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S-506A Turner Hall
University of Illinois

U. S. REGIONAL SOYBEAN LABORATORY
Urbana, Illinois

RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS, 1944.

PART I. NORTH CENTRAL STATES

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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF PLANT INDUSTRY,
SOILS, AND AGRICULTURAL ENGINEERING,
DIVISION OF FORAGE CROPS AND DISEASES
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RESULTS OF THE COOPERATIVE UNIFORM SOYBEAN TESTS

PART I. NORTH CENTRAL STATES

****

1944

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Compiled by

William J. Morse, Jackson L. Cartter, Albert H. Probst, Leonard F. Williams
Lewis C. Saboe, David Heusinkveld, Floyd I. Collins, Orland A. Krober,
Robert R. Kalton, Carl V. Feaster, Gordon E. Geeseman,
and Ruth E. Lawrence. 1/

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INTRODUCTION

The Uniform Tests of soybean strains were designed to facilitate the evaluation of new lines developed through the cooperative breeding work. Nine uniform test groups have been established to assist in the evaluation of varieties and strains and are designated as Uniform Test Groups 0, I, II, III, IV, V, VI, VII, and VIII in the order of maturity from earliest to latest. This report includes the detailed results of the Uniform Tests, Groups 0 to IV, grown in the North Central states for the 1944 season, and also, two, three, and five-year summaries of agronomic and chemical information for the different strains grown during the period 1940-1944. A report on the performance of Groups III to VII grown in the Southeastern states will be issued as Part II of the "Results of the Cooperative Uniform Soybean Tests, 1944."

1/ Principal Agronomist, Senior Agronomist, Associate Agronomist, Associate Agronomist, Assistant Agronomist, Assistant Agronomist, Assistant Chemist, Assistant Chemist, Agent, Agent, Agent, and Statistical Clerk, Division of Forage Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering, Agricultural Research Administration, U.S.D.A.

Group 0 was designed to include varieties for the northernmost parts of the North Central states and contains material of about the same maturity or earlier than Mandarin (Ottawa). Group I was designed to include varieties adapted to the northern parts of the soybean belt immediately south of the region for Group 0, and contains material ranging in approximate maturity from Mandarin (Ottawa) to Earlyana. Group II was established to include varieties adapted to the northern part of the central soybean belt area immediately south of the region for Group I of approximately the maturity of Richland. Group III was established to include varieties adapted to the central part of the soybean belt, namely, southern Ohio, central Indiana, central Illinois, southern Iowa, and northern Missouri, and contains material ranging from several days earlier than Illini to as late as Chief. Group IV contains strains ranging from Chief to Gibson or later in maturity which are adapted to Missouri, southern Indiana, and southern Illinois. Preliminary Test of strains suitable for Group IV was conducted at five locations.

This report includes the detailed results of the Uniform Tests, Groups I to IV for the 1944 season, and also the two-, three-, and five-year summaries of agronomic and chemical information for the different strains grown during the 1940-44 period.

COOPERATING AGENCIES AND PERSONNEL FOR THE NORTH CENTRAL REGION

Bureau of Plant Industry, Soils, and Agricultural Engineering:
Division of Forage Crops and Diseases: William J. Morse, Jackson L. Cartter, Leonard F. Williams, Albert H. Probst, Charles R. Weber, David Heusinkveld, Lewis C. Saboe, Morris A. Arneson, Floyd I. Collins, Orland A. Krober, John M. Slatensek, Robert R. Kalton, Carl V. Feaster, and Gordon E. Geeseman.

Illinois Agricultural Experiment Station
Agronomy Department: W. L. Burlison and C. M. Woodworth

Iowa Agricultural Experiment Station
Farm Crops Department: I. J. Johnson

Kansas Agricultural Experiment Station
Agronomy Department: J. W. Zahnley

Michigan Agricultural Experiment Station
Agronomy Department: Leyton V. Nelson

Minnesota Agricultural Experiment Station
Agronomy Department: A. C. Arny

COOPERATING AGENCIES AND PERSONNEL (cont.)

Missouri Agricultural Experiment Station
Field Crops Department: W. C. Etheridge and B. M. King

Nebraska Agricultural Experiment Station
Agronomy Department: T. A. Kiesselbach

North Dakota Agricultural Experiment Station
Agronomy Department: T. E. Stoa

Ohio Agricultural Experiment Station
Agronomy Department: R. D. Lewis

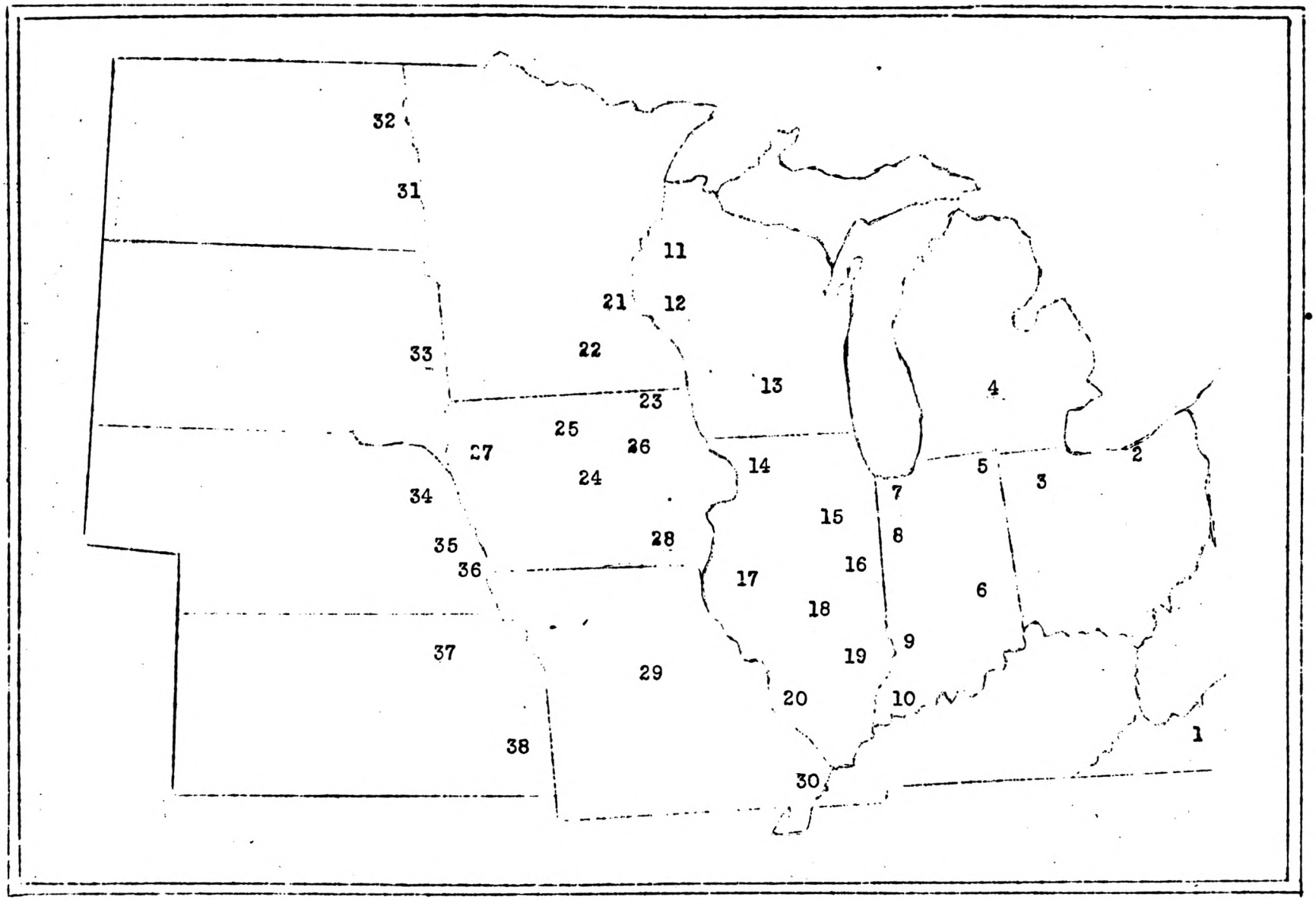
Purdue Agricultural Experiment Station
Agronomy Department: G. H. Cutler

South Dakota Agricultural Experiment Station
Agronomy Department: E. L. Erickson

Wisconsin Agricultural Experiment Station
Agronomy Department: J. H. Torrie

LOCATION OF COOPERATIVE NURSERIES

Location	Cooperator	Uniform Test Group 0	Uniform Test Group I	Uniform Test Group II	Uniform Test Group III	Uniform Test Group IV	Uniform Prelim. Test Group IV
New Brunswick,NJ	NJ Agr.Exp.Sta.			x			
Blacksburg,Va.	Va.Agr.Exp.Sta.						x
Strongsville,O	L.A.Malik		x				
Holgate,O	NW Br.Ohio Ag.Exp.Sta.			x			
E.Lansing,Mich.	Mich.Agr.Exp. Sta.		x	x			
LaGrange,Ind.	Leon Watson			x			
Greenfield,Ind.	Purdue Agr.Exp.Sta.			x	x		
Wanatah,Ind.	Purdue Agr.Exp.Sta.	x		x			
Lafayette,Ind.	Purdue Agr.Exp.Sta.			x	x		
Wheatland,Ind.	Raymond E. Roney					x	x
Evansville,Ind.	Leo J. Hirsch					x	x
Spooner, Wis.	Wis.Br.Agr.Exp.Sta.	x					
Eau Claire,Wis.	Wis.Br.Agr.Exp.Sta.	x	x				
Madison, Wis.	Wis.Agr.Exp.Sta.		x	x			
Mt.Morris,Ill.	Earl Kump			x			
Dwight,Ill.	Frank Roeder			x	x		
Urbana,Ill.	Ill.Agr.Exp.Sta.			x	x	x	x
Clayton,Ill.	Russell S. Davis				x	x	
Stonington,Ill.	Frank Garwood & Sons				x	x	
Edgewood,Ill.	F.V.Wilson & John Wilson				x	x	x
Freeburg,Ill.	Loren Wilderman				x	x	
St.Paul,Minn.	Minn.Agr.Exp.Sta.	x	x				
Waseca,Minn.	Minn.Br.Agr.Exp.Sta.	x	x				
Cresco,Iowa	Howard County Exp.Farm		x	x			
Ames,Iowa	Iowa Agr.Exp.Sta.			x	x		
Kanawha,Iowa	Northern Iowa Agr. Exp.Assn.		x	x			
Hudson,Iowa	Strayer Bros.Seed Farm			x			
Cherokee,Iowa	Cherokee State Hosp.			x			
Ottumwa,Iowa	Fred Parrett				x		
Columbia, Mo.	Mo.Agr.Exp.Sta.				x	x	x
Sikeston,Mo.	SE Mo.Agr.Exp.Sta.					x	
Fargo,N.D.	N.D.Agr.Exp.Sta.	x					
Park River,N.D.	Walsh Co. Sch.of Ag.	x					
Brookings,S.D.	S.D.Agr.Exp.Sta.		x				
Norfolk,Nebr.	Darius Raasch Farm			x			
Lincoln,Nebr.	Nebr.Agr.Exp.Sta.				x		
Nebraska City, Nebraska	John McCarthy Farm				x		
Manhattan,Kans.	Kans.Agr.Exp.Sta.				x	x	
Thayer,Kans.	SE Kans.Agr.Exp.Field					x	



Map of the North Central States Showing Location of most of the Cooperative Uniform Tests, 1941.

METHODS

All Uniform Tests have been planted in replicated rod-row plots, using either a lattice or a randomized block design with four replications. Row widths used at the different test locations have varied from eighteen to forty-two inches depending upon the width in common use or the equipment available for handling the crop. Seeding rates have also varied with locations, the most prevalent rates being 150 to 200 viable seeds per row. Rates within this range have given satisfactory stands throughout the region under normal soil and weather conditions at planting time.

Yields were taken on individual replications after the seed had been dried to a uniform moisture content basis.

Chemical composition was determined for each strain at each location in Groups 0 and I, and for some locations in Groups II, III and IV. Chemical composition was determined for the remaining locations in Groups II, III, and IV on composite samples prepared by combining equal weights of seed from each location. The location composites were prepared by combining equal weights of seed of each of the strains in a Group Test at an individual location. Percentage composition of the seed is expressed on a dry basis. Seed weight for each strain was also determined on the variety composite and was recorded as weight (in grams) per 100 seeds.

Lodging 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 badly

Height was determined as the average length of plants in a plot from the ground to the top extremity at time of maturity.

Maturity was taken as the date when the leaves had dropped, the pods were ripe, and the stems were fairly dry. Maturity in all summaries is expressed as days earlier(-) or later (+) than a standard or reference variety. Reference varieties used for the different Uniform Tests are as follows: Group 0, Mandarin; Group I, Mandarin; Group II, Richland; Group III, Illini; and Group IV, Gibson.

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

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

The factors considered in estimating seed quality were: development of seed; wrinkling; damage; and color for the variety.

Calculating Means. In most cases where the lodging and seed quality notes were 1, indicating no difference between strains at a location, these locations were not included in the mean.

UNIFORM TEST, GROUP O

The Group O Test consisted of twelve named varieties, the origin of which is as follows:

Variety or Strain	Source or Originating Agency	Origin
Early White Eyebrow	Unknown at present	Unknown at present
Goldsoy	Ontario Agr. College	Selection from O.A.C. 211
Kabott	Central Exp.Farm, Ottawa	Selection from Manchu
Kagon	Wis. Agr. Exp. Sta.	Unknown at present
Mandarin (Ottawa)	Central Exp.Farm, Ottawa	Selection from Mandarin
Minsoy	Minnesota Agr.Exp.Sta.	P.I. 27890[1]
Montreal Manchu	T.B.MacCauley, Montreal	Selection from Manchu
Norsoy	Unknown at present	Unknown at present
Flambeau[2]	Wisconsin Agr.Exp.Sta.	Selection from Manchu
Ontario	N.Y. Agr.Exp.Sta.	Selection from P.I. 65344
Pagoda	Central Exp.Farm, Ottawa	Sel. from Manitoba Br. x Mandarin
Wisconsin Mandarin 507	Wisconsin Agr.Exp.Sta.	Selection from Mandarin

[1]Division of Plant Exploration and Introduction, Bureau of Plant Industry, Soils, and Agricultural Engineering, U.S.D.A.

[2]Wisconsin 839-14

In order to meet the demand for material earlier than that in the Group I test, a Group O test was organized in 1944 to include strains too early for Group I. Mandarin (Ottawa) and Ontario were included as strains for comparison with the Group I test. The 1944 data for this test are presented in Tables 1 to 11. The varieties Early White Eyebrow, Kagon, Montreal Manchu, and Norsoy are new varieties which have not been previously entered in uniform tests.

Since this test was newly organized in 1944 and little information was available on some varieties, it appeared important to analyze the samples by individual locations instead of from composites of a variety from all locations. Wanatah, Indiana, is geographically too far south for this test and for this reason was not included in the locations mean. There is much interest in the development of a variety suitable for the muck soils of northern Indiana where this test was grown. It is interesting to note that, except for lodging, the varieties when grown at Wanatah did not react much differently than when grown at some of the other locations.

A summary of the data for the strains which have been tested for two years appears in tables 12 and 13. Pagoda, which ranked last in yield and was lowest in oil content on the average of two years of testing in Group O, was entered in Group O from a pathological standpoint since it is very susceptible to bacterial leaf spot. The variety, Mandarin (Ottawa) is likewise known as Dimmock Mandarin, McRostie Mandarin, and Mandarin 3414. It has been previously tested as Dimmock Mandarin and McRostie Mandarin. This strain has yielded substantially better than the Mandarin 507 type and has also averaged 1% more oil. It is definitely shorter and has a larger seed and a lower iodine number. Much of the Mandarin in Ohio, Indiana, Illinois, Wisconsin, and Iowa is of the Mandarin 507 type but in Michigan it is mostly the Canadian strain. Buyers of Mandarin should be careful which type they are buying. It is to be regretted that Mandarin (Ottawa) was not used in place of ordinary Mandarin in making the early crosses. Ontario, the latest strain in the test, has averaged highest in yield and in addition has had 1% more oil in the seed than any other strain in the two-year summary. It is being used in the breeding program.

Table 1. Summary of agronomic and chemical data for the strains in the Uniform Test, Group O, 1944.

Strains	Mean Yield Bu./A.	Lodging	Height Inches	Maturity[1]	Seed Quality	Seed Weight	Percentage of Protein[2]	Percentage of Oil[2]	Iodine Number of Oil
Number of Tests	6	6	5	4	6	6	6	6	6
Ontario	27.7	1.0	24	+ 3	1.3	19.4	42.2	19.3	137.3
Montreal Manchu	27.1	1.0	26	- 2	1.3	15.9	43.1	18.5	137.7
Mandarin (Ottawa)	27.1	1.0	22	0	1.3	18.4	42.9	18.4	134.9
Wis.Mandarin 507	25.0	1.0	26	- 1	1.3	16.9	44.9	17.5	137.2
Flambeau[3]	24.7	1.0	23	- 7	1.5	15.0	43.5	18.5	133.6
Goldsoy	23.7	1.0	21	- 4	1.3	19.0	44.5	17.9	135.8
Kagon	23.4	1.0	24	0	1.5	17.3	45.4	17.4	137.6
Norsoy	23.0	1.0	22	0	1.3	14.4	45.7	16.8	138.1
Early White Eyebrow	21.9	1.0	21	- 4	1.3	16.2	45.5	17.7	135.0
Kabott	20.3	1.0	20	-10	1.3	19.3	43.9	18.5	132.1
Minsoy	19.9	1.5	19	- 3	1.3	11.4	42.3	17.9	132.9
Pagoda	12.2	1.0	18	-11	1.3	14.3	43.9	18.6	128.4
Mean	23.0	1.0	22	--	1.3	16.5	44.0	18.1	135.1

[1] Days earlier (-) or later (+) than Mandarin (Ottawa). Mandarin (Ottawa) required 115 days to mature.

[2] Composition on dry basis

[3] Wis.839-14

Table 2. Summary of yields in bushels per acre for the strains in the Uniform Test, Group O, 1944.

Strain	Mean of 6 Tests[1]	Wanatah Ind.	Spooner Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Fargo N.D.	Park River N. D.
Ontario	27.7	27.5	18.4	15.8	32.5	31.4	41.4	26.6
Montreal Manchu	27.1	23.8	16.9	13.3	30.5	32.4	46.5	24.1
Mandarin(Ottawa)	27.1	25.5	17.0	12.0	31.4	33.8	44.5	23.7
Wis. Man. 507	25.0	26.6	15.8	12.3	27.9	30.2	42.0	21.5
Flambeau	24.7	20.5	17.2	8.7	24.6	33.1	41.7	22.8
Goldsoy	23.7	25.7	16.6	9.7	24.6	29.5	36.1	25.4
Kagon	23.4	23.1	16.4	11.8	25.8	27.5	39.0	19.8
Norsoy	23.0	24.0	15.0	10.2	23.4	28.6	37.2	23.3
Early White Eyebrow	21.9	20.6	15.2	9.8	25.9	24.3	35.1	21.1
Kabott	20.3	17.6	18.1	7.3	27.6	22.7	25.5	20.5
Minsoy	19.9	18.4	14.3	9.3	23.9	22.1	25.0	24.5
Pagoda	12.2	10.8	13.6	2.0	16.9	10.3	18.1	12.1
Mean	23.0	22.0	16.1	10.2	26.6	27.2	36.0	22.1
Coef. of var.(%)		10.5	8.0	17.7	11.8	8.2	14.8	15.8
Bu. Nec. for Sig.(5%)		3.9	1.9	2.9	4.5	3.2	7.7	5.0

1 Wanatah not included in the mean.

Table 3. Summary of yield rank for the strains in the Uniform Test, Group O, 1944

Strain	Wanatah Ind.	Spooner Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Fargo N. D.	Park River N. D.
Ontario	1	1	1	1	4	5	1
Mont. Manchu	6	7	2	3	3	1	4
Mandarin(Ottawa)	4	4	4	2	1	2	5
Wis.Mandarin 507	2	8	3	4	5	3	8
Flambeau	9	3	10	8	2	4	7
Goldsoy	3	5	8	8	6	8	2
Kagon	7	6	5	7	8	6	11
Norsoy	5	10	6	12	7	7	6
Early White Eyebrow	8	9	7	6	9	9	9
Kabott	11	2	11	5	10	10	10
Minsoy	10	11	9	10	11	11	3
Pagoda	12	12	12	12	12	12	12

Table 4. Summary of lodging notes on the strains in the Uniform Test, Group O, 1944.

Strain	Mean of 6 Tests[1]	Wanatah Ind.	Spooner Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Fargo N. D.	Park River N. D.
Ontario	1.0	1.2	1	1	1	1	1	1
Montreal Manchu	1.0	1.7	1	1	1	1	1	1
Mandarin(Ottawa)	1.0	1.2	1	1	1	1	1	1
Wis. Mandarin 507	1.0	1.5	1	1	1	1	1	1
Flambeau	1.0	2.2	1	1	1	1	1	1
Goldsoy	1.0	2.2	1	1	1	1	1	1
Kagon	1.0	1.2	1	1	1	1	1	1
Norsoy	1.0	1.8	1	1	1	1	1	1
Early White Eyebrow	1.0	1.3	1	1	1	1	1	1
Kabott	1.0	2.2	1	1	1	1	1	1
Minsoy	1.5	2.3	3	2	1	1	1	1
Pagoda	1.0	1.2	1	1	1	1	1	1
Mean	1.0	1.7	1.1	1.1	1	1	1	1

1 Wanatah not included in the mean.

Table 5. Summary of height data on the strains in the Uniform Test, Group O, 1944.

Strain	Mean of 5 Tests[1]	Wanatah Ind.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Fargo N. D.	Park River N. D.
Ontario	24	23	22	25	22	29	22
Montreal Manchu	26	27	23	28	26	30	22
Mandarin (Ottawa)	22	24	20	23	25	28	16
Wis. Mandarin 507	26	31	25	29	26	29	23
Flambeau	23	24	20	24	24	28	20
Goldsoy	21	23	18	23	21	24	18
Kagon	24	28	22	27	25	26	20
Norsoy	22	25	20	24	21	27	18
Early White Eyebrow	21	21	18	23	22	24	16
Kabott	20	20	16	23	21	24	16
Minsoy	19	17	14	19	19	23	18
Pagoda	18	22	13	22	19	22	15
Mean	22	24	19	24	23	26	19

1 Wanatah not included in the mean.

Table 6. Summary of maturity data, days earlier (-) or later (+) than Mandarin (Ottawa), for the strains in the Uniform Test Group 0, 1944.

Strain	Mean of 4 Tests[1]	Wanatah Ind.	Spooner Wis.	St. Paul Minn.	Waseca Minn.	Fargo N. D.
Ontario	+3	+13	0	+12	-4	+5
Montreal Manchu	-2	0	0	-10	0	+1
Mandarin (Ottawa)	0	0	0	0	0	0
Wis. Mandarin 507	-1	+ 1	0	-4	0	0
Flambeau	-7	-8	-7	-9	0	-10
Goldsoy	-4	-5	0	-6	0	-9
Kagon	0	+1	0	-1	+1	0
Norsoy	0	-2	0	+3	+1	-4
Early White Eyebrow	-4	-5	0	-4	-2	-10
Kabott	-10	-8	-10	-8	-3	-17
Minsoy	-3	-8	-3	-5	-8	+ 3
Pagoda	-11	-8	-14	-14	-2	-22
Mandarin (Ottawa) matured		9/13	9/15	9/16	10/1	10/2
Date of Planting		6/1	5/26	5/26	6/8	6/3
Days to Maturity	115	104	112	113	115	121

1 Wanatah not included in the mean.

Table 7. Summary of seed quality data for the strains in the Uniform Test, Group O, 1944.

Strain	Mean of 6 Tests[1]	Wanatah Ind.	Spooner Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Fargo N. D.	Park River N. D.
Ontario	1.3	2.0	2	2	1	1	1	1
Montreal Manchu	1.3	2.0	2	2	1	1	1	1
Mandarin (Ottawa)	1.3	1.5	2	2	1	1	1	1
Wis. Mandarin 507	1.3	2.0	2	2	1	1	1	1
Flambeau	1.5	2.0	2	3	1	1	1	1
Goldsoy	1.3	2.0	2	2	1	1	1	1
Kagon	1.5	2.0	2	3	1	1	1	1
Norsoy	1.3	2.0	2	2	1	1	1	1
Early White Eyebrow	1.3	2.5	2	2	1	1	1	1
Kabott	1.3	2.0	2	2	1	1	1	1
Minsoy	1.3	1.5	2	2	1	1	1	1
Pagoda	1.3	1.5	2	2	1	1	1	1
Mean	1.3	1.9	2	2.2	1	1	1	1

1 Wanatah not included in the mean.

Table 8. Summary of seed weight in grams per 100 seeds for the strains in the Uniform Test, Group O, 1944.

Strain	Mean of 6 Tests[1]	Wanatah Ind.	Spooner Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Fargo N. D.	Park River N. D.
Ontario	19.4	19.9	20.2	19.7	18.8	18.6	18.8	20.4
Montreal Manchu	15.9	15.9	16.7	15.7	15.1	15.6	16.5	15.8
Mandarin (Ottawa)	18.4	17.5	19.5	17.9	16.2	18.6	18.7	19.4
Wis. Mandarin 507	16.9	16.1	17.9	16.8	15.3	16.8	17.1	17.4
Flambeau	15.0	15.8	13.8	13.5	14.9	15.8	15.7	16.5
Goldsoy	19.0	19.4	17.9	19.3	19.1	19.8	18.5	19.3
Kagon	17.3	16.7	16.1	17.4	16.5	17.3	18.1	18.2
Norsoy	14.4	12.7	14.1	15.3	13.8	13.9	14.8	14.2
Early White Eyebrow	16.2	17.5	15.7	17.3	16.4	15.5	15.8	16.2
Kabott	19.3	17.9	19.4	19.8	18.3	20.5	17.4	20.4
Minsoy	11.4	11.2	11.4	10.1	12.1	11.0	11.9	11.7
Pagoda	14.3	14.9	15.8	13.8	13.9	13.6	13.4	15.3
Mean	16.5	16.3	16.5	16.4	15.9	16.4	16.4	17.1

1 Wanatah not included in the mean.

Table 9. Summary of percentage protein for the strains in the Uniform Test, Group O, 1944

Strain	Mean of 6 Tests[1]	Wanatah Ind.	Spooner Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Fargo N. D.	Park River N. D.
Ontario	42.2	44.3	44.2	45.0	39.4	41.3	42.4	40.9
Montreal Manchu	43.1	43.3	45.7	45.6	39.7	45.0	42.8	39.5
Mandarin (Ottawa)	42.9	43.8	46.5	45.9	41.9	41.3	42.4	39.6
Wis. Mandarin 507	44.9	45.8	47.9	48.5	42.7	43.1	46.1	40.9
Flambeau	43.5	44.3	45.9	47.6	42.1	40.7	42.3	42.2
Goldsoy	44.5	44.6	47.8	48.2	43.5	42.5	43.0	41.9
Kagon	45.4	46.7	47.7	49.3	42.9	43.8	45.3	43.6
Norsoy	45.7	45.5	48.3	49.1	44.4	44.2	45.7	42.2
Early White Eyebrow	45.5	47.0	49.4	49.2	44.8	42.0	43.6	43.7
Kabott	43.9	45.6	48.6	48.2	43.9	41.3	41.7	39.9
Minsoy	42.3	41.0	44.6	46.8	40.2	40.4	41.2	40.5
Pagoda	43.9	45.6	45.8	48.1	42.5	43.1	42.0	41.7
Mean	44.0	44.8	46.9	47.6	42.3	42.4	43.2	41.4

1 Wanatah not included in the mean.

Table 10. Summary of percentage oil for the strains in the Uniform Test, Group O, 1944.

Strain	Mean of 6 Tests[1]	Wanatah Ind.	Spooner Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Fargo N. D.	Park River N. D.
Ontario	19.3	19.5	18.7	19.2	21.0	19.3	18.4	19.1
Montreal Manchu	18.5	19.4	17.6	18.2	20.1	18.8	17.8	18.4
Mandarin (Ottawa)	18.4	19.5	17.1	18.0	19.4	19.4	18.0	18.7
Wis.Mandarin 507	17.5	17.9	16.5	17.2	19.0	18.0	16.3	18.2
Flambeau	18.5	19.5	18.0	17.4	20.2	19.8	18.0	17.8
Goldsoy	17.9	19.0	17.0	17.4	18.8	18.4	17.3	18.2
Kagon	17.4	17.8	16.4	16.8	19.1	18.0	16.6	17.4
Norsoy	16.8	18.0	16.1	16.3	17.7	17.3	16.0	17.2
Early White Eyebrow	17.7	18.5	16.4	17.5	18.7	18.7	17.3	17.8
Kabott	18.5	19.0	17.2	17.8	19.5	19.8	18.2	18.7
Minsoy	17.9	20.0	17.1	17.1	19.0	18.3	18.2	17.6
Pagoda	18.6	18.6	18.3	17.3	19.6	19.2	18.4	19.0
Mean	18.1	18.9	17.2	17.5	19.3	18.8	17.5	18.2

1 Wanatah not included in the mean.

Table 11. Summary of iodine number of oil for the strains in the Uniform Test, Group O, 1944.

Strain	Mean of 6 Tests[1]	Wanatah Ind.	Spooner Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Fargo N. D.	Park River N. D.
Ontario	137.3	131.8	135.7	132.4	135.7	137.3	141.4	141.4
Montreal Manchu	137.7	131.5	135.1	133.1	135.8	138.8	142.5	141.1
Mandarin(Ottawa)	134.9	130.0	134.1	129.3	133.1	134.6	140.1	138.0
Wis.Mandarin 507	137.2	132.1	136.3	128.6	135.8	138.6	143.1	140.8
Flambeau	133.6	126.6	131.5	125.5	130.9	135.4	139.9	138.3
Goldsoy	135.8	130.6	133.6	127.9	132.9	138.7	142.8	139.1
Kagon	137.6	132.3	136.6	130.6	135.8	138.7	142.9	141.1
Norsoy	138.1	133.0	136.8	132.9	135.7	139.3	143.1	140.9
Early White Eyebrow	135.0	129.3	133.9	126.1	132.1	137.2	141.5	139.4
Kabott	132.1	127.5	128.0	124.2	129.2	134.6	140.5	135.9
Minsoy	132.9	125.3	132.1	123.8	129.9	135.1	137.5	138.8
Pagoda	128.4	120.2	122.0	119.5	123.9	132.2	140.2	132.4
Mean	135.1	129.2	133.0	127.8	132.6	136.7	141.3	138.9

1 Wanatah not included in the mean.

Table 12. Two-year summary of agronomic and chemical data for the strains in the Uniform Test, Group O, for 1943-44.

Strain	Yield Bu/A	Lodging	Height Inches	Maturity[1]	Seed Qual.	Seed Wght.	Percentage of Protein[2]	Percentage of Oil[2]	Iodine Number of Oil
No. of Tests	15	14	14	12	14	15	15	15	15
Ontario	27.4	1.9	27	+2.8	1.5	19.4	42.4	20.0	133
Mandarin(Ottawa)	26.9	1.5	25	0	1.5	19.0	43.6	19.0	131
Wis. Man. 507	25.2	1.7	29	-0.5	1.8	17.7	45.2	18.0	133
Goldsoy	24.2	1.9	24	-5.7	1.8	19.8	44.9	18.2	134
Flambeau	23.9	1.9	26	-10.5	1.9	15.7	43.7	19.0	131
Kabott	20.7	1.5	23	-11.1	1.6	19.4	45.0	18.0	131
Minsoy	19.2	2.3	22	-7.4	1.5	11.8	42.2	18.5	130
Pagoda	14.6	1.0	23	-14.4	1.6	14.7	43.8	18.8	126

1 Days earlier (-) or later (+) than Mandarin (Ottawa). Mandarin (Ottawa) required 112 days to mature.

2 Composition on dry basis.

Table 13. Two-year summary of yields in bushels per acre, and yield rank for the strains in the Uniform Test, Group O, 1943-44.

Strain	Mean of 15 Tests	Spooner Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Fargo N. D.
Ontario	27.4	17.0	17.1	32.0	31.0	28.8
Mandarin (Ottawa)	26.9	17.5	16.9	28.3	33.7	32.5
Wis.Mandarin 507	25.2	15.1	16.3	27.1	29.5	30.9
Goldsoy	24.2	16.0	13.6	26.6	28.1	30.4
Flambeau	23.9	17.6	12.2	27.0	31.6	33.6
Kabott	20.7	16.1	10.7	26.3	24.4	22.1
Minsoy	19.2	15.3	12.3	21.2	20.6	22.1
Pagoda	14.6	13.3	5.4	20.4	15.2	15.6
			Yield Rank			
Ontario		3	1	1	3	5
Mandarin (Ottawa)		2	2	2	1	2
Wis.Mandarin 507		7	3	3	4	3
Goldsoy		5	4	5	5	4
Flambeau		1	6	4	2	1
Kabott		4	7	6	6	6
Minsoy		6	5	7	7	6
Pagoda		8	8	8	8	8

UNIFORM TEST, GROUP I

The Group I Test consisted of seven named varieties, two U.S.D.A. plant introductions, and seven selections from hybrids. The origin of these varieties and strains is as follows:

Variety or Strain	Source or Originating Agency	Origin
Earlyana	Purdue Agr.Exp.Sta.	Sel. from a natural hybrid
Habaro	U.S.Dept. of Agr.	P.I.20405[1]
Manchukota	S.Dakota Agr.Exp.Sta.	Selection from Manchu
Mandarin(Ottawa)	Central Exp. Farm, Ottawa	Selection from Mandarin
Ontario	N.Y. Agr.Exp.Sta.	Selection from P.I.65344[1]
Wis.Manchu 3	Wisconsin Agr.Exp.Sta.	Selection from Manchu 3
Wis.Manchu 606	Wisconsin Agr.Exp.Sta.	Selection from Manchu
F.C.31596[2]	Farmer's Selection	Selection from Manchu
P.I.68666[1]	U.S. Dept. of Agr.	Foreign Plant Introduction
A3-1715-1	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Mandarin x Richland
A3-1715-3	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Mandarin x Richland
H1	Illinois Agr.Exp.Sta.	D1, parentage unknown
H2	Ohio A.E.S. & U.S.Reg.Soybean Lab.	LX339-4 (Dunfield x Illini)
H3	Ohio A.E.S. & U.S.Reg.Soybean Lab.	LX349-11 (Scioto x Mandarin)
H4	Ohio A.E.S. & U.S.Reg.Soybean Lab.	LX378-12 (Mukden x Mandarin)
H5	Ohio A.E.S. & U.S.Reg.Soybean Lab.	LX378-32 (Mukden x Mandarin)

[1]Division of Plant Exploration and Introduction, Bureau of Plant Industry, Soils, and Agricultural Engineering, U.S.D.A.

[2]Forage Crops and Diseases, Bureau of Plant Industry, Soils, and Agricultural Engineering, U.S.D.A.

Group I was grown at nine locations in Ohio, Wisconsin, Iowa, Minnesota, and South Dakota. Data from these tests is presented in Tables 14-24. Table 14 includes the means for agronomic and chemical data. P.I.68666 was outstanding in yield, ranking first in eight of the nine locations. The average data for those strains which have been in the test for two years are reported in Tables 25 and 26. It can be seen here that P.I.68666 has averaged high in yield and percentage of oil but has lodged worse than any other strain. Since it has averaged two days later than Earlyana it really belongs in Group II. F.C.31596, a strain of local Manchu from western Wisconsin, is also too late for this group but since it is grown in an area where other Group I varieties are adapted, it is included in the test. It has proven to be low in oil and to lodge excessively, and should be replaced by better varieties. A number of the newer strains have shown good oil content. This is encouraging since many of the early varieties have had a low oil content.

Mandarin (Ottawa) has yielded very well in spite of its early maturity. For instance, it is twelve days earlier than Manchukota but has yielded within .4 bushels as much seed and has had .6% more oil in the two-year period. In comparison with Mandarin (Ottawa) a number of strains in this test have not yielded well enough for their maturity to justify their continuation in the test.

Table 14. Summary of agronomic and chemical data for the strains in the Uniform Test, Group I, 1944.

Strain	Mean Yield Bu/A	Lodging	Height Inches	Maturity[1]	Seed Quality	Seed Wght.	Percentage of Protein[2]	Percentage of Oil[2]	Iodine Number of Oil
No. of Tests	9	9	9	8	5	9	9	9	9
P.I. 68666	31.4	2.5	28	+16	1.1	14.6	39.1	20.3	136.4
Earlyana	28.5	2.5	35	+14	1.5	15.6	42.2	19.9	136.6
Wis. Man. 3(3)	28.3	2.2	33	+13	1.3	17.5	40.9	20.0	136.6
F.C. 31596	27.8	2.5	32	+16	1.3	14.7	42.7	18.9	137.2
Wis. Man. 606(4)	27.6	1.7	28	+ 9	1.3	17.1	40.7	20.2	136.8
Habaro	27.6	1.4	27	+ 9	1.1	18.7	42.8	18.8	134.0
H2	26.7	1.9	32	+ 9	1.2	15.1	40.6	20.4	134.9
H1	26.5	2.1	32	+11	1.3	15.1	41.9	19.3	135.3
A3-1715-3	26.3	1.8	34	+11	1.3	18.4	42.6	18.8	132.8
H5	26.0	1.5	35	+ 7	1.3	14.9	42.0	19.7	132.8
Manchukota	25.9	1.8	28	+12	1.1	14.9	42.0	18.9	139.0
Mandarin(Ottawa)	25.9	1.0	24	0	1.2	17.3	42.6	19.5	130.9
Ontario	25.7	1.3	24	+ 5	1.3	18.8	41.1	20.5	132.8
A3-1715-1	25.4	1.4	32	+ 9	1.2	16.2	42.8	19.2	133.5
H3	23.1	1.7	31	+ 7	1.3	16.6	42.6	19.7	133.7
H4	22.3	1.1	28	+ 2	1.5	14.4	44.4	19.3	129.0
Mean	26.6	1.8	30.2		1.3	16.2	41.9	19.6	134.5

1 Days earlier (-) or later (+) than Mandarin (Ottawa). Mandarin (Ottawa) required 109 days to mature.
2 Composition on dry basis.
3 Wisconsin Manchu 3.
4 Wisconsin Manchu 606

Table 15. Summary of yields in bushels per acre for the strains in the Uniform Test, Group I, 1944.

Strain	Mean of 9 Tests	Strong-Ville Ohio	East Lansing Mich.	Madison Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Cresco Iowa	Kanawha Iowa	Brookings S. D.
P.I. 68666	31.4	31.0	27.9	32.3	20.5	28.6	38.7	23.7	44.0	35.8
Earlyana	28.5	26.4	24.9	28.6	18.1	28.1	36.9	22.2	40.6	30.5
Wis.Man.3	28.3	23.0	25.6	29.3	18.1	33.4	35.0	22.5	38.9	29.3
F.C. 31596	27.8	27.6	24.9	26.8	17.0	30.9	31.9	21.9	41.9	27.6
Wis.Manchu 606	27.6	25.2	24.4	26.6	16.1	33.4	34.1	19.9	39.9	28.7
Habaro	27.6	24.7	22.1	29.4	17.8	29.6	36.8	21.1	38.7	28.0
H2	26.7	22.7	24.7	27.2	17.4	29.1	34.1	22.2	34.6	27.9
H1	26.5	23.9	23.2	27.6	17.9	27.3	34.6	21.0	36.1	26.7
A3-1715-3	26.3	25.6	24.6	28.1	15.4	27.3	31.0	21.4	35.9	27.8
H5	26.0	24.7	22.2	29.4	14.6	29.9	31.4	21.1	36.1	24.7
Manchukota	25.9	22.7	23.9	25.1	16.0	26.7	32.6	18.6	37.7	30.0
Mandarin (Ottawa)	25.9	27.3	21.6	28.4	13.4	28.8	33.2	21.0	33.3	26.1
Ontario	25.7	25.3	22.4	28.2	15.9	29.4	32.3	19.6	32.1	26.2
A3-1715-1	25.4	25.2	21.0	27.1	14.1	27.5	32.3	20.5	36.5	24.1
H3	23.1	24.4	20.8	25.0	10.6	28.3	26.6	17.5	31.7	23.3
H4	22.3	21.5	18.6	27.8	10.3	26.4	26.8	17.4	26.3	25.5
Mean	26.6	20.1	23.3	27.9	15.8	29.0	33.0	20.7	36.5	27.6
Coef. of var.(%)		7.1	11.2	8.0	14.9	9.9	8.0	7.4	7.4	10.3
Bu.Nec. for Sig.(5%)		4.3	3.7	4.3	3.4	4.1	3.8	2.5	3.8	4.1

Table 16. Summary of yield rank for the strains in the Uniform Test, Group I, 1944.

Strain	Strongsville Ohio	East Lansing Mich.	Madison Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Cresco Iowa	Kanawha Iowa	Brookings S. Dak.
P.I. 68666	1	1	1	1	9	1	1	1	1
Earlyana	4	3	5	2	11	2	3	3	2
Wis. Man. 3	13	2	4	2	1	4	2	5	4
F.C. 31596	2	3	13	7	3	12	5	2	9
Wis. Man. 606	7	7	14	8	1	6	12	4	5
Habaro	9	12	2	5	5	3	7	6	6
H2	14	5	11	6	7	6	3	12	7
H1	12	9	10	4	13	5	9	9	10
A3-1715-3	5	6	8	11	13	14	6	11	8
H-5	9	11	2	12	4	13	7	9	14
Manchukota	14	8	15	9	15	9	14	7	3
Mandarin(Ottawa)	3	13	6	14	8	8	9	13	12
Ontario	6	10	7	10	6	10	13	14	11
A3-1715-1	7	14	12	13	12	10	11	8	15
H3	11	15	16	15	10	16	15	15	16
H4	16	16	9	16	16	15	16	16	13

Table 17. Summary of lodging notes on the strains in the Uniform Test, Group I, 1944.

Strain	Mean of 9 Tests	Strongsville Ohio	East Lansing Mich.	Madison Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Cresco Iowa	Kanawha Iowa	Brookings S. Dakota
P.I. 68666	2.5	2.3	2	2.7	1.0	5.0	3	1.0	2.3	3
Earlyana	2.5	2.3	1	2.5	1.8	3.2	3	1.8	2.8	4
Wis. Man. 3	2.2	1.0	2	2.5	1.8	3.3	2	1.8	2.5	3
F.C. 31596	2.5	2.3	1	2.5	1.5	5.0	3	1.8	2.3	3
Wis. Man. 606	1.7	1.3	2	1.7	1.0	3.0	1	1.3	2.0	2
Habaro	1.4	1.0	1	1.2	1.0	1.8	1	1.0	1.3	3
H2	1.9	1.3	2	1.7	1.3	3.5	1	1.8	2.3	2
H1	2.1	2.3	1	2.5	1.3	4.3	2	1.3	1.5	3
A3-1715-3	1.8	1.0	2	1.2	1.0	3.8	1	1.0	1.8	3
H-5	1.5	1.8	1	1.2	1.0	2.3	1	1.0	1.8	2
Manchukota	1.8	1.3	2	2.0	1.0	3.8	1	1.0	1.8	2
Mandarin (Ottawa)	1.0	1.0	1	1.0	1.0	1.0	1	1.0	1.0	1
Ontario	1.3	1.0	2	1.0	1.0	2.8	1	1.0	1.3	1
A3-1715-1	1.4	1.3	1	1.2	1.0	2.5	1	1.0	1.3	2
H3	1.7	1.3	1	2.0	1.3	3.0	2	1.0	1.8	2
H4	1.1	1.0	1	1.0	1.0	1.5	1	1.0	1.3	1
Mean	1.8	1.5	1.4	1.7	1.2	3.1	1.6	1.2	1.8	2.3

Table 18. Summary of height data on the strains in the Uniform Test, Group I, 1944.

Strain	Mean of 9 Tests	Strongs-ville Ohio	East Lansing Mich.	Madison Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Cresco Iowa	Kanawha Iowa	Brookings S. Dakota
P.I. 68666	28	28	32	32	21	31	27	26	32	24
Earlyana	35	36	36	42	28	36	33	30	38	32
Wis. Man. 3	33	28	39	42	30	35	30	32	36	28
F.C.31596	32	35	37	36	24	33	31	29	37	26
Wis. Man. 606	28	27	31	33	23	31	26	25	31	26
Habaro	27	22	28	29	23	30	27	31	27	24
H2	32	28	35	37	29	34	32	29	34	26
H1	32	29	35	38	29	33	31	29	36	26
A3-1715-3	34	33	39	38	31	35	33	31	38	28
H-5	35	30	40	41	27	37	36	33	40	28
Manchukota	28	25	32	33	24	29	27	25	30	26
Mandarin (Ottawa)	24	21	29	25	19	27	24	23	25	24
Ontario	24	20	29	26	22	28	23	22	24	26
A3-1715-1	32	31	35	35	27	35	31	28	36	26
H3	31	28	35	37	26	34	31	28	34	26
H4	28	24	32	33	24	32	30	26	31	24
Mean	30	28	34	35	25	33	30	28	33	26

Table 19. Summary of maturity data, days earlier (-) or later (+) than Mandarin (Ottawa) for the strains in the Uniform Test, Group I, 1944.

Strain	Mean of 8 Tests	Strongsville Ohio	East Lansing Mich.	Madison Wis.	St. Paul Minn.	Waseca Minn.	Cresco Iowa	Kanawha Iowa	Brookings S.Dak.
P.I. 68666	+16	+16	+3	+22	+27	+13	+16	+16	+15
Earlyana	+14	+22	+8	+15	+20	+ 9	+ 9	+12	+15
Wis. Man. 3	+13	+15	+9	+13	+19	+11	+ 9	+12	+15
F.C. 31596	+16	+22	+9	+18	+26	+12	+14	+14	+15
Wis. Man. 606	+ 9	+10	+3	+10	+14	+ 6	+ 9	+ 9	+10
Habaro	+ 9	+ 9	+1	+11	+14	+10	+11	+ 7	+10
H2	+ 9	+11	+3	+ 7	+14	+ 8	+ 8	+ 7	+10
H1	+11	+16	+3	+11	+21	+10	+11	+ 8	+10
A3-1715-3	+11	+12	+3	+10	+22	+11	+10	+10	+10
H-5	+ 7	+ 8	+2	+ 8	+10	+ 2	+ 8	+ 9	+10
Manchukota	+12	+21	+4	+13	+20	+10	+12	+ 9	+10
Mandarin (Ottawa)	0	0	0	0	0	0	0	0	0
Ontario	+ 5	+ 4	+2	+ 6	+12	+ 4	+ 6	+ 4	0
A3-1715-1	+ 9	+16	+1	+ 7	+18	+ 3	+ 8	+ 6	+10
H3	+ 7	+10	+4	+ 6	+11	+ 3	+ 7	+ 5	+ 6
H4	+ 2	+12	0	- 2	+ 7	0	+ 1	0	0
Mandarin (Ottawa) Matured		8/27	9/19	8/19	9/17	10/1	9/26	9/9	9/25
Date Planted		5/19	5/26	5/17	5/26	6/8	6/7	5/27	6/2
Days to Mature	109	100	116	94	114	115	111	105	115

Table 20. Summary of seed quality data for the strains in the Uniform Test, Group I, 1944.

Strain	Mean of 5 Tests[1]	Strongsville Ohio	East Lansing Mich.	Madison Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Cresco Iowa	Kanawha Iowa	Brookings S. Dakota
P.I. 68666	1.3	1	1	1	2	1	1	1.3	1.0	1
Earlyana	1.9	3	1	1	3	1	1	1.3	1.0	I
Wis. Man. 3	1.6	2	1	1	2	1	1	1.8	1.0	1
F.C. 31596	1.6	2	1	1	2	1	1	1.5	1.5	1
Wis. Man. 606	1.5	2	1	1	2	1	1	1.5	1.0	1
Habaro	1.2	1	1	1	2	1	1	1.0	1.0	1
H2	1.4	1	1	1	2	1	1	2.0	1.0	1
H1	1.5	2	1	1	2	1	1	1.3	1.0	1
A3-1715-3	1.5	2	1	1	2	1	1	1.5	1.0	1
H-5	1.5	2	1	1	2	1	1	1.5	1.0	1
Manchukota	1.2	1	1	1	2	1	1	1.0	1.0	1
Mandarin (Ottawa)	1.4	2	1	1	2	1	1	1.0	1.0	1
Ontario	1.5	2	1	1	2	1	1	1.5	1.0	1
A3-1715-1	1.4	1	1	1	2	1	1	1.8	1.3	1
H3	1.5	2	1	1	2	1	1	1.5	1.0	1
H4	2.0	3	2	1	2	1	1	1.5	1.3	1
Mean	1.5	1.8	1.1	1	2	1	1	1.4	1.1	1

[1] Madison, St. Paul, Waseca and Brookings not included in the mean.

Table 21. Summary of seed weight in grams per 100 seeds for the strains in the Uniform Test, Group I, 1944.

Strain	Mean of 9 Tests	Strongs-ville Ohio	East Lansing Mich.	Madison Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Cresco Iowa	Kanawha Iowa	Brookings S. Dakota
P.I. 68666	14.6	13.8	12.9	15.6	17.5	15.3	15.2	13.8	13.8	13.7
Earlyana	15.6	14.7	14.9	16.2	16.8	16.0	16.1	14.6	15.5	15.4
Wis. Man. 3	17.5	15.5	18.0	16.5	18.1	18.6	17.9	17.7	18.1	17.3
F.C. 31596	14.7	14.3	14.3	13.4	16.8	15.8	14.7	14.7	13.9	14.2
Wis. Man. 606	17.1	15.5	17.4	16.8	18.0	18.0	17.7	16.4	17.7	16.6
Habaro	18.7	16.3	17.4	20.2	21.1	20.7	19.2	18.2	17.5	17.7
H2	15.1	13.1	15.1	15.6	17.1	16.1	15.3	14.2	14.4	14.6
H1	15.1	14.4	14.0	14.8	16.8	15.3	15.8	15.4	14.8	14.9
A3-1715-3	18.4	17.1	18.6	18.4	19.9	19.2	18.9	17.7	18.0	18.1
H5	14.9	14.0	14.8	14.9	16.7	15.9	14.5	14.5	14.1	14.7
Manchukota	14.9	14.0	14.2	14.1	17.0	16.4	15.4	14.1	14.0	14.5
Mandarin (Ottawa)	17.3	16.7	15.7	16.2	17.9	18.0	18.2	18.0	17.7	17.6
Ontario	18.8	16.7	19.7	19.5	19.6	20.0	18.7	18.3	19.0	17.9
A3-1715-1	16.2	14.9	16.0	16.7	17.5	16.4	16.1	15.7	16.1	16.0
H3	16.6	15.7	15.6	18.1	17.8	17.0	17.6	15.6	15.8	16.2
H4	14.4	13.9	13.0	16.2	14.2	14.0	15.3	14.3	15.2	13.8
Mean	16.2	15.0	15.7	16.5	17.7	17.0	16.7	15.8	16.0	15.8

Table 22. Summary of percentage protein for the strains in the Uniform Test, Group I, 1944.

Strain	Mean of 9 Tests	Strongs-ville Ohio	East Lansing Mich.	Madison Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Cresco Iowa	Kanawha Iowa	Brookings S. Dakota
P.I. 68666	39.1	39.0	34.4	35.9	43.5	40.5	40.5	44.0	35.4	38.6
Earlyana	42.2	42.1	38.9	41.4	47.4	41.6	43.5	45.1	37.6	41.9
Wis. Man. 3	40.9	40.0	38.9	39.2	45.6	40.6	41.2	44.9	37.8	40.2
F.C. 31596	42.7	42.7	40.6	38.7	47.4	43.6	44.3	45.7	39.1	42.4
Wis. Man. 606	40.7	40.0	38.7	37.8	46.4	40.1	40.9	45.4	38.2	39.1
Habaro	42.8	42.7	39.6	43.9	46.5	44.2	42.2	46.4	38.4	41.5
H2	40.6	39.5	39.1	41.8	44.9	41.2	40.7	43.1	37.0	38.5
H1	41.9	41.2	37.6	42.7	45.1	42.0	42.5	45.7	38.5	41.5
A3-1715-3	42.6	41.2	40.5	41.1	46.6	43.7	42.4	44.8	39.0	43.7
H 5	42.0	43.2	39.2	42.4	44.1	42.2	42.3	44.0	39.4	41.2
Manchukota	42.0	41.8	39.2	39.4	46.1	42.3	43.2	46.0	38.9	41.1
Mandarin (Ottawa)	42.6	43.1	40.7	43.6	45.6	42.1	41.0	45.7	39.9	41.3
Ontario	41.1	39.9	40.7	40.4	45.5	39.1	40.5	45.5	38.6	39.7
A3-1715-1	42.8	42.0	40.7	42.2	46.9	43.2	43.1	44.7	40.1	42.3
H3	42.6	42.5	40.7	42.9	46.8	41.1	43.0	46.5	39.6	40.2
H4	44.1	43.4	42.7	45.8	46.4	43.2	44.5	47.9	43.1	42.6
Mean	42.0	41.5	39.5	41.2	45.9	42.0	42.2	45.3	38.8	41.0

Table 23. Summary of percentage oil for the strains in the Uniform Test, Group I, 1944.

Strain	Mean of 9 Tests	Strongs-ville Ohio	East Lansing Mich.	Madison Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Cresco Iowa	Kanawha Iowa	Brookings S. Dakota
P.I. 68666	20.3	22.0	22.6	23.2	17.4	19.5	18.6	17.5	22.2	19.8
Earlyana	19.9	20.8	21.4	21.2	17.7	19.7	18.7	18.1	22.0	19.2
Wis. Man. 3	20.0	21.5	21.1	21.5	17.8	19.9	19.1	18.0	21.8	19.2
F.C. 31596	18.9	19.6	20.2	20.8	16.9	18.2	17.7	17.2	20.5	18.6
Wis. Man. 606	20.2	21.4	21.3	21.9	18.2	20.0	19.3	17.8	21.9	19.7
Habaro	18.8	20.0	20.8	19.0	16.8	17.8	18.1	17.6	20.8	18.4
H2	20.4	23.1	21.9	21.4	18.5	19.5	19.1	18.5	22.4	19.5
H1	19.3	20.8	21.3	19.5	17.6	18.5	18.5	17.7	21.2	19.0
A3-1715-3	18.8	21.0	19.5	20.7	17.0	18.1	17.6	17.2	20.6	17.4
H5	19.7	20.5	21.1	20.4	18.5	19.4	18.4	17.9	21.5	19.2
Manchukota	18.9	19.4	20.4	20.5	17.1	18.6	18.1	16.8	20.7	18.5
Mandarin (Ottawa)	19.5	19.8	20.0	19.8	18.2	18.9	19.0	18.3	21.5	19.9
Ontario	20.5	22.0	20.5	22.1	18.9	20.9	20.0	18.1	22.7	19.6
A3-1715-1	19.2	20.8	20.2	20.6	17.4	18.6	18.3	17.4	20.8	19.0
H 3	19.7	20.8	20.7	20.5	17.9	20.1	18.7	17.8	21.3	19.6
H 4	19.3	20.5	20.2	19.4	18.3	19.5	18.1	17.4	21.2	19.0
Mean	19.6	20.9	20.8	20.8	17.8	19.2	18.6	17.7	21.4	19.1

Table 24. Summary of iodine number of oil for the strains in the Uniform Test, Group I, 1944.

Strain	Mean of 9 Tests	Strongs-ville Ohio	East Lansing Mich.	Madison Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Cresco Iowa	Kanawha Iowa	Brookings S. Dakota
P.I. 68666	136.4	132.0	134.3	133.9	135.1	137.6	139.1	140.5	136.6	138.8
Earlyana	136.6	133.3	134.5	132.6	136.3	137.7	139.1	141.1	136.3	138.3
Wis. Man. 3	136.6	131.7	133.6	133.9	137.0	138.3	139.5	140.8	136.3	138.7
F. C. 31596	137.2	134.5	134.4	136.0	136.9	137.7	139.5	140.6	136.8	138.0
Wis. Man. 606	136.8	132.1	134.3	133.9	137.2	138.9	139.4	140.8	136.2	138.4
Habaro	134.0	128.6	132.3	129.3	135.0	136.2	137.0	137.6	134.5	135.6
H2	134.9	129.9	132.5	129.4	134.8	136.0	138.3	140.1	135.6	137.3
H1	135.3	131.7	133.3	132.3	135.1	137.6	138.5	139.1	134.6	135.6
A3-1715-3	132.8	124.9	130.7	127.7	133.2	135.4	136.9	137.3	132.6	136.4
H5	132.8	125.9	130.3	127.2	132.8	135.7	137.5	138.0	132.9	134.5
Manchukota	139.0	135.7	136.5	135.3	139.1	141.0	142.0	143.7	137.8	140.2
Mandarin (Ottawa)	130.9	125.1	129.1	125.3	129.9	134.1	136.1	134.6	130.0	133.8
Ontario	132.8	127.4	130.9	126.0	132.9	136.1	137.2	137.4	131.6	135.4
A3-1715-1	133.5	127.1	131.1	128.3	133.8	136.3	137.6	138.4	133.4	135.4
H3	133.7	129.2	131.7	128.4	132.3	136.3	137.6	139.0	133.5	135.7
H4	129.0	125.1	124.8	123.8	126.0	132.0	134.3	134.5	127.6	133.3
Mean	134.5	129.6	132.1	130.2	134.2	136.7	138.1	139.0	134.1	136.6

Table 25. Two-year summary of agronomic and chemical data for the strains in the Uniform Test, Group I, 1943-44.

Strain	Mean Yield Bu./A.	Lodging	Height Inches	Maturity[1]	Seed Quality	Seed Weight	Percentage of Protein[2]	Percentage of Oil[2]	Iodine Number of Oil
Number of Tests	18	17	18	16	13	18	18	18	18
P.I. 68666	30.2	3.2	30	+15	1.3	14.5	39.9	20.3	135
Wis. Man. 3	28.6	2.8	35	+11	1.5	17.2	41.2	20.0	135
Earlyana	28.4	2.9	37	+13	1.7	15.4	42.7	19.8	135
Wis. Man. 606	28.4	2.3	30	+ 7	1.5	17.3	41.4	20.2	135
Habaro	28.3	2.0	29	+ 9	1.5	19.0	43.5	18.7	133
H5	26.8	2.0	36	+ 6	1.4	15.2	42.9	19.6	132
Manchukota	26.8	2.5	31	+12	1.4	15.0	42.3	18.9	138
H2	26.7	2.6	34	+ 7	1.4	15.6	41.4	20.6	133
Ontario	26.5	2.0	27	+ 4	1.5	19.1	41.8	20.5	131
Mandarin (Ottawa)	26.4	1.5	26	0	1.6	18.4	43.4	19.5	129
H1	26.3	2.6	33	+ 9	1.4	15.0	42.0	19.5	134
H3	24.7	2.2	33	+ 5	1.5	17.1	43.3	19.6	133
H4	24.0	1.7	30	+ 1	1.7	15.2	45.4	19.0	129

[1]Days earlier (-) or later (+) than Mandarin (Ottawa). Mandarin (Ottawa) required 110 days to mature.

[2]Composition on dry basis.

Table 26. Two-year summary of yields in bushels per acre and yield rank for the strains in the Uniform Test, Group I, 1943-44.

Strain	Mean of 18 Tests	Strongsville Ohio	Madison Wis.	Eau Claire Wis.	St. Paul Minn.	Waseca Minn.	Brookings S. Dakota
P.I. 68666	30.2	33.3	33.5	20.8	27.6	31.4	32.6
Wis. Man. 3	28.6	26.8	30.0	18.6	30.5	32.4	26.0
Earlyana	28.4	27.8	28.5	18.9	30.6	32.5	27.1
Wis. Man. 606	28.4	27.8	26.6	18.9	30.1	33.4	26.2
Habaro	28.3	28.2	27.9	18.8	30.4	35.1	26.3
H-5	26.8	28.1	27.1	17.3	31.0	32.3	20.8
Manchukota	26.8	26.5	27.2	18.6	27.8	28.3	26.0
H2	26.7	26.2	27.0	18.6	31.1	31.4	26.2
Ontario	26.5	29.0	27.5	17.1	30.5	31.5	24.0
Mandarin (Ottawa)	26.4	27.9	26.3	17.6	27.0	33.4	24.7
H1	26.3	25.2	28.8	19.7	30.2	30.0	22.9
H3	24.7	27.7	24.9	15.6	29.7	26.5	23.6
H4	24.0	24.4	24.1	15.0	26.2	29.3	23.2
Mean	27.1	27.6	27.6	18.1	29.4	31.3	25.4

Yield Rank

P.I. 68666	1	1	1	11	9	1
Wis. Man. 3	9	2	6	4	5	6
Earlyana	6	4	3	3	4	2
Wis. Man. 606	6	10	3	8	2	4
Habaro	3	5	5	6	1	3
H-5	4	8	10	2	6	13
Manchukota	10	7	6	10	7	6
H2	11	9	6	1	9	4
Ontario	2	6	11	4	8	9
Mandarin (Ottawa)	5	11	9	12	2	8
H1	12	3	2	7	11	12
H3	8	12	12	9	13	10
H4	13	13	13	13	12	11

UNIFORM TEST, GROUP II

The Group II Test consisted of nine named varieties and eleven selections from hybrids. Considerable revision of strains in this test was made in 1944. The origin of these strains and varieties is as follows:

Variety or Strain	Source or Originating Agency	Origin
Dunfield	Purdue Agr.Exp.Sta.	P.I. 36846[1]
Earlyana	Purdue Agr.Exp.Sta.	Sel.from a natural hybrid
Harman	Dominion Exp.Sta.,Ont.	Selection from Manchu
Illini	Illinois Agr.Exp.Sta.	Selection from A.K.
Lincoln	Ill.A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Mandarin x Manchu
Mingo	Ohio Agr,Exp.Sta.	Selection from Manchu
Mukden	Iowa Agr.Exp.Sta.	P.I. 50523Q[1]
Richland	Purdue Agr.Exp.Sta.	P.I. 70502-2[1]
Wis.Manchu 3	Wisconsin Agr.Exp.Sta.	Sel.from Manchu 3
A3-10	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Mukden x Richland
A3-14	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Linman 533
A3-17	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Mukden x Richland
A3-32	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Richland x Linman 533
A3-33	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Mukden x Richland
A3-93	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Mukden x B.H. Manchu
A3-107	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from A45-251
A3-108	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from A45-251
A3-109	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Mukden x Richland
A3-143	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Richland x B. H. Manchu
A3-149	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Linman 533
A3-2015-28	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Ontario x Richland
A45-251	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Mukden x Richland
C66	Purdue Agr.Exp.Sta.	Sel.from Dunfield x Manchu
H8	Ohio A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Illini
W1	Wis.A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Illini

[1] Division of Plant Exploration and Introduction, Bureau of Plant Industry, Soils, and Agricultural Engineering, U.S.D.A.

The twenty-five strains included in the Uniform Test, Group II were grown at sixteen locations in seven states of the North Central Region and at New Brunswick, N.J. Sixteen of the strains were grown in this test for the first time in 1944.

Twelve of the new entries were developed in Iowa and were previously tested in preliminary tests in Iowa, Illinois, Indiana, and Ohio. Most of the Iowa strains approximated Richland in maturity, were above it in yield, and with the exception of A3-93 were very acceptable in oil content. A number of these strains were equally as lodging resistant as, and were taller than, Richland. Strains A3-107 and A3-108 are selections from A45-251 and performed about the same as the parent strain. Strain A45-251 which has approximately the same maturity as Richland and is seven days earlier than Lincoln on the basis of two years' results, is only 2.5 bushels lower in yield than Lincoln and is 3.1 bushels higher than Richland. It also averages higher in oil content than Lincoln, and although taller than Richland, is as lodging resistant.

Strain C66 had been previously tested in Group III and was transferred to Group II because of its maturity. This strain has no qualities except plant height, exceeding the earlier, high yielding, and more lodging resistant selections from A45-251 to warrant its retention in this test. W1, one of the earliest strains in the test, was first entered in Uniform Test, Group II in 1944. It was on the average the lowest yielding strain in the test and is quite lodging susceptible. Some shattering was observed on this strain at several locations. Harman was first entered in the Group II test in 1944. It has the lowest oil content of any named variety in the test and is quite lodging susceptible.

Lincoln, formerly L6-685, again averaged higher in yield than any other variety or strain in the test. Its performance in other agronomic and in chemical characters is very similar to that of past years. Approximately 18,400 acres of Lincoln were grown and certified in 1944 in Iowa, Illinois, Indiana, Ohio, and Nebraska, resulting in an estimated supply of 445,800 bushels of seed. The demand for Lincoln seed for 1945 planting has far exceeded the supply.

The summary of the agronomic and chemical data for all strains is given in Table 27. The agronomic data are presented by locations in Tables 28 to 34, and the chemical data in Tables 35 to 37. The five-year summary, 1940-1944, of the agronomic and chemical data for eight varieties which have been grown for this period are presented in Tables 38 and 39. Lincoln ranks first in yield of seed, seed quality, percentage of oil, and in iodine number of the oil. It ranks second in lodging resistance.

Table 27. Summary of agronomic and chemical data for the strains in the Uniform Test, Group II, 1944.

Strains	Mean Yield Bu./A.	Lodging	Height Inches	Maturity[1]	Seed Quality	Seed Weight	Percentage of Protein[2]	Percentage of Oil[2]	Iodine Number of Oil[2]
Number of Tests	16	16	16	15	13	16	16	16	16
Lincoln	34.0	1.9	36	+9	1.1	14.7	39.4	20.7	137
Illini	31.7	2.9	40	+9	1.3	13.0	38.9	19.6	136
A3-107	31.0	1.3	33	+1	1.2	17.4	40.1	20.8	130
C66	30.9	2.0	35	+5	1.5	15.6	39.9	20.4	132
A3-108	30.8	1.4	33	0	1.3	17.3	40.6	20.7	131
A3-149	30.6	2.5	36	+5	1.1	16.5	38.0	20.7	135
Mingo	30.6	2.6	35	+6	1.5	15.6	42.4	19.7	135
A45-251	30.3	1.2	32	+1	1.3	17.3	41.0	20.9	130
A3-33	30.2	1.5	35	+3	1.3	16.6	40.0	20.8	132
A3-17	30.0	1.4	31	+2	1.3	16.7	41.1	20.4	132
A3-10	29.3	1.5	33	+1	1.3	15.3	41.3	20.7	128
A3-109	29.3	1.3	32	+2	1.3	17.8	41.3	20.6	130
A3-14	29.1	2.5	33	+1	1.4	15.7	40.1	20.5	132
Harman	29.1	2.4	33	+2	1.2	15.5	42.2	19.2	135
Mukden	29.1	2.1	37	+5	1.1	15.4	42.5	19.4	132
A3-32	28.7	2.2	33	+2	1.3	17.0	41.2	20.3	133
Dunfield	28.5	2.7	36	+8	1.2	15.1	38.6	20.2	131
A3-143	28.1	2.0	35	+1	1.7	14.2	39.6	20.5	136
Richland	27.8	1.3	30	0	1.4	16.2	40.1	20.1	131
A3-93	27.6	2.0	37	+1	1.2	14.3	43.5	18.6	136
H 8	27.5	2.5	39	+5	1.5	15.7	40.6	20.4	133
Wis.Man.3	27.4	2.6	33	-5	1.7	17.0	40.6	20.4	134
A3-2015-28	27.2	1.3	29	-2	1.7	17.0	40.2	21.0	130
Earlyana	26.7	2.5	34	-5	2.0	14.6	41.8	20.4	134
W1	25.3	2.3	33	-4	1.6	15.8	39.6	20.9	131
Mean	29.2	2.0	34.1		1.4	15.9	40.6	20.3	133

[1]Days earlier (-) or later (+) than Richland. Richland required 121 days to mature.

[2]Composite sample of 13 tests and 3 individual tests. Composition on dry basis.

Table 28. Summary of yields in bushels per acre for the strains in the Uniform Test, Group II, 1944.

Strain	Mean of 16 Locations[1]	New Brunswick N.J.	Holgate Ohio	East Lansing Mich.	Green-field Ind.	La Grange Ind.	Lafay-ette Ind.	Wanatah Ind.	Mt. Morris Ill.
Lincoln	34.0	18.7	24.7	35.9	40.9	22.4	40.9	22.1	21.9
Illini	31.7	16.5	23.7	32.1	36.0	21.1	39.8	21.1	19.1
A3-107	31.0	18.1	23.0	27.8	35.7	16.9	38.5	19.0	19.8
C66	30.9	17.1	24.1	29.1	36.3	19.6	34.8	20.5	20.7
A3-108	30.8	15.7	21.7	27.9	36.4	17.3	37.1	18.8	17.8
A3-149	30.6	16.4	19.8	28.7	35.7	19.8	35.2	19.8	19.5
Mingo	30.6	18.0	22.1	33.7	37.2	18.1	35.6	19.3	18.8
A45-251	30.3	15.7	21.6	28.8	35.2	17.0	33.5	19.9	17.4
A3-33	30.2	16.1	20.5	29.1	33.3	17.0	37.7	19.0	15.6
A3-17	30.0	16.7	20.6	29.1	35.4	16.6	37.8	19.8	19.1
A3-10	29.3	18.6	21.4	27.4	36.1	17.5	35.7	16.5	18.6
A3-109	29.3	17.9	20.2	27.4	33.0	16.9	35.1	20.7	17.0
A3-14	29.1	15.1	17.7	28.4	32.8	17.0	31.2	19.9	17.4
Harman	29.1	17.6	25.8	32.3	34.6	15.4	34.9	18.6	19.8
Mukden	29.1	16.6	19.4	30.6	29.4	19.3	38.3	18.5	18.1
A3-32	28.7	15.9	20.6	25.7	34.6	16.1	31.5	17.1	18.7
Dunfield	28.5	14.7	18.3	26.8	32.5	18.6	31.9	18.9	18.7
A3-143	28.1	17.6	19.0	25.8	35.0	15.3	33.6	17.7	16.6
Richland	27.8	16.5	20.5	24.8	33.1	17.8	32.9	17.3	16.3
A3-93	27.6	16.4	19.5	28.1	34.5	15.0	34.9	14.7	16.8
H-8	27.5	15.1	21.1	25.9	31.7	16.3	31.3	18.7	16.4
Wis.Man.3	27.4	18.7	20.3	29.6	35.2	15.9	31.0	17.2	16.7
A3-2015-28	27.2	17.5	19.1	26.0	33.9	15.0	33.2	18.3	16.3
Earlyana	26.7	17.5	21.4	26.3	32.4	14.2	28.9	18.2	16.8
W-1	25.3	17.6	21.0	24.3	30.1	14.9	23.8	16.6	14.2
Mean	29.2	16.9	21.1	28.5	34.4	17.2	34.5	18.7	17.9
Coef.of var. (%)		12.1	11.8	9.9	6.9	9.0	8.4	8.0	10.7
Bu.Nec.for Sig.(5% level)		Not Sig.	3.4	2.8	3.3	2.2	4.1	2.1	2.7

[1] New Brunswick not included in the mean.

Table 28. (continued)

Strain	Dwight Ill.	Urbana Ill.	Madison Wis.	Hudson Iowa	Cresco Iowa	Ames Iowa	Kanawha Iowa	Cherokee Iowa	Norfolk Nebr.
Lincoln	24.1	28.2	41.6	54.9	21.5	35.8	46.2	49.6	33.0
Illini	24.0	28.5	35.1	49.4	18.7	36.0	41.2	53.3	28.5
A3-107	19.3	27.4	36.6	51.2	23.9	35.4	45.2	49.7	27.2
C66	19.6	30.0	37.0	48.2	21.0	35.0	43.6	46.2	27.9
A3-108	21.2	27.3	36.0	51.7	24.0	35.6	44.8	45.6	30.3
A3-149	21.5	27.1	34.7	46.1	20.8	35.9	45.2	48.7	31.3
Mingo	21.0	29.7	36.5	46.9	21.4	32.4	43.2	43.7	30.1
A45-251	19.2	28.4	34.8	48.0	24.6	35.6	44.2	46.7	29.7
A3-33	19.4	27.6	33.7	48.3	22.2	35.1	45.1	48.9	30.5
A3-17	18.8	27.4	35.0	46.9	23.3	34.6	45.1	43.1	27.9
A3-10	19.6	28.3	32.7	49.5	22.8	32.1	41.9	41.1	27.5
A3-109	17.1	29.2	31.9	44.8	23.4	32.9	42.5	46.7	29.7
A3-14	18.5	26.9	33.5	43.0	21.6	35.4	41.6	49.3	28.6
Harman	18.1	28.2	33.3	40.8	21.8	33.5	42.2	37.4	28.5
Mukden	17.5	28.3	35.4	47.6	20.7	33.2	41.7	39.7	27.1
A3-32	17.8	29.3	30.1	47.3	21.4	32.2	40.5	46.0	27.6
Dunfield	17.5	27.6	34.7	44.0	18.4	34.1	38.6	48.2	27.3
A3-143	18.1	27.7	29.3	42.6	20.5	32.2	42.7	43.7	29.4
Richland	19.9	31.1	30.6	37.6	21.2	29.6	39.8	43.8	28.6
A3-93	18.0	26.6	29.6	47.7	20.7	28.8	40.3	40.1	25.7
H-8	20.2	26.1	31.6	44.8	21.0	32.3	37.6	38.4	27.1
Wis.Man.3	19.7	23.9	31.8	43.2	21.9	32.4	39.8	34.3	25.5
A3-2015-28	19.3	28.2	31.3	42.0	22.8	27.4	39.3	37.5	25.9
Earlyana	18.8	25.0	29.8	42.1	22.2	30.3	38.5	35.1	26.5
W-1	19.7	19.9	29.1	40.0	23.8	31.1	36.4	34.9	25.4
Mean	19.5	27.5	33.4	45.9	21.8	33.2	42.0	43.7	28.3
Coef.of var. (%)	12.0	9.2	5.7	7.8	6.9	7.8	4.9	5.1	7.7
Bu.Nec.for Sig.(5% level)	3.3	3.6	2.7	5.0	Not Sig.	3.7	3.2	3.6	3.1

Table 29. Summary of yield rank for the strains in the Uniform Test, Group II, 1944.

Strain	New Brunswick N.J.	Holgate Ohio	East Lansing Mich.	Green-field Ind.	La Grange Ind.	Lafay-ette Ind.	Wanatah Ind.	Mt. Morris Ill.	Dwight Ill.
Lincoln	1	2	1	1	1	1	1	1	1
Illini	15	4	4	6	2	2	2	6	2
A3-107	4	5	15	7	14	3	10	3	13
C66	12	3	7	4	4	14	4	2	10
A-108	21	7	14	3	10	7	13	13	4
A3-149	17	19	11	7	3	10	7	5	3
Mingo	5	6	2	2	7	9	9	8	5
A45-251	21	8	10	10	11	17	5	14	15
A3-33	19	15	7	17	11	6	10	24	12
A3-17	13	13	7	10	16	5	7	6	16
A3-10	3	9	16	5	9	8	24	11	10
A3-109	6	18	16	19	14	11	3	16	25
A3-14	23	25	12	20	11	22	5	14	18
Harman	7	1	3	13	20	12	15	3	19
Mukden	14	21	5	25	5	4	16	12	23
A3-32	20	13	23	13	18	15	22	9	22
Dunfield	25	24	18	21	6	20	12	9	23
A3-143	7	23	22	12	21	16	20	20	19
Richland	15	15	24	18	8	19	19	22	7
A3-93	17	20	13	15	22	12	25	17	21
H 8	23	11	21	23	17	21	14	21	6
Wis.Man.3	1	17	6	9	19	23	21	19	8
A3-2015-28	10	22	20	16	22	18	17	22	13
Earlyana	10	9	19	22	25	24	18	17	16
W-1	7	12	25	24	24	25	23	25	8

Table 29. (continued)

Strain	Urbana Ill.	Madison Wis.	Hudson Iowa	Cresco Iowa	Ames Iowa	Kanawha Iowa	Cherokee Iowa	Norfolk Nebr.
Lincoln	10	1	1	14	3	1	3	1
Illini	6	7	5	24	1	16	1	11
A3-107	16	3	3	3	6	2	2	18
C66	2	2	7	18	9	9	10	13
A3-108	18	5	2	2	4	6	12	4
A3-149	19	10	14	20	2	2	6	2
Mingo	3	4	12	15	15	10	14	5
A45-251	7	9	8	1	4	8	8	6
A5-33	14	12	6	9	8	4	5	3
A3-17	16	8	12	6	10	4	16	13
A3-10	8	15	4	7	20	14	17	16
A3-109	5	16	15	5	14	12	8	6
A3-14	20	13	19	13	6	7	4	9
Harman	10	14	23	12	12	13	22	11
Mukden	8	6	10	21	13	15	19	19
A3-32	4	21	11	15	18	17	11	15
Dunfield	14	10	17	25	11	22	7	17
A3-143	13	24	20	23	18	11	14	8
Richland	1	20	25	17	23	19	13	9
A3-93	21	23	9	21	24	18	18	23
H 8	22	18	15	18	17	24	20	19
Wis.Man.3	24	17	18	11	15	19	25	24
A3-2015-28	10	19	22	7	25	21	21	22
Earlyana	23	22	21	9	22	23	23	21
W-1	25	25	24	4	21	25	24	25

Table 30. Summary of lodging data for the strains in the Uniform Test, Group II, 1944.

Strain	Mean of 16 Tests[1]	New Brunswick N.J.	Holgate Ohio	East Lansing Mich.	Green-field Ind.	La Grange Ind.	Lafay-ette Ind.	Wanatah Ind.	Mt. Morris Ill.
Lincoln	1.9	4.0	2.0	1.0	1.3	1.3	1.5	1.5	2.0
Illini	2.9	4.0	4.3	1.0	2.8	1.8	2.4	2.0	3.0
A3-107	1.3	2.0	1.0	1.0	1.3	1.3	1.4	1.0	1.0
C66	2.0	1.5	1.3	2.0	1.8	1.5	1.8	1.5	2.0
A3-108	1.4	1.5	1.3	1.0	1.3	1.0	1.4	1.0	1.5
A3-149	2.5	2.5	2.5	2.0	2.0	1.5	2.3	2.0	2.5
Mingo	2.6	2.7	2.5	2.0	3.0	2.0	2.6	2.0	2.5
A45-251	1.2	1.5	1.0	1.0	1.3	1.0	1.4	1.0	1.0
A3-33	1.5	1.7	1.5	1.0	1.0	1.3	1.6	1.0	1.5
A3-17	1.4	1.2	1.8	1.0	1.0	1.0	1.5	1.3	1.5
A3-10	1.5	1.0	1.0	1.0	1.5	1.0	1.6	1.0	1.5
A3-109	1.3	1.5	1.0	1.0	1.3	1.0	1.1	1.0	1.0
A3-14	2.5	2.0	2.8	1.0	2.3	1.8	2.5	1.8	2.0
Harman	2.4	2.3	3.8	1.0	2.5	1.8	2.8	1.5	2.5
Mukden	2.1	2.0	2.8	1.0	1.5	1.5	2.0	1.3	2.0
A3-32	2.2	1.7	2.0	1.0	1.8	2.3	2.0	1.5	2.5
Dunfield	2.7	2.7	3.8	2.0	2.5	1.8	2.4	2.0	3.0
A3-143	2.0	1.7	1.5	2.0	1.5	1.5	1.8	1.5	2.0
Richland	1.3	1.5	1.3	1.0	1.3	1.0	1.3	1.0	1.5
A3-93	2.0	1.5	2.5	1.0	1.5	1.3	2.4	1.8	1.5
H-8	2.5	3.0	2.5	1.0	2.8	2.3	2.4	1.8	2.0
Wis.Man.3	2.6	--	2.5	2.0	2.3	1.5	2.8	2.3	2.0
A3-2015-28	1.3	1.3	1.0	1.0	1.3	1.0	1.1	1.0	1.0
Earlyana	2.5	--	1.5	2.0	2.8	2.0	2.6	2.0	2.5
W-1	2.3	--	2.5	1.0	1.8	2.0	2.4	2.0	2.0
Mean	2.0		2.1	1.3	1.8	1.5	2.0	1.5	1.9

[1] New Brunswick not included in the mean.

Table 30. (continued)

Strain	Dwight Ill.	Urbana Ill.	Madison Wis.	Hudson Iowa	Cresco Iowa	Ames Iowa	Kanawha Iowa	Cherokee Iowa	Norfolk Nebr.
Lincoln	1.8	2.3	2.0	3.0	1.3	2.0	2.3	3.3	1.8
Illini	3.0	3.3	4.2	3.8	2.5	3.0	3.0	3.3	3.5
A3-107	1.3	1.0	1.7	2.0	1.0	1.0	1.0	2.0	1.5
C66	2.0	2.5	2.8	3.3	1.3	1.5	1.5	2.8	2.8
A3-108	1.8	1.0	1.5	2.0	1.0	1.0	1.3	2.3	1.5
A3-149	2.5	3.0	3.0	4.0	2.0	2.3	2.3	3.5	3.0
Mingo	3.0	3.8	3.8	3.0	1.5	2.3	2.0	3.0	3.0
A45-251	1.0	1.0	1.0	2.0	1.0	1.0	1.0	2.0	1.8
A3-33	1.8	1.0	2.0	3.0	1.0	1.3	1.3	2.5	1.5
A3-17	1.3	1.0	1.7	2.3	1.0	1.0	1.3	2.5	1.3
A3-10	1.8	1.3	2.2	2.5	1.0	1.0	1.8	2.3	1.0
A3-109	1.5	1.0	1.2	2.3	1.0	1.3	1.0	2.0	1.5
A3-14	2.8	2.5	3.0	3.8	2.0	2.5	2.3	3.3	3.3
Harman	2.8	2.8	3.0	3.0	1.5	2.0	2.0	2.5	2.3
Mukden	2.5	2.0	3.0	3.3	1.3	1.5	2.3	3.3	2.3
A3-32	2.3	2.0	2.5	3.5	1.5	2.3	2.3	3.5	2.8
Dunfield	2.0	3.0	3.8	4.0	2.0	2.0	2.8	3.5	3.3
A3-143	2.3	2.8	2.0	3.0	1.0	2.0	2.0	2.8	2.8
Richland	1.5	1.0	1.0	2.8	1.0	1.0	1.3	1.8	1.0
A3-93	2.0	2.3	2.2	2.8	1.0	1.5	2.3	3.0	2.3
H-8	3.0	3.3	3.2	3.8	2.0	2.0	2.3	3.5	2.8
Wis.Man.3	3.0	3.0	2.6	3.0	1.8	2.5	2.8	3.8	3.0
A3-2015-28	1.3	1.0	1.5	2.3	1.0	1.3	1.0	2.3	1.5
Earlyana	3.0	2.5	3.0	3.0	1.5	2.3	2.3	3.5	2.8
#-1	2.8	1.8	3.2	2.5	2.0	1.5	2.0	4.3	2.8
Mean	2.2	2.1	2.4	3.0	1.4	1.7	1.9	2.9	2.3

Table 31. Summary of height data for the strains in the Uniform Test, Group II, 1944.

Strain	Mean of 16 Tests[1]	New Brunswick N.J.	Holgate Ohio	East Lansing Mich.	Green-field Ind.	La Grange Ind.	Lafay-ette Ind.	Wanatah Ind.	Mt. Morris Ill.
Lincoln	36	36	30	42	35	26	40	31	38
Illini	40	35	32	42	41	24	44	32	42
A3-107	33	28	26	37	32	20	37	26	36
C66	35	29	27	38	36	22	38	29	39
A3-108	33	26	28	38	33	20	39	25	36
A3-149	36	32	27	41	37	23	41	28	39
Mingo	35	32	28	40	34	24	37	29	33
A45-251	32	28	25	35	32	22	37	27	29
A3-33	35	27	26	39	33	23	40	29	37
A3-17	31	26	26	36	28	19	36	24	32
A3-10	33	27	26	39	31	21	39	27	37
A3-109	32	26	25	36	31	21	38	27	30
A3-14	33	26	25	38	30	19	38	27	36
Harman	33	29	26	38	34	21	39	28	34
Mukden	37	35	28	43	33	24	41	29	39
A3-32	33	27	27	39	31	21	35	27	35
Dunfield	36	30	28	39	35	24	39	28	39
A3-143	35	30	26	40	35	21	41	30	36
Richland	30	26	24	35	29	19	35	25	33
A3-93	37	32	29	44	36	23	40	32	40
H-8	39	31	32	45	38	22	42	31	38
Wis.Man.3	33	--	26	40	34	21	38	28	36
A3-2015-28	29	23	23	38	28	19	33	25	28
Earlyana	34	--	28	40	34	23	37	29	35
W-1	33	--	27	37	32	20	38	30	33
Mean	34.1		27	39	33	22	38	28	36

[1] New Brunswick not included in the mean.

Table 31. (continued)

Strain	Dwight Ill.	Urbana Ill.	Madison Wis.	Hudson Iowa	Cresco Iowa	Ames Iowa	Kanawha Iowa	Cherokee Iowa	Norfolk Nebr.
Lincoln	36	35	42	42	30	38	40	34	39
Illini	42	40	48	46	36	40	45	36	43
A3-107	33	28	40	42	30	32	40	33	32
C66	34	34	41	38	33	36	41	33	39
A3-108	36	29	39	42	29	32	39	33	36
A3-149	39	36	41	40	32	39	43	34	39
Mingo	37	34	41	38	32	37	40	33	39
A45-251	34	28	38	41	31	32	40	32	35
A3-33	34	29	43	44	34	34	40	33	39
A3-17	31	27	36	38	29	32	37	32	36
A3-10	34	29	40	41	30	32	40	32	36
A3-109	33	28	36	40	28	31	41	33	35
A3-14	35	30	38	37	31	36	37	32	38
Harman	35	32	38	35	29	32	37	29	35
Mukden	40	32	47	44	35	36	43	35	42
A3-32	35	29	39	38	29	32	37	33	34
Dunfield	37	36	43	43	33	40	45	35	39
A3-143	40	33	41	41	31	34	39	34	40
Richland	31	27	37	35	24	28	37	30	32
A3-93	39	33	45	45	33	36	42	34	41
H-8	41	34	49	45	35	39	46	37	42
Wis.Man.3	36	30	42	39	30	31	36	32	36
A3-2015-28	32	22	36	34	25	25	35	28	31
Earlyana	37	30	43	40	31	33	38	33	37
W-1	36	28	39	38	33	31	37	30	38
Mean	36	31	41	40	31	34	40	33	37

Table 32. Summary of maturity data, days earlier (-) or later (+) than Richland, for the strains in the Uniform Test, Group II, 1944.

Strain	Mean of 15 Tests[1]	New Brunswick N.J.	Holgate Ohio	East Lansing Mich.	Green-field Ind.	La Grange Ind.	Lafayette Ind.	Wanatah Ind.
Lincoln	+9	+13	+9	+8	+5	+5	+7	+7
Illini	+9	+13	+9	+9	+8	+4	+8	+6
A3-107	+1	+ 1	+2	+1	-1	-1	0	0
C66	+5	- 1	+2	+7	+2	0	+3	+3
A3-108	0	+ 1	+2	-1	-1	-1	-1	0
A3-149	+5	+ 2	+3	+6	-1	+1	+4	+2
Mingo	+6	+ 1	+3	+8	+3	+3	+5	+5
A45-251	+1	+ 1	+3	+1	0	0	-1	0
A3-33	+3	+ 2	+2	0	-2	+6	+3	+4
A3-17	+2	+ 1	0	+2	-1	-1	+4	+2
A3-10	+1	- 3	-1	0	-1	-1	-1	0
A3-109	+2	+ 1	+2	+2	-1	+1	+2	-1
A3-14	+1	- 8	+2	+1	-2	-4	-1	+1
Harman	+2	- 1	+2	+3	-1	+6	+4	+2
Mukden	+5	+ 1	+2	+4	+2	+1	+3	+3
A3-32	+2	- 4	+2	+2	-2	+4	+2	+4
Dunfield	+8	+ 1	+4	+1	+5	+3	+7	+5
A3-143	+1	- 1	0	0	-5	-1	+3	+2
Richland	0	0	0	0	0	0	0	0
A3-93	+1	- 2	0	+6	-3	-2	-1	+3
H8	+5	- 7	+1	+4	+1	+2	+4	+2
Wis.Man.3	-5	-13	-1	-1	-7	-4	-4	-6
A3-2015-28	-2	- 7	-1	-3	-3	0	0	-4
Earlyana	-5	-10	-1	-1	-7	-6	-6	-7
W-1	-4	-10	-1	-2	-8	-5	-2	-7
Date Planted		5/30	5/25	5/26	6/8	6/2	6/5	6/1
Richland Matured		9/15	9/9	9/30	10/1	9/30	9/30	10/4
Days to Mature		108	107	127	115	120	117	125

[1]New Brunswick not included in the mean.

Table 32. (continued)

Strain	Dwight Ill.	Urbana Ill.	Madison Wis.	Hudson Iowa	Cresco Iowa	Ames Iowa	Kanawha Iowa	Cherokee Iowa	Norfolk Nebr.
Lincoln	+26	+10	+ 9	+3	+7	+12	+ 7	+ 9	+ 9
Illini	+24	+ 1	+16	+6	+6	+12	+10	+11	+12
A3-107	+ 2	- 1	0	0	+2	+ 4	- 1	+ 2	+ 3
C66	+16	+ 3	+ 3	+3	+6	+ 8	+ 6	+ 8	+ 5
A3-108	+ 3	- 2	0	-2	0	+ 3	- 1	+ 1	+ 2
A3-149	+21	+ 4	+ 3	+2	+3	+ 9	+ 5	+ 6	+ 1
Mingo	+17	+ 5	+ 6	+2	+5	+10	+ 2	+ 5	+ 6
A45-251	+ 2	- 1	0	-1	+2	+ 5	+ 1	+ 2	0
A3-33	+ 6	+ 4	- 3	+2	+3	+ 8	+ 1	+ 8	+ 9
A3-17	+ 1	- 1	- 1	0	+3	+ 7	+ 2	+ 4	+12
A3-10	0	- 1	- 3	0	+2	+ 5	+ 1	0	+10
A3-109	+ 3	0	+ 1	0	+4	+ 6	+ 2	+ 2	+10
A3-14	+ 1	- 3	0	-1	+3	+ 6	+ 1	+ 5	+ 8
Harman	+ 3	+ 2	+ 1	-3	+2	+ 2	0	+ 1	0
Mukden	+ 5	+ 6	+ 9	+3	+5	+ 8	+ 5	+ 8	+ 1
A3-32	+ 2	0	- 1	+1	+3	+ 5	0	+ 5	+ 5
Dunfield	+24	+ 7	+ 5	+3	+5	+16	+12	+14	+ 8
A3-143	+ 1	+ 4	- 1	0	+1	+ 5	0	+ 2	+ 6
Richland	0	0	0	0	0	0	0	0	0
A3-93	0	+ 5	0	-1	-1	+ 6	0	+ 1	- 1
H8	+21	+ 2	-	+2	+4	+13	+ 7	+11	+ 1
Wis.Man.3	- 5	- 3	- 4	-6	-6	- 3	- 6	- 5	- 2
A3-2015-28	- 4	- 3	- 1	-3	-2	- 3	- 5	- 4	0
Earlyana	- 6	- 4	- 2	-10	-5	- 4	- 6	- 6	- 1
W-1	- 2	- 5	- 4	-9	0	- 4	- 9	- 5	- 1
Date Planted	5/30	5/19	5/17	5/27	6/7	5/11	5/27	5/17	6/1
Richland Matured	9/20	9/8	9/11	10/7	10/10	9/14	9/28	9/25	9/30
Days to Mature	113	112	117	133	125	126	124	131	121

Table 33. Summary of seed quality data for the strains in the Uniform Test, Group II, 1944.

Strain	Mean of 13 Tests[1]	New Brunswick N.J.	Holgate Ohio	East Lansing Mich.	Green-field Ind.	La Grange Ind.	Lafay-ette Ind.	Wanatah Ind.	Mt. Morris Ill.
Lincoln	1.1	2.7	1	1	1	1	1	1	1
Illini	1.3	3.2	2	1	1	2	1	1	1
A3-107	1.2	2.5	1	1	2	2	1	1	1
C66	1.5	2.0	2	1	2	3	1	1	1
A3-108	1.3	2.2	1	1	2	2	1	1	1
A3-149	1.1	1.7	1	1	1	1	1	1	1
Mingo	1.5	2.2	2	1	1	2	1	1	1
A45-251	1.3	2.5	1	1	2	2	2	1	1
A3-33	1.3	1.7	2	1	2	2	1	1	1
A3-17	1.3	1.0	1	1	2	2	2	1	1
A3-10	1.3	1.2	2	1	2	2	2	1	1
A3-109	1.3	1.7	1	1	2	2	1	1	1
A3-14	1.4	1.0	1	2	2	1	1	1	1
Harman	1.2	1.0	1	1	1	2	2	1	1
Mukden	1.1	2.5	1	1	1	1	1	1	1
A3-32	1.3	1.0	1	1	1	2	2	1	1
Dunfield	1.2	2.2	1	1	1	1	1	1	1
A3-143	1.7	1.0	2	1	2	3	1	1	1
Richland	1.4	2.5	2	1	2	2	2	1	1
A3-93	1.2	1.7	1	1	1	2	1	1	1
H-8	1.5	1.2	2	1	1	1	1	1	1
Wis.Man.3	1.7	1.0	3	1	2	3	2	2	1
A3-2015-28	1.7	2.2	2	1	2	3	2	2	1
Earlyana	2.0	1.0	3	1	2	3	2	2	1
W1	1.6	1.0	1	1	2	3	2	2	1
Mean	1.4	1.7	1.5	1.0	1.6	2.0	1.4	1.2	1.0

[1] New Brunswick, Mt. Morris, Dwight, and Madison not included in the mean.

Table 33. (continued)

Strain	Dwight Ill.	Urbana Ill.	Madison Wis.	Hudson Iowa	Cresco Iowa	Ames Iowa	Kanawha Iowa	Cherokee Iowa	Norfolk Nebr.
Lincoln	1	1	1	1.5	1.0	1.0	1.0	1.8	1
Illini	1	1	1	1.3	1.5	1.0	1.3	1.3	2
A3-107	1	1	1	1.3	1.0	1.0	1.0	1.3	1
C66	1	1	1	1.5	1.3	1.3	1.0	1.5	2
A3-108	1	1	1	1.0	1.0	1.0	1.0	1.3	2
A3-149	1	1	1	1.8	1.0	1.3	1.0	1.3	1
Mingo	1	2	1	2.0	1.0	1.3	1.3	1.8	2
A45-251	1	1	1	1.0	1.0	1.0	1.3	1.3	1
A3-33	1	1	1	1.3	1.0	1.3	1.0	1.0	1
A3-17	1	1	1	1.8	1.3	1.0	1.0	1.3	1
A3-10	1	1	1	1.0	1.0	1.0	1.0	1.0	1
A3-109	1	1	1	1.3	1.0	1.0	1.0	1.0	2
A3-14	1	3	1	1.0	1.8	1.0	1.0	1.8	1
Harman	1	1	1	1.0	1.0	1.0	1.0	1.3	1
Mukden	1	1	1	1.3	1.0	1.3	1.0	1.5	1
A3-32	1	1	1	1.3	1.0	1.0	1.0	1.5	2
Dunfield	1	2	1	1.3	1.0	1.0	1.3	1.5	1
A3-143	1	2	1	2.0	1.0	1.3	1.0	1.3	3
Richland	1	1	1	2.0	1.0	1.0	1.0	1.3	1
A3-93	1	1	1	1.0	1.3	1.3	1.0	1.5	2
H-8	1	2	1	1.8	1.0	1.8	1.3	2.0	2
Wis.Man.3	1	2	1	1.5	1.0	1.0	1.0	1.8	1
A3-2015-28	1	2	1	2.3	1.0	1.0	1.0	1.3	2
Earlyana	1	3	1	2.0	1.0	1.3	1.3	1.8	2
W1	1	2	1	1.5	1.3	1.3	1.0	2.0	1
Mean	1.0	1.4	1.0	1.5	1.1	1.1	1.1	1.5	1.5

Table 34. Summary of seed weight data in grams per 100 seeds for the strains in the Uniform Test, Group II, 1944.

Strain	Mean of 16 Tests[1]	Composite of 13 Locations[2]	New Brunswick N.J.	Holgate Ohio	East Lansing Mich.	Green-field Ind.	Lafay-ette Ind.	Madison Wis.	Norfolk Nebr.
Lincoln	14.7	14.7	12.1	13.5	14.5	15.7	16.4	14.9	14.7
Illini	13.0	12.9	11.2	11.4	12.6	14.4	15.5	14.8	12.1
A3-107	17.4	17.3	13.9	15.5	17.4	18.2	19.1	18.1	18.5
C66	15.6	15.5	13.7	13.0	15.8	16.3	16.6	16.4	16.6
A3-108	17.3	17.3	13.2	15.4	17.5	18.3	17.8	17.5	17.5
A3-149	16.5	16.4	12.3	13.2	16.9	16.9	17.5	17.9	16.3
Mingo	15.6	15.4	12.0	13.4	16.4	15.8	16.2	17.3	15.9
A45-251	17.3	17.1	13.3	15.4	17.2	16.6	17.8	18.2	19.6
A3-33	16.6	16.5	12.7	16.1	18.2	17.4	17.5	16.8	16.0
A3-17	16.7	16.5	13.2	15.5	18.3	15.9	16.2	17.9	16.2
A3-10	15.3	15.2	12.2	13.9	16.3	16.1	15.6	15.5	15.7
A3-109	17.8	17.8	14.5	16.3	18.6	16.9	18.5	17.9	17.5
A3-14	15.7	15.5	11.7	13.6	16.5	16.7	17.9	16.7	16.0
Harman	15.5	15.5	11.9	14.2	16.8	16.6	16.9	15.4	14.8
Mukden	15.4	15.1	11.6	13.5	16.8	16.2	16.8	17.2	16.4
A3-32	17.0	16.8	12.8	14.8	17.7	18.2	19.4	17.5	17.9
Dunfield	15.1	14.9	12.5	13.4	14.7	15.5	17.1	17.6	15.2
A3-143	14.2	14.2	13.5	12.4	14.1	15.3	14.5	14.4	14.2
Richland	16.2	16.1	14.2	14.7	16.3	16.4	17.3	17.4	16.5
A3-93	14.3	14.3	11.0	12.7	15.3	15.2	15.1	14.6	13.7
H 8	15.7	15.4	11.5	13.1	15.4	15.7	16.5	18.4	17.6
Wis.Man.3	17.0	16.7	12.8	14.7	18.5	17.7	17.4	18.5	18.4
A3-2015-28	17.0	16.9	12.7	15.0	17.1	17.9	17.4	18.0	17.5
Earlyana	14.6	14.5	11.8	12.5	15.5	15.7	14.8	15.3	14.8
W1	15.8	15.6	12.0	13.8	16.4	16.1	15.7	17.1	16.0
Mean	15.9	15.8	12.6	14.0	16.4	16.5	16.9	16.9	16.2

[1] New Brunswick not included in the mean.

[2] Holgate, Greenfield, LaGrange, Lafayette, Wanatah, Mt. Morris, Dwight, Urbana, Hudson, Cresco, Ames, Kanawha, and Cherokee.

Table 35. Summary of percentage protein for the strains in the Uniform Test, Group II, 1944.

Strain	Mean of 16 Tests[1]	Composite of 13 Locations[2]	New Brunswick N.J.	East Lansing Mich.	Madison Wis.	Norfolk Nebr.
Lincoln	39.4	40.0	41.6	37.7	38.2	34.9
Illini	38.9	39.6	42.7	35.4	37.2	34.4
A3-107	40.1	40.6	42.9	37.8	38.5	37.1
C66	39.9	40.6	41.9	37.2	37.5	36.5
A3-108	40.6	41.1	43.9	38.5	38.4	37.7
A3-149	38.0	38.5	41.1	36.1	36.4	35.3
Mingo	42.4	43.0	43.2	41.5	40.2	38.4
A45-251	41.0	41.4	43.9	38.3	38.8	40.4
A3-33	40.0	40.7	43.6	37.2	36.9	36.1
A3-17	41.1	41.6	43.6	40.9	38.5	37.1
A3-10	41.3	41.8	42.8	38.7	39.1	38.8
A3-109	41.3	41.9	43.1	38.9	39.3	38.2
A3-14	40.1	40.9	43.3	38.4	35.9	36.0
Harman	42.2	42.8	43.9	41.1	39.6	37.8
Mukden	42.5	42.9	45.3	41.0	41.9	39.4
A3-32	41.2	41.7	43.0	39.1	37.8	39.6
Dunfield	38.6	39.2	39.9	36.2	37.1	35.3
A3-143	39.6	40.2	42.4	37.9	36.6	36.7
Richland	40.1	40.5	41.5	39.9	37.7	37.4
A3-93	43.5	44.0	45.6	41.9	43.3	39.2
H-8	40.6	41.2	43.2	36.7	39.2	37.5
Wis.Man.3	40.6	40.9	42.1	40.3	39.1	39.0
A3-2015-28	40.2	40.7	42.5	38.5	37.9	38.2
Earlyana	41.8	42.4	44.0	39.7	39.8	38.2
W-1	39.6	40.1	40.9	37.8	37.8	37.0
Mean	40.6	41.1	42.9	38.7	38.5	37.4

[1]New Brunswick not included in the mean.

[2]Composite from Holgate, Greenfield, LaGrange, Lafayette, Wanatah, Mt. Morris, Dwight, Urbana, Hudson, Cresco, Ames, Kanawha, and Cherokee.

Table 36. Summary of percentage oil for the strains in the Uniform Test, Group II, 1944.

Strain	Mean of 16 Tests[1]	Composite of 13 Locations[2]	New Brunswick N.J.	East Lansing Mich.	Madison Wis.	Norfolk Nebr.
Lincoln	20.7	20.6	19.9	21.1	21.5	21.5
Illini	19.6	19.4	19.2	20.5	19.9	20.2
A3-107	20.8	20.7	20.3	21.2	21.6	21.3
C66	20.4	20.2	20.1	20.7	21.4	20.9
A3-108	20.7	20.6	19.9	21.1	21.6	21.2
A3-149	20.7	20.6	20.4	20.9	21.5	20.9
Mingo	19.7	19.5	19.4	19.6	20.6	20.7
A45-251	20.9	20.8	19.8	21.0	21.9	20.5
A3-33	20.8	20.6	19.6	21.6	22.3	21.8
A3-17	20.4	20.2	20.1	20.2	21.7	21.4
A3-10	20.7	20.6	19.8	20.8	21.3	20.9
A3-109	20.6	20.4	20.2	21.0	21.4	21.2
A3-14	20.5	20.4	19.9	20.4	22.4	20.7
Harman	19.2	19.0	18.3	19.2	20.6	20.5
Mukden	19.4	19.3	18.8	19.6	19.8	20.0
A3-32	20.3	20.1	19.4	20.8	22.0	20.7
Dunfield	20.2	20.2	20.9	20.4	20.8	19.9
A3-143	20.5	20.3	19.3	20.7	22.1	21.1
Richland	20.1	20.0	20.2	19.6	21.4	20.6
A3-93	18.6	18.5	17.2	19.0	19.0	19.7
H-8	20.4	20.3	19.7	21.1	20.9	20.7
Wis.Man. 3	20.4	20.3	20.7	20.5	21.7	20.9
A3-2015-28	21.0	20.9	20.0	21.1	21.3	21.1
Earlyana	20.4	20.3	19.3	20.7	21.3	22.2
W-1	20.9	20.8	21.3	20.9	21.7	21.7
Mean	20.3	20.2	19.7	20.5	21.3	20.9

[1] New Brunswick not included in the mean.

[2] Composite from Holgate, Greenfield, LaGrange, Lafayette, Wanatah, Mt. Morris, Dwight, Urbana, Hudson, Cresco, Ames, Kanawha, and Cherokee.

Table 37. Summary of iodine number of oil for the strains in the Uniform Test, Group II, 1944.

Strain	Mean of 16 Tests[1]	Composite of 13 Locations[2]	New Brunswick N.J.	East Lansing Mich.	Madison Wis.	Norfolk Nebr.
Lincoln	136.5	136.4	136.7	137.3	137.2	136.8
Illini	135.9	135.6	135.1	137.2	136.6	137.0
A3-107	129.8	129.3	124.8	132.0	130.7	132.4
C66	132.0	131.7	129.6	134.3	132.6	133.5
A3-108	131.0	130.5	126.5	132.0	132.1	132.2
A3-149	134.6	134.4	132.2	136.1	135.1	135.8
Mingo	135.4	135.2	133.2	136.6	135.4	136.4
A45-251	130.1	129.8	125.6	132.6	130.9	130.7
A3-33	131.8	131.5	125.2	132.8	132.9	133.7
A3-17	132.3	132.0	125.3	133.6	132.5	134.0
A3-10	128.3	128.1	122.7	129.4	128.0	130.3
A3-109	130.0	129.7	124.3	132.0	130.4	132.1
A3-14	132.5	132.4	130.9	133.4	132.9	132.9
Harman	135.3	135.1	132.2	136.3	135.5	136.7
Mukden	131.8	131.6	128.0	132.4	132.1	133.0
A3-32	132.8	132.6	131.0	133.9	133.2	133.2
Dunfield	131.6	131.3	130.6	133.9	131.5	133.5
A3-143	135.5	135.2	131.3	136.6	136.6	137.2
Richland	130.8	130.3	121.7	133.5	132.4	132.6
A3-93	136.2	136.0	134.4	136.9	136.3	137.2
H-8	133.4	133.3	133.0	134.7	133.2	133.7
Wis.Man. 3	134.4	134.4	131.6	134.2	134.5	134.8
A3-2015-28	130.3	129.9	123.9	132.1	130.8	132.6
Earlyana	134.0	133.7	131.5	135.1	134.5	135.7
W-1	131.1	130.9	130.3	131.7	130.7	133.0
Mean	132.7	132.4	129.3	134.0	133.1	134.0

[1] New Brunswick not included in the mean.

[2] Composite from Holgate, Greenfield, LaGrange, Lafayette, Wanatah, Mt. Morris, Dwight, Urbana, Hudson, Cresco, Ames, Kanawha, and Cherokee.

Table 38. Five-year summary of yield in bushels per acre and yield rank for the strains in the Uniform Test, Group II, 1940-1944.

	Mean of 65 Tests	Holgate Ohio	Dearborn Mich.	East Lansing Mich.	La Grange Ind.	Bluffton Ind.	Lafayette, Ind.	Wanatah Ind.	Mt. Morris Ill.	Dwight Ill.
Years Tested		1940-1944	1941-1943	1943-1944	1942-1944	1940-1943	1940-1944	1940-1944	1942-1944	1940-1944
Strain					Yield (bushels per acre)					
Lincoln	34.1	27.1	36.7	27.8	28.0	39.3	44.9	27.0	20.0	33.9
Mingo	30.1	24.1	30.0	24.2	25.1	33.2	38.6	24.2	18.3	27.8
Illini	29.9	22.8	35.3	23.3	25.6	34.0	37.8	25.0	18,1	29.8
Dunfield	28.2	21.6	24.9	20.0	23.7	30.8	33.6	23.6	17.5	27.9
Mukden	27.5	20.4	29.6	23.1	24.0	30.9	37.2	22.5	17.0	26.8
Richland	27.0	21.1	22.8	18.8	21.8	29.5	32.3	21.4	16.0	26.6
Earlyana	26.2	21.7	30.0	20.8	21.3	29.1	30.9	22.5	17.8	24.7
Wis.Man.3	25.7	21.2	27.5	21.6	22.3	26.9	31.4	19.1	17.2	24.8
Mean	28.6	22.5	29.6	22.5	24.0	31.7	35.8	23.2	17.7	27.8
					Yield Rank					
Strain										
Lincoln		1	1	1	1	1	1	1	1	1
Mingo		2	3	2	3	3	2	3	2	4
Illini		3	2	3	2	2	3	2	3	2
Dunfield		5	7	7	5	5	5	4	5	3
Mukden		8	5	4	4	4	4	5	7	5
Richland		7	8	8	7	6	6	7	8	6
Earlyana		4	3	6	8	7	8	5	4	8
Wis.Man.3		6	6	5	6	8	7	8	6	7

Table 38. (continued)

	Urbana Ill.	Stonington Ill.	Clayton Ill.	Madison Wis.	Hudson Iowa	Ames Iowa	Kanawha Iowa	Cherokee Iowa	Norfolk Nebr.
Years Tested	1940-1944	1940-1941	1940-1941	1943-1944	1942-1944	1942-1944	1940-1944	1942 & 1944	1943-1944
Strain				Yield (bushels per acre)					
Lincoln	42.0	28.3	34.0	39.4	41.3	44.1	30.4	43.5	33.8
Mingo	37.1	25.8	31.1	35.1	34.8	40.3	29.5	39.9	28.3
Illini	34.4	25.7	27.0	34.3	37.5	38.7	28.7	47.2	29.8
Dunfield	35.4	25.7	30.9	32.9	34.9	38.8	27.2	39.0	26.5
Mukden	32.9	20.5	23.1	34.2	35.7	39.6	27.4	36.7	28.0
Richland	34.1	20.6	27.2	28.4	33.1	38.1	28.7	37.7	29.4
Earlyana	28.6	19.4	21.2	29.4	33.4	36.8	30.6	38.0	29.7
Wis.Man.3	29.6	20.7	23.7	29.9	33.2	34.5	29.0	34.7	27.1
Mean	34.3	23.3	27.3	33.0	35.5	38.9	28.9	39.6	29.1
				Yield Rank					
Strain									
Lincoln	1	1	1	1	1	1	2	2	1
Mingo	2	2	2	2	5	2	3	3	5
Illini	4	3	5	3	2	5	5	1	2
Dunfield	3	3	3	5	4	4	8	4	8
Mukden	6	7	7	4	3	3	7	7	6
Richland	5	6	4	8	8	6	5	6	4
Earlyana	8	8	8	7	6	7	1	5	3
Wis.Man.3	7	5	6	6	7	8	4	8	7

Table 39. Five year summary of mean agronomic and chemical data for the strains in the Uniform Test, Group II, 1940-44.

Strain	Mean Yield Bu./A.	Lodging	Height Inches	Maturity[1]	Seed Quality	Seed Weight	Percent Protein[2]	Percent Oil[2]	Iodine Number of Oil
Number of Tests	65	60	55	58	54	64	69	69	69
Lincoln	34.1	2.2	37	+6.4	1.4	15.0	40.7	21.1	136
Mingo	30.1	2.9	36	+5.8	2.0	15.7	42.9	19.9	134
Illini	29.9	2.9	40	+7.2	1.5	13.9	40.8	20.0	134
Dunfield	28.2	2.8	36	+6.6	1.5	15.9	40.1	20.5	130
Mukden	27.5	2.2	37	+2.7	1.6	14.9	43.9	19.5	130
Richland	27.0	1.5	31	0	1.7	16.3	41.1	20.2	128
Earlyana	26.2	2.5	35	-4.3	2.0	14.8	43.6	20.2	132
Wis.Man.3	25.7	2.8	32	-1.1	2.2	16.9	42.6	20.0	133

[1]Days earlier (-) or later (+) than Richland. Richland required 123 days to mature.
[2]Composition on dry basis.

UNIFORM TEST, GROUP III

The Group III Test was composed of six named varieties and fourteen selections from hybrids. Considerable revision of strains in this test was made in 1944. The origin of these strains and varieties is as follows:

Variety or Strain	Source or Originating Agency	Origin
Chief	Ill.Agr.Exp.Sta.	Sel.from Illini x Manchu
Dunfield	Purdue Agr.Exp.Sta.	P.I. 36846[1]
Illini	Ill.Agr.Exp.Sta.	Selection from A.K.
Lincoln	Ill.A.E.S.and U.S.Reg.Soybean Lab.	L6-685 (Mandarin x Manchu)
Patoka	Purdue Agr.Exp.Sta.	Sel. from P.I. 70218-2[1]
Viking	Ill.Agr.Exp.Sta.	T118 (Illini x Manchu)
A3-9	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel. from Illini x Dunfield
A3-61	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Illini x Dunfield
A3-92	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Illini x Dunfield
A3-117	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Illini x Dunfield
A3-118	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Illini x Richland
A3-127	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Richland x Mandell
A3-128	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Richland x Mandell
A3-163	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Richland
A3-176	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Illini x Dunfield
A3-360-12	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Illini x Mandell
A3-1411-20	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Mukden x Dunfield
A3-1411-27	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Mukden x Dunfield
A3-1411-47	Iowa A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Mukden x Dunfield
C84	Purdue Agr.Exp.Sta.	Sel.from CX531 (Midwest x Dunfield)

[1] Division of Plant Exploration and Introduction, Bureau of Plant Industry, Soils, and Agricultural Engineering, U.S.D.A.

Group III was grown at fourteen locations in the northern states in 1944. The results of the 1944 tests are presented in Tables 40-50.

Lincoln averaged higher than any other strain in the 1944 tests but was not so far ahead of its competitors as in Group II nor was it quite so consistently first in yield. Only seven of the 1944 entries were carried over from 1943, the remaining thirteen being new entries from Iowa.

A3-176 averaged .5% more oil than Lincoln, has about the same maturity and lodging resistance but is not so good a yielder at the more southern locations. Most of the new strains are earlier than Illini and so are in the early part of the Group III range.

Summaries of the five strains which have been in the Group III tests for the past three years are reported in Tables 51 and 52. Lincoln has also averaged higher in yield than any of the other strains in this three-year summary and has been more consistent in yield than any of the other strains.

Table 40. Summary of agronomic and chemical data for the strains in the Uniform Test, Group III, 1944.

Strain	Mean Yield Bu/A.	Lodging	Height Inches	Maturity[1]	Seed Quality	Seed Weight	Percentage of Protein	Percentage of Oil	Iodine Number of Oil
Number of Tests	14	13	12	9	14	14	14[2]	14[2]	14[2]
Lincoln	30.8	2.1	36	-2.1	1.3	14.3	39.6	21.4	135.9
C84	29.8	2.9	38	+1.9	1.3	15.3	39.8	20.3	133.3
Chief	28.7	2.7	43	+6.6	1.7	12.8	39.9	20.3	133.4
A3-176	28.6	2.1	35	-2.7	1.4	14.6	40.1	21.9	132.2
Viking	28.6	2.6	43	+4.4	1.5	14.2	39.7	20.4	133.9
A3-117	28.4	2.6	38	-0.9	1.3	13.4	38.3	21.3	129.9
Patoka	28.3	2.3	34	+7.0	1.4	18.5	43.1	20.0	132.4
A3-163	28.1	2.0	33	-1.4	1.2	15.9	39.8	20.9	127.5
A3-92	27.5	2.4	38	-1.9	1.9	15.5	40.9	21.2	129.8
A3-128	27.1	1.8	34	-2.4	1.8	15.9	42.0	20.8	133.0
Illini	27.0	3.0	38	0	1.3	13.5	39.7	20.3	134.2
A3-1411-20	26.8	2.1	34	-4.2	1.5	15.8	41.1	21.8	130.2
Dunfield	26.7	2.8	36	-3.1	1.4	15.3	39.0	21.2	128.6
A3-61	26.6	2.2	37	-1.9	1.7	12.9	40.5	20.7	134.4
A3-127	26.3	1.8	34	-4.2	1.5	15.6	41.9	20.8	133.4
A3-118	26.2	2.6	39	+1.1	1.7	14.7	42.9	19.3	129.4
A3-1411-47	25.9	2.2	35	-4.7	1.4	15.3	40.2	20.3	130.5
A3-9	25.8	1.8	34	-8.3	1.7	14.1	40.5	21.1	130.8
A3-1411-27	25.8	2.4	35	-4.8	1.5	14.2	39.9	21.2	131.8
A3-360-12	25.1	1.7	37	-6.8	1.7	13.9	43.2	19.3	134.6
Mean	27.4	2.3	37		1.6	14.8	40.6	20.7	132.0

[1] Days earlier (-) or later (+) than Illini. Illini required 125 days to mature.
[2] Composite sample of 11 tests and 3 individual tests. Composition on dry basis.

Table 41. Summary of yields in bushels per acre for the strains in the Uniform Test, Group III, 1944.

Strain	Mean of 14 Tests	Green-field Ind.	Lafay-ette Ind.	Dwight Ill.	Urbana Ill.	Clayton Ill.	Ston-ington Ill.	Edge-wood Ill.
Lincoln	30.8	41.1	39.0	27.2	26.1	30.4	30.0	21.3
C84	29.8	33.4	35.8	22.1	28.3	26.1	31.7	19.0
Chief	28.7	30.6	32.9	18.0	26.0	29.2	25.7	16.8
A3-176	28.6	37.7	38.8	26.8	30.1	25.7	28.8	9.4
Viking	28.6	34.3	35.0	25.1	26.3	28.6	27.9	16.5
A3-117	28.4	32.9	37.3	21.2	23.5	29.1	27.2	18.4
Patoka	28.3	30.9	30.5	21.6	33.8	31.7	23.5	15.1
A3-163	28.1	31.4	34.3	20.3	30.3	31.5	26.1	12.3
A3-92	27.5	33.5	37.0	22.2	30.1	28.1	25.1	13.6
A3-128	27.1	34.1	33.7	22.5	27.2	21.1	25.5	13.0
Illini	27.0	33.6	37.7	26.2	24.5	25.0	30.3	15.5
A3-1411-20	26.8	32.8	33.6	23.0	28.8	24.1	24.5	11.9
Dunfield	26.7	31.6	27.8	19.2	27.9	27.9	23.3	17.1
A3-61	26.6	34.6	33.2	23.3	26.7	25.7	25.2	15.9
A3-127	26.3	31.8	34.0	19.0	27.6	22.6	25.7	14.7
A3-118	26.2	32.5	31.1	20.3	25.7	28.1	23.0	13.4
A3-1411-47	25.9	28.0	31.9	23.3	28.3	22.1	24.1	15.1
A3-9	25.8	32.7	33.4	19.5	27.2	28.2	24.7	12.7
A3-1411-27	25.8	31.3	29.0	20.7	26.5	21.5	28.0	14.0
A3-360-12	25.1	34.4	33.4	19.2	28.1	23.8	24.7	13.7
Mean	27.4	33.1	34.0	22.0	27.6	26.5	26.2	15.0
Coef. of var. (%)		8.5	8.3	14.4	10.6	8.0	14.8	19.8
Bu. Nec. for Sig. (5% level)		4.0	4.0	4.5	4.1	3.0	Not Sig.	4.9

Table 41. (continued)

Strain	Freeburg Ill.	Ottumwa Iowa	Ames Iowa	Columbia Mo.	Lincoln Nebr.	Nebraska City Nebr.	Manhattan Kans.
Lincoln	31.6	35.5	40.4	25.0	21.7	31.8	29.9
C84	32.1	32.4	36.7	31.3	22.0	34.6	31.4
Chief	30.0	31.8	37.7	30.3	24.6	38.4	29.4
A3-176	25.6	33.7	43.1	25.6	21.8	26.0	27.1
Viking	27.8	31.5	36.7	24.1	22.7	34.3	29.0
A3-117	33.2	33.4	34.9	25.4	23.0	30.2	28.1
Patoka	31.9	27.6	34.2	27.9	20.5	37.8	29.2
A3-163	31.9	32.9	38.4	27.5	22.0	28.8	26.0
A3-92	29.0	32.0	40.9	22.4	21.1	25.0	25.1
A3-128	29.7	34.2	40.3	24.0	19.9	26.6	28.1
Illini	21.4	31.5	36.8	18.6	20.6	30.8	25.2
A3-1411-20	26.5	33.1	40.6	23.0	21.5	26.5	25.6
Dunfield	27.6	29.7	37.3	24.8	20.9	30.1	28.1
A3-61	24.7	33.4	39.8	21.5	20.8	26.0	22.2
A3-127	28.1	30.2	40.3	26.1	18.4	24.1	25.0
A3-118	25.8	32.7	36.0	19.9	19.4	31.9	26.3
A3-1411-47	26.1	30.6	40.9	23.0	20.0	24.5	24.1
A3-9	26.8	30.5	39.2	20.2	20.8	22.3	23.0
A3-1411-27	26.5	30.4	38.2	19.4	20.2	28.1	26.8
A3-360-12	26.8	29.8	32.4	19.2	18.7	23.9	22.8
Mean	28.1	31.8	38.2	23.9	21.0	29.1	26.6
Coef.of var. (%)	7.9	7.9	10.7	13.9	9.4	6.9	9.0
Bu.Nec.for Sig.(5% level)	3.1	3.6	Not Sig.	4.7	2.8	2.8	3.4

Table 42. Summary of yield rank for the strains in the Uniform Test, Group III, 1944.

Strain	Greenfield Ind.	Lafayette Ind.	Dwight Ill.	Urbana Ill.	Clayton Ill.	Stonington Ill.	Edgewood Ill.
Lincoln	1	1	1	16	3	3	1
C84	9	6	10	6	11	1	2
Chief	19	15	20	17	4	9	5
A3-176	2	2	2	3	12	4	20
Viking	5	7	4	15	6	6	6
A3-117	10	4	12	20	5	7	3
Patoka	18	18	11	1	1	18	9
A3-163	16	8	14	2	2	8	18
A3-92	8	5	9	3	8	13	14
A3-128	6	10	8	11	20	11	16
Illini	7	3	3	19	14	2	8
A3-1411-20	11	11	7	5	15	16	19
Dunfield	15	20	17	9	10	19	4
A3-61	3	14	5	13	12	12	7
A3-127	14	9	19	10	17	9	11
A3-118	13	17	14	18	8	20	15
A3-1411-47	20	16	5	6	18	17	9
A3-9	12	12	16	11	7	14	17
A3-1411-27	17	19	13	14	19	5	12
A3-360-12	4	12	17	8	16	14	13

Table 42. (continued)

Strain	Freeburg Ill.	Ottumwa Iowa	Ames Iowa	Columbia Mo.	Lincoln Nebr.	Nebraska City Nebr.	Manhattan Kans.
Lincoln	5	1	5	8	7	6	2
C84	2	9	15	1	4	3	1
Chief	6	11	12	2	1	1	3
A3-176	18	3	1	6	6	14	9
Viking	10	12	15	10	3	4	5
A3-117	1	4	18	7	2	8	6
Patoka	3	20	19	3	14	2	4
A3-163	3	7	10	4	4	10	12
A3-92	8	10	2	14	9	16	15
A3-128	7	2	6	11	17	12	6
Illini	20	12	14	20	13	7	14
A3-1411-20	14	6	4	12	8	13	13
Dunfield	11	19	13	9	10	9	6
A3-61	19	4	8	15	11	14	20
A3-127	9	17	6	5	20	18	16
A3-118	17	8	17	17	18	5	11
A3-1411-47	16	14	2	12	16	17	17
A3-9	12	15	9	16	11	20	18
A3-1411-27	14	16	11	18	15	11	10
A3-360-12	12	18	20	19	19	19	19

Table 43. Summary of lodging data for the strains in the Uniform Test, Group III, 1944.

Strain	Mean of 13 Tests	Greenfield Ind.	Lafayette Ind.	Dwight Ill.	Urbana Ill.	Clayton Ill.	Stonington Ill.
Lincoln	2.1	1.5	1.6	2.3	2.3	3.0	2.3
C84	2.9	1.8	2.5	2.8	2.8	3.3	3.0
Chief	2.7	2.3	2.4	3.0	3.0	2.8	2.3
A3-176	2.1	1.5	1.6	2.3	2.3	2.5	2.3
Viking	2.6	1.8	2.0	2.5	3.3	3.0	3.0
A3-117	2.6	1.5	2.1	2.3	3.5	2.8	2.5
Patoka	2.3	1.5	2.0	2.0	2.3	2.5	3.0
A3-163	2.0	1.3	2.1	1.8	2.8	2.8	2.3
A3-92	2.4	1.8	2.1	2.3	2.3	2.5	2.5
A3-128	1.8	1.5	1.8	2.0	2.0	2.5	2.0
Illini	3.0	2.3	2.1	3.0	3.3	3.0	3.0
A3-1411-20	2.1	1.5	1.5	2.5	2.0	2.8	2.3
Dunfield	2.8	1.8	2.5	2.8	3.0	3.5	3.0
A3-61	2.2	1.8	1.8	2.5	2.8	3.0	2.3
A3-127	1.8	1.5	1.6	1.8	1.8	2.5	2.0
A3-118	2.6	2.3	2.3	2.8	3.0	3.0	2.5
A3-1411-47	2.2	1.8	2.1	2.3	2.5	2.3	2.0
A3-9	1.8	1.5	1.8	2.0	1.3	1.8	2.5
A3-1411-27	2.4	1.5	2.5	3.0	2.5	3.0	3.0
A3-360-12	1.7	1.5	1.6	2.3	1.5	2.0	2.0
Mean	2.3	1.7	2.0	2.4	2.5	2.7	2.5

Table 43. (continued)

Strain	Freeburg Ill.	Ottumwa Iowa	Ames Iowa	Columbia Mo.	Lincoln Nebr.	Nebr. City Nebr.	Manhattan Kans.
Lincoln	1.5	3.0	1.8	2.0	1.3	3.0	1.5
C84	2.5	3.3	2.3	3.0	2.8	5.0	2.0
Chief	2.0	3.0	2.3	3.0	2.5	3.0	3.4
A3-176	1.5	2.5	2.3	2.0	2.0	3.0	1.2
Viking	2.0	3.0	2.3	3.0	1.8	3.0	2.5
A3-117	1.5	2.8	2.5	3.0	2.8	4.0	2.8
Patoka	1.5	3.0	3.0	2.0	2.0	3.0	1.5
A3-163	1.5	3.0	1.8	1.0	1.3	3.0	1.5
A3-92	1.5	2.8	2.3	3.0	2.5	3.0	2.3
A3-128	1.5	2.0	1.5	1.0	2.0	2.0	2.0
Illini	2.0	3.5	3.0	3.0	2.5	4.0	3.7
A3-1411-20	1.5	2.8	2.3	2.0	2.0	3.0	1.7
Dunfield	2.0	3.8	2.5	2.0	2.5	4.0	3.0
A3-61	1.0	3.0	2.0	2.0	2.0	3.0	1.8
A3-127	1.5	2.3	1.8	1.0	1.5	2.0	1.5
A3-118	2.0	3.5	2.5	2.0	2.5	3.0	1.9
A3-1411-47	2.0	3.0	1.8	2.0	1.8	3.0	2.0
A3-9	1.5	2.3	1.3	2.0	1.5	3.0	1.1
A3-1411-27	1.5	2.8	2.0	1.0	1.8	4.0	2.7
A3-360-12	1.0	2.8	1.3	1.0	1.3	2.0	1.5
Mean	1.7	2.9	2.1	2.1	2.8	3.2	2.1

Table 44. Summary of height data for the strains in the Uniform Test, Group III, 1944.

Strain	Mean of 12 Tests	Greenfield Ind.	Lafayette Ind.	Dwight Ill.	Urbana Ill.	Clayton Ill.	Freeburg Ill.
Lincoln	36	37	41	39	35	34	33
C84	38	39	43	44	37	35	37
Chief	43	43	49	46	43	34	41
A3-176	35	34	43	39	32	29	31
Viking	43	42	50	46	43	36	41
A3-117	38	37	45	41	40	35	36
Patoka	34	33	40	36	35	31	31
A3-163	33	33	40	35	32	30	30
A3-92	38	38	43	42	36	33	34
A3-128	34	34	41	39	34	30	32
Illini	38	37	44	41	38	32	36
A3-1411-20	34	33	38	40	34	29	30
Dunfield	36	36	44	38	36	33	33
A3-61	37	37	44	40	37	33	31
A3-127	34	34	41	37	32	30	33
A3-118	39	40	43	42	39	36	34
A3-1411-47	35	34	40	39	34	30	29
A3-9	34	34	42	37	32	32	31
A3-1411-27	35	33	39	40	35	29	30
A3-360-12	37	38	46	43	33	34	31
Mean	37	36	43	40	36	32	33

Table 44. (continued)

Strain	Ottumwa Iowa	Ames Iowa	Columbia Mo.	Lincoln Nebr.	Nebr.City Nebr.	Manhattan Kans.
Lincoln	39	39	30	31	37	37
C84	40	42	32	33	36	37
Chief	48	48	38	37	44	45
A3-176	41	39	24	30	36	37
Viking	47	47	36	37	42	45
A3-117	42	42	32	34	37	40
Patoka	37	40	28	28	35	33
A3-163	36	36	25	28	35	32
A3-92	43	43	24	34	39	41
A3-128	40	36	26	29	33	36
Illini	42	40	32	34	38	40
A3-1411-20	40	39	22	31	35	39
Dunfield	40	40	26	33	36	36
A3-61	42	41	25	32	38	38
A3-127	40	35	27	27	33	35
A3-118	43	45	30	35	38	38
A3-1411-47	41	41	25	31	35	35
A3-9	41	39	24	30	36	34
A3-1411-27	41	41	26	31	35	35
A3-360-12	40	38	28	32	37	40
Mean	41	41	28	32	37	38

Table 45. Summary of seed quality data for the strains in the Uniform Test, Group III, 1944.

Strain	Mean of 12 Tests[1]	Greenfield Ind.	Lafayette Ind.	Dwight Ill.	Urbana Ill.	Clayton Ill.	Stonington Ill.	Edgewood Ill.
Lincoln	1.3	1	1	1	1	1	1	2
C84	1.3	1	1	1	2	1	1	2
Chief	1.8	1	1	1	1	1	1	3
A3-176	1.4	1	1	1	1	1	1	3
Viking	1.5	1	1	1	1	1	1	2
A3-117	1.3	1	1	1	1	1	1	2
Patoka	1.5	1	1	1	1	1	1	2
A3-163	1.3	1	1	1	1	1	1	2
A3-92	2.1	1	2	1	1	1	2	3
A3-128	1.9	1	2	1	1	1	1	3
Illini	1.4	1	1	1	1	1	1	2
A3-1411-20	1.6	1	1	1	1	1	1	2
Dunfield	1.4	1	1	1	1	1	1	1
A3-61	1.8	1	1	1	1	2	1	3
A3-127	1.6	1	1	1	1	1	1	2
A3-118	1.8	1	2	1	1	1	1	2
A3-1411-47	1.4	1	1	1	1	1	1	1
A3-9	1.8	1	1	1	1	1	1	2
A3-1411-27	1.6	1	1	1	1	1	1	2
A3-360-12	1.8	1	1	1	1	1	1	2
Mean	1.6	1	1.2	1	1.1	1.1	1.1	2.2

[1] Greenfield and Dwight not included in the mean.

Table 45. (continued)

Strain	Freeburg Ill.	Ottumwa Iowa	Ames Iowa	Columbia Mo.	Lincoln Nebr.	Nebraska City Nebr.	Manhattan Kans.
Lincoln	1	1.3	1.0	1.3	1	2	2
C84	1	1.0	1.0	1.0	1	2	2
Chief	2	1.5	1.5	1.5	2	3	3
A3-176	1	1.0	1.0	2.3	2	2	1
Viking	1	1.0	1.0	1.5	2	3	3
A3-117	1	1.0	1.0	2.3	1	2	2
Patoka	1	1.3	1.0	1.8	2	3	2
A3-163	1	1.0	1.0	1.0	1	2	2
A3-92	2	1.3	1.0	3.8	2	3	3
A3-128	1	2.0	1.3	2.3	2	3	3
Illini	1	1.3	1.0	2.3	1	2	2
A3-1411-20	1	1.0	1.0	2.0	2	3	3
Dunfield	1	1.8	1.0	2.5	1	2	3
A3-61	2	1.3	1.0	2.3	2	3	2
A3-127	1	1.5	1.0	2.0	2	3	3
A3-118	1	1.0	1.0	2.8	3	4	2
A3-1411-47	1	1.3	1.0	2.0	1	3	3
A3-9	1	1.3	1.0	3.0	2	3	4
A3-1411-27	1	1.3	1.0	2.5	1	3	3
A3-360-12	1	1.0	1.0	2.5	3	4	3
Mean	1.2	1.3	1.0	2.1	1.7	2.8	2.6

Table 46. Summary of maturity data, days earlier (-) or later (+) than Illini, for the strains in the Uniform Test, Group III, 1944.

Strain	Mean of 9 Tests	Greenfield Ind.	Lafayette Ind.	Urbana Ill.	Clayton Ill.	Ottumwa Iowa	Ames Iowa	Columbia Mo.	Lincoln Nebr.	Manhattan Kans.
Lincoln	-2.1	-1	-1	-3	+ 5	-2	- 4	0	-2	-11
C84	+1.9	+1	+1	+4	+16	+1	+ 3	+1	0	-10
Chief	+6.6	+3	+4	+5	+16	+8	+ 9	+4	+8	+ 2
A3-176	-2.7	-1	0	-7	0	-3	- 4	-7	-2	0
Viking	+4.4	+3	+2	+5	+14	+5	+ 5	+3	+3	0
A3-117	-0.9	0	0	-3	+ 5	-3	+ 3	0	-2	- 8
Patoka	+7.0	+5	+7	+5	+18	+8	+11	+4	+7	- 2
A3-163	-1.4	-1	-1	-4	+ 8	0	0	-1	-1	-13
A3-92	-1.9	+3	+2	-5	- 2	-4	- 2	-7	-1	- 1
A3-128	-2.4	+1	-1	-5	- 1	-4	0	-3	-2	- 7
Illini	0	0	0	0	0	0	0	0	0	0
A3-1411-20	-4.2	-1	-4	-5	- 2	-3	- 2	-2	-3	-16
Dunfield	-3.1	-1	0	-6	0	+1	+ 1	-6	-5	-12
A3-61	-1.9	+1	-2	-5	0	-2	- 1	-7	-1	0
A3-127	-4.2	-1	-1	-5	0	-4	- 4	-4	-5	-14
A3-118	+1.1	0	-2	-3	- 2	+2	+ 3	+8	+6	- 2
A3-1411-47	-4.7	-1	-4	-5	- 1	-3	- 1	-7	-4	-16
A3-9	-8.3	-1	-2	-15	- 2	-6	- 9	-9	-14	-17
A3-1411-27	-4.8	-1	-4	-5	- 2	-3	- 1	-7	-5	-15
A3-360-12	-6.8	-2	-5	-6	- 6	-9	-11	-6	-3	-13
Date Planted		6/8	6/5	5/19	6/7	6/15	5/11	5/16	5/29	6/1
Date Matured (Illini)		10/7	10/13	9/21	9/24	10/15	10/4	9/12	9/29	10/5
Days to Maturo(Illini)	125	121	130	125	109	122	146	119	123	126

Table 47. Summary of seed weight data in grams per 100 seeds for the strains in the Uniform Test, Group III, 1944.

Strain	Mean of 14 Tests	Composite[1]	Green-field Ind.[2]	Lafay-ette Ind.[2]	Columbia Mo.[2]	Lincoln Nebr.	Nebr. City Nebr.	Man-hattan Kans.
Lincoln	14.3	14.5	15.2	15.8	15.2	12.8	13.8	13.5
C84	15.3	15.5	15.9	16.9	16.1	14.2	14.7	14.6
Chief	12.8	12.8	12.5	14.4	14.4	12.7	12.9	12.4
A3-176	14.6	14.8	14.3	16.2	17.0	12.8	14.1	14.1
Viking	14.2	14.4	14.1	15.3	14.8	12.7	14.3	13.5
A3-117	13.4	13.6	14.1	15.5	14.5	11.8	12.9	12.8
Patoka	18.5	18.6	17.5	18.4	18.6	17.3	18.7	17.8
A3-163	15.9	16.3	16.4	18.5	17.5	14.3	14.7	14.9
A3-92	15.5	15.8	15.8	17.2	17.0	14.5	14.0	14.9
A3-128	15.9	16.0	16.7	17.6	16.2	14.3	16.7	16.2
Illini	13.5	13.8	14.3	16.9	14.6	11.8	12.4	13.6
A3-1411-20	15.8	16.3	16.8	16.9	17.0	13.0	14.2	14.0
Dunfield	15.3	15.7	15.8	17.5	16.0	13.3	14.2	14.3
A3-61	12.9	13.1	13.2	14.3	14.3	11.5	12.4	12.5
A3-127	15.6	15.7	16.2	16.7	16.2	13.9	15.7	15.5
A3-118	14.7	14.6	15.2	15.4	15.5	13.3	15.9	15.5
A3-1411-47	15.3	15.6	17.2	17.5	17.6	14.6	14.2	13.9
A3-9	14.1	14.3	14.3	16.3	16.6	12.2	14.2	13.3
A3-1411-27	14.2	14.3	15.5	16.6	16.4	14.0	14.1	13.9
A3-360-12	13.9	14.0	14.7	15.2	15.6	12.7	15.2	13.2
Mean	14.8	15.0	15.3	16.5	16.1	13.4	14.5	14.2

[1] Composite from Greenfield, Lafayette, Dwight, Urbana, Clayton, Stonington, Edgewood, Freeburg, Ottumwa, Ames, and Columbia.

[2] Individual seed weights also taken at these locations.

Table 48. Summary of the percentage protein for the strains in the Uniform Test, Group III, 1944.

Strain	Mean of 14 Tests	Composite of 11 Locations[1]	Lincoln Nebr.	Nebraska City Nebr.	Manhattan Kansas
Lincoln	39.6	40.4	32.3	38.2	39.9
C84	39.8	40.4	34.8	37.4	40.7
Chief	39.9	40.6	33.6	37.8	40.8
A3-176	40.1	40.7	34.5	37.2	41.3
Viking	39.7	40.4	32.6	37.7	40.4
A3-117	38.3	38.7	32.5	37.6	39.7
Patoka	43.1	43.9	36.6	40.3	43.4
A3-163	39.8	40.5	34.6	37.2	39.7
A3-92	40.9	41.6	35.5	37.7	41.2
A3-128	42.0	42.6	35.9	40.4	43.2
Illini	39.7	40.4	33.1	37.8	40.9
A3-1411-20	41.1	41.9	34.9	38.6	41.3
Dunfield	39.0	39.6	33.4	36.9	40.6
A3-61	40.5	41.2	34.2	37.9	41.0
A3-127	41.9	42.5	35.6	40.4	42.6
A3-118	42.9	43.5	36.3	41.7	43.9
A3-1411-47	40.2	40.7	36.0	38.4	40.6
A3-9	40.5	41.0	34.7	39.6	41.7
A3-1411-27	39.9	40.4	35.4	37.5	40.8
A3-360-12	43.2	43.9	35.6	43.3	42.7
Mean	40.6	41.2	34.6	38.7	41.3

[1]Composite from Greenfield, Lafayette, Dwight, Urbana, Clayton, Stonington, Edgewood, Freeburg, Ottumwa, Ames, and Columbia.

Table 49. Summary of the percentage oil for the strains in the Uniform Test, Group III, 1944.

Strain	Mean of 14 Tests	Composite of 11 Locations[1]	Lincoln Nebr.	Nebraska City Nebr.	Manhattan Kans.
Lincoln	21.4	21.2	23.6	22.5	20.8
C84	20.3	20.1	21.6	21.4	20.7
Chief	20.3	20.0	22.0	21.2	20.5
A3-176	21.9	21.6	23.9	23.1	21.6
Viking	20.4	20.1	22.6	21.1	20.1
A3-117	21.3	21.2	21.8	21.8	20.8
Patoka	20.0	19.7	22.3	20.9	20.2
A3-163	20.9	20.7	22.4	21.3	21.1
A3-92	21.2	21.0	22.7	22.6	21.0
A3-128	20.8	20.6	22.7	21.8	20.6
Illini	20.3	20.0	22.6	21.6	20.6
A3-1411-20	21.8	21.6	23.3	22.6	22.2
Dunfield	21.2	20.9	23.0	22.5	21.4
A3-61	20.7	20.4	23.1	21.8	21.0
A3-127	20.8	20.5	22.7	21.7	20.9
A3-118	19.3	19.1	21.5	19.8	19.0
A3-1411-47	20.3	20.1	21.6	21.4	20.6
A3-9	21.1	20.9	23.3	22.1	20.4
A3-1411-27	21.2	20.9	22.6	22.3	22.0
A3-360-12	19.3	19.0	21.7	20.1	19.5
Mean	20.7	20.5	22.6	21.7	20.8

[1]Composite from Greenfield, Lafayette, Dwight, Urbana, Clayton, Stonington, Edgewood, Freeburg, Ottumwa, Ames, and Columbia.

Table 50. Summary of the iodine number of oil for the strains in the Uniform Test, Group III, 1944.

Strain	Mean of 14 Tests	Composite of 11 Locations[1]	Lincoln Nebr.	Nebraska City Nebr.	Manhattan Kans.
Lincoln	135.9	136.1	135.1	135.1	134.7
C84	133.3	133.5	131.6	134.2	131.2
Chief	133.4	133.9	131.8	132.9	130.2
A3-176	132.2	132.5	132.0	132.3	129.3
Viking	133.9	134.2	133.3	133.6	131.2
A3-117	129.9	130.0	130.4	132.1	126.6
Patoka	132.4	132.9	130.5	132.8	127.8
A3-163	127.5	127.6	127.3	130.1	124.6
A3-92	129.8	130.6	128.6	129.3	122.6
A3-128	133.0	133.3	132.3	132.9	130.8
Illini	134.2	134.5	134.3	133.7	131.5
A3-1411-20	130.2	130.5	130.7	128.4	128.6
Dunfield	128.6	128.8	129.4	130.5	123.5
A3-61	134.4	134.8	133.7	135.6	129.7
A3-127	133.4	133.7	132.4	132.6	131.5
A3-118	129.4	129.7	128.6	129.5	127.0
A3-1411-47	130.5	130.6	130.4	131.7	128.0
A3-9	130.8	131.6	131.5	130.6	120.9
A3-1411-27	131.8	132.1	130.9	132.1	129.2
A3-360-12	134.6	135.0	134.0	132.9	132.1
Mean	132.0	132.3	131.4	132.1	128.6

[1] Composite from Greenfield, Lafayette, Dwight, Urbana, Clayton, Stonington, Edgewood, Freeburg, Ottumwa, Ames, and Columbia.

Table 51. Three-year summary of agronomic and chemical data for the strains in the Uniform Test, Group III, 1942-44.

Strain	Mean Yield B./A.	Lodging	Height	Maturity[1]	Seed Quality	Seed Weight	Percentage of Protein[2]	Percentage of Oil[2]	Iodine Number of Oil
No. of Tests	43	42	41	31	39	42	45	45	45
Lincoln	31.6	2.2	37	-1.5	1.6	14.1	39.9	21.7	135
Chief	29.2	2.8	46	+5.9	1.8	12.2	39.9	20.7	133
Patoka	28.4	2.3	36	+7.3	1.7	17.2	42.4	20.6	133
Dunfield	26.9	2.8	37	-2.0	1.8	14.5	38.7	21.6	130
Illini	26.4	3.1	41	0	1.7	13.0	40.3	20.6	134
Mean	28.5	2.6	39	+1.9	1.7	14.2	40.2	21.0	133

[1]Days earlier (-) or later (+) than Illini. Illini required 120 days to mature.

[2]Composition on dry basis.

Table 52. Three-year summary of yield in bushels per acre and yield rank for the strains in the Uniform Test, Group III, 1942-44.

Strain	Mean Yield of 43 Tests	Lafayette Ind.	Greenfield Ind.	Urbana Ill.	Freeburg Ill.	Stonington Ill.	Clayton Ill.	Dwight Ill.	Columbia Mo.	Ames Iowa	Lincoln Nebr.
Lincoln	31.6	41.0	34.8	37.9	33.5	31.4	28.1	32.2	22.3	40.4	24.3
Chief	29.2	36.9	30.5	37.5	33.6	28.7	26.1	24.8	24.4	34.2	23.5
Patoka	28.4	33.8	29.0	39.1	34.6	25.2	25.9	23.9	23.4	30.5	19.8
Dunfield	26.9	30.5	26.6	35.8	27.5	28.8	27.0	27.3	19.9	37.6	23.6
Illini	26.4	36.8	27.2	30.6	24.8	30.9	22.3	29.1	17.5	35.1	24.7
					Yield Rank						
Lincoln		1	1	2	3	1	1	1	3	1	2
Chief		2	2	3	2	4	3	4	1	4	4
Patoka		4	3	1	1	5	4	5	2	5	5
Dunfield		5	5	4	4	3	2	3	4	2	3
Illini		3	4	5	5	2	5	2	5	3	1

UNIFORM TEST, GROUP IV

The Group IV Test consisted of five named varieties, three selections from hybrids, and one selection obtained as a rogue. The origin of these varieties and strains is as follows:

Variety or Strain	Source or Originating Agency	Origin
Boone	Missouri Agr.Exp.Sta.	Sel.from P.I. 54563-3[1]
Chief	Illinois Agr.Exp.Sta.	Sel.from Illini x Manchu
Gibson	Purdue Agr.Exp.Sta.	Sel.from Midwest x Dunfield
Macoupin	Elmer Hulcher	Sel.from commercial lot
Patoka	Purdue Agr.Exp.Sta.	Sel.from P.I.70218-2
C101	Purdue Agr.Exp.Sta.	Sel.from Dunfield x Manchu
S55-10	Missouri Agr.Exp.Sta.	Sel.from Virginia x P.I.37062
S55-35	Missouri Agr.Exp.Sta.	Sel.from Virginia x P.I.37062
S100	Missouri Agr.Exp.Sta.	Rogue from Illini

[1] Division of Plant Exploration and Introduction, Bureau of Plant Industry, Soils, and Agricultural Engineering, U.S.D.A.

This test, consisting of five named varieties and four strains, was grown in eleven tests located in Indiana, Illinois, Missouri, and Kansas. The test was also grown in several southern states and these tests will be summarized in Part II of this report.

The 1944 summary of the agronomic and chemical data for this test is presented in Tables 53 to 62.

Three of the strains were new entries in 1944. The other, S100, has been in this test for three years. It is quite late in maturity for this test and is rather low in oil content. It was highest in yield in 1944 and probably would average higher for the three-year summary except that it was frosted at most locations in 1942. S55-10 and S55-35, new entries, were only average in performance. C101 was previously grown in Group III but because of its late maturity was entered in Group IV in 1944 where it performed quite satisfactorily except that it is quite lodging susceptible.

Three-year summaries are presented in Tables 63 and 64, and a five-year summary given in Table 65.

Table 53. Summary of agronomic and chemical data for the strains in the Uniform Test, Group IV, 1944.

Strain	Mean Yield Bu/A.	Lodging	Height Inches	Maturity[1]	Seed Quality	Seed Weight	Percentage of Protein[2]	Percentage of Oil[2]	Iodine Number of Oil[2]
Number of Tests	11	7	7	7	9	11	11	11	11
S100	26.5	2.9	40	+7.7	1.5	14.3	44.2	18.3	132.9
C101	25.2	2.9	34	+2.3	2.5	17.0	41.8	20.0	132.2
Gibson	24.5	2.4	35	0	1.8	14.3	41.7	19.4	133.0
S55-10	23.8	2.6	36	+0.7	1.8	16.2	43.1	19.9	133.0
S55-35	23.5	2.5	34	+0.6	1.8	16.9	44.1	19.3	131.4
Patoka	22.6	1.7	29	-2.4	2.2	17.1	44.2	20.0	132.3
Boone	22.3	2.9	34	+1.4	1.5	13.9	42.1	20.3	130.3
Chief	22.3	2.8	38	-1.1	2.3	13.0	41.7	20.2	131.8
Macoupin	22.0	2.6	38	-0.3	1.6	15.3	41.7	20.5	130.7
Mean	23.6	2.6	35		1.9	15.3	42.7	19.8	132.0

[1] Days earlier (-) or later (+) than Gibson. Gibson required 129 days to mature.
[2] Composite sample of 8 tests and 3 individual tests. Composition on a dry basis.

Table 54. Summary of yields in bushels per acre and yield rank for the strains in the Uniform Test, Group IV, 1944.

Strain	Mean of 11 Tests	Evansville Ind.	Wheatland Ind.	Urbana Ill.	Clayton Ill.	Stonington Ill.	Edgewood Ill.	Freeburg Ill.	Sikeston Mo.	Columbia Mo.	Thayer Kans.	Manhattan Kans.
S100	26.5	35.6	10.5	35.2	23.7	23.8	16.7	33.6	20.9	31.0	25.7	34.3
C101	25.2	30.7	11.7	30.8	27.9	25.3	20.3	27.8	15.1	27.5	25.0	35.5
Gibson	24.5	33.2	5.3	30.8	22.4	26.8	18.2	28.6	15.4	29.9	24.4	34.2
S55-10	23.8	25.9	8.2	31.8	29.7	25.3	14.4	29.1	15.4	26.9	21.8	33.0
S55-35	23.5	28.1	9.3	31.0	28.5	20.6	15.0	28.4	14.8	27.8	22.1	32.5
Patoka	22.6	27.6	10.9	32.5	27.1	22.0	9.6	27.3	12.2	26.1	21.5	32.1
Boone	22.3	29.2	8.7	26.2	20.8	19.8	16.3	25.6	13.1	32.5	21.5	32.1
Chief	22.3	25.4	7.5	28.1	26.6	23.9	16.7	28.3	11.0	24.7	21.1	32.0
Macoupin	22.0	26.5	7.8	26.6	23.7	21.1	17.7	25.8	14.5	27.8	21.8	28.8
Mean	23.6	24.5	7.7	30.3	25.6	23.2	16.1	28.3	14.7	28.2	22.8	32.7
Coef.of var. (%)		12.9	20.2	9.5	10.1	13.9	13.7	7.3	7.6	7.3	4.0	4.1
Bu.Nec. for Sig.(5% Level)		4.5	2.4	4.3	3.8	Not sig.	3.2	3.1	1.6	3.0	1.3	2.0

Yield Rank

S100	1	3	1	6	5	4	1	1	2	1	2
C101	3	1	5	3	2	1	6	4	6	2	1
Gibson	2	9	5	8	1	2	3	2	3	3	3
S55-10	8	6	3	1	2	8	2	2	7	5	4
S55-35	5	4	4	2	8	7	4	5	4	4	5
Patoka	6	2	2	4	6	9	7	8	8	7	6
Boone	4	5	9	9	9	6	9	7	1	7	6
Chief	9	8	7	5	4	4	5	9	9	9	8
Macoupin	7	7	8	6	7	3	8	6	4	5	9

Table 55. Summary of lodging data for the strains in the Uniform Test, Group IV, 1944.

Strain	Mean of 7 Tests	Evansville Ind.	Wheatland Ind.[1]	Urbana Ill.	Clayton Ill.	Stonington Ill.	Freeburg Ill.	Columbia Mo.	Manhattan Kansas
S100	2.9	2.5	1	3.0	4.0	3.3	2.8	2.3	2.5
C101	2.9	2.5	1	3.0	3.5	3.0	3.0	2.0	3.0
Gibson	2.4	1.8	1	3.0	3.0	2.0	2.3	2.5	2.2
S55-10	2.6	1.8	1	3.0	3.0	2.5	2.8	2.8	2.5
S55-35	2.5	2.0	1	2.5	3.0	2.8	2.0	2.8	2.2
Patoka	1.7	1.0	1	2.0	3.0	2.3	1.3	1.3	1.2
Boone	2.9	2.8	1	3.0	3.0	3.0	2.3	2.3	3.7
Chief	2.8	2.8	1	3.0	3.0	2.8	2.0	3.0	3.1
Macoupin	2.6	2.8	1	2.5	3.5	2.8	2.3	2.3	2.1
Mean	2.6	2.2	1	2.8	3.2	2.7	2.3	2.4	2.5

[1] Wheatland, Ind., not included in the mean.

Table 56. Summary of height data for the strains in the Uniform Test, Group IV, 1944.

Strain	Mean of 7 Tests	Evansville Ind.	Urbana Ill.	Clayton Ill.	Freeburg Ill.	Columbia Mo.	Thayer Kans.	Manhattan Kans.
S100	40	38	45	42	41	43	26	45
C101	34	30	39	37	36	34	23	36
Gibson	35	34	42	32	36	39	22	37
S55-10	36	35	42	38	39	38	23	38
S55-35	34	34	41	34	35	34	23	40
Patoka	29	25	35	30	31	28	20	33
Boone	34	33	40	35	38	36	22	37
Chief	38	34	47	39	39	39	25	45
Macoupin	38	36	45	38	39	41	24	42
Mean	35	33	42	36	37	37	23	39

Table 57. Summary of maturity data, days earlier (-) or later (+) than Gibson, for the strains in the Uniform Test, Group IV, 1944.

Strain	Mean of 7 Tests	Evansville Ind.	Clayton Ill.	Edgewood Ill.	Freeburg Ill.	Columbia Mo.	Thayer Kans.	Manhattan Kans.
S100	+7.7	+10	-2	-	+7	+22	+6	+11
C101	+2.3	0	0	+4	+4	+ 1	+3	+ 4
Gibson	0	0	0	0	0	0	0	0
S55-10	+0.7	- 2	0	+1	-2	0	+2	+ 6
S55-35	+0.6	- 2	0	+2	-1	+ 1	0	+ 4
Patoka	-2.4	- 4	0	+2	-1	- 2	-7	- 5
Boone	+1.4	- 3	-3	+5	+2	+ 3	+2	+ 4
Chief	-1.1	+ 1	-2	0	-3	- 2	-4	+ 2
Macoupin	-0.3	- 3	0	+1	-1	+ 2	-3	+ 2
Date Planted		5/16	6/7	5/25	5/24	5/16	6/1	6/2
Gibson Matured		10/6	10/12	9/30	9/28	9/18	10/8	10/7
Days to Mature	129	143	127	128	127	125	129	127

Table 58. Summary of seed quality data for the strains in the Uniform Test, Group IV, 1944.

Strain	Mean of 9 Tests[1]	Evansville Ind.	Wheatland Ind.	Urbana Ill.	Clayton Ill.	Stonington Ill.	Edgewood Ill.	Freeburg Ill.	Sikeston Mo.	Columbia Mo.	Thayer Kans.	Manhattan Kans.
S100	1.5	2.0	3.5	1	1	1	1	1	1.5	2.3	1	1
C101	2.5	3.0	4.5	2	1	1	2	1	3.0	4.0	1	2
Gibson	1.8	2.0	4.0	1	1	1	2	1	2.8	1.8	1	1
S55-10	1.8	2.5	3.5	1	1	1	1	1	2.3	1.0	2	2
S55-35	1.8	2.0	4.0	1	1	1	1	1	2.8	1.0	2	1
Patoka	2.2	2.5	4.0	1	1	1	2	1	3.3	1.8	2	2
Boone	1.5	2.0	3.0	1	1	1	1	1	2.5	1.0	1	1
Chief	2.3	3.0	4.0	1	1	1	2	2	3.5	2.0	1	2
Macoupin	1.6	3.0	3.5	1	1	1	1	1	1.8	1.5	1	1
Mean	1.9	2.4	3.8	1.1	1	1	1.4	1.1	2.6	1.8	1.3	1.4

[1]Clayton and Stonington not included in the mean.

Table 59. Summary of seed weight data in grams per 100 seeds for the strains in the Uniform Test, Group IV, 1944.

Strain	Mean of 11 Tests	Composite of 8 Locations[1]	Evansville Ind.	Sikeston Mo.	Columbia Mo.	Thayer Kans.	Manhattan Kans.
S100	14.3	14.2	15.3	17.8	15.3	11.1	15.1
C101	17.0	17.5	18.5	17.7	17.2	12.3	17.4
Gibson	14.3	14.6	16.4	15.5	15.4	10.8	14.7
S55-10	16.2	16.4	17.8	18.0	16.0	13.1	16.2
S55-35	16.9	17.0	17.4	18.5	17.3	13.9	17.1
Patoka	17.1	17.4	18.6	16.5	17.9	14.2	18.3
Boone	13.9	13.5	15.6	17.8	14.6	11.2	15.4
Chief	13.0	13.4	14.9	12.9	14.7	10.5	12.5
Macoupin	15.3	15.4	17.4	17.1	15.1	11.2	16.7
Mean	15.3	15.5	16.9	16.9	15.9	12.0	15.9

[1]Composite from Evansville, Wheatland, Urbana, Clayton, Stonington, Edgewood, Freeburg, and Columbia.

Table 60. Summary of the percentage protein for the strains in the Uniform Test, Group IV, 1944.

Strain	Mean of 11 Tests	Composite of 8 Locations[1]	Sikeston Mo.	Thayer Kans.	Manhattan Kans.
S100	44.2	44.1	46.7	44.7	42.4
C101	41.8	41.8	45.8	40.2	39.7
Gibson	41.7	41.8	43.8	42.3	38.7
S55-10	43.1	43.2	47.5	40.5	40.9
S55-35	44.1	43.9	47.7	43.0	42.7
Patoka	44.2	44.0	46.7	44.3	43.7
Boone	42.1	41.6	46.5	41.8	41.6
Chief	41.7	41.7	43.0	41.5	40.3
Macoupin	41.7	41.5	45.2	41.5	39.9
Mean	42.7	42.6	45.9	42.2	41.1

[1]Composite from Evansville, Wheatland, Urbana, Clayton, Stonington, Edgewood, Freeburg, and Columbia.

Table 61. Summary of the percentage oil for the strains in the Uniform Test, Group IV, 1944.

Strain	Mean of 11 Tests	Composite of 8 Locations[1]	Sikeston Mo.	Thayer Kans.	Manhattan Kans.
S100	18.3	18.2	18.5	17.6	19.6
C101	20.0	20.0	19.4	19.3	21.1
Gibson	19.4	19.4	19.7	18.2	20.8
S55-10	19.9	19.8	18.8	20.7	20.7
S55-35	19.3	19.4	18.2	18.5	20.3
Patoka	20.0	20.1	19.0	19.9	20.4
Boone	20.3	20.4	19.5	19.7	20.9
Chief	20.2	20.2	20.5	19.8	20.4
Macoupin	20.5	20.5	20.5	19.8	21.3
Mean	19.8	19.8	19.3	19.3	20.6

[1]Composite from Evansville, Wheatland, Urbana, Clayton, Stonington, Edgewood, Freeburg, and Columbia.

Table 62. Summary of the iodine number of oil for the strains in the Uniform Test, Group IV, 1944.

Strain	Mean of 11 Tests	Composite of 8 Locations[1]	Sikeston Mo.	Thayer Kans.	Manhattan Kans.
S100	132.9	133.3	132.3	132.2	131.5
C101	132.2	133.4	123.8	130.6	132.6
Gibson	133.0	133.7	129.3	132.2	131.6
S55-10	133.0	133.4	130.6	134.7	130.6
S55-35	131.4	132.2	128.0	132.2	128.0
Patoka	132.3	133.4	129.8	129.5	129.1
Boone	130.3	131.5	123.1	131.6	126.1
Chief	131.8	132.8	124.7	132.2	130.4
Macoupin	130.7	131.2	128.4	131.5	128.6
Mean	132.0	132.8	127.8	131.9	129.8

[1]Composite from Evansville, Wheatland, Urbana, Clayton, Stonington, Edgewood, Freeburg, and Columbia.

Table 63. Three-year summary of yield in bushels per acre and yield rank for the strains in the Uniform Test, Group IV, 1942-1944.

Strain	Mean of 32 Tests	Evansville Ind.	Urbana Ill.	Stonington Ill.	Freeburg Ill.	Clayton Ill.	Sikeston Mo.	Columbia Mo.
Patoka	25.9	31.8	37.8	23.6	33.8	25.2	15.7	22.2
Chief	25.5	31.7	34.6	25.8	32.2	24.8	16.4	19.9
Gibson	25.2	35.5	36.3	23.3	30.5	21.8	17.1	22.5
S100	25.1	37.6	33.5	23.7	33.4	21.0	20.1	22.5
Macoupin	22.9	29.8	29.9	20.6	27.7	22.6	16.0	22.0
Boone	22.2	28.3	31.9	18.5	24.9	19.3	16.0	25.3
				Yield Rank				
Patoka		3	1	3	1	1	6	4
Chief		4	3	1	3	2	3	6
Gibson		2	2	4	4	4	2	2
S100		1	4	2	2	5	1	2
Macoupin		5	6	5	5	3	4	5
Boone		6	5	6	6	6	4	1

Table 64. Three-year summary of mean agronomic and chemical data for the strains in the Uniform Test, Group IV, 1942-1944.

Strain	Mean Yield Bu./A.	Lodging	Height	Maturity[1]	Seed Quality	Seed Weight	Percentage of Protein[2]	Percentage of Oil[2]	Iodine Number of Oil
No. of Tests	32	28	27	22	27	33	33	33	33
Patoka	25.9	1.9	34	-2.3	2.1	16.5	43.5	20.7	132
Chief	25.5	2.7	44	-2.7	2.1	12.4	40.4	20.9	132
Gibson	25.2	2.6	38	0	1.7	13.3	40.3	20.4	134
S100	25.1	2.6	44	+7.8	2.0	12.8	42.1	19.0	134
Macoupin	22.9	2.5	42	-0.8	1.9	14.5	40.0	21.3	132
Boone	22.2	2.7	39	+1.5	1.8	13.2	40.8	20.8	131

[1]Days earlier (-) or later (+) than Gibson. Gibson required 127 days to mature.
[2]Composition on dry basis.

Table 65. Five-year summary of mean agronomic and chemical data for the strains in the Uniform Test, Group IV, 1940-1944.

Strain	Mean Yield Bu./A.	Lodging	Height	Maturity[1]	Seed Quality	Seed Weight	Percentage of Protein[2]	Percentage of Oil[2]	Iodine Number of Oil
No. of Tests	52	43	42	39	43	53	53	53	53
Gibson	24.8	2.7	37	0	2.0	13.4	40.4	20.6	133
Patoka	24.8	1.8	32	-2.6	2.3	16.8	43.2	20.8	130
Chief	24.3	2.5	43	-2.6	2.1	12.6	40.7	20.9	131
Macoupin	22.1	2.5	41	-0.5	2.2	14.8	40.4	21.4	130
Boone	21.9	2.7	38	+1.6	2.0	13.5	41.0	21.0	131

[1]Days earlier (-) or later (+) than Gibson. Gibson required 126 days to mature.
[2]Composition on dry basis.

PRELIMINARY UNIFORM TEST, GROUP IV

The Preliminary Uniform Test, Group IV, was composed of three named varieties and twenty-three pure line strains. The origin of these varieties and strains is as follows:

Strain	Source or Originating Agency	Origin
Chief	Ill. Agr. Exp. Sta.	Sel.from Illini x Manchu
Gibson	Purdue Agr.Exp.Sta.	Sel.from Midwest x Dunfield
Patoka	Purdue Agr.Exp.Sta.	Sel.from P.I.70218-2[1]
C415 (L7-1060-1)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from hybrid population
C418 (L8-9-2)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from T117 x Mansoy
C423 (L8-284-10)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from T117 x Mansoy
C425 (L8-319-1)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from T117 x Mansoy
C428 (L8-325-2)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from T117 x Mansoy
C457 (L8-701-4)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from T117 x Mansoy
C429 (L8-395-1)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C432 (L8-401-7)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C435 (L8-405-9)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C436 (L8-416-1)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C439 (L8-416-15)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C445 (L8-546-1)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C447 (L8-605-2)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C448 (L8-605-7)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C453 (L8-619-3)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C455 (L8-619-8)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C458 (L8-717-2)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C461 (L8-748-1)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C462 (L8-748-2)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C463 (L8-748-4)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C464 (L8-748-10	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C467 (L8-782-1)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Sel.from Dunfield x Mansoy
C470 (L8-930-1)	Purdue A.E.S.and U.S.Reg.Soybean Lab.	Rogue in P.I. 54592[1]

[1] Division of Plant Exploration and Introduction, Bureau of Plant Industry, Soils, and Agricultural Engineering, U.S.D.A.

The twenty-six strains included in this test were grown at two locations in Indiana in 1943 and at two locations each in Indiana and Illinois, and one location each in Missouri and Virginia in 1944. The twenty-three unnamed pureline strains are selections from segregating lines on which agronomic and chemical data had been previously obtained from tests in Indiana, Illinois, and Missouri.

All the strains entered in this test have exceeded the means of the three check varieties in yield and with the exception of C435 have equalled or exceeded Gibson and Patoka in oil content on the basis of the two-year average. A number of the strains are more lodging resistant than Gibson and Chief, and a few equal or excel Patoka in this respect. Yields were very low at Wheatland, Indiana, because of a severe drought.

The summary of the yield data by locations and the yield rank is given in Tables 66 and 67 respectively. The two-year summary of agronomic and chemical data is presented in Table 68.

Table 66. Summary of yields in bushels per acre for the strains in the Preliminary Uniform Test, Group IV, 1943 and 1944.

Variety or Strain	Mean of 7 Tests	1943 Evansville Ind.	1943 North Vernon Ind.	1944 Urbana Ill.	1944 Columbia Mo.	1944 Evansville Ind.	1944 Edgewood Ill.	1944 Wheatland Ind.	1944 Blacksburg Va.[1]
C458	25.7	33.9	20.9	32.7	34.3	29.1	20.3	8.6	27.7
C470	25.6	38.4	19.9	31.2	33.1	26.7	19.9	9.9	30.0
C447	24.5	33.5	20.2	30.9	32.5	27.3	19.3	7.8	21.3
C453	24.4	36.0	19.4	30.9	29.2	26.1	20.2	9.0	22.4
C415	24.2	32.9	19.4	28.4	29.7	28.0	21.6	9.6	23.4
C464	24.1	36.2	18.4	31.7	32.6	25.4	18.8	5.6	28.3
C455	23.9	34.8	17.4	30.6	30.6	27.1	20.0	7.0	27.0
C423	23.8	33.7	19.2	28.3	32.2	25.8	19.8	7.6	22.8
C429	23.8	32.2	17.6	31.7	29.5	26.3	20.2	8.8	26.1
C435	23.7	28.3	19.7	29.6	33.7	25.6	21.8	7.0	25.0
C418	23.6	32.5	21.4	28.5	27.3	28.2	19.5	8.1	31.4
C463	23.5	31.1	18.1	31.1	30.0	26.6	19.9	7.6	24.5
C445	22.9	30.1	18.9	28.9	29.0	23.6	20.5	9.6	18.8
C439	22.7	32.5	16.3	29.6	28.6	26.8	16.9	8.4	18.7
C425	22.7	29.0	19.8	30.6	27.5	26.3	18.9	6.6	21.3
Gibson	22.6	32.1	16.4	32.9	26.5	27.1	18.4	4.6	29.7
C461	22.5	30.4	17.4	31.1	25.9	24.7	19.9	8.4	25.0
C436	22.5	34.1	17.6	30.0	26.9	23.7	19.4	5.7	29.1
C432	22.1	29.1	18.9	32.6	25.6	20.7	21.1	7.0	21.6
C448	21.7	31.5	17.6	31.1	25.6	19.8	17.0	9.2	21.2
C462	21.6	30.5	17.9	30.5	24.9	23.7	17.5	6.3	22.4
C467	21.3	31.1	18.3	28.6	24.4	20.8	20.5	5.5	27.0
Chief	19.8	30.5	17.1	30.2	24.3	15.0	16.4	5.4	35.6
Patoka	19.8	28.5	15.5	32.8	22.3	18.9	9.8	11.0	28.9
C428[2]				33.7	27.0	22.7	19.2	6.5	27.3
C457				32.7	27.1	22.0	17.4	8.4	18.4
Mean	23.0	32.2	18.5	30.8	28.5	24.5	19.0	7.7	25.2
Coef. of Var. (%)		8.4	11.3	8.4	8.4	12.9	16.4	20.2	
Bu. Nec. for Sig. (5% level)	2.2	3.6	2.9	4.2	3.4	4.5	3.6	2.4	
(1% level)	2.9	4.7	3.8	5.6	4.5	5.9	4.9	3.3	

[1] One replication only, not included in the mean.

[2] C428 and C457 were not grown at Evansville or North Vernon in 1943.

Table 67. Summary of rank for yield, arranged in order of mean yields, for the Preliminary Uniform Test, Group IV, 1943 and 1944.

Variety or Strain	1943		1944					
	Evansville Ind.	North Vernon Ind.	Urbana Ill.	Columbia Mo.	Evansville Ind.	Edgewood Ill.	Wheatland Ind.	Blackburg Va.
C458	6	2	4	1	1	6	8	8
C470	1	4	9	3	8	10	2	3
C447	8	3	13	5	4	16	13	21
C453	3	7	13	11	12	7	6	18
C415	9	7	25	9	3	2	3	16
C464	2	12	7	4	15	19	23	7
C455	4	19	15	7	5	9	16	10
C423	7	9	26	6	13	13	14	17
C429	12	16	7	10	10	7	7	12
C435	24	6	20	2	14	1	16	13
C418	10	1	24	15	2	14	12	2
C463	15	14	10	8	9	10	14	15
C445	20	10	22	12	19	4	3	24
C439	10	23	20	13	7	24	9	25
C425	22	5	15	14	10	18	19	21
Gibson	13	22	2	19	5	20	26	4
C461	19	19	10	20	16	10	9	13
C436	5	16	19	18	17	15	22	5
C432	21	10	6	21	23	3	16	20
C448	14	16	10	21	24	23	5	23
C462	17	15	17	23	17	21	21	18
C467	15	13	23	24	22	4	24	10
Chief	17	21	18	25	26	25	25	1
Patoka	23	24	3	26	25	26	1	6
C428			1	17	20	17	20	9
C457			4	16	21	22	11	26

Table 68. Summary of agronomic and chemical data for the strains in the Preliminary Uniform Test, Group IV, 1943 and 1944.

Variety or Strain	Yield in Bu./A.	Lodging	Height Inches	Maturity[1]	Seed Quality	Seed Weight	Percentage of Protein[2]	Percentage of Oil[2]	Iodine No. of Oil
No. of Tests	7	5	5	4	6	3	7	7	7
C458	25.7	2.3	32	+1	2.4	15.6	39.0	21.3	129
C470	25.6	2.0	34	+1	2.1	14.2	41.8	20.6	134
C447	24.5	2.7	35	+1	1.9	14.4	38.9	21.3	132
C453	24.4	2.5	35	+1	2.3	14.6	40.3	20.7	132
C415	24.2	2.9	41	+2	2.1	13.2	42.0	20.3	134
C464	24.1	2.4	34	+1	2.2	14.6	41.1	20.8	130
C455	23.9	2.8	38	+3	2.1	15.6	40.1	21.0	134
C423	23.8	2.8	39	+2	2.2	15.1	39.4	20.6	130
C429	23.8	2.3	38	0	2.0	15.2	40.0	20.6	133
C435	23.7	2.8	40	+2	2.4	15.7	40.8	19.7	130
C418	23.6	3.2	34	+1	2.6	15.9	40.8	21.1	128
C463	23.5	1.9	34	-2	2.2	15.0	40.4	21.4	129
C445	22.9	2.9	37	+1	2.6	14.8	41.7	21.0	135
C439	22.7	1.8	33	-1	1.7	13.7	40.5	21.1	131
C425	22.7	2.2	35	-2	2.3	13.7	39.7	21.1	131
Gibson	22.6	2.5	34	0	2.1	14.8	40.4	20.3	134
C461	22.5	1.6	30	-6	2.2	13.3	40.8	21.3	130
C436	22.5	1.9	32	-2	2.1	15.5	41.3	20.8	131
C432	22.1	2.4	37	-2	2.6	13.2	38.2	21.6	131
C448	21.7	2.7	33	+1	2.9	15.1	39.5	21.0	132
C462	21.6	1.9	33	-3	2.3	13.6	41.0	21.5	130
C467	21.3	2.7	37	0	2.3	13.6	40.6	21.3	131
Chief	19.8	2.5	37	-2	2.7	13.1	40.8	21.1	132
Patoka	19.8	1.9	28	-2	2.3	17.4	43.7	20.4	132
Bu. Nec. for Sig. (5% level)	2.2								
(1% level)	2.9								

[1] Days earlier (-) or later (+) than Gibson. Gibson matured in 126 days.

[2] Composition on dry basis.

EFFECT OF LOCATION ON COMPOSITION

Chemical composition of soybean varieties and strains is of importance to producer and processor. The most desirable way of obtaining this information for the uniform nurseries would be to analyze each strain at each location in the area where the nursery is grown. Since this would entail the analysis of many samples it appears more feasible to analyze composites. The strain composites were prepared by including equal weights of seed from each location where that group was grown. These composition data have been presented in the preceding sections and give a satisfactory estimate of the performance of the strains in the area of their adaptation.

Group composites were prepared for each location by taking equal weights of seed from each strain in the test. These composites furnish information on the effect of location on chemical composition of soybean seed. Table 69 gives the chemical analysis of the location composites for the 1944 season and for the two-year and three-year means. As the same strains within each group are grown at each location, the chemical analyses give comparable information between locations. Previous studies have shown varieties x locations interaction to be low for percent protein, percent oil, and iodine number of oil, within the area of adaptation of the strains.

Table 69. Chemical composition of soybean seed grown at each of the Uniform Test locations for 1944, the two-year mean for 1943-44, and the three-year mean for 1942-44 (composite sample or mean of all strains grown in each respective Group Test, composition on dry basis.)

Location	1944			Two-year Mean			Three-year Mean		
	Percentage of Protein	Percentage of Oil	Iodine Number of Oil	Percentage of Protein	Percentage of Oil	Iodine Number of Oil	Percentage of Protein	Percentage of Oil	Iodine Number of Oil
Group I (Mean of 20 strains in 1942, 25 in 1943, and 16 in 1944)									
Strongsville, Ohio	41.5	20.9	130	41.1	20.6	132	41.8	20.2	132
E. Lansing, Mich.	39.	20.8	132	42.3	19.4	134	--	--	--
Madison, Wis.	41.	20.8	130	42.3	20.4	129	--	--	--
Eau Claire, Wis.	45.9	17.8	134	45.8	17.9	134	--	--	--
St. Paul, Minn.	42.0	19.2	137	41.9	19.5	135	--	--	--
Waseca, Minn.	42.2	18.6	138	44.2	18.4	135	--	--	--
Cresco, Iowa	45.3	17.7	139	--	--	--	--	--	--
Kanawha, Iowa	38.8	21.4	134	--	--	--	--	--	--
Brookings, S.D.	41.0	19.1	137	40.8	19.4	135	--	--	--
Group II (Composite of 20 strains in 1942, 16 in 1943, and 25 in 1944)									
New Brunswick, N.J.	42.9	19.7	129	--	--	--	--	--	--
Holgate, Ohio	42.5	20.1	129	41.4	20.1	132	40.8	20.5	133
E. Lansing, Mich.[1]	38.7	20.5	134	39.6	19.8	137	--	--	--
Greenfield, Ind.	41.2	20.5	131	--	--	--	--	--	--
LaGrange, Ind.	45.6	18.6	131	44.1	19.2	132	43.7	19.2	132
Lafayette, Ind.	41.1	20.4	132	41.0	20.6	132	41.0	20.7	132
Wanatah, Ind.	45.7	18.4	131	45.6	18.7	132	43.8	19.1	132
Mt. Morris, Ill.	35.9	21.4	134	36.4	21.7	134	35.9	22.0	134
Dwight, Ill.	40.5	21.0	132	41.1	20.6	132	41.3	20.7	132
Urbana, Ill.	38.6	22.2	128	39.0	21.8	129	38.7	21.9	130
Madison, Wis.[1]	38.5	21.3	133	39.5	20.9	134	--	--	--
Hudson, Iowa	41.6	19.7	134	41.1	19.9	134	41.2	20.3	135
Cresco, Iowa	43.0	17.8	140	--	--	--	--	--	--
Ames, Iowa	41.2	19.5	133	41.4	19.9	133	41.7	20.0	133
Kanawha, Iowa	37.8	20.9	135	39.1	20.0	136	40.1	20.4	135
Cherokee, Iowa	40.6	19.9	134	--	--	--	--	--	--
Norfolk, Nebr.[1]	37.4	20.9	134	38.6	21.3	132	--	--	--

Table 69. (continued)

Location	1944			Two-year Mean			Three-year Mean		
	Percentage of Protein	Percentage of Oil	Iodine Number of Oil	Percentage of Protein	Percentage of Oil	Iodine Number of Oil	Percentage of Protein	Percentage of Oil	Iodine Number of Oil
Group III (Composite of 24 strains in 1942, 25 in 1943, and 20 in 1944)									
Greenfield, Ind.	40.5	20.1	132	40.2	21.0	133	40.3	21.0	134
Lafayette, Ind.	40.4	20.2	133	40.7	20.3	134	41.2	20.3	135
Dwight, Ill.	40.3	20.4	132	40.6	20.0	135	41.1	20.5	134
Urbana, Ill.	37.7	22.1	132	38.3	21.8	133	38.6	21.7	134
Clayton, Ill.	42.7	19.7	134	42.9	19.5	136	43.1	19.9	135
Stonington, Ill.	39.9	21.7	132	40.2	21.2	133	40.9	21.2	133
Edgewood, Ill.	46.0	19.8	132	44.5	20.1	132	--	--	--
Freeburg, Ill.	42.9	20.6	132	41.4	20.8	134	41.5	21.0	133
Ottumwa, Iowa	37.3	20.8	135	38.1	19.7	138	--	--	--
Ames, Iowa	42.0	19.9	135	41.7	19.8	136	42.2	20.2	136
Columbia, Mo.	43.5	20.6	129	42.5	20.8	128	42.7	20.8	129
Lincoln, Nebr.[1]	34.6	22.6	131	38.0	21.6	130	39.4	21.5	131
Nebraska City, Nebr.[1]	38.7	21.7	132	--	--	--	--	--	--
Manhattan, Kans.[1]	41.3	20.8	129	41.9	20.3	127	--	--	--
Group IV (Composite of 24 strains in 1942, 9 in 1943, and 9 in 1944)									
Evansville, Ind.	43.0	20.6	130	41.9	20.9	131	41.5	21.1	131
Wheatland, Ind.	46.5	17.8	133	--	--	--	--	--	--
Urbana, Ill.	38.1	20.9	134	38.3	20.3	136	38.7	20.7	135
Clayton, Ill.	42.6	19.2	136	42.6	18.8	137	42.5	19.4	136
Stonington, Ill.	41.2	20.2	131	41.2	19.5	134	41.1	20.4	133
Edgewood, Ill.	44.8	19.4	133	44.2	19.4	134	--	--	--
Freeburg, Ill.	42.4	19.9	133	41.0	19.9	135	41.7	20.4	134
Sikeston, Mo.[1]	45.9	19.3	128	45.5	18.8	128	43.7	19.8	127
Columbia, Mo.	41.9	20.1	133	40.6	20.6	132	40.8	20.9	132
Thayer, Kans.[1]	42.2	19.3	132	44.0	18.6	132	--	--	--
Manhattan, Kans.[1]	41.1	20.6	130	41.8	20.2	131	--	--	--

[1] Means secured from individual variety analyses.