10/28	10/20
AG74X8 RR2X	1	8	7	6	5
N7003CN	2	6	9	2	4
NC-Wilder	-1	6	4	3	3
SH 7418LL	-1	3	3	2	2
G17-11315	0	5	6	2	3
G17-5173R2	-1	1	0	-1	0
G17PR-1039HOLNR1	0	2	0	5	2
G17PR-1071HOLNR1	-1	0	-1	1	0
G18-3336R2	-1	0	1	2	1
G18-6534HOLNR2	0	8	6	4	4
G18-6669HOLNR2	0	7	6	4	4
G21-209E3	3	8	7	4	5
G21-229R2X	-1	6	6	2	3
G21-230R2X	0	8	8	3	4
N09-13890	0	4	3	4	3
N11-7405	0	2	6	4	3
N14-7142	3	11	9	7	7
N16-10927	-1	8	1	2	2
N16-10962	0	4	3	2	2
Mean	0	5	4	3	3
LSD(0.05)	2	4	3	3	2
CV(%)	1104	39	37	42	66

TABLE 119 - PLANT HEIGHT (INCHES)
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	31	19	26	36	33	31	39	30
AG74X8 RR2X	37	24	31	36	33	33	44	34
N7003CN	30	22	31	36	32	28	35	30
NC-Wilder	36	21	30	35	29	30	37	31
SH 7418LL	38	22	32	35	32	30	38	32
G17-11315	37	18	32	28	30	27	38	31
G17-5173R2	34	17	29	36	33	24	40	30
G17PR-1039HOLNR1	41	21	33	32	32	30	39	33
G17PR-1071HOLNR1	37	20	29	35	31	36	38	32
G18-3336R2	37	23	32	36	37	36	42	35
G18-6534HOLNR2	36	27	34	40	35	34	37	35
G18-6669HOLNR2	35	25	35	42	34	35	38	35
G21-209E3	41	20	28	36	32	30	33	31
G21-229R2X	35	21	30	35	37	37	44	34
G21-230R2X	36	24	33	36	33	36	42	34
N09-13890	35	23	30	32	35	30	37	32
N11-7405	35	21	30	34	32	28	43	32
N14-7142	43	26	31	38	35	31	38	35
N16-10927	33	22	32	36	33	31	41	32
N16-10962	35	22	35	39	33	35	42	34
Mean	36	22	31	36	33	31	39	33
LSD(0.05)	6	4	6	.	3	7	5	3
CV(%)	10	12	12	.	5	10	7	11

TABLE 120 - PLANT LODGING (1-5)
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	2.3	1.0	1.7	1.5	1.5	1.0	2.0	1.6
AG74X8 RR2X	1.7	1.0	1.0	2.2	1.0	1.0	1.5	1.3
N7003CN	3.0	1.0	2.0	2.2	1.8	1.0	2.0	1.9
NC-Wilder	2.7	1.3	3.3	2.2	1.5	.	2.7	2.2
SH 7418LL	2.0	1.0	2.0	2.2	1.3	1.0	1.3	1.5
G17-11315	2.3	1.0	2.7	2.0	1.3	1.0	1.3	1.7
G17-5173R2	2.0	1.0	2.0	1.5	1.3	1.0	1.5	1.5
G17PR-1039HOLNR1	2.0	1.0	3.0	1.5	1.0	1.0	2.0	1.7
G17PR-1071HOLNR1	2.0	1.0	2.0	1.5	1.3	1.0	2.0	1.5
G18-3336R2	2.3	1.0	2.3	2.2	1.8	1.0	1.8	1.8
G18-6534HOLNR2	2.3	1.0	1.3	1.5	1.3	1.0	1.3	1.4
G18-6669HOLNR2	1.7	1.0	2.0	1.5	1.3	1.0	1.8	1.5
G21-209E3	2.0	1.0	2.0	1.7	1.0	1.0	1.3	1.4
G21-229R2X	2.3	1.0	2.7	2.7	1.8	1.0	1.8	1.9
G21-230R2X	2.3	1.3	3.0	2.2	1.5	1.0	1.8	1.9
N09-13890	2.0	1.0	1.7	1.7	1.0	1.0	2.0	1.5
N11-7405	3.0	1.0	3.0	3.0	1.5	1.0	2.0	2.1
N14-7142	3.0	1.3	2.7	4.2	2.3	2.0	1.8	2.4
N16-10927	2.3	1.0	3.7	2.2	1.3	1.3	2.0	2.0
N16-10962	3.0	1.0	2.3	2.2	1.5	1.3	2.3	2.0
Mean	2.3	1.1	2.3	2.1	1.4	1.1	1.8	1.7
LSD(0.05)	0.8	0.4	0.9	0.9	0.5	0.3	0.5	0.4
CV(%)	21.5	21.3	22.3	19.7	18.9	16.7	14.7	26.8

TABLE 121 - SEED QUALITY (1-5)
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	1.7	1.2	1.0	1.5	.	1.2	1.0	1.3
AG74X8 RR2X	1.5	1.0	1.7	1.7	.	1.3	1.5	1.4
N7003CN	2.0	1.2	2.0	1.5	.	1.7	1.5	1.6
NC-Wilder	1.2	1.0	1.3	1.5	.	1.3	1.5	1.3
SH 7418LL	1.3	1.0	1.0	1.5	.	1.2	1.5	1.3
G17-11315	3.2	1.0	1.0	1.5	.	1.7	1.5	1.6
G17-5173R2	1.2	1.0	1.3	1.5	.	1.2	1.5	1.3
G17PR-1039HOLNR1	1.5	1.0	1.3	1.5	.	1.3	1.3	1.3
G17PR-1071HOLNR1	1.8	1.2	1.0	1.5	.	1.3	1.5	1.4
G18-3336R2	1.3	1.0	1.0	1.5	.	1.0	1.5	1.2
G18-6534HOLNR2	1.3	1.0	1.3	1.5	.	1.0	1.5	1.3
G18-6669HOLNR2	1.0	1.0	1.0	1.7	.	1.3	1.5	1.3
G21-209E3	2.2	1.0	2.3	1.5	.	1.3	1.5	1.6
G21-229R2X	1.3	1.2	2.0	1.8	.	1.2	1.5	1.5
G21-230R2X	1.2	1.0	1.3	1.7	.	1.0	1.5	1.3
N09-13890	1.3	1.2	2.0	1.5	.	1.7	1.5	1.5
N11-7405	1.5	1.2	3.0	1.5	.	1.7	1.5	1.7
N14-7142	1.0	1.0	1.0	1.5	.	1.2	1.5	1.2
N16-10927	1.3	1.2	2.0	1.5	.	1.3	1.3	1.4
N16-10962	2.2	1.2	2.0	1.5	.	1.5	1.5	1.6
Mean	1.6	1.1	1.5	1.5	.	1.3	1.5	1.4
LSD(0.05)	0.8	0.3	0.5	0.2	.	0.4	0.1	0.4
CV(%)	30.2	16.8	20.7	8.4	.	20.6	6.1	27.2

TABLE 122 - SEED SIZE (GRAMS PER 100 SEED)
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	17.0	13.0	11.5	12.6	12.1	12.4	11.4	12.9
AG74X8 RR2X	18.0	14.8	13.8	15.4	15.0	14.1	14.4	15.1
N7003CN	18.3	16.0	15.0	16.7	16.5	17.0	14.8	16.3
NC-Wilder	17.2	15.9	13.3	15.0	14.8	14.9	12.9	14.9
SH 7418LL	17.3	16.3	14.7	14.5	14.6	16.5	13.9	15.5
G17-11315	18.2	16.6	12.7	15.9	15.5	16.5	15.2	15.8
G17-5173R2	17.0	13.7	12.9	15.5	14.1	14.0	13.0	14.3
G17PR-1039HOLNR1	15.0	12.8	10.7	12.6	12.4	12.3	11.7	12.5
G17PR-1071HOLNR1	15.4	12.9	10.9	12.9	12.6	12.5	11.9	12.7
G18-3336R2	15.6	14.2	11.9	14.8	13.8	14.5	12.5	13.9
G18-6534HOLNR2	13.6	13.4	10.7	12.3	12.6	12.1	11.8	12.3
G18-6669HOLNR2	16.2	12.7	10.5	13.2	12.7	12.8	11.1	12.7
G21-209E3	16.7	14.2	10.5	13.5	12.7	13.3	11.4	13.2
G21-229R2X	16.7	15.1	13.3	15.0	14.4	14.5	12.5	14.5
G21-230R2X	17.1	15.2	13.1	16.1	15.2	15.4	13.0	15.0
N09-13890	17.7	15.2	12.0	14.6	15.6	14.7	14.6	14.9
N11-7405	17.2	14.9	10.8	16.1	15.2	14.4	13.1	14.5
N14-7142	17.7	15.0	13.2	15.3	15.1	15.0	13.9	15.0
N16-10927	14.6	12.8	10.1	13.4	11.3	12.5	10.5	12.1
N16-10962	16.9	13.8	9.9	14.4	14.0	14.5	12.3	13.7
Mean	16.7	14.4	12.1	14.5	14.0	14.2	12.8	14.1
LSD(0.05)	1.4	1.0	1.5	0.9	0.9	0.9	1.0	0.7
CV(%)	5.0	4.2	7.5	3.1	3.0	3.9	4.6	5.9

TABLE 123 - OIL (%)†
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	19.1	18.6	19.7	18.2	18.7	19.4	17.7	18.8
AG74X8 RR2X	19.1	18.9	20.1	18.1	18.6	19.2	17.3	18.7
N7003CN	19.3	18.7	20.0	18.5	18.6	19.9	18.4	19.0
NC-Wilder	19.0	19.1	21.2	19.0	19.6	19.7	18.8	19.5
SH 7418LL	18.6	18.2	20.4	19.0	18.6	19.3	18.2	18.9
G17-11315	19.6	19.3	21.2	19.0	19.3	19.2	18.3	19.4
G17-5173R2	19.5	18.7	19.8	18.7	18.1	19.5	18.2	18.9
G17PR-1039HOLNR1	19.9	19.1	20.7	19.2	19.2	20.1	18.6	19.5
G17PR-1071HOLNR1	19.5	18.9	20.9	19.1	19.4	20.1	18.5	19.5
G18-3336R2	18.6	18.5	20.4	18.0	18.3	18.6	17.6	18.6
G18-6534HOLNR2	19.4	18.2	21.1	19.5	19.7	19.9	18.8	19.5
G18-6669HOLNR2	19.4	18.9	20.8	19.3	18.9	19.9	18.5	19.4
G21-209E3	19.2	19.9	20.1	19.0	18.7	19.8	18.1	19.3
G21-229R2X	18.5	18.2	19.8	17.1	18.5	18.5	17.1	18.2
G21-230R2X	18.4	18.1	19.2	18.3	17.9	18.4	17.3	18.2
N09-13890	19.3	18.6	20.2	18.9	19.1	19.0	17.7	19.0
N11-7405	18.4	18.5	19.7	17.9	17.8	19.3	16.7	18.3
N14-7142	17.6	18.1	20.6	19.0	18.3	18.7	18.2	18.6
N16-10927	18.3	18.2	19.4	17.6	17.9	18.6	16.8	18.1
N16-10962	19.2	18.6	19.2	18.0	18.0	19.1	17.5	18.5
Mean	19.0	18.7	20.2	18.6	18.7	19.3	17.9	18.9
LSD(0.05)	.	.	.	.	.	.	.	0.4
CV(%)	.	.	.	.	.	.	.	1.9

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 124 - PROTEIN (%)†
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	*Athens, GA(A)*	*Athens, GA(B)*	*Fairhope, AL*	*Jackson Springs, NC*	*Kinston, NC*	*Plains, GA*	*Plymouth, NC*	*Test Mean*
AGS-738RR	34.1	33.4	32.8	35.1	33.2	34.3	34.8	34.0
AG74X8 RR2X	35.0	33.5	33.9	35.3	34.5	34.7	36.0	34.7
N7003CN	34.5	34.0	33.8	35.4	34.3	33.8	34.7	34.4
NC-Wilder	34.4	33.8	32.1	34.8	33.4	34.3	34.6	33.9
SH 7418LL	36.7	36.1	33.8	35.2	35.3	35.7	36.0	35.5
G17-11315	35.8	33.4	33.3	36.9	34.2	35.8	36.5	35.1
G17-5173R2	34.2	33.7	34.4	35.6	35.3	34.9	35.1	34.7
G17PR-1039HOLNR1	35.7	34.8	33.6	36.3	35.1	34.5	36.0	35.1
G17PR-1071HOLNR1	35.3	34.6	33.3	35.4	34.5	33.7	36.0	34.7
G18-3336R2	36.4	35.4	33.0	36.9	35.7	36.8	36.8	35.8
G18-6534HOLNR2	37.1	36.3	34.4	36.0	34.5	35.6	36.7	35.8
G18-6669HOLNR2	35.4	35.5	34.5	36.2	35.3	35.0	37.8	35.7
G21-209E3	36.9	34.5	34.3	36.3	35.3	36.1	36.8	35.7
G21-229R2X	36.8	36.1	35.4	38.5	35.9	37.0	38.4	36.9
G21-230R2X	35.8	35.2	35.0	37.1	36.3	36.2	36.6	36.0
N09-13890	34.9	34.9	33.8	36.0	34.2	34.7	36.1	34.9
N11-7405	34.6	32.7	33.2	35.5	35.4	33.5	36.0	34.4
N14-7142	37.1	34.6	33.0	35.0	35.0	35.9	35.7	35.2
N16-10927	35.5	34.4	33.2	36.9	34.6	33.9	36.1	35.0
N16-10962	35.2	34.5	34.8	36.8	36.4	35.1	36.2	35.6
Mean	35.6	34.6	33.8	36.0	34.9	35.1	36.1	35.2
LSD(0.05)	.	.	.	.	.	.	.	0.7
CV(%)	.	.	.	.	.	.	.	1.8

†Protein percentage reported on a 13% moisture basis beginning in 2015.

TABLE 125 - ESTIMATED MEAL PROTEIN (%)†
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	*Athens, GA(A)*	*Athens, GA(B)*	*Fairhope, AL*	*Jackson Springs, NC*	*Kinston, NC*	*Plains, GA*	*Plymouth, NC*	*Test Mean*
AGS-738RR	45.8	44.6	44.4	46.6	44.5	46.3	46.0	45.5
AG74X8 RR2X	47.0	44.9	46.2	46.8	46.1	46.7	47.3	46.4
N7003CN	46.5	45.5	46.0	47.2	45.8	45.8	46.2	46.1
NC-Wilder	46.2	45.4	44.2	46.7	45.2	46.5	46.3	45.8
SH 7418LL	49.0	47.9	46.1	47.2	47.1	48.1	47.8	47.6
G17-11315	48.3	45.0	45.8	49.5	46.0	48.2	48.6	47.4
G17-5173R2	46.1	45.0	46.6	47.6	46.9	47.1	46.6	46.6
G17PR-1039HOLNR1	48.4	46.7	46.0	48.8	47.2	47.0	48.1	47.4
G17PR-1071HOLNR1	47.6	46.3	45.7	47.6	46.5	45.9	48.0	46.8
G18-3336R2	48.5	47.1	45.0	48.9	47.5	49.1	48.5	47.8
G18-6534HOLNR2	50.0	48.3	47.3	48.6	46.7	48.3	49.1	48.3
G18-6669HOLNR2	47.8	47.5	47.3	48.8	47.4	47.5	50.4	48.1
G21-209E3	49.7	46.8	46.7	48.7	47.2	48.8	48.8	48.1
G21-229R2X	49.0	48.0	48.0	50.4	47.8	49.4	50.4	49.0
G21-230R2X	47.7	46.7	47.1	49.3	48.0	48.2	48.1	47.9
N09-13890	47.0	46.6	46.1	48.2	45.9	46.5	47.6	46.9
N11-7405	46.2	43.5	45.0	47.0	46.8	45.1	47.0	45.8
N14-7142	48.9	45.8	45.2	46.9	46.6	48.0	47.5	47.0
N16-10927	47.3	45.7	44.8	48.7	45.8	45.3	47.2	46.4
N16-10962	47.4	46.1	46.8	48.8	48.2	47.2	47.7	47.5
Mean	47.7	46.2	46.0	48.1	46.7	47.2	47.9	47.1
LSD(0.05)	.	.	.	.	.	.	.	0.7
CV(%)	.	.	.	.	.	.	.	1.5

SUMMARY OF SEED FATTY ACIDS (%)
UNIFORM TEST VII 2022 †

STRAIN/ VARIETY	Palmitic Acid	Stearic Acid	Oleic Acid	Linoleic Acid	Linolenic Acid
AGS-738RR	9.3	4.0	22.7	56.3	7.7
AG74X8 RR2X	10.7	4.4	19.2	57.9	7.7
G17PR-1039HOLNR1	8.0	3.3	73.2	11.9	3.5
G17PR-1071HOLNR1	7.7	3.3	79.6	6.0	3.4
G18-6534HOLNR2	7.4	3.3	77.3	9.5	2.4
G18-6669HOLNR2	7.9	3.9	75.0	10.5	2.7
Mean	8.5	3.7	57.8	25.4	4.6
LSD(0.05)	2.2	0.4	3.8	3.8	0.6
CV(%)	21.3	8.4	5.5	12.5	10.3

†Fatty acid percentage in seed oil reported beginning in 2017.

SEED PALMITIC ACID (%)
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	10.8	10.7	11.9	.	11.1	11.0	0.2	9.3
AG74X8 RR2X	10.9	10.5	10.7	.	10.8	10.7	10.7	10.7
G17PR-1039HOLNR1	8.5	8.3	8.4	.	7.9	7.7	7.5	8.0
G17PR-1071HOLNR1	7.9	7.7	7.4	.	7.9	7.6	7.6	7.7
G18-6534HOLNR2	7.2	7.4	7.3	.	7.7	7.2	7.7	7.4
G18-6669HOLNR2	7.9	7.9	7.7	.	8.0	8.2	7.7	7.9
Mean	8.9	8.7	8.9	.	8.9	8.7	6.9	8.5
LSD(0.05)	.	.	.	.	.	.	.	2.2
CV(%)	.	.	.	.	.	.	.	21.3

SEED STEARIC ACID (%)
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	4.6	4.5	3.5	.	3.3	4.0	4.3	4.0
AG74X8 RR2X	4.3	4.3	4.4	.	4.1	5.2	3.9	4.4
G17PR-1039HOLNR1	3.5	3.7	3.3	.	3.1	3.3	3.0	3.3
G17PR-1071HOLNR1	3.2	3.7	3.0	.	3.1	3.1	3.4	3.3
G18-6534HOLNR2	3.2	3.2	3.1	.	3.2	3.8	3.3	3.3
G18-6669HOLNR2	4.5	3.9	3.7	.	3.7	4.0	3.7	3.9
Mean	3.9	3.9	3.5	.	3.4	3.9	3.6	3.7
LSD(0.05)	.	.	.	.	.	.	.	0.4
CV(%)	.	.	.	.	.	.	.	8.4

SEED OLEIC ACID (%)
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	25.3	21.4	20.9	.	20.6	24.7	23.3	22.7
AG74X8 RR2X	19.2	18.3	21.0	.	18.9	21.2	16.7	19.2
G17PR-1039HOLNR1	65.2	64.4	72.0	.	79.2	78.9	79.2	73.2
G17PR-1071HOLNR1	79.6	76.0	82.9	.	78.3	82.3	78.4	79.6
G18-6534HOLNR2	79.8	72.7	80.5	.	76.3	78.8	75.8	77.3
G18-6669HOLNR2	75.5	72.2	79.0	.	73.9	75.9	73.5	75.0
Mean	57.4	54.2	59.4	.	57.9	60.3	57.8	57.8
LSD(0.05)	.	.	.	.	.	.	.	3.8
CV(%)	.	.	.	.	.	.	.	5.5

SEED LINOLEIC ACID (%)
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	52.5	55.2	56.7	.	56.6	53.9	62.8	56.3
AG74X8 RR2X	57.7	58.0	57.3	.	58.6	56.1	60.0	57.9
G17PR-1039HOLNR1	19.6	19.1	13.0	.	6.2	7.0	6.7	11.9
G17PR-1071HOLNR1	5.7	8.7	3.8	.	7.0	4.0	7.0	6.0
G18-6534HOLNR2	7.7	13.6	6.9	.	10.2	8.1	10.7	9.5
G18-6669HOLNR2	9.6	12.7	7.3	.	11.6	9.4	12.5	10.5
Mean	25.4	27.9	24.2	.	25.0	23.1	26.6	25.4
LSD(0.05)	.	.	.	.	.	.	.	3.8
CV(%)	.	.	.	.	.	.	.	12.5

SEED LINOLENIC ACID (%)
UNIFORM GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	6.9	8.2	7.1	.	8.4	6.4	9.4	7.7
AG74X8 RR2X	7.8	9.0	6.6	.	7.6	6.7	8.7	7.7
G17PR-1039HOLNR1	3.3	4.5	3.2	.	3.6	3.0	3.5	3.5
G17PR-1071HOLNR1	3.5	3.8	2.9	.	3.7	3.0	3.6	3.4
G18-6534HOLNR2	2.1	3.1	2.2	.	2.5	2.2	2.5	2.4
G18-6669HOLNR2	2.5	3.3	2.3	.	2.7	2.5	2.7	2.7
Mean	4.4	5.3	4.0	.	4.8	4.0	5.1	4.6
LSD(0.05)	.	.	.	.	.	.	.	0.6
CV(%)	.	.	.	.	.	.	.	10.3

INTENTIONALLY BLANK

TABLE 126 - PARENTAGE OF ENTRIES
PRELIMINARY GROUP VII 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	AGS-738RR	Commercial check			RR1	
2	AG74X8 RR2X	Commercial check			RR2	
3	N7003CN	Commercial check			CONV	
4	NC-Wilder	Commercial check			CONV	
5	SH 7418LL	Commercial check			LL	
6	G19-11257	N10-711 x Benning HP	Zenglu Li	F5d	CONV	
7	G19-11618	N08-174 x Benning HP	Zenglu Li	F5d	CONV	
8	G19-12402	N10-792 x G14-8109	Zenglu Li	F5d	CONV	
9	G19-13040	Woodruff x G12-7186	Zenglu Li	F5d	CONV	
10	G19-13438	G13-6299 x N10-711	Zenglu Li	F5d	CONV	
11	G19-13754	G13-6470 x N06-19	Zenglu Li	F5d	CONV	
12	G19-2805R2	N09-9 x G11PR-56151R2	Zenglu Li	F5d	RR2	
13	G19-8410LL	TN11-5140 x G13LL-56	Zenglu Li	F5d	LL	
14	G19-9413LL	N08-521 x G13LL-56	Zenglu Li	F5d	LL	
15	N11-12158	NC-Roy x PI 612711A	B. Fallen	F4	CONV	diversity/elevated protein, 50% PI 612711A
16	N11-7472	Roy WG x PI587563B	B. Fallen	F4	CONV	diversity, 50% PI 587563B
17	N16-10518	N7103 x NMS4-1-45	B. Fallen	F4	CONV	diversity/elevated protein, 25% Soja PI 366122
18	N16-9198	N7103 x NMS5-48-2-75	B. Fallen	F4	CONV	diversity/protein, 25% Soja PI 366122
19	N17-30715	NC-Raleigh x PI407042	B. Fallen	F4	CONV	diversity, 50% PI407042
20	N17-31531	NC-Raleigh x PI424045	B. Fallen	F4	CONV	diversity, 50% PI424045

† Conv= Conventional(non-transgenic),E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 127 - GENERAL SUMMARY OF PERFORMANCE
PRELIMINARY TEST VII 2022

STRAIN/ VARIETY	SEED YIELD†	RANK	AVG. RANK	MAT. INDEX	LOD	HT	SCN Cyst Score (1-5)‡ Race 2	Race 3	Race 5	SC RATING	SC SCORE
AGS-738RR	49.6	9	9	0	1.6	33	2	.	4	R	1
AG74X8 RR2X	52.3	3	6	5	1.4	34	5	.	5	R	1
N7003CN	49.7	8	9	2	1.9	33	2	.	1	MS	4
NC-Wilder	49.4	10	10	3	2.4	33	4	.	5	MS	4
SH 7418LL	53.3	1	4	4	1.6	34	3	.	4	S	5
G19-11257	49.2	12	11	4	1.3	32	2	.	5	R	1
G19-11618	46.4	15	14	4	2.1	37	4	.	5	R	1
G19-12402	50.7	5	8	4	1.6	36	3	.	4	SS	3
G19-13040	52.7	2	6	6	2.2	33	5	.	4	S	5
G19-13438	50.4	6	8	7	1.5	30	1	.	2	SS	3
G19-13754	43.6	20	17	6	2.2	36	4	.	5	S	5
G19-2805R2	51.8	4	5	3	2.1	32	4	.	5	MS	4
G19-8410LL	49.3	11	9	1	1.6	33	4	.	4	R	1
G19-9413LL	45.2	18	15	2	1.5	33	4	.	4	MS	4
N11-12158	43.8	19	17	0	1.9	29	5	.	5	SS	3
N11-7472	45.7	17	14	2	2.0	34	5	.	5	MS	4
N16-10518	47.2	13	12	2	1.6	29	4	.	5	MS	4
N16-9198	47.0	14	13	3	2	29	4	.	4	R	1
N17-30715	46.0	16	15	5	2.2	33	4	.	4	R	1
N17-31531	50.2	7	9	6	2.2	33	3	.	4	R	1
Mean	48.7	.	.	3	1.8	33	.	.	.		.
LSD(0.05)	7.2	.	.	2	0.4	3	.	.	.		.
CV(%)	12.6	.	.	57	27.6	11	.	.	.		.

†Data not included in the yield mean:Athens, Fairhope, and Kinston

TABLE 128 - GENERAL SUMMARY OF PERFORMANCE (continued)
PRELIMINARY TEST VII 2022

STRAIN/ VARIETY	SEED QUALITY	SEED SIZE	PROTEIN§ %	OIL§ %	MEAL PRO%	FL COLOR	PUB. COLOR	POD COLOR
AGS-738RR	1.4	12.7	34.2	18.9	45.9			
AG74X8 RR2X	1.7	14.4	34.8	18.7	46.6			
N7003CN	1.7	15.3	34.8	18.9	46.6			
NC-Wilder	1.4	14.9	34.3	19.4	46.2			
SH 7418LL	1.5	15.2	35.4	18.9	47.5			
G19-11257	1.6	14.0	37.2	17.9	49.2	P	T	T
G19-11618	1.6	14.4	34.4	19.1	46.2	P	T	T
G19-12402	1.6	16.5	33.9	19.9	46.0	W	T	T
G19-13040	1.5	15.5	39.0	18.6	52.0	P	G	T
G19-13438	1.4	14.2	36.6	18.6	48.8	P	T	Br
G19-13754	1.8	12.7	32.8	19.1	44.0	W	T	Br
G19-2805R2	1.8	13.1	34.5	18.5	46.0	W	T	T
G19-8410LL	1.4	13.3	34.6	19.1	46.4	W	T	T
G19-9413LL	1.4	12.3	36.6	18.8	48.9	W	T	T
N11-12158	1.8	12.7	36.4	17.8	48.2	W	G	
N11-7472	1.9	16.6	36.2	17.9	47.9	W	G	
N16-10518	1.3	9.6	35.6	18.2	47.3	W	G	
N16-9198	1.3	9.1	36.7	16.9	48	W	G	
N17-30715	1.6	13.3	32.8	20.4	44.7	W	T	
N17-31531	1.4	13.5	32.9	20.4	44.9	W	T	
Mean	1.6	13.7	35.2	18.8	47.1			
LSD(0.05)	0.4	1.1	1.0	0.6	1.1			
CV(%)	27.9	8.8	2.5	2.8	2.0			

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

TABLE 129 - SEED YIELD (BUSHELS PER ACRE)
PRELIMINARY GROUP VII 2022 †

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	58.3	27.2	53.6	56.5	54.3	40.8	49.6
AG74X8 RR2X	66.5	29.7	52.2	59.1	55.2	49.6	52.3
N7003CN	33.8	26.1	56.4	49.7	54.1	38.4	49.7
NC-Wilder	42.3	31.4	57.6	68.1	50.0	40.7	49.4
SH 7418LL	49.4	29.4	57.1	55.1	60.5	42.2	53.3
G19-11257	74.8	19.9	47.2	31.2	62.4	37.9	49.2
G19-11618	48.9	32.5	46.8	52.4	59.1	33.5	46.4
G19-12402	64.5	22.6	57.0	45.7	53.5	41.6	50.7
G19-13040	47.6	31.2	49.7	62.0	63.2	44.5	52.7
G19-13438	52.0	28.5	52.8	66.2	54.1	44.5	50.4
G19-13754	55.9	25.5	48.8	64.9	50.7	31.2	43.6
G19-2805R2	61.9	27.2	55.5	56.1	55.1	44.8	51.8
G19-8410LL	60.4	30.9	48.9	51.0	57.5	41.4	49.3
G19-9413LL	54.4	16.1	50.3	53.8	47.5	38.0	45.2
N11-12158	66.0	11.6	42.1	38.8	53.6	35.8	43.8
N11-7472	48.1	27.3	43.9	50.9	55.0	38.0	45.7
N16-10518	61.8	20.5	47.7	43.3	61.9	32.0	47.2
N16-9198	52.3	28.7	55.1	44.8	50.9	36.4	47.0
N17-30715	57.3	29.1	46.4	39.4	52.5	38.7	46.0
N17-31531	49.4	25.1	53.5	42.9	61.2	35.9	50.2
Mean	55.3	26.0	51.1	51.6	55.6	39.3	48.7
LSD(0.05)	17.0	6.8	7.2	22.0	9.5	9.5	7.2
LSD(0.10)	14.1	5.7	6.0	18.3	7.9	7.9	6.0
CV(%)	18.6	15.9	8.1	25.8	10.3	14.6	12.6

† Data not included in the test mean:Athens, Fairhope, and Kinston

TABLE 130 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
PRELIMINARY GROUP VII 2022

STRAIN/ VARIETY	*Athens, GA(A)*	*Fairhope, AL*	*Jackson Springs, NC*	*Kinston, NC*	*Plains, GA*	*Plymouth, NC*	*Test Mean*
AGS-738RR	.	10/16	10/17	10/20	.	10/26	10/20
AG74X8 RR2X	.	1	7	8	.	4	5
N7003CN	.	1	4	4	.	2	2
NC-Wilder	.	0	3	5	.	4	3
SH 7418LL	.	0	4	6	.	5	4
G19-11257	.	3	4	6	.	4	4
G19-11618	.	1	5	5	.	5	4
G19-12402	.	5	4	6	.	2	4
G19-13040	.	1	9	9	.	6	6
G19-13438	.	6	6	9	.	7	7
G19-13754	.	5	7	10	.	4	6
G19-2805R2	.	0	4	5	.	6	3
G19-8410LL	.	0	0	1	.	3	1
G19-9413LL	.	0	3	5	.	1	2
N11-12158	.	-1	0	-1	.	2	0
N11-7472	.	0	4	0	.	3	2
N16-10518	.	2	2	1	.	3	2
N16-9198	.	0	6	4	.	4	3
N17-30715	.	7	6	3	.	5	5
N17-31531	.	7	8	4	.	6	6
Mean	.	2	4	4	.	4	3
LSD(0.05)	.	2	3	3	.	3	2
CV(%)	.	57	41	38	.	37	57

TABLE 131 - PLANT HEIGHT (INCHES)
PRELIMINARY GROUP VII 2021

STRAIN/ VARIETY	*Athens, GA(A)*	*Fairhope, AL*	*Jackson Springs, NC*	*Kinston, NC*	*Plains, GA*	*Plymouth, NC*	*Test Mean*
AGS-738RR	42	27	31	30	28	38	33
AG74X8 RR2X	42	29	29	28	27	46	34
N7003CN	45	29	27	24	34	34	33
NC-Wilder	40	32	29	28	28	39	33
SH 7418LL	43	31	32	28	31	39	34
G19-11257	42	28	30	25	29	40	32
G19-11618	45	33	34	31	33	42	37
G19-12402	43	33	35	27	34	44	36
G19-13040	35	33	30	31	32	37	33
G19-13438	38	28	26	28	27	35	30
G19-13754	39	35	33	33	31	43	36
G19-2805R2	38	29	34	27	28	39	32
G19-8410LL	38	30	35	28	34	36	33
G19-9413LL	40	30	31	30	31	40	33
N11-12158	40	25	28	22	25	35	29
N11-7472	40	33	31	26	33	42	34
N16-10518	36	22	28	26	26	37	29
N16-9198	38	28	27	23	22	38	29
N17-30715	35	35	26	29	32	41	33
N17-31531	38	31	33	24	33	40	33
Mean	40	30	31	27	30	39	33
LSD(0.05)	7	4	.	7	6	5	3
CV(%)	11	8	.	13	10	6	11

TABLE 132 - PLANT LODGING (1-5)
PRELIMINARY GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	2.7	1.3	2.2	1.0	1.0	1.5	1.6
AG74X8 RR2X	2.3	1.0	1.5	1.0	1.0	1.3	1.4
N7003CN	3.3	1.7	1.7	1.0	1.3	2.0	1.9
NC-Wilder	3.3	2.7	2.7	1.5	1.3	2.5	2.4
SH 7418LL	2.3	1.3	2.5	1.5	1.0	1.2	1.6
G19-11257	1.3	1.3	1.5	1.0	1.0	1.8	1.3
G19-11618	3.3	2.3	3.0	1.3	1.0	1.5	2.1
G19-12402	2.0	1.7	2.5	1.0	1.0	1.5	1.6
G19-13040	3.0	2.3	3.2	1.8	1.0	1.8	2.2
G19-13438	2.0	1.7	1.5	1.3	1.0	1.8	1.5
G19-13754	3.0	1.7	2.5	2.5	1.7	1.8	2.2
G19-2805R2	3.0	1.7	2.5	2.0	1.3	2.0	2.1
G19-8410LL	2.7	1.7	1.8	1.5	1.0	1.3	1.6
G19-9413LL	2.0	1.3	1.5	1.8	1.3	1.3	1.5
N11-12158	3.0	1.0	2.5	1.5	1.3	2.0	1.9
N11-7472	3.0	2.0	2.5	1.3	1.7	1.8	2.0
N16-10518	3.3	1.0	1.5	1.0	1.0	1.8	1.6
N16-9198	3.0	1.3	2.0	1.0	1.0	2.0	1.7
N17-30715	3.0	2.7	3.0	1.0	1.7	2.0	2.2
N17-31531	3.0	2.7	3.5	1.3	1.0	2.0	2.2
Mean	2.7	1.7	2.3	1.4	1.2	1.7	1.8
LSD(0.05)	0.6	0.9	1.1	0.6	0.6	0.6	0.4
CV(%)	14.2	30.1	23.2	19.7	30.9	16.4	27.6

TABLE 133 - SEED QUALITY (1-5)
PRELIMINARY GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	1.5	1.0	1.5	1.5	1.7	1.5	1.4
AG74X8 RR2X	1.3	3.0	1.5	1.5	1.2	1.5	1.7
N7003CN	2.2	1.7	1.7	1.5	1.8	1.5	1.7
NC-Wilder	1.3	1.3	1.5	1.5	1.5	1.5	1.4
SH 7418LL	1.5	1.7	1.5	1.5	1.3	1.5	1.5
G19-11257	1.3	2.0	1.5	1.5	1.7	1.5	1.6
G19-11618	1.8	1.3	1.5	1.5	1.5	2.0	1.6
G19-12402	1.2	2.0	1.5	1.5	1.7	1.7	1.6
G19-13040	1.3	1.3	1.5	1.5	1.7	1.5	1.5
G19-13438	1.0	1.3	1.5	1.5	1.3	1.5	1.4
G19-13754	2.3	3.0	1.5	1.5	1.2	1.5	1.8
G19-2805R2	2.8	2.0	1.5	1.5	1.5	1.5	1.8
G19-8410LL	1.5	1.3	1.5	1.5	1.2	1.5	1.4
G19-9413LL	1.3	1.7	1.5	1.5	1.3	1.0	1.4
N11-12158	2.0	2.0	1.5	1.5	2.5	1.5	1.8
N11-7472	2.0	2.0	1.5	1.5	2.7	1.5	1.9
N16-10518	1.3	1.0	1.5	1.5	1.3	1.0	1.3
N16-9198	1.2	1.0	1.5	1.5	1.2	1.5	1.3
N17-30715	1.7	1.3	1.5	1.8	1.5	1.5	1.6
N17-31531	1.2	1.7	1.5	1.5	1.0	1.7	1.4
Mean	1.6	1.7	1.5	1.5	1.5	1.5	1.6
LSD(0.05)	0.8	0.6	0.1	0.1	0.9	0.1	0.4
CV(%)	31.2	21.4	4.3	4.3	33.9	6.0	27.9

TABLE 134 - SEED SIZE (GRAMS PER 100 SEED)
PRELIMINARY GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	16.2	11.7	12.4	12.7	12.1	11.2	12.7
AG74X8 RR2X	16.9	11.1	14.7	15.8	14.1	14.0	14.4
N7003CN	17.5	12.6	15.8	16.6	15.0	14.4	15.3
NC-Wilder	18.0	13.7	15.7	15.3	13.9	13.0	14.9
SH 7418LL	17.1	14.0	15.8	16.2	14.8	13.5	15.2
G19-11257	16.1	10.8	15.3	15.9	12.7	13.2	14.0
G19-11618	18.3	11.7	16.3	15.1	12.8	12.5	14.4
G19-12402	19.2	13.9	17.4	18.0	15.5	15.2	16.5
G19-13040	19.4	12.9	15.9	16.2	14.6	14.1	15.5
G19-13438	15.1	13.9	14.8	15.2	12.7	13.3	14.2
G19-13754	16.1	10.3	13.8	13.4	11.5	11.1	12.7
G19-2805R2	17.7	8.9	13.8	14.0	12.4	11.7	13.1
G19-8410LL	15.5	9.9	14.3	14.7	13.6	12.1	13.3
G19-9413LL	13.9	7.7	13.9	14.3	13.1	11.0	12.3
N11-12158	15.0	10.0	12.9	14.3	12.7	11.3	12.7
N11-7472	20.0	14.9	17.0	17.3	15.3	15.0	16.6
N16-10518	12.2	8.1	10.8	10.0	8.6	8.0	9.6
N16-9198	10.8	7.5	10.6	10.0	8.5	7.3	9.1
N17-30715	16.6	13.3	13.1	14.0	11.2	11.4	13.3
N17-31531	16.1	15.0	13.7	13.5	10.8	11.5	13.5
Mean	16.4	11.6	14.4	14.6	12.8	12.2	13.7
LSD(0.05)	1.5	2.5	1.2	1.3	0.8	0.9	1.1
CV(%)	5.7	13.2	3.7	4.3	3.9	4.2	8.8

TABLE 135 - OIL (%)†
PRELIMINARY GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	19.7	19.6	18.2	19.1	18.9	18.3	18.9
AG74X8 RR2X	19.3	19.2	18.1	19.2	19.0	17.6	18.7
N7003CN	19.0	19.6	18.1	19.6	19.1	18.1	18.9
NC-Wilder	18.3	21.4	19.0	19.9	19.8	18.3	19.4
SH 7418LL	18.2	20.5	18.9	19.2	18.9	18.0	18.9
G19-11257	17.5	19.1	17.6	19.2	17.8	16.3	17.9
G19-11618	18.6	20.4	18.9	20.7	19.0	17.2	19.1
G19-12402	20.0	20.8	19.3	20.2	20.2	18.7	19.9
G19-13040	18.6	20.8	18.6	17.9	18.4	17.5	18.6
G19-13438	17.9	20.5	18.4	18.7	18.3	17.9	18.6
G19-13754	19.1	19.8	18.6	19.4	18.7	19.0	19.1
G19-2805R2	17.8	19.2	18.3	19.1	18.3	18.2	18.5
G19-8410LL	19.2	19.5	18.4	19.5	19.0	18.7	19.1
G19-9413LL	18.8	18.8	18.3	19.1	19.2	18.5	18.8
N11-12158	19.0	17.3	17.5	18.7	18.1	16.4	17.8
N11-7472	17.1	20.1	16.7	18.7	17.7	16.8	17.9
N16-10518	17.9	18.9	17.8	18.8	18.5	17.5	18.2
N16-9198	16.2	18.4	16.9	17.6	16.4	15.9	16.9
N17-30715	20.0	21.4	19.7	20.6	20.3	20.2	20.4
N17-31531	20.3	21.6	19.8	20.8	20.3	19.4	20.4
Mean	18.6	19.8	18.4	19.3	18.8	17.9	18.8
LSD(0.05)	.	.	.	.	.	.	0.6
CV(%)	.	.	.	.	.	.	2.8

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 136 - PROTEIN (%)†
PRELIMINARY GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	34.9	32.6	36.0	32.7	35.2	34.1	34.2
AG74X8 RR2X	34.3	34.6	35.4	33.2	35.4	36.3	34.8
N7003CN	34.3	34.6	36.5	33.3	34.6	35.5	34.8
NC-Wilder	35.8	32.7	35.3	32.6	33.9	35.4	34.3
SH 7418LL	36.7	33.1	35.6	33.7	36.6	36.8	35.4
G19-11257	38.2	36.1	36.7	37.2	36.7	38.3	37.2
G19-11618	34.9	33.1	35.3	31.7	35.1	36.4	34.4
G19-12402	34.1	32.8	34.7	33.1	33.9	35.0	33.9
G19-13040	38.7	36.0	38.4	40.7	39.8	40.2	39.0
G19-13438	37.4	34.6	36.5	35.9	37.1	38.1	36.6
G19-13754	33.0	33.1	33.4	31.4	33.5	32.1	32.8
G19-2805R2	34.8	34.7	35.3	33.6	35.1	33.7	34.5
G19-8410LL	34.8	33.9	36.4	33.3	35.3	33.8	34.6
G19-9413LL	37.3	36.6	37.9	35.2	36.0	36.4	36.6
N11-12158	35.5	36.9	37.0	34.5	36.8	37.9	36.4
N11-7472	36.6	33.8	37.9	34.7	36.1	38.4	36.2
N16-10518	36.4	34.6	37.2	34.0	35.7	35.8	35.6
N16-9198	37.4	35.6	37.6	35.0	37.8	37.1	36.7
N17-30715	32.7	31.8	34.2	32.2	32.9	32.8	32.8
N17-31531	32.8	32.1	34.2	31.8	32.5	34.1	32.9
Mean	35.5	34.2	36.1	34.0	35.5	35.9	35.2
LSD(0.05)	.	.	.	.	.	.	1.0
CV(%)	.	.	.	.	.	.	2.5

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 137 - ESTIMATED MEAL PROTEIN (%)†
PRELIMINARY GROUP VII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Plymouth, NC	Test Mean
AGS-738RR	47.2	44.1	47.8	43.9	47.2	45.4	45.9
AG74X8 RR2X	46.1	46.5	47.0	44.6	47.5	47.8	46.6
N7003CN	46.0	46.8	48.4	45.1	46.5	47.1	46.6
NC-Wilder	47.7	45.2	47.3	44.3	45.9	47.1	46.2
SH 7418LL	48.8	45.2	47.7	45.3	49.0	48.8	47.5
G19-11257	50.3	48.5	48.4	50.0	48.5	49.7	49.2
G19-11618	46.6	45.2	47.3	43.5	47.1	47.7	46.2
G19-12402	46.4	45.0	46.8	45.1	46.2	46.8	46.0
G19-13040	51.6	49.3	51.3	53.9	53.0	53.0	52.0
G19-13438	49.5	47.2	48.6	47.9	49.3	50.4	48.8
G19-13754	44.4	44.8	44.6	42.4	44.8	43.1	44.0
G19-2805R2	46.0	46.7	46.9	45.1	46.7	44.8	46.0
G19-8410LL	46.8	45.8	48.5	44.9	47.3	45.2	46.4
G19-9413LL	49.9	49.0	50.3	47.3	48.4	48.5	48.9
N11-12158	47.6	48.5	48.7	46.2	48.9	49.2	48.2
N11-7472	48.0	45.9	49.5	46.3	47.7	50.2	47.9
N16-10518	48.2	46.3	49.2	45.5	47.5	47.1	47.3
N16-9198	48.5	47.3	49.1	46.2	49.1	48.0	48.0
N17-30715	44.4	43.9	46.3	44.0	44.9	44.7	44.7
N17-31531	44.8	44.5	46.3	43.6	44.3	46.0	44.9
Mean	47.4	46.3	48.0	45.7	47.5	47.5	47.1
LSD(0.05)	.	.	.	.	.	.	1.1
CV(%)	.	.	.	.	.	.	2.0

† Estimated meal protein percentage is reported on a 13% moisture basis.

TABLE 138 - PARENTAGE OF ENTRIES
UNIFORM GROUP VIII 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	AG79X9RR2X/SR	Commercial check	check		RR2	
2	N8001	Commercial check	check		CONV	
3	N8002	Commercial check	check		CONV	
4	AGS 798R2	Commercial check	check		RR2	
5	G17-11274	G08PR-394 x G00-3213	Zenglu Li	F5d	CONV	
6	G17-6512R2	G10PR-224R2 x G11-1162R2	Zenglu Li	F5d	RR2	
7	G17-7222HOLNR2	G10PR-56264R2-HOLL	Zenglu Li	BC3F3d	RR2	
8	G17-7329HOLNR2	G10PR-56444R2-HOLL-A	Zenglu Li	BC3F3d	RR2	
9	G18-3311R2	G10PR-224R2 x NCC06-899	Zenglu Li	F5d	RR2	
10	G18-6624HOLNR2	[G11-1614R2(4) x TN10-5002LL] x {G11-1614R2(4) x [G00-3213 (4) x (17D x S08-14788)HO]}	Zenglu Li	BC3F3d	RR2	
11	G18-8335LL	Henderson x G13LL-7	Zenglu Li	F5d	LL	
12	G21-241R2X	G13-2114R2 (4) x Dicamba RR2x	Zenglu Li	BC3F3d	RRX	
13	G21-245R2X	G13-2114R2 (4) x Dicamba RR2x	Zenglu Li	BC3F3d	RRX	
14	N16-9171	N7103 x NMS5-48-2-75	B. Fallen	F4	CONV	Diversity/elevated protein, 25% Soja 366122

† Conv= Conventional(non-transgenic), E3= Enlist E3®, LL=Liberty Link®, RR1=Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®
‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high olelic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 139 - GENERAL SUMMARY OF PERFORMANCE
UNIFORM TEST VIII 2022

STRAIN/		AVG.	YIELD†			PROTEIN‡			OIL‡		
VARIETY	RANK	RANK	2022	21-22	20-22	2022	20-22	20-22	2022	21-22	20-22
AG79X9RR2X/SR	14	11	42.2	55.4	55.8	33.7	34.2	34.5	17.8	18.0	18.1
N8001	12	11	46.8	55.0	53.6	36.1	36.2	36.4	17.5	17.6	17.4
N8002	6	8	50.0	60.2	59.9	35.2	35.7	35.8	18.2	18.2	18.1
AGS 798R2	10	9	47.8	55.3	56.1	35.7	36.0	36.0	18.0	18.4	18.4
G17-11274	7	7	49.7	56.3	.	34.0	34.4	.	19.3	19.5	.
G17-6512R2	5	6	50.9	59.4	.	36.5	37.7	.	18.3	18.4	.
G17-7222HOLNR2	8	7	49.1	53.0	.	36.5	36.8	.	18.8	18.9	.
G17-7329HOLNR2	13	9	44.9	.	.	36.3	.	.	18.3	.	.
G18-3311R2	3	5	52.0	.	.	34.3	.	.	18.7	.	.
G18-6624HOLNR2	9	9	48.3	.	.	35.7	.	.	19.1	.	.
G18-8335LL	1	3	57.3	.	.	33.7	.	.	18.9	.	.
G21-241R2X	4	6	51.2	.	.	35.0	.	.	17.8	.	.
G21-245R2X	2	4	53.0	.	.	33.9	.	.	18.7	.	.
N16-9171	11	10	47.3	53.2	53.8	36.4	37.0	37.2	17.5	17.2	17.1
Mean	.	.	49.3	.	.	35.2	.	.	18.3	.	.
LSD(0.05)	.	.	6.9	.	.	1.0	.	.	0.8	.	.
CV(%)	.	.	13.2	.	.	2.5	.	.	3.8	.	.

† Data not included in mean: 2022 Athens(B).
‡ Protein percentage and oil percentage reported on a 13% moisture basis beginning in 2015.

TABLE 140 - GENERAL SUMMARY OF PERFORMANCE -Part 2
UNIFORM TEST VIII 2022

STRAIN/ VARIETY	MEAL† PRO %	MAT INDEX	LOD	HT	SEED QUALITY	SEED SIZE	FL. COLOR	PUB. COLOR	POD COLOR
AG79X9RR2X/SR	44.6	0	1.4	35	1.6	15.8			
N8001	47.5	-1	2.2	29	1.6	15.1			
N8002	46.7	2	2.3	28	1.5	13.7			
AGS 798R2	47.4	1	2.2	32	1.5	14.0			
G17-11274	45.8	1	2.0	31	1.4	14.4	W	T	T
G17-6512R2	48.6	1	1.9	33	1.5	15.4	W	T	T
G17-7222HOLNR2	48.9	-1	1.6	33	1.5	13.0	W	T	T
G17-7329HOLNR2	48.3	1	2.1	31	1.5	13.1	P	T	T
G18-3311R2	45.8	-1	2.1	37	1.4	14.5	W	T	T
G18-6624HOLNR2	47.9	-1	1.8	32	1.3	13.2	P	T	T
G18-8335LL	45.2	2	1.6	32	1.6	14.8	W	T	T
G21-241R2X	46.2	-2	1.6	28	1.5	15.0	P	T	T
G21-245R2X	45.3	-2	1.4	29	1.9	16.6	P	T	T
N16-9171	48.0	1	1.6	27	1.3	9.4	W	T	
Mean	46.9	0	1.8	31	1.5	14.1			
LSD(0.05)	1.3	2	0.5	4	0.4	0.9			
CV(%)	2.4	2686	29	12	25.0	7.5			

† Estimated meal protein content was added to the annual report in 2018.

TABLE 141 - GENERAL SUMMARY OF PEST REACTION
UNIFORM TEST VIII 2022

STRAIN/	*SCN Cyst Score (1-5 Scale)†*			*RKN Gall Score (1-5 Scale)‡*			*SC*	*SC*
VARIETY	*Race 2*	*Race 3*	*Race 5*	*PRK*	*SRK*	*JRK*	*RATING*	*SCORE*
AG79X9RR2X/SR	5	.	5	5.0	.	.	MS	4
N8001	5	.	5	4.5	3.5	.	MS	4
N8002	5	.	5	5.0	5.0	.	S	5
AGS 798R2ÿ	4	.	1	4.5	1.3	.	R	1
G17-11274	5	.	4	4.5	3.0	.	R	1
G17-6512R2	4	.	3	4.8	2.0	.	MS	4
G17-7222HOLNR2	5	.	4	3.8	2.0	.	S	5
G17-7329HOLNR2	4	.	2	5.0	1.0	.	R	1
G18-3311R2	5	.	3	1.5	1.0	.	MS	4
G18-6624HOLNR2	5	.	3	5.0	2.3	.	S	5
G18-8335LL	5	.	4	2.3	2.5	.	SS	3
G21-241R2X	5	.	3	1.3	1.5	.	R	1
G21-245R2X	4	.	3	2.0	2.7	.	R	1
N16-9171	5	.	5	1.0	1.8	.	R	1

†The race 2, 3, and 5 SCN populations used in these tests were typed as HG (Heterodera glycines) Type 1.2.5.7, HG Type 0, and HG Type 2.5.7, respectively.

‡The root-knot nematode (RKN) species used in these tests were Meloidogyne incognita (southern root knot = SRK), M. arenaria (peanut root knot = PRK), and M. javanica (Javanese root-knot = JRK;)MR = mixed reaction.

TABLE 142 - SEED YIELD (BUSHELS PER ACRE)
UNIFORM TEST VIII 2022 †

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	48.5	34.5	30.8	50.8	56.3	24.5	42.2
N8001	49.1	26.3	32.1	50.9	54.8	47.2	46.8
N8002	54.5	43.5	38.8	54.2	55.2	47.4	50.0
AGS 798R2	42.3	66.2	30.7	60.0	55.8	50.1	47.8
G17-11274	49.9	37.4	28.7	53.9	63.6	52.6	49.7
G17-6512R2	59.4	64.8	30.9	56.7	57.3	50.4	50.9
G17-7222HOLNR2	50.4	54.8	22.9	59.9	57.4	55.0	49.1
G17-7329HOLNR2	32.1	65.6	35.3	60.2	57.0	39.7	44.9
G18-3311R2	52.5	55.0	35.2	54.2	64.3	54.0	52.0
G18-6624HOLNR2	48.6	52.5	28.6	60.5	55.6	48.3	48.3
G18-8335LL	57.9	52.1	50.2	63.5	62.8	52.3	57.3
G21-241R2X	49.3	55.1	28.8	56.6	66.3	55.2	51.2
G21-245R2X	55.8	63.2	33.3	60.8	62.8	52.5	53.0
N16-9171	43.2	43.8	27.6	57.7	60.0	48.0	47.3
Mean	49.5	51.1	32.4	57.1	59.2	48.4	49.3
LSD(0.05)	10.1	15.6	7.9	7.1	5.9	5.8	6.9
LSD(0.10)	8.4	12.9	6.6	5.9	4.9	4.8	5.7
CV(%)	12.2	18.2	14.5	7.4	5.9	7.1	13.2

†Data not included in the test mean: Athens(B).

TABLE 143 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	*Fairhope, AL*	*Jackson Springs, NC*	*Kinston, NC*	*Test Mean*
AG79X9RR2X/SR	10/19	10/26	10/26	10/24
N8001	-1	-3	0	-1
N8002	3	2	2	2
AGS 798R2	0	0	2	1
G17-11274	1	0	2	1
G17-6512R2	1	0	2	1
G17-7222HOLNR2	-1	-2	0	-1
G17-7329HOLNR2	0	0	1	1
G18-3311R2	-4	0	1	-1
G18-6624HOLNR2	-2	-1	0	-1
G18-8335LL	1	2	2	2
G21-241R2X	-4	-3	0	-2
G21-245R2X	-4	-2	0	-2
N16-9171	1	-1	2	1
Mean	-1	0	1	0
LSD(0.05)	1	2	1	2
CV(%)	113	204	40	2686

TABLE 144 - PLANT HEIGHT (INCHES)
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	49	16	31	38	41	33	35
N8001	29	14	34	30	34	34	29
N8002	30	16	29	33	34	31	29
AGS 798R2	30	23	34	37	39	32	32
G17-11274	34	15	31	39	33	36	31
G17-6512R2	35	20	34	36	36	38	33
G17-7222HOLNR2	33	18	34	36	39	37	33
G17-7329HOLNR2	33	20	34	35	34	29	31
G18-3311R2	36	23	39	44	42	43	38
G18-6624HOLNR2	33	20	35	34	35	34	32
G18-8335LL	37	19	34	33	36	32	32
G21-241R2X	30	16	27	33	32	32	28
G21-245R2X	36	18	29	30	32	26	29
N16-9171	30	15	26	32	31	28	27
Mean	34	18	32	35	35	33	31
LSD(0.05)	6	4	5	.	8	9	4
CV(%)	10	13	9	.	11	12	12

TABLE 145 - PLANT LODGING (1-5)
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	1.3	1.0	1.3	1.8	1.2	2.0	1.4
N8001	2.7	1.0	3.3	2.8	1.7	1.3	2.2
N8002	2.7	1.0	3.7	2.2	2.2	1.7	2.3
AGS 798R2	3.0	1.0	2.7	2.3	2.5	1.7	2.2
G17-11274	2.3	1.0	2.3	3.5	2.0	1.0	2.0
G17-6512R2	1.7	1.0	2.3	3.3	2.5	1.0	1.9
G17-7222HOLNR2	2.0	1.0	1.7	2.5	1.7	1.0	1.6
G17-7329HOLNR2	3.0	1.0	2.7	2.3	2.0	1.3	2.1
G18-3311R2	2.0	1.0	2.7	2.7	2.7	1.3	2.1
G18-6624HOLNR2	2.0	1.0	2.3	2.3	2.0	1.3	1.8
G18-8335LL	2.0	1.0	2.3	2.0	1.5	1.0	1.6
G21-241R2X	1.7	1.0	2.0	1.8	2.0	1.0	1.6
G21-245R2X	1.3	1.0	2.0	1.8	1.5	1.0	1.4
N16-9171	3.0	0.5	1.3	2.0	1.5	1.0	1.6
Mean	2.2	1.0	2.3	2.4	1.9	1.3	1.8
LSD(0.05)	0.7	0.3	0.9	1.1	1.0	0.7	0.5
CV(%)	19.2	16.4	21.9	22.0	24.3	31.4	29.1

TABLE 146 - SEED QUALITY (1-5)
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	2.0	1.0	2.0	1.5	.	1.7	1.6
N8001	2.0	1.0	1.7	1.5	.	1.8	1.6
N8002	1.3	1.0	2.0	1.5	.	1.7	1.5
AGS 798R2	1.5	1.0	2.0	1.5	.	1.7	1.5
G17-11274	1.2	1.0	2.0	1.5	.	1.5	1.4
G17-6512R2	1.0	1.0	2.0	2.0	.	1.3	1.5
G17-7222HOLNR2	1.5	1.2	2.0	1.5	.	1.2	1.5
G17-7329HOLNR2	1.0	1.0	2.3	1.5	.	1.8	1.5
G18-3311R2	1.2	1.0	2.0	1.5	.	1.5	1.4
G18-6624HOLNR2	1.2	1.0	1.3	1.5	.	1.3	1.3
G18-8335LL	1.7	1.3	1.7	1.5	.	1.7	1.6
G21-241R2X	2.0	1.0	1.0	1.5	.	1.8	1.5
G21-245R2X	2.8	1.3	2.0	1.5	.	2.0	1.9
N16-9171	1.0	1.0	2.0	1.5	.	1.0	1.3
Mean	1.5	1.1	1.9	1.5	.	1.6	1.5
LSD(0.05)	0.6	0.3	0.5	.	.	0.4	0.4
CV(%)	24.2	18.4	16.6	0.0	.	15.5	24.7

TABLE 147 - SEED SIZE (GRAMS PER 100 SEED)
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	15.2	16.1	12.7	17.8	18.2	15.4	15.8
N8001	16.9	16.5	12.7	14.9	15.5	14.2	15.1
N8002	15.4	14.2	11.6	14.6	14.3	12.3	13.7
AGS 798R2	16.1	13.0	12.5	15.0	15.0	12.7	14.0
G17-11274	17.2	15.3	10.9	14.8	15.9	12.3	14.4
G17-6512R2	17.7	15.1	13.0	15.9	16.8	13.9	15.4
G17-7222HOLNR2	13.9	13.9	10.1	14.1	13.1	13.1	13.0
G17-7329HOLNR2	16.4	12.4	10.3	13.0	13.3	13.1	13.1
G18-3311R2	16.2	15.2	11.0	15.0	16.3	13.4	14.5
G18-6624HOLNR2	16.6	13.4	9.7	14.0	13.4	11.9	13.2
G18-8335LL	17.4	15.1	12.7	14.5	15.3	13.7	14.8
G21-241R2X	17.8	16.0	11.1	15.3	15.8	14.3	15.0
G21-245R2X	19.1	16.6	14.8	16.7	17.5	14.9	16.6
N16-9171	11.1	9.8	7.2	9.8	10.1	8.1	9.4
Mean	16.2	14.5	11.5	14.7	15.0	13.1	14.1
LSD(0.05)	1.9	0.7	2.2	1.2	0.8	0.9	0.9
CV(%)	6.9	2.7	11.7	3.7	2.6	4.1	7.5

TABLE 148 - OIL (%)†
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	18.8	13.8	19.5	17.2	18.2	19.3	17.8
N8001	17.5	17.1	18.9	16.6	17.3	17.7	17.5
N8002	18.4	18.0	18.8	18.1	17.8	18.0	18.2
AGS 798R2	17.8	17.6	19.4	17.7	18.1	17.7	18.0
G17-11274	19.3	18.4	20.8	18.8	19.4	19.1	19.3
G17-6512R2	17.9	17.9	19.8	17.8	17.7	18.5	18.3
G17-7222HOLNR2	19.0	17.9	20.3	18.3	18.1	19.4	18.8
G17-7329HOLNR2	16.7	17.5	20.6	18.6	18.5	18.2	18.3
G18-3311R2	18.0	18.1	20.4	17.9	18.8	19.0	18.7
G18-6624HOLNR2	19.0	18.1	20.7	18.5	18.8	19.3	19.1
G18-8335LL	18.5	18.1	20.9	18.0	18.7	19.0	18.9
G21-241R2X	17.0	17.3	19.7	17.6	16.9	18.6	17.8
G21-245R2X	17.4	19.8	20.1	17.8	17.9	18.9	18.6
N16-9171	17.7	17.9	17.7	17.3	16.8	17.4	17.5
Mean	18.1	17.7	19.8	17.9	18.1	18.6	18.3
LSD(0.05)	.	.	.	.	.	.	0.8
CV(%)	.	.	.	.	.	.	3.8

†Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 149 - PROTEIN (%)†
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	33.3	30.7	34.0	35.5	35.1	33.7	33.7
N8001	37.0	36.0	34.1	37.4	35.4	36.5	36.1
N8002	34.5	35.5	34.7	35.6	35.7	35.2	35.2
AGS 798R2	35.8	35.0	34.6	36.6	35.9	36.4	35.7
G17-11274	35.4	34.3	32.5	34.7	33.0	34.3	34.0
G17-6512R2	37.9	36.0	35.0	37.1	37.7	35.5	36.5
G17-7222HOLNR2	36.8	36.6	34.7	37.2	37.3	36.8	36.5
G17-7329HOLNR2	37.3	36.2	34.1	36.8	36.4	36.7	36.3
G18-3311R2	35.7	35.0	31.8	35.2	33.9	34.4	34.3
G18-6624HOLNR2	36.2	35.5	34.0	36.5	36.2	35.6	35.7
G18-8335LL	34.4	33.6	31.8	35.7	33.9	33.0	33.7
G21-241R2X	36.0	34.7	33.8	35.4	36.1	33.8	35.0
G21-245R2X	35.2	30.1	33.5	35.2	34.9	34.4	33.9
N16-9171	36.7	36.1	35.7	37.2	37.4	35.6	36.4
Mean	35.9	34.7	33.9	36.1	35.6	35.1	35.2
LSD(0.05)	.	.	.	.	.	.	1.0
CV(%)	.	.	.	.	.	.	2.5

†Protein percentage reported on a 13% moisture basis beginning in 2015.

TABLE 150 - ESTIMATED MEAL PROTEIN (%)†
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	44.5	38.7	45.9	46.7	46.6	45.3	44.6
N8001	48.8	47.2	45.7	48.8	46.5	48.2	47.5
N8002	45.9	47.1	46.4	47.3	47.2	46.7	46.7
AGS 798R2	47.3	46.2	46.6	48.3	47.6	48.1	47.4
G17-11274	47.7	45.6	44.6	46.4	44.4	46.1	45.8
G17-6512R2	50.1	47.6	47.4	49.0	49.8	47.3	48.6
G17-7222HOLNR2	49.4	48.5	47.3	49.5	49.6	49.5	48.9
G17-7329HOLNR2	48.7	47.7	46.7	49.2	48.6	48.7	48.3
G18-3311R2	47.3	46.4	43.4	46.5	45.4	46.1	45.8
G18-6624HOLNR2	48.6	47.1	46.7	48.7	48.5	48.0	47.9
G18-8335LL	45.8	44.6	43.6	47.2	45.3	44.3	45.2
G21-241R2X	47.2	45.6	45.7	46.7	47.2	45.1	46.2
G21-245R2X	46.4	40.8	45.6	46.5	46.2	46.0	45.3
N16-9171	48.4	47.8	47.2	48.9	48.9	46.8	48.0
Mean	47.6	45.8	45.9	47.8	47.3	46.9	46.9
LSD(0.05)	.	.	.	.	.	.	1.3
CV(%)	.	.	.	.	.	.	2.4

SUMMARY OF SEED FATTY ACIDS (%)
UNIFORM TEST VIII 2022 †

STRAIN/ VARIETY	Palmitic Acid	Stearic Acid	Oleic Acid	Linoleic Acid	Linolenic Acid
AG79X9RR2X/SR	12.0	4.5	19.7	56.1	7.8
N8001	10.5	4.0	18.9	56.9	9.7
G17-7222HOLNR2	7.9	3.1	73.3	12.9	2.9
G17-7329HOLNR2	6.8	4.0	73.5	12.8	2.9
G18-6624HOLNR2	8.1	3.5	73.1	12.5	2.7
Mean	9.1	3.8	51.7	30.2	5.2
LSD(0.05)	3.0	0.4	6.1	5.1	0.8
CV(%)	27.5	8.0	9.8	14.0	12.1

†Fatty acid percentage in seed oil reported beginning in 2017.

SEED PALMITIC ACID (%)
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	11.8	11.5	12.6	11.9	12.3	11.8	12.0
N8001	12.6	11.7	12.9	12.9	0.2	12.6	10.5
G17-7222HOLNR2	8.4	7.7	7.3	7.5	8.5	7.9	7.9
G17-7329HOLNR2	7.7	8.5	7.7	8.2	0.2	8.7	6.8
G18-6624HOLNR2	7.8	8.5	7.9	7.9	8.3	8.1	8.1
Mean	9.7	9.6	9.7	9.7	5.9	9.8	9.1
LSD(0.05)	.	.	.	.	.	.	3.0
CV(%)	.	.	.	.	.	.	27.5

SEED STEARIC ACID (%)
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	4.2	4.4	4.4	5.4	3.9	4.7	4.5
N8001	3.9	4.0	3.7	3.8	4.2	4.3	4.0
G17-7222HOLNR2	3.1	2.9	3.1	3.1	2.9	3.6	3.1
G17-7329HOLNR2	4.5	4.0	3.6	3.7	3.7	4.3	4.0
G18-6624HOLNR2	4.0	3.3	3.1	3.5	3.2	3.8	3.5
Mean	3.9	3.7	3.6	3.9	3.6	4.2	3.8
LSD(0.05)	.	.	.	.	.	.	0.4
CV(%)	.	.	.	.	.	.	8.0

SEED OLEIC ACID (%)
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	18.5	20.0	20.0	20.0	18.0	21.5	19.7
N8001	18.8	20.1	17.8	17.9	19.3	19.7	18.9
G17-7222HOLNR2	66.7	73.2	80.8	75.9	68.6	74.4	73.3
G17-7329HOLNR2	76.2	61.5	80.3	74.2	83.2	65.6	73.5
G18-6624HOLNR2	76.0	60.5	79.5	74.1	73.2	75.5	73.1
Mean	51.3	47.1	55.7	52.4	52.5	51.3	51.7
LSD(0.05)	.	.	.	.	.	.	6.1
CV(%)	.	.	.	.	.	.	9.8

SEED LINOLEIC ACID (%)
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	57.4	55.2	55.5	55.9	57.2	55.3	56.1
N8001	55.8	54.2	56.0	56.5	64.2	54.8	56.9
G17-7222HOLNR2	18.7	12.9	6.6	11.0	16.7	11.3	12.9
G17-7329HOLNR2	9.2	22.1	6.2	11.0	10.1	18.0	12.8
G18-6624HOLNR2	9.7	24.0	7.2	11.7	12.4	10.1	12.5
Mean	30.2	33.7	26.3	29.2	32.1	29.9	30.2
LSD(0.05)	.	.	.	.	.	.	5.1
CV(%)	.	.	.	.	.	.	14.0

SEED LINOLENIC ACID (%)
UNIFORM GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Athens, GA(B)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	8.0	8.8	7.6	6.9	8.5	6.7	7.8
N8001	8.9	10.0	9.6	9.0	12.1	8.6	9.7
G17-7222HOLNR2	3.0	3.2	2.4	2.6	3.3	2.7	2.9
G17-7329HOLNR2	2.3	3.9	2.2	2.8	2.8	3.3	2.9
G18-6624HOLNR2	2.4	3.6	2.2	2.7	2.9	2.6	2.7
Mean	4.9	5.9	4.8	4.8	5.9	4.8	5.2
LSD(0.05)	.	.	.	.	.	.	0.8
CV(%)	.	.	.	.	.	.	12.1

INTENTIONALLY BLANK

TABLE 151 - PARENTAGE OF ENTRIES
PRELIMINARY GROUP VIII 2022

Ent	Strain/Variety	Parentage	Source	Fn	Trans-genic†	Special Traits‡
1	AG79X9RR2X/SR	Commercial check			RR2	
2	N8001	Commercial check			CONV	
3	N8002	Commercial check			CONV	
4	AGS 798R2	Commercial check			RR2	
5	G19-11113	G13-6299 x Benning HP	Zenglu Li	F5d	CONV	
6	G19-12541	R11-2517 x G14-8109	Zenglu Li	F5d	CONV	
7	G19-12684	Woodruff x G14-8109	Zenglu Li	F5d	CONV	
8	G19-13506	G13-6299 x N10-711	Zenglu Li	F5d	CONV	
9	G19-3423R2	N08-521 x G11-1614R2	Zenglu Li	F5d	RR2	
10	G19-4134R2	TN11-5140 x G10PR-224R2	Zenglu Li	F5d	RR2	
11	G19-5469R2	G11-1614R2 x G12-2103R2	Zenglu Li	F5d	RR2	
12	G19-8041LL	NCC06-899 x G13LL-44	Zenglu Li	F5d	LL	
13	G19-8253LL	N09-13128 x G13LL-44	Zenglu Li	F5d	LL	
14	G19-9370LL	N08-521 x G13LL-56	Zenglu Li	F5d	LL	

† Conv= Conventional(non-transgenic),E3= Enlist E3®, LL= Liberty Link®, RR1= Roundup Ready®, RR2=Roundup Ready 2 Yield®, and RRX= Roundup Ready 2 Xtend®

‡ AA= modified amino acids, DNC= Do not cross with this, FLS= Frogeye leaf spot resistance, LJ= Long juvenile, LN= low linolenic acid, LP= low phytate, HO= high oleic acid, HOLN= high oleic acid/low linolenic acid, SC= Southern stem canker, SCN= Soybean cyst nematode resistance, SR= Soybean rust resistance, and STS= sulfonylurea tolerant

TABLE 152 - GENERAL SUMMARY OF PERFORMANCE
PRELIMINARY TEST VIII 2022

STRAIN/	*SEED*		*AVG.*	*MAT.*			*SCN Cyst Score (1-5)‡*			*SC*	*SC*
VARIETY	*YIELD†*	*RANK*	*RANK*	*INDEX*	*LOD*	*HT*	*Race 2*	*Race 3*	*Race 5*	*RATING*	*SCORE*
AG79X9RR2X/SR	56.8	9	9	0	1.3	37	5	.	4	SS	3
N8001	58.9	6	7	0	2.4	32	5	.	4	MS	4
N8002	56.6	10	8	2	2.7	30	5	.	3	MS	4
AGS 798R2	58.6	7	7	2	1.8	34	2	.	1	R	1
G19-11113	56.1	11	10	1	1.6	35	4	.	5	MS	4
G19-12541	55.3	12	10	1	2.2	36	4	.	4	R	1
G19-12684	52.0	13	11	3	1.9	34	5	.	4	R	1
G19-13506	59.5	5	7	1	1.6	31	5	.	4	MS	4
G19-3423R2	62.7	1	4	-1	1.6	31	4	.	3	R	1
G19-4134R2	49.4	14	12	3	2.2	32	5	.	2	S	5
G19-5469R2	61.9	3	4	-1	2.1	35	5	.	4	S	5
G19-8041LL	57.8	8	8	0	1.8	35	4	.	4	MS	4
G19-8253LL	62.4	2	4	-2	1.4	35	4	.	4	MS	4
G19-9370LL	60.4	4	5	-1	1.8	31	5	.	5	MS	4
Mean	57.7	.	.	1	1.9	33	.	.	.		.
LSD(0.05)	7.4	.	.	2	0.5	3	.	.	.		.
CV(%)	12.2	.	.	325	28	9	.	.	.		.

†Data not included in the yield mean: Fairhope

TABLE 153 - GENERAL SUMMARY OF PERFORMANCE (continued)
PRELIMINARY TEST VIII 2022

STRAIN/ VARIETY	SEED QUALITY	SEED SIZE	PROTEIN§ %	OIL§ %	MEAL PRO%	FL COLOR	PUB. COLOR	POD COLOR
AG79X9RR2X/SR	1.4	16.1	34.5	18.7	46.2			
N8001	1.2	14.5	35.7	17.8	47.1			
N8002	1.1	13.7	35.4	18.1	46.9			
AGS 798R2	1.4	13.3	35.5	18.3	47.2			
G19-11113	1.4	13.9	35.6	18.7	47.5	W	T	T
G19-12541	1.3	15.2	34.9	19.3	47.0	W	T	Br
G19-12684	1.3	14.3	34.7	18.4	46.3	W	T	T
G19-13506	1.4	12.4	34.9	18.6	46.6	P	T	Br
G19-3423R2	1.6	13.3	35.3	18.3	46.9	P	T	T
G19-4134R2	1.4	12.1	34.7	18.8	46.4	W	T	T
G19-5469R2	1.4	14.1	35.2	18.5	47.0	P	T	T
G19-8041LL	1.4	16.2	35.4	18.2	47.1	W	T	T
G19-8253LL	1.3	15.4	33.5	19.5	45.3	W	T	T
G19-9370LL	1.5	14.7	36.1	18.6	48.2	W	T	T
Mean	1.4	14.2	35.1	18.6	46.8			
LSD(0.05)	0.4	1.2	1.0	0.7	1.1			
CV(%)	27.3	8.7	2.2	2.9	1.8			

§ Protein percentage and oil percentage are reported on a 13% moisture basis beginning in 2015.

TABLE 154 - SEED YIELD (BUSHELS PER ACRE)
PRELIMINARY GROUP VIII 2022 †

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	61.7	33.4	48.6	58.2	58.5	56.8
N8001	72.9	34.1	47.7	65.0	49.9	58.9
N8002	56.8	28.0	53.5	61.0	55.1	56.6
AGS 798R2	60.6	32.5	55.0	58.9	60.0	58.6
G19-11113	71.7	17.6	47.7	54.1	51.0	56.1
G19-12541	57.7	25.3	46.5	55.5	61.4	55.3
G19-12684	48.6	37.5	52.8	51.4	55.2	52.0
G19-13506	63.5	29.4	51.9	63.6	59.0	59.5
G19-3423R2	64.1	25.5	58.1	60.4	68.3	62.7
G19-4134R2	43.7	35.9	48.6	56.0	49.4	49.4
G19-5469R2	64.6	30.3	58.8	63.6	60.5	61.9
G19-8041LL	68.6	25.3	55.9	54.3	52.4	57.8
G19-8253LL	73.1	30.4	51.3	63.4	61.6	62.4
G19-9370LL	67.5	24.3	53.8	59.8	60.7	60.4
Mean	62.5	29.3	52.2	59.0	57.3	57.7
LSD(0.05)	12.1	11.4	7.0	10.2	8.7	7.4
LSD(0.10)	10.0	9.4	5.8	8.4	7.2	6.2
CV(%)	11.5	23.1	8.0	10.3	9.1	12.2

† Data not included in the test mean: Fairhope

TABLE 155 - RELATIVE MATURITY (DAYS EARLIER (-) OR LATER (+) THAN ENTRY 1)
PRELIMINARY GROUP VIII 2022

STRAIN/ VARIETY	*Athens, GA(A)*	*Fairhope, AL*	*Jackson Springs, NC*	*Kinston, NC*	*Plains, GA*	*Test Mean*
AG79X9RR2X/SR	10/20	10/20	10/26	10/27	.	10/23
N8001	5	-3	-4	2	.	0
N8002	4	2	1	1	.	2
AGS 798R2	5	0	2	2	.	2
G19-11113	2	-1	2	2	.	1
G19-12541	4	-1	2	-2	.	1
G19-12684	5	2	1	3	.	3
G19-13506	1	0	0	3	.	1
G19-3423R2	1	-4	-2	0	.	-1
G19-4134R2	5	3	1	3	.	3
G19-5469R2	4	-4	-1	-2	.	-1
G19-8041LL	1	-2	1	-1	.	0
G19-8253LL	-2	-2	-2	-2	.	-2
G19-9370LL	3	-3	-2	-2	.	-1
Mean	3	-1	0	0	.	1
LSD(0.05)	2	2	3	3	.	2
CV(%)	46	162	3305	292	.	325

TABLE 156 - PLANT HEIGHT (INCHES)
PRELIMINARY GROUP VIII 2021

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	47	31	40	36	32	37
N8001	30	36	32	33	31	32
N8002	31	31	28	31	31	30
AGS 798R2	34	32	35	36	34	34
G19-11113	36	31	40	36	33	35
G19-12541	38	33	38	37	36	36
G19-12684	34	32	36	34	34	34
G19-13506	34	28	34	30	29	31
G19-3423R2	32	30	28	33	30	31
G19-4134R2	32	30	32	34	31	32
G19-5469R2	34	35	37	32	37	35
G19-8041LL	32	35	40	35	33	35
G19-8253LL	36	35	32	35	35	35
G19-9370LL	31	30	30	31	32	31
Mean	34	32	34	34	32	33
LSD(0.05)	4	4	.	6	6	3
CV(%)	7	7	.	8	9	9

TABLE 157 - PLANT LODGING (1-5)
PRELIMINARY GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	1.7	1.0	1.5	1.5	1.0	1.3
N8001	3.0	3.7	1.8	2.3	1.0	2.4
N8002	2.7	2.7	3.5	3.0	1.7	2.7
AGS 798R2	2.7	2.0	1.5	1.7	1.0	1.8
G19-11113	2.0	1.3	2.2	1.5	1.0	1.6
G19-12541	2.3	2.0	3.5	2.5	1.0	2.2
G19-12684	2.0	2.0	2.0	2.7	1.0	1.9
G19-13506	1.7	1.7	1.5	2.0	1.0	1.6
G19-3423R2	2.3	1.3	1.5	1.7	1.0	1.6
G19-4134R2	3.0	2.0	2.2	3.0	1.0	2.2
G19-5469R2	2.3	2.7	2.2	2.0	1.0	2.1
G19-8041LL	2.3	2.0	1.8	1.7	1.0	1.8
G19-8253LL	2.0	1.3	1.5	1.2	1.0	1.4
G19-9370LL	2.7	2.0	1.8	1.8	1.0	1.8
Mean	2.3	2.0	2.0	2.1	1.0	1.9
LSD(0.05)	0.6	0.8	0.9	1.5	0.3	0.5
CV(%)	15.8	25.0	19.7	34.1	14.7	28.4

TABLE 158 - SEED QUALITY (1-5)
PRELIMINARY GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	1.5	1.0	1.5	.	1.7	1.4
N8001	1.0	1.0	1.5	.	1.2	1.2
N8002	1.0	1.0	1.5	.	1.0	1.1
AGS 798R2	1.0	1.3	1.5	.	1.7	1.4
G19-11113	1.5	1.0	1.5	.	1.5	1.4
G19-12541	1.7	1.0	1.5	.	1.0	1.3
G19-12684	1.3	1.0	1.5	.	1.5	1.3
G19-13506	1.2	1.3	1.5	.	1.5	1.4
G19-3423R2	1.0	1.3	1.5	.	2.5	1.6
G19-4134R2	1.5	1.0	1.5	.	1.5	1.4
G19-5469R2	1.0	1.0	1.5	.	2.2	1.4
G19-8041LL	1.3	1.7	1.5	.	1.2	1.4
G19-8253LL	1.0	1.0	1.5	.	1.8	1.3
G19-9370LL	1.3	1.7	1.5	.	1.5	1.5
Mean	1.2	1.2	1.5	.	1.5	1.4
LSD(0.05)	0.5	0.6	.	.	0.7	0.4
CV(%)	23.2	29.1	0.0	.	26.3	27.3

TABLE 159 - SEED SIZE (GRAMS PER 100 SEED)
PRELIMINARY GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	16.8	14.1	18.3	16.8	14.8	16.1
N8001	18.2	12.1	15.4	15.1	12.1	14.5
N8002	17.7	10.2	14.7	13.6	12.2	13.7
AGS 798R2	16.6	9.2	13.8	14.5	12.7	13.3
G19-11113	18.6	11.5	13.6	14.1	11.9	13.9
G19-12541	18.8	12.1	16.0	15.4	13.9	15.2
G19-12684	17.5	12.3	15.8	15.1	11.2	14.3
G19-13506	13.4	11.0	13.5	13.1	11.3	12.4
G19-3423R2	17.5	10.6	13.1	13.1	12.8	13.3
G19-4134R2	14.0	10.4	12.5	12.7	10.5	12.1
G19-5469R2	17.2	12.0	14.6	14.4	12.5	14.1
G19-8041LL	18.5	13.0	17.1	17.1	15.4	16.2
G19-8253LL	16.6	12.3	16.6	16.0	15.7	15.4
G19-9370LL	18.4	11.1	15.1	15.2	13.9	14.7
Mean	17.1	11.6	15.0	14.7	12.9	14.2
LSD(0.05)	3.2	1.5	0.7	1.3	0.9	1.2
CV(%)	10.1	7.8	2.3	4.0	4.0	8.7

TABLE 160 - OIL (%)†
PRELIMINARY GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	18.5	19.8	18.5	18.4	18.4	18.7
N8001	17.5	19.5	17.2	16.9	17.8	17.8
N8002	18.8	18.7	18.1	17.6	17.3	18.1
AGS 798R2	18.2	19.6	18.0	18.3	17.7	18.3
G19-11113	19.3	19.4	17.9	17.9	18.8	18.7
G19-12541	19.6	19.7	18.2	19.5	19.4	19.3
G19-12684	18.8	20.3	17.3	18.2	17.6	18.4
G19-13506	19.2	18.0	18.7	18.4	18.4	18.6
G19-3423R2	17.4	18.7	18.6	18.5	18.5	18.3
G19-4134R2	18.2	20.3	18.2	18.6	18.5	18.8
G19-5469R2	18.9	19.5	17.9	18.4	17.9	18.5
G19-8041LL	17.8	19.8	17.6	17.7	18.2	18.2
G19-8253LL	18.7	20.7	19.5	18.9	19.5	19.5
G19-9370LL	17.7	19.5	18.7	18.3	18.9	18.6
Mean	18.5	19.5	18.2	18.2	18.4	18.6
LSD(0.05)	.	.	.	.	.	0.7
CV(%)	.	.	.	.	.	2.9

† Oil percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 161 - PROTEIN (%)†
PRELIMINARY GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	34.6	34.5	34.6	33.9	35.1	34.5
N8001	36.1	33.7	36.7	35.7	36.1	35.7
N8002	35.1	34.8	35.1	35.8	36.1	35.4
AGS 798R2	36.6	34.2	35.7	34.3	36.6	35.5
G19-11113	33.7	36.1	36.7	35.8	35.5	35.6
G19-12541	35.3	34.3	35.9	34.7	34.4	34.9
G19-12684	33.8	33.0	36.2	35.0	35.7	34.7
G19-13506	34.3	35.3	34.5	35.5	34.9	34.9
G19-3423R2	36.1	34.9	35.6	34.5	35.3	35.3
G19-4134R2	35.6	32.6	35.4	34.8	34.9	34.7
G19-5469R2	35.1	34.4	36.1	34.6	35.9	35.2
G19-8041LL	36.6	34.0	36.2	35.3	35.1	35.4
G19-8253LL	35.4	32.6	33.2	33.2	33.4	33.5
G19-9370LL	36.0	35.2	36.5	36.0	36.5	36.1
Mean	35.3	34.3	35.6	34.9	35.4	35.1
LSD(0.05)	.	.	.	.	.	1.0
CV(%)	.	.	.	.	.	2.2

† Protein percentage is reported on a 13% moisture basis beginning in 2015.

TABLE 162 - ESTIMATED MEAL PROTEIN (%)†
PRELIMINARY GROUP VIII 2022

STRAIN/ VARIETY	Athens, GA(A)	Fairhope, AL	Jackson Springs, NC	Kinston, NC	Plains, GA	Test Mean
AG79X9RR2X/SR	46.1	46.7	46.1	45.2	46.7	46.2
N8001	47.6	45.5	48.1	46.8	47.8	47.1
N8002	47.0	46.6	46.6	47.2	47.4	46.9
AGS 798R2	48.6	46.2	47.4	45.6	48.4	47.2
G19-11113	45.3	48.7	48.6	47.3	47.6	47.5
G19-12541	47.7	46.4	47.7	46.8	46.4	47.0
G19-12684	45.3	45.0	47.6	46.5	47.1	46.3
G19-13506	46.1	46.9	46.1	47.3	46.5	46.6
G19-3423R2	47.5	46.6	47.5	46.0	47.0	46.9
G19-4134R2	47.3	44.5	47.1	46.5	46.6	46.4
G19-5469R2	47.0	46.4	47.8	46.1	47.5	47.0
G19-8041LL	48.5	46.0	47.8	46.7	46.6	47.1
G19-8253LL	47.4	44.7	44.8	44.4	45.0	45.3
G19-9370LL	47.5	47.6	48.8	47.9	49.0	48.2
Mean	47.1	46.3	47.3	46.4	47.1	46.8
LSD(0.05)	.	.	.	.	.	1.1
CV(%)	.	.	.	.	.	1.8

† Estimated meal protein percentage is reported on a 13% moisture basis.