2018
NORTHERN REGIONAL SOYBEAN CYST NEMATODE TESTS

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The Northern Regional Soybean Cyst Nematode Tests are made possible by funding from the North Central Soybean Research Program. In 2018, these tests were conducted by 16 researchers at 38 locations in 11 states and Canada. The support of the North Central Soybean Research Program and participating researchers is greatly appreciated.

2018 NORTHERN REGIONAL SCN TESTS

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ACKNOWLEDGEMENTS

The contributions of the following individuals to this report are greatly appreciated; Arthur Killam, University of Minnesota, for analysis of seed samples for protein and oil content, Kamron Colgrove and Alison Colgrove, University of Illinois, for greenhouse SCN testing.

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INTRODUCTION

The purpose of the Northern Regional Soybean Cyst Nematode (SCN) Tests is to evaluate the best experimental SCN resistant soybean lines developed by public researchers in the U. S. and Canada and to provide soybean breeders with a source of genetically diverse germplasm for continued progress in the release of well adapted, SCN resistant breeding lines and varieties. Participants are encouraged to exchange germplasm within the legal guidelines pertaining to transgenic strains.

Tests are established for each maturity group 00 to IV. Trasngenic (ie. Roundup Ready) entries are established in separate tests from conventional strains. Experimental strains are evaluated in Preliminary Tests grown at a limited number of locations for one year before they are entered in Uniform Tests. Uniform Tests are grown at more locations with more replications than Preliminary Tests.

POLICY ON EVALUATION AND RELEASE OF STRAINS

Qualifications for inclusion in the Northern Regional SCN Tests

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

Use of Northern Regional SCN Test Entries in Soybean Breeding and Research

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

Release of Northern Regional SCN Test Entries

1) Entries in the Northern Regional SCN Tests are released according to the policies and procedures of the originating institution.
2) Restricted or contractual releases cannot impose any restriction on the prior use of an entry as a parent by SCN Test Participants.

METHODS

Regional SCN Uniform Tests and Preliminary Tests are planted in multiple-row plots with the center rows used for data collection and harvested for yield. Plots in the Uniform Tests are generally replicated three times while plots in the Preliminary Tests are generally replicated twice. The coefficient of variability (CV) is reported for replicated data at each location. Yield data with a CV value of greater than 15 is generally not included in the test means.

Descriptive Code is abbreviated as underlined below.

Flower color: Purple, White, M indicates mixed flower color
Pubescence color: Tawny, Gray, Light tawny, M indicates mixed pubescence color
Hilum color: black, imperfect black, brown, buff, gray, yellow

Previous testing is the number of previous years in the same SCN Uniform Test or a reference to the previous year's test, abbreviated to SCN PIII for SCN Preliminary Test III, for example.

Yield is measured after the seeds have been dried to a uniform moisture content and is recorded in bushels (60 pounds) per acre.

Maturity is the date when 95% of the pods have ripened. Delayed leaf drop and green stems are not considered in assigning maturity. Maturity is expressed as days earlier (-) or later (+) than the reference variety.

Height is the average length in inches from the ground to the tip of the main stem at maturity.

Lodging is rated at maturity according to the following scores:

1 = Almost all plants erect.
2 = All plants leaning slightly or a few plants down.
3 = All plants leaning moderately (45 degrees), or 25 to 0% of the plants down.
4 = All plants leaning considerably, or 50 to 80% of the plants down.
5 = Almost all plants down.

Seed quality is rated according to the following scores considering the amount and degree of wrinkling, defective seed coat (growth cracks), greenishness, and moldy or rotten seeds. Threshing or handling damage is not included, nor is mottling or other pigment.

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

Seed size is recorded in grams per 100 seeds based on a 100 or 200 seed sample.

Seed Composition is measured on samples submitted to the University of Minnesota. A 25-gram sample of clean seed is prepared by taking an equal volume or weight of seed from each replication. Protein and oil content is measured on these samples using infrared reflectance and is reported as dry-weight percentage values. The values listed in this report have been converted to a 13% moisture basis.

Shattering is scored at a specified time after maturity and is based on estimates of the percent of open pods as follows:

1 no shattering
2 1 to 10% shattered
3 10 to 25% shattered
4 25 to 50% shattered
5 over 50% shattered

Minnesota Iron Chlorosis scores (IDC) Scores are the mean of 2 reps and 2 observation and are based on the amount and severity of chlorosis (leaf yellowing). Scale; 1 = no chlorosis to 5 = severe chlorosis, leaf necrosis and possibly plant death. Data was collected from Lake Lillian and Wilkin Co. Minnesota.

ISU Iron Chlorosis scores (IDC) Each variety was planted in a hill plot consisting of five seeds per hill, with two replications per variety, at two high pH field locations in central Iowa. Locations were chosen by identifying IDC symptoms on soybeans growing in each field at the end of June. Prior to planting the experiments, the soybeans growing at each location were removed. Notes were taken for IDC symptoms at each location approximately four weeks after planting and again at five weeks after planting. Varieties were rated on a scale of "1" to "5" with a "1" indicating no symptoms of IDC present and a "5" indicating plant death due to IDC. Ratings from the two scores were averaged for each plot. The scores from each location then were averaged. Eight or more entries of a variety highly resistant to IDC (A11) and 8 or more entries of a variety highly susceptible to IDC (Dwight) also were included in each rep of the experiment as checks. The average score of all resistant plots and susceptible plots are listed on the tables under R= and S=, respectively.

Green Stem is a rating of delayed green stem at time of plant maturity (R8 = 95% of the pods have reached mature pod color). The condition is rated according to the following scores.

1 = almost all plant stems yellowing or have ripened, as indicated by their mature stem color.
2 = 1 - 10% plants with green stems
3 = 11 - 25% plants with green stems
4 = 26 - 50% plants with green stems
5 = > 50% plants with green stems.

ISU Emergence Scores – Emergence was assessed by counting all plants in 1 random meter of the inner two rows of each plot 35-40 days after planting. Plots were planted at a rate of 10 seeds per foot. Emergence scores are listed as percent stand.

Missouri Frogeye Leaf Spot (FELS) was rated by Dr. Allen Wrather at Portageville, MO on a 0 to 9 scale with 0=no frogeye and 9=severe.

Missouri Rootknot Nematode (RKNT) was rated on 2 reps on a 1 to 5 scale with 1=no galls and 5=severe galls at 2 locations in plantings behind potatoes near Bertrand, MO.

SCN/DISEASE SCREENING

Illinois SCN greenhouse test: Seed of each entry is germinated in germination paper placed in an incubator at 27° C for three days. One healthy seedling of each entry is then placed in an individual container of sterilized sandy soil and inoculated with 1,000 eggs. Each entry is replicated three times. Infected seedlings are grown in a greenhouse in a water bath system that maintains a constant 27° C soil temperature. After 30 days, female cysts are washed from the roots of each seedling and counted. A female index (FI) is calculated for each entry by dividing the mean number of cysts on the entry by the mean number of cysts on the susceptible check Lee 74 and multiplying by 100. Entries are then rated as highly resistant (HR), resistant (R), moderately resistant (MR), low resistance (LR) or no effective resistance (NR) based on the FI number as follows:

HR = FI of < 10
R = FI of 10 to 24
MR = FI of 25 to 39
LR = FI of 40 to 59
NR = FI of > 60
nd = not determined FI>10, CV>35

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

DX = SDS Disease Index (DI*DS/9)
DI = SDS Disease Incidence (% of plants with visible symptoms).
DS = SDS Disease Severity (1 = mild chlorosis, 5 = severe leaf scorch, 9=premature plant death).

Heterodera glycines **(HG) Type testing:** Cooperators submit soil samples taken in the spring from SCN infested locations. Initial egg counts are made on a 250cc soil sample. Samples containing fewer than 1,000 eggs/100cc soil are planted to Essex for cyst increase. Seed of each indicator line is germinated in rag dolls and placed in an incubator at 27° C for three days. One healthy seedling of each line is then placed in an individual container of sterilized sandy soil and inoculated with 1,000 eggs. Each line is replicated six times. Infected seedlings are grown in a greenhouse under 16 hour light in a water bath system that maintains a constant 27° C soil temperature. After 30 days, female cysts are washed from the roots of each seedling and counted. A female index (FI) is calculated for each indicator line by dividing the mean number of cysts on the entry by the mean number of cysts on the susceptible check Lee 74 and multiplying by 100. A FI greater than or equal to 10 is considered a positive (+) response on each indicator line. HG Type classifications of the SCN populations are determined using the following table:

	HG Type							
Indicator line	0	1	2	3	4	5	6	7
PI 548404 (Peking)		+						
PI 88788			+					
PI 90763				+				
PI 437654					+			
PI 209332						+		
PI 89772							+	
PI 548316 (Cloud)								+

STRAIN DESIGNATIONS

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

A	Iowa
C	Purdue (Indiana)
CR	Purdue (Rainey)
D	Mississippi
E	Michigan
HC	Ohio (Cooper)
HF	Ohio (Fioritto)
HM	Ohio (McHale)
HS	Ohio (St. Martin)
K	Kansas
Ky	Kentucky
L	Illinois (Bernard)
LN	Illinois (Nickell)
LG	Illinois (Nelson)
LD	Illinois (Diers)
LS	Southern Illinois University
M	Minnesota
Md	Maryland
ORC	Ridgetown, Ontario
S	Missouri (Shannon)
SA	Missouri (Scaboo)
SS	Missouri (Sleper)
SD	South Dakota
TN	Tennessee
U	Nebraska
UD	Delaware
V	Virginia
W	Wisconsin

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
235.T	line from Schillinger Seed Co.
236FHP	
435.TCS	line from Schillinger Seed Co.
5002T	
A00-711022	A95-485020 x IA2036
A00-711024	A95-485020 x IA2036
A04-543037	Dairyland 98822 x A00-711024
A04-545045	Pioneer 93B86 x A00-711022
A1	Anoka x Mack
A13	Selection from AP9 Fe(S1) C7
A20	BSR101 x CN210
A29	1% linolenic plant selection developed by Iowa StateUniversity
A55-5629-4	Roanoke x Hawkeye
A72-507	Amsoy x Wayne
A76-103022	AP6
A76-304020	(Beeson x AP68-1016) x (L15 x Calland)
A77-211021	Beeson x A72-507
A81-356022	Century x A76-304020
A82-161034	A76-103002 x A77-211021
A86-301024	A81-356022 x Hack
A87-395012	Fayette x Asgrow A3659
A91-701035	A86-301024 x Dekalb 226
A92-526007	A20 x Asgrow A2234
A94-773014	Pioneer P9303 x A87-395012
A95-485020	(Pioneer P7273 x A13) x Jack
A95-684043	Jacques J285 x (Archer x (Cordell x Asgrow A2234))
A96-492041	Northrup King S24-92 x Northrup King S19-90
A97-553017	Pioneer YB280 x (Pioneer YB280 x A29)
A98-781041	Pioneer P9204 x Pioneer P9281
A99-216031	A94-773014 x Agripro AP1995
Agripro 97284-N00-47977	
Agripro AP 26	Beeson x Calland
Agripro AP1989	Agripro AP26 x Vickery
Agripro AP1995	Agripro AP 1989 x Asgrow A3427
AP6	Crop Sci. 15:739 1975
AP68-1016	Clark(5) x PI 84.946-2
AR02-101001	Pioneer P9233 x A96-591033
AR03-161009	(PI 507354 x Marcus) x IA1008
AR03-161013	
AR05-150119	
AR05-150139	Loda x SOY02-2
AR05-250101	Syngenta S10-F2 x Pana

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
AR06-165058	Golden Harvest H-2632 x GarstAgripro 97023-A99-03284
AR06-365042	Golden Harvest H-2632 x Syngenta S18-N5
AR06-365076	GarstAgripro 96349-A99-30264 x Golden Harvest H-2632
AR07-175036	A95-684043 x Soygenetics 95-34480
AR07-175064	Golden Harvest X33686 x Syngenta S18-N5
AR07-176090	Ag03-1 x Ag03-3
AR07-176119	
AR07-276077	
AR08-286003	Garst-Agripro 98620-B01-51163 x AR02-101001
AR09-191003	Garst Agripro 97284-N00-47977 x AR02-101001
AR09-191018	Agripro 97284-N00-47977 x AR02-101001
AR09-191050	Agripro 97284-N00-47977 x AR03-161013
AR09-192019	LD01-7323 x AR02-101001
AR09-291001	Agripro 97284-N00-47977 x AR02-101001
AR09-291011	AR03-161009 x Agripro 97284-N00-47977
AR09-292004	Syngenta 03KL016094 x AR03-361019
AR09-391017	Syngenta SJ833009 x AR03-161013
AR1	IA2039BC x IA2021
AR10-205011	SS02-12014 x AR02-101001
AR10-205047	Golden Harvest H-2285 x AR06-165086
AR10-305198	SS02-11958 x AR05-150119
AR10-305198	SS02-11958 x AR05-150119
AR11-113050	SS02-12014 x AR05-150119
AR11-114057	AR03-163008 x Soygenetics F36150C
AR11-213003	AR05-250118 x PI 438489B
AR11-214022	AR06-264007 x Soygenetics F35170C
AR16SCN	Golden Harvest H-2285 x AR06-165086
AR2	
AR3	
Asgrow A1564	Hark x C1453
Asgrow A2234	[(Calland X Amsoy) x (Century(3) X Williams 82)]
Asgrow A2943	Asgrow A1564 x Asgrow A3127
Asgrow A3127	Williams x Essex
Asgrow A3237	
Asgrow A3427	Asgrow X3836 x Asgrow A3127
Asgrow A3659	Williams x Essex
Asgrow A3733	Elf x Asgrow A3127
Asgrow A3860	Williams x Essex
Asgrow A3935	MO474C x Asgrow A3127
Asgrow A4009	Asgrow A3860 x Fayette
Asgrow A4138	Asgrow A4595 x Asgrow A4009
Asgrow A4595	Douglas x Asgrow A3127

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
Asgrow A4715	Asgrow A5474 x (Douglas x Asgorw A3127)
Asgrow A5474	(Tracy x D71-6234) x J74-122
Asgrow X3836	Williams x Mack
AX19286-4-7	
AX19287-1-5	
AX19288-1-11	
BN09002129	Syngenta
C1079	Lincoln x Ogden
C1253	Blackhawk x Harosoy
C1266R	Harosoy x C1079
C1423	C1266R(8) x C1253
C1453	C1266R x C1253
CL04-13234	
CL05-32415	
CL06-121119	IA3017
CM304	Unknown
D49-2491	S100 x CNS = sister line of Lee
D61-2624	D49-2491(4) x PI 174.862 high protein
D61-3505	D49-2491(2) x PI 174.862 high protein
D66-7398	D61-3505 x (PI 96.035 x D61-2624)
D71-6234	D66-7398 x PI 95.560
Dairyland 75213-72	Dairyland 98820-33 x Asgrow A3237
Dairyland 75334	
Dairyland 75358-74	
Dairyland 88504	
Dairyland 98820-33	
Dairyland 98822	
Dairyland 99540	Stine 2660 x DSR-275
Dairyland 99753-81	88504 x P93B82
Dairyland DSR 365	
Dairyland DSR-275	
Dekalb 226	
Dekalb 339c	
Dekalb 420c	
DS-880	
E00003	
E05181-T	Loda x IA2053
E05226-T	
E05276-T	
E06161	OAC 98-12 x Skylla
E06186	
E06381	K1459 x LG97-8984

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
E06936	PI494182 x Skylla
E07048	IA3017 x Loda
E07051	IA3017 x Loda
E07051	IA3017 x Loda
E09014	AxN-1-55 x A00-711003
E09088	
E10174	U01-390489 x LD01-5907
E10175	
E10906	
E10928	
E11358	
E11955	
E12901	
E13902	E11955 x E07051
G04064G36	Galena Genetics
GarstAgriPro 96349-A99-30264	
GarstAgripro 97023-A99-03284	
GarstAgriPro 98180-A01-06131	
Golden Harvest H-2632	
Golden Harvest H-2632	
Golden Harvest X33686	
HM09-W084	Dennison x HF03-546
HS5-3417	IA 3023 x HS99-4045
IAR1902 SCN	AgriPro 97284-N00-47977 x IAR2001 BSR
IAR2001BSR	
IAR2101	
IVR 1120	Provar x (AX56P64-1 x PI 191.110-1)
J74-122	
Jacques J285	
JTN-5203	
K07-1633	IA3023 x LD00-3309
K08-5026	K03-2399 x LS01-1987
K10-8556	IA3023 x LD00-3309
Kenjiangdou 43	
L15	Wayne(6) x Clark 63
L46-2132	Lincoln(2) x Richland
L57-0034	L46-2132 x Adams
L66L-154	Wayne x L57-0034
L69-4143	[L15(5) x ((Clark(6) x T201) x (Clark(6) x T145))] x (Wayne(10) x Kanrich)
L73-4673	Corsoy x L66L-154(Williams sib)
L77-906	Williams X PI209.332
L77-994	Williams x PI88.788

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
L85P-558	L73-4673 X Fayette
LD00-1938	Pana x Savoy
LD00-2187	324 3B x Olympus
LD00-2817	Ina x Dwight
LD00-3296	LN95-5724 x Pana
LD00-3309	Maverick x Dwight
LD00-4970	Maverick x Dwight
LD01-5907	Ina x IA3010
LD01-7323	LN95-5454 x Dwight
LD02-4485	M90-184111 x IA3010
LD02-5320	IA2052 x Dwight
LD02-5868	Macon x LN93-13684
LD02-9050	LN97-24270 x LS93-0375
LD03-10504	LN97-26569 x A98-781041
LD03-6566	LN95-6446 x SS96-5637
LD04-11056	U96-2208 x Syngenta S38-T8
LD04-11056W	White flowered reselection from LD04-11056
LD04-12754	IA3023 x U98-311442
LD04-13265	Syngenta S32-Z3 x U98-205355
LD04-13296	Syngenta S32-Z3 x U98-311442
LD04-8782	Syngenta S32-Z3 x Dwight
LD05-1540	Syngenta S25-J5 x SS98-3403
LD05-16638	Dwight(3) x (Dowling x Loda)
LD05-30578a	LD00-3309(2) x [LD00-4970(2) x (Dowling x Loda)]
LD05-30588a	LD00-3309(2) x (LD00-4970(2) x (Dowling x Loda))
LD05-3171	U97-201128 x Syngenta S42-H1
LD05-3230	Syngenta S25-J5 x LD00-3296
LD06-7596	IA3023 x LD00-3309
LD06-7620	IA3023 x LD00- 3309
LD06-7648	IA3023 x LD00-3309
LD06-7862	DSR-305 x LD00-3309
LD06-7984	Macon x LD01-5907
LD07-2192	IA3023 x LD02-4485
LD07-3395	Syngenta WW115926 x LD00-2817
LD07-3419	WW115926 x LD00-2817
LD07-4477	IA3023 x LD00-3309
LD07-5065	(Dwight x SCN soja BC3F1)
LD08-12430a	LD02-4485(2) x (Ina x PI 200538)
LD08-12435a	LD02-4485(2) x (Ina x PI 200538)
LD08-12438a	LD02-4485(2) x (Ina x PI 200538)
LD08-12446a	LD02-4485(2) x (Ina x PI 200538)
LD08-3936	LD02-5868 x LD00-4970

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
LD08-3994	IA2068 x LD01-7323
LD08-4202	LD02-5320 x HC99-2846
LD08-4767a	LD02-5320 x [LD00-3309(3) x (LD00-4970(2) x (Dowling x Dwight))]
LD09-10220	CL0J173-6-8 x 99846-74
LD09-13023a	LD05-3230 x (LD02-4485(2) x (Ina x PI 200538))
LD09-15077	LD02-4485(6) x (Ina x PI 200538)
LD09-15464	LD04-8782(3) x [LD03-6566 x (LD02-4485 x (Ina x PI 200538))]
LD09-15487	LD04-8782(3) x [LD03-6566 x (LD02-4485 x (Ina x PI 200538))]
LD09-30454	LD00-3309 x LDX08-249
LD10-10219	LD05-3230 x LD00-3309
LD10-10226	LD05-3230 x LD00-3309
LD10-9434	LD05-8517 x Syngenta 03JR101916
LD12-6623	LD08-12430a x LD05-30588a
LDX01-1-65	A81-356022(5) x PI468916
LDX07-178a-1-7	LD05-16638 x (Dwight x (Ina x PI 200538))
LDX10-277-1-30	(F2 plt) LD08-12446a x LD05-30588a
LDX11033a	G04064G36 x LDX10-277-1-15
LDX11050a	(F3:4 pop) LD08-12438a x LD09-30224
LG00-3372	PI 561.319A x PI 574.477
LG04-4468	
LG04-5372	Rend x LG97-9301
LG05-2359	
LG06-5920	LG00-3372 x LD00-3309
LG10-2695	IA3023 x LG03-3020
LG88-8959	PI 253.665D x PI 283.331
LG89-7793	PI 391.594 x Century
LG97-9301	LG89-7793 x LG88-8959
LN93-13684	Jack x Chapman
LN94-14862-97-2	Jack x Hartwig
LN95-5454	Jack x IA3003
LN95-5724	Jack x IA3003
LN95-6446	Jack x Iroquois
LN97-26569	Yale x Macon
LS00-4221	LS92-3660 x Asgrow 4138
LS01-1158	LS92-4173 x Dekalb 339c
LS01-1734	LS93-0375 x IA3005
LS01-1804	LS93-0375 x IA3005
LS01-3450	LS93-0375 X Dekalb 420c
LS01-3615	LS93-0375 x Mustang
LS02-0425	LN93-11632 x IA1008
LS02-2213	LS93-0375 x SS94-4337
LS03-4294	

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
LS05-0202	SS98-3403 x U98-307917
LS05-3229	LS93-0375 x Ina
LS07-3125	SS98-7851 x LD00-3309
LS07-3131	SS98-7851 x LD00-3309
LS92-3660	Resnik x Asgrow A5474
LS92-4173	Flyer x Pyramid
LS93-0375	Asgrow A3935 x Pioneer P9402
LS97-3617	Flyer x Asgrow A4138
LS98-0582	Northrup King S46-44 x Asgorw A4138
LS99-2235	Bell x Pioneer P9451
LSX1207	
M00-116161	MN0901 x MN0902CN
M00-351195	MN0902CN x M95-123116
M00-365137	Jim x LN94-14862-97-2
M00-365181	Jim x LN94-14862-97-2
M01-213045	
M01-314114	MN0902CN x M95-123116
M01-315029	A99-216031 x M95-123023
M02-141020	MN0302 x F1(M01-303)
M02-383122	MN0902CN x MN0091
M02-385091	MN0902CN x M95-255017
M02-391112	IA1008 x M96-356062
M03-176076	M97-205062 X MN1404SP
M03-914036	MN0902CN x B00497B016
M04-212034	M98-240104 x MN0902CN
M04-212108	M98-240104 x MN0902CN
M04-254003	
M04-336008	M98-240104 x IA2064
M05-350061	M00-111179 x M98-134022
M05-353086	MN0902CN x M99-286047
M06-286029	
M06-288181	M00-365137 x M99-286050
M06-289192	
M06-289264	M00-351195 x M00-365181
M06-310036	ND01-3901 X MN1005
M06-380029	Jim x PI548325
M06-388016	
M07-209037	M90-184111 x MN0606CN
M07-211456	M90-184111 x M02-121028
M60-406	Blackhawk X Harosoy
M68-303	M60-406 X Beeson
M71-148	Clay x Evans

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
M75-89	Corsoy X M68-303
M85-23	M71-148 x Simson
M85-647	Ozzie x Fayette
M86-1973	L77-906 x M75-89
M86-1973	L77-906 X M75-89
M87-227	A82-161034 X Dawson
M87-349	
M90-1437	Dawson X HM8536
M90-178161	M85-23 x A20
M90-184111	L85P-558 X M86-1973
M92-1525	M85-647 x Bell
M92-1631	Fairbault x Bell
M92-1708	Kato x Bell
M92-270029	M87-227 x M87-349
M92-674	Agassiz x Ozzie
M93-313135	Agassiz x M90-1437
M95-123023	Parker x M92-1631
M95-123116	Parker x M92-1631
M95-255017	M92-1525 x A92-526007
M96-356062	M92-674 x M92-1708
M99-286047	IA1008 x Pioneer 9234
MN03-7556	
MSC10-567	
ND01-2765	
ND03-5441	Barnes x MN0602CN
ND03-5672	Barnes x SD96-33
ND03-7267	
ND03-7566	Barnes x MN0602CN
ND04-11111	OAC Atwood x (Barnes x IA1009)
ND04-11421	MN0902CN x (SD96-702 x Loda)
ND04-11603	(IA1009 x Sargent) x MN0902CN
ND04-11730	MN161045 x (Barnes x IA1009)
ND04-12689	Sargent x MN0902CN
ND06-25513	MN1006CN x ND01-2765
ND07-3994	M96-356062 x Ashtabula
ND07-4027	M96-356062 x Ashtabula
ND07-4069	ND02-2559 x A00-711013
ND07-4635	MN1006CN x Walsh
NE0900094	Syngenta
Northrup King S1346	A55-5629-4 x PI 257.435
Northrup King S19-90	Pride B152 x Pella
Northrup King S24-92	

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
Northrup King S35-35	Northrup King S39-99 x Asgrow A3127
Northrup King S39-11	Fayette x Northrup King S42-30
Northrup King S39-99	S1492 x Mack
Northrup King S42-30	Essex x Agripro 35
Northrup King S42-32	MO2050 x Asgrow A5474
Northrup King S46-44	Asgrow A5474 x Asgrow A3127
OAC 98-12	
OAC06-02	
OT92-8	Baron x Maple Donovan
OX-802	
Pioneer 9234	SCN resistant line from Peking
Pioneer 93B82	
Pioneer 93B86	
Pioneer P1677	Corsoy(2) x Rampage
Pioneer P2981	S20 x Hark
Pioneer P9004	Maple Ridge x Lakota
Pioneer P9061	Wells x Pioneer P1677
Pioneer P9071	Pioneer P9061 x Pioneer P9181
Pioneer P9181	Beeson x Williams
Pioneer P9204	
Pioneer P9273	Pioneer 2981 x Asgrow A3127
Pioneer P9281	Hark x (Corsoy x Calland)
Pioneer P92B12	
Pioneer P9303	Asgrow A2943 x Asgrow A5474
Pioneer P9341	CM304 x Asgrow A3127
Pioneer P9362	Asgrow A2943 x Asgrow A5474
Pioneer P9381	(Essex x L69-4143) x Sprite
Pioneer P9402	(L77-994 x Asgrow A3127) x L77-994
Pioneer YB280	
Pioneer YB33A99	
PR33	rust resistant line form Georgia
Pride B152	Northrup King S1346(6) x Mack
RCAT 1001	
RCAT 1005	
RxEF59-16	Ripley x (Essex x Forrest)
RxEF59-70	Ripley x (Essex x Forrest)
RxEF59-70	
RxEF59-70	
S05-11400	S00-9925-10 x S98-3403
S05-11482	S99-2281 x S00-9985-03
S08-17361	LG04-5196 x S00-9925-10
S20	L15 x C1423

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
S88-1318	Peking x Elf
S91-5371-17	Williams(2) x (Forrest x PI 437.654)
SD06-322	SDX98-74151 x M96-71481
SD08CV-2102	M97-136016 x SD96-135-3
SD487	
SD96-33	
Soy02-2	
Soygenetics 95-34480	
SS02-11958	Hamilton x PI438489B
SS94-4337	Jack x Pioneer P9341
SS96-5637	S88-1318 x S91-5371-17
SS98-3403	
SS98-7851	Pioneer P9362 x Magellan
Stine 2660	
Syngenta 03JR101916	
Syngenta 03JR313108	
Syngenta 03JR321088	
Syngenta 04BR307588	BPR4316N x 95678-B98-51401
Syngenta 04RM819800	
Syngenta 05BR006009	SG801122200 x 96601-B99-17498
Syngenta 05JR200591	
Syngenta 06NB203585	30240-B02-15187 x 97199-A00-10391
Syngenta 06NB204846	WW115926 x 98211-A01-36153
Syngenta BN0800009	
Syngenta S10-F2	
Syngenta S18-N5	
Syngenta S18-N5	
Syngenta S20-20	
Syngenta S23-T5	
Syngenta S25-J5	
Syngenta S32-Z3	
Syngenta S32-Z3	
Syngenta S38-T8	
Syngenta S42-H1	
Syngenta SJ0800020	
Syngenta SJ833009	
Syngenta WN0800105	
Syngenta WW115926	
T145	
T180	F3 sib of T181
T181	Non-nodulating rjl mutant in Lincoln(2) x Richland
T201	T181 x T180

2018 IDENTIFICATION OF PARENT STRAINS

Strain	Parentage
U01-390489	IA1008 x NE3001
U02-242055	
U03-100612	
U03-100612	U99-009019 x Pioneer P92B12
U03-300134	NE3202 x Pioneer P92B12
U05-226055	
U07-336229	
U09-105007	OAC 05-21 x U03-300134
U09-105007	
U09-105007-174	
U09-126009	
U09-133005	U02-242055 X U03-200317
U09-215057	U01-390489 x U03-200317
U09-407147	
U11-614093	U02-242055 x LD04-13265
U11-614119	U02-242055 x LD04-13265
U11-919011	LD02-4485 x U03-300134
U11-921041	
U11-935093	
U94-2306	Holt x Dairyland DSR 304
U96-2208	Colfax x A91-701035
U97-201128	U94-2306 x UP1Fe-95-9
U98-205355	A94-773014 x Bell
U98-307917	
U98-311442	A94-773014 x Bell
U99-009019	MSBP6S4 (Intermated population)
UX2759-1 (F1)	
Var 75881	Schillinger Genetics
WN0902577	Syngenta

2018 NORTHERN REGIONAL SCN TEST LOCATIONS

				Uniform Tests						Preliminary Tests		
	Location	Cooperator	SCN*	00	0	I	II	III	IV	II	III	IV
IA	Mason City	S. Cianzio	I			X						
IA	Ames	S. Cianzio	I			X	X			X		
IA	Moorhead	S. Cianzio	I				X			X		
IA	Oskaloosa	S. Cianzio	I					X			X	
IA	Muscatine	S. Cianzio	I					X			X	
IL	Pontiac	B. Diers	I				X			X		
IL	Arthur	B. Diers	I					X			X	
IL	Neoga	B. Diers	I						X			X
IL	Urbana	B. Diers	I			X	X	X**	X**	X	X	X
IN	West Lafayette	G. Cai	I				X	X				
KS	Manhattan	W. Schapaugh	I					X	X		X	X
KS	Onaga	W. Schapaugh	NI						X			X
KS	Ottawa	W. Schapaugh	NI						X			X
MI	Decatur	D. Wang	I			X	X			X		
MN	Gary	A. Lorenz	I	X**								
MN	Callaway	A. Lorenz	I	X								
MN	Downer	A. Lorenz	I	X**								
MN	Rosemount	A. Lorenz	I		X							
MN	Danvers	A. Lorenz	I		X							
MN	Fairfax	A. Lorenz	I		X	X	X			X		
MN	Waseca	A. Lorenz	I			X	X			X		
MN	Lamberton	A. Lorenz	I			X	X			X		
MO	Novelty	A. Scaboo	I					X	X			
MO	Rock Port	A. Scaboo	I					X	X		X	X
MO	Clarkton	G. Shannon	I						X			
MO	Portageville	G. Shannon	NI						X			
ND	Absaraka	T. Helms	I	X**	X**							
ND	Wyndmere	T. Helms	I	X	X							
NE	Bellwood	G. Graef	I				X	X		X	X	
OH	Hoytville	L. McHale	NI				X	X				
ON	Ridgetown	M. Eskandari	I			X						
ON	Ottawa	E. Cober	NI	X	X							
ON	Elora	I. Rajcan	NI		X							
ON	Woodstock	I. Rajcan	NI		X							
ON	Chatham	T. Welacky	I			X	X					
ON	Harrow	T. Welacky	I			X	X					
TN	Jackson	P. Arelli	NI						X			X
		Total Tests		6	8	10	13	10	10	9	7	7

Special observation plots				00	0	I	II	III	IV	II	III	IV
IA	Iron chlorosis	C. Cianzio	IDC			X	X	X		X	X	
IL	SCN Greenhouse	A. Colgrove	SCN	X	X	X	X	X	X	X	X	X

* I = infested, NI = non-infested, ** Data not submitted

2018 NORTHERN REGIONAL SCN TESTS LOCATIONS
Characteristics of *Heterodera glycines* populations

				Female Index (% of Lee 74)								
		Eggs/		HG 1	HG 2	HG 3	HG 4	HG 5	HG 6	HG 7		
	Location	100cc	HG Type	Peking	88788	90763	437654	209332	89772	Cloud	438489B	Pickett
IA	Mason City	680	2.5.7	2	41	0	0	41	0	49	18	8
IA	Ames	280	2.5.7	0	47	0	0	56	0	58	54	10
IA	Moorhead	1320	2.5.7	1	38	0	1	42	1	48	52	9
IA	Oskaloosa	400	2.5.7	0	25	0	0	26	0	27	26	7
IA	Muscatine	80	2.5.7	0	19	0	0	27	0	27	6	12
IL	Pontiac	120	2.5.7	0	27	0	0	26	0	34	33	2
IL	Arthur	80	2.5.7	0	37	0	0	53	0	50	25	3
IL	Neoga	1840	2.5.7	0	28	0	0	31	0	35	14	1
IL	Urbana	80	2.5.7	4	43	2	0	46	3	61	5	26
IN	West Lafayette	0	NI	No test 0 eggs								
KS	Manhattan	80		Screening in progress								
KS	Onaga	80		Screening in progress								
KS	Ottawa	0	NI	No test 0 eggs								
MI	Decatur	2760		reported by cooperator								
MN	Gary	160	2.5.7	4	18	0	2	21	0	27	15	31
MN	Callaway	3600	2.5.7	2	22	1	0	22	1	27	35	33
MN	Downer	1080	2.5.7	1	23	1	0	28	1	34	6	7
MN	Rosemount	40	2.5.7	4	20	0	0	25	1	28	15	6
MN	Danvers	520	2.5.7	3	22	0	0	34	0	47	17	33
MN	Fairfax	640	2.5.7	4	34	0	0	40	0	44	58	48
MN	Waseca			No sample received								
MN	Lamberton	7250		No test, sample received too late								
MO	Novelty	640	2.5.7	0	24	0	0	19	0	26	8	17
MO	Rock Port	160	2.5.7	0	25	0	0	20	0	33	0	20
MO	Clarkton	40	2.5.7	1	39	0	0	34	0	49	2	42
MO	Portageville		NI	No sample received								
ND	Absaraka	2480	2.5.7	0	14	0	0	15	0	26	7	10
ND	Wyndmere	1240	2.5.7	0	23	0	0	26	0	30	2	4
NE	Bellwood	320		Screening in progress								
OH	Hoytville	0	NI	No test 0 eggs								
ON	Ridgetown	80	2.5.7	4	24	3	0	24	3	29	31	49
ON	Ottawa		NI	No sample received								
ON	Elora	0	NI	No test 0 eggs								
ON	Woodstock	0	NI	No test 0 eggs								
ON	Chatham	1240	2.5.7	0	17	0	0	27	0	31	16	9
ON	Harrow	1240	2.5.7	7	32	4	0	35	2	39	43	40
TN	Jackson	1	NI	reported by cooperator								

NI = non-infested

2018 NORTHERN REGIONAL SCN TESTS SCN SCREENING

	HG 0	initial		*retest*	
	6 reps	Mean	FI	Mean	FI
	Lee	301		*140*	
HG1	PI548402	0	0	*0*	*0*
HG2	PI88788	3	1	*3*	*2*
HG3	PI90763	0	0	*0*	*0*
HG4	PI437654	0	0	*0*	*0*
HG5	PI209332	2	1	*4*	*3*
HG6	PI89772	0	0	*0*	*0*
HG7	PI548316	13	4	*7*	*5*
	PI438489B	26	9	*10*	*7*
	Pickett	10	3	*1*	*1*

	HG 2.5.7	initial		*retest*	
	6 reps	Mean	FI	Mean	FI
	Lee	203		*284*	
HG1	PI548402	0	0	*0*	*0*
HG2	PI88788	91	45	*94*	*33*
HG3	PI90763	0	0	*0*	*0*
HG4	PI437654	0	0	*0*	*0*
HG5	PI209332	115	56	*108*	*38*
HG6	PI89772	0	0	*0*	*0*
HG7	PI548316	137	67	*139*	*49*
	PI438489B	9	5	*52*	*18*
	Pickett	7	3	*17*	*6*

*=small root **=rep data too variable to rate

			HG 0				HG 2.5.7				
Test	Ent.	Strain	mean	cv	FI	rating	mean	cv	FI	rating	SCN Resistance source
U00	**1**	**MN0083**	232	33	**77**	**NR**	160	18	**79**	**NR**	
U00,0	**2**	**MN0095**	124	16	**41**	**LR**	182	15	**90**	**NR**	none
U00	**3**	**ND Henson**	205	7	**68**	**NR**	141	3	**70**	**NR**	none
U00	**4**	**MN0208CN**	28		**9**	**HR**	127	5	**63**	**NR**	PI 88788
U00	**5**	**M12-357057**	14		**5**	**HR**	72	92	**35**	**retest**	PI 88788
U00	**5**	**M12-357057**					*134*	*11*	***47***	***LR***	
U00	**6**	**M12-366065**	31		**10**	**R**	106	28	**52**	**LR**	PI 88788
U00	**7**	**MCH13-108037**	29		**10**	**R**	188	6	**93**	**NR**	PI 88788
U00	**8**	**MCH13-109053**	106	19	**35**	**MR**	174	6	**86**	**NR**	PI 88788
U00	**9**	**MCH13-109062**	149	65	**50**	**retest**	127	21	**62**	**NR**	PI 88788
U00	**9**	**MCH13-109062**	*24*	*35*	***17***	***R***					
U0	**1**	**ND Stutsman**	184	20	**61**	**NR**	123	27	**60**	**NR**	none
U0	**3**	**MN0404CN**	36		**12**	**R**	165	37	**81**	**NR**	
U0	**5**	**M08-362045L**	10		**3**	**HR**	121	28	**60**	**LR**	PI 88788
U0	**6**	**M12-354012**	11		**4**	**HR**	149	7	**74**	**NR**	PI 88788
U0	**7**	**M12-386012**	145	63	**48**	**retest**	143	10	**70**	**NR**	PI 88788
U0	**7**	**M12-386012**	*46*	*101*	***33***	**					
U0	**8**	**M12-440084**	208	33	**69**	**NR**	175	22	**86**	**NR**	PI 88788
U0	**9**	**MCH13-104189**	111	76	**37**	**retest**	113	5	**56**	**LR**	PI 88788
U0	**9**	**MCH13-104189**	*44*	*25*	***31***	***MR***					
U0	**10**	**ND Benson**	74	41	**25**	**retest**	119	30	**59**	**LR**	PI 88788
U0	**10**	**ND Benson**	*1*		***0***	***HR***					
U0	**11**	**ND14-2194**	81	33	**27**	**MR**	116	25	**57**	**LR**	PI 88788
U0	**12**	**ND14-2671**	36		**12**	**R**	98	7	**48**	**LR**	PI 88788

2018 NORTHERN REGIONAL SCN TESTS SCN SCREENING

			HG 0				HG 2.5.7				
Test	Ent.	Strain	mean	cv	FI	rating	mean	cv	FI	rating	SCN Resistance source
U0	**13**	**ND14-2678**	15		**5**	**HR**	103	9	**51**	**LR**	PI 88788
U0	**14**	**ND14-3606**	193	33	**64**	**NR**	116	20	**57**	**LR**	PI 88788
U0	**15**	**ND14-3926**	62		**21**	**R**	111	7	**55**	**LR**	PI 88788
U0	**16**	**ND14-4507**	70		**23**	**R**	122	4	**60**	**NR**	PI 88788
U I,0	**1**	**MN1410**	223	12	**74**	**NR**	179	4	**88**	**NR**	None
U I,II	**2**	**IA1022 (SCN)**	71		**24**	**R**	110	6	**54**	**LR**	PI 88788
U I	**4**	**U11-917032**	47		**16**	**R**	126	5	**62**	**NR**	PI 88788
U I	**5**	**AR15-158072**	43		**14**	**R**	179	8	**88**	**NR**	PI 88788
U I	**6**	**AR16-162109**	60		**20**	**R**	138	29	**68**	**NR**	PI 88788
U I	**7**	**AR17-179006**	125	16	**42**	**LR**	157	9	**77**	**NR**	PI 507354/Peking/ PI 88788
U I	**8**	**AR17-179015**	2		**1**	**HR**	70	84	**34**	**retest**	PI 507354/Peking/ PI 88788
U I	**8**	**AR17-179015**					*4*		***1***	***HR***	
U I	**9**	**AR17-279008**	87	31	**29**	**MR**	120	30	**59**	**LR**	PI 507354/Peking/ PI 88788
U I	**10**	**AR17-279009**	6		**2**	**HR**	83	81	**41**	**retest**	PI 507354/Peking/ PI 88788
U I	**10**	**AR17-279009**					*44*	*159*	***15***	****	
U I	**11**	**E15338**	26		**9**	**HR**	140	29	**69**	**NR**	PI 88788
U I	**12**	**E16346**	27		**9**	**HR**	145	31	**71**	**NR**	PI 88788
U I	**13**	**LD14-4098a**	14		**5**	**HR**	97	7	**48**	**LR**	PI 88788
U I	**14**	**M12-373033**	29		**10**	**R**	106	25	**52**	**LR**	PI 88788
U I	**15**	**M12-373060**	39		**13**	**R**	64	4	**31**	**MR**	PI 88788
U I	**16**	**M12-386029**	51		**17**	**R**	136	3	**67**	**NR**	PI 88788
U I	**17**	**MCH13-104087**	39		**13**	**R**	114	21	**56**	**LR**	PI 88788
U I	**18**	**MCH13-104091**	39		**13**	**R**	190	9	**94**	**NR**	PI 88788
U I	**19**	**MCH13-104132**	63		**21**	**retest**	122	31	**60**	**NR**	PI 88788
U I	**19**	**MCH13-104132**	*7*		***5***	***HR***					
U I	**20**	**MCH13-108027**	24		**8**	**HR**	122	21	**60**	**NR**	PI 88788
U I	**21**	**MCH13-110029**	78	90	**26**	**retest**	67	30	**33**	**MR**	PI 88788
U I	**21**	**MCH13-110029**	*6*		***4***	***HR***					
U I	**22**	**ORC 4217N**	67		**22**	**R**	78	24	**38**	**MR**	PI 88788
U I	**23**	**U15-934067**	142	27	**47**	**LR**	132	19	**65**	**NR**	PI 88788
U I	**24**	**U16-918018**	235	18	**78**	**NR**	190	33	**93**	**NR**	Peking
U II	**1**	**IA2102**	37		**12**	**R**	132	6	**65**	**NR**	None
U II	**3**	**LD02-4485**	29		**10**	**R**	124	7	**61**	**NR**	PI 88788
U II,III	**4**	**U11-920017**	168	8	**56**	**LR**	146	21	**72**	**NR**	None
U II	**5**	**E15339**	19		**6**	**HR**	111	9	**55**	**LR**	PI 88788
U II	**6**	**E15345**	31		**10**	**R**	136	6	**67**	**NR**	PI 88788
U II	**7**	**E15347**	26		**9**	**HR**	130	11	**64**	**NR**	PI 88788

2018 NORTHERN REGIONAL SCN TESTS SCN SCREENING

			HG 0				HG 2.5.7				
Test	Ent.	Strain	mean	cv	FI	rating	mean	cv	FI	rating	SCN Resistance source
U II	**8**	**E15349**	24		**8**	**HR**	182	5	**90**	**NR**	PI 88788
U II	**9**	**E15351**	30		**10**	**R**	117	14	**58**	**LR**	PI 88788
U II	**10**	**E15390**	162	25	**54**	**LR**	105	22	**52**	**LR**	PI 88788
U II	**11**	**E15346T**	34		**11**	**R**	125	6	**61**	**NR**	PI 88788
U II	**12**	**LD13-6678**	46		**15**	**R**	167	11	**82**	**NR**	PI 88788
U II	**13**	**U14-217227**	148	49	**49**	**retest**	120	4	**59**	**LR**	PI 88788,437654
U II	**13**	**U14-217227**	*15*		***11***	***R***					
U II	**14**	**U14-910097**	115	172	**38**	**retest**	2		**1**	**HR**	PI 88788,437654
U II	**14**	**U14-910097**	*0*		***0***	***HR***					
U II	**15**	**U14-915126**	219	32	**73**	**NR**	119	25	**58**	**LR**	
U II	**16**	**U14-925152**	2		**1**	**HR**	2		**1**	**HR**	PI 88788,437654
U II	**17**	**U15-917133**	161	32	**53**	**LR**	220	19	**108**	**NR**	
P IIA	**5**	**E16184**	38		**13**	**R**	135	9	**67**	**NR**	PI 88788
P IIA	**6**	**E16186**	80	76	**26**	**retest**	152	11	**75**	**NR**	PI 88788
P IIA	**6**	**E16186**	*22*		***16***	***R***					
P IIA	**7**	**E16265**	47		**16**	**R**	79	26	**39**	**MR**	PI 88788
P IIA	**8**	**E16266**	34		**11**	**R**	133	48	**66**	**NR**	PI 88788
P IIA	**9**	**E16267**	24		**8**	**HR**	134	18	**66**	**NR**	PI 88788
P IIA	**10**	**E16379**	23		**8**	**HR**	147	32	**73**	**NR**	PI 88788
P IIA	**11**	**E16380**	30		**10**	**R**	146	14	**72**	**NR**	PI 88788
P IIA	**12**	**E16387**	49		**16**	**R**	131	6	**65**	**NR**	PI 88788
P IIA	**13**	**E16398**	209	48	**70**	**retest**	102	4	**50**	**LR**	PI 88788
P IIA	**13**	**E16398**	*8*		***6***	***HR***					
P IIA	**14**	**LD15-1350**	31		**10**	**R**	136	14	**67**	**NR**	PI 88788
P IIA	**15**	**LD15-6268**	39		**13**	**R**	165	46	**81**	**NR**	PI 88788
P IIA	**16**	**LD15-6280**	30		**10**	**R**	142	25	**70**	**NR**	PI 88788
P IIA	**17**	**LD16-4425a**	54		**18**	**R**	125	12	**61**	**NR**	PI 88788
P IIA	**18**	**LD16-4429a**	22		**7**	**HR**	127	42	**63**	**NR**	PI 88788
P IIA	**19**	**LD16-5724a**	71		**24**	**R**	107	25	**52**	**LR**	PI 88788
P IIA	**20**	**ORC 5317N**	76	17	**25**	**MR**	124	5	**61**	**NR**	PI 88788
P IIA	**21**	**ORC 5517N**	49		**16**	**R**	131	66	**65**	**retest**	PI 88788
P IIA	**21**	**ORC 5517N**					*144*	*6*	***51***	***LR***	
P IIB	**5**	**AR15-258059**	1		**0**	**HR**	4		**2**	**HR**	Peking
P IIB	**6**	**AR17-179001**	86	33	**29**	**MR**	47	13	**23**	**R**	
P IIB	**7**	**AR17-179003**	76	73	**25**	**retest**	82	3	**40**	**LR**	
P IIB	**7**	**AR17-179003**	*9*		***7***	***HR***					
P IIB	**8**	**AR17-179012**	24		**8**	**HR**	100	34	**49**	**LR**	PI 438489B / PI 88788

2018 NORTHERN REGIONAL SCN TESTS SCN SCREENING

			HG 0				HG 2.5.7				
Test	Ent.	Strain	mean	cv	FI	rating	mean	cv	FI	rating	SCN Resistance source
P IIB	**9**	**AR17-179022**	40		**13**	**R**	138	19	**68**	**NR**	PI 438489B / PI 88788
P IIB	**10**	**AR17-179026**	9		**3**	**HR**	104	11	**51**	**LR**	PI 438489B / PI 88788
P IIB	**11**	**AR17-279010**	14		**5**	**HR**	84	86	**41**	**retest**	PI 507354/Peking/ PI 88788
P IIB	**11**	**AR17-279010**					*8*		***3***	***HR***	
P IIB	**12**	**AR17-279018**	28		**9**	**HR**	107	21	**53**	**LR**	Peking
P IIB	**13**	**AR17-279022**	33		**11**	**R**	103	29	**51**	**LR**	PI 438489B / PI 88788
P IIB	**14**	**AR17-279024**	48		**16**	**R**	109	16	**54**	**LR**	
P IIB	**15**	**LD15-456**	13		**4**	**HR**	120	31	**59**	**LR**	PI 88788
P IIB	**16**	**LD15-467**	71		**24**	**retest**	184	7	**91**	**NR**	PI 88788
P IIB	**16**	**LD15-467**	*5*		***3***	***HR***					
P IIB	**17**	**LD15-5170a**	26		**9**	**HR**	111	4	**55**	**LR**	PI 88788
P IIB	**18**	**U16-915064**	79	90	**26**	**retest**	123	9	**61**	**NR**	Peking
P IIB	**18**	**U16-915064**	*56*	*16*	***40***	***LR***					
P IIB	**19**	**U16-915073**	159	31	**53**	**LR**	76	84	**38**	**retest**	Peking
P IIB	**19**	**U16-915073**					*40*		***14***	**	
P IIB	**20**	**U16-918088**	84	123	**28**	**retest**	119	4	**59**	**LR**	Peking
P IIB	**20**	**U16-918088**	*2*		***2***	***HR***					
P IIB	**21**	**U16-918097**	40		**13**	**R**	126	28	**62**	**NR**	Peking
P IIB	**22**	**U16-920087**	63		**21**	**retest**	46	16	**23**	**R**	Peking
P IIB	**22**	**U16-920087**	*1*		***1***	***HR***					
P IIB	**23**	**U16-923137**	82	31	**27**	**MR**	103	41	**51**	**LR**	Peking
U III	**1**	**LD11-2170**	30		**10**	**R**	72	4	**36**	**MR**	PI 88788
U III	**2**	**IA3048**	19		**6**	**HR**	116	6	**57**	**LR**	PI 88788
U III,IV	**3**	**LD07-3395bf**	5		**2**	**HR**	2		**1**	**HR**	PI 88788,437654
U III	**5**	**LD14-3698**	22		**7**	**HR**	135	18	**67**	**NR**	PI 88788
U III	**6**	**SA13-1310**	21		**7**	**HR**	119	13	**59**	**LR**	PI 88788
U III	**7**	**SA13-1363**	7		**2**	**HR**	100	18	**49**	**LR**	PI 88788
U III	**8**	**SA13-1385**	15		**5**	**HR**	110	18	**54**	**LR**	PI 88788
U III	**9**	**SA13-2699**	41		**14**	**R**	99	27	**49**	**LR**	PI 88788
U III	**10**	**SA14-9653**	36		**12**	**R**	127	4	**62**	**NR**	PI 88788
U III	**11**	**U13-231286**	181	19	**60**	**NR**	123	7	**61**	**NR**	PI 88788
U III	**12**	**U14-211209**	76	13	**25**	**R**	97	54	**48**	**retest**	PI 88788
U III	**12**	**U14-211209**					*181*	*7*	***64***	***NR***	
U III	**13**	**U14-211226**	30		**10**	**R**	115	12	**56**	**LR**	PI 88788
U III	**14**	**U14-212231**	204	21	**68**	**NR**	118	35	**58**	**LR**	PI 88788
U III	**15**	**U14-605217**	153	33	**51**	**LR**	105	32	**52**	**LR**	PI 88788,437654
U III	**16**	**U14-924158**	2		**1**	**HR**	27	21	**13**	**R**	PI 88788,437654

2018 NORTHERN REGIONAL SCN TESTS SCN SCREENING

			HG 0				HG 2.5.7				
Test	Ent.	Strain	mean	cv	FI	rating	mean	cv	FI	rating	SCN Resistance source
U III	**17**	**U15-606207**	2		**1**	**HR**	2		**1**	**HR**	PI 88788,437654
U III	**18**	**U15-613163**	90	23	**30**	**MR**	97	18	**48**	**LR**	PI 88788,437654
P III	**5**	**AR16-361032**	21		**7**	**HR**	142	18	**70**	**NR**	PI 88788
P III	**6**	**AR17-179007**	4		**1**	**HR**	24		**12**	**R**	Peking
P III	**7**	**AR17-179009**	61		**20**	**R**	85	29	**42**	**LR**	PI 438489B / PI 88788
P III	**8**	**AR17-179016**	99	28	**33**	**MR**	87	9	**43**	**LR**	PI 507354/Peking/ PI 88788
P III	**9**	**AR17-279003**	8		**3**	**HR**	3		**1**	**HR**	PI 507354/Peking/ PI 88788
P III	**10**	**AR17-379003**	23		**8**	**HR**	117	7	**58**	**LR**	PI 438489B
P III	**11**	**AR17-379009**	6		**2**	**HR**	85	8	**42**	**LR**	PI 507354/Peking/ PI 88788
P III	**12**	**AR17-379012**	27		**9**	**HR**	87	87	**43**	**retest**	Peking
P III	**12**	**AR17-379012**					*80*	*5*	***28***	***MR***	
P III	**13**	**AR17-379013**	35		**12**	**R**	149	3	**73**	**NR**	PI 438489B / PI 88788
P III	**14**	**AR17-379019**	42		**14**	**R**	120	22	**59**	**LR**	
P III	**15**	**K16-1234**	85	34	**28**	**MR**	160	12	**79**	**NR**	PI 88788
P III	**16**	**K16-1424**	3		**1**	**HR**	70	27	**34**	**MR**	PI 88788
P III	**17**	**LD15-1477**	21		**7**	**HR**	126	4	**62**	**NR**	PI 88788
P III	**18**	**LD15-4596a**	67		**22**	**R**	125	33	**62**	**NR**	PI 88788
P III	**19**	**LD15-4616a**	46		**15**	**R**	101	30	**50**	**LR**	PI 88788
P III	**20**	**LD15-5599**	56		**19**	**R**	100	26	**49**	**LR**	PI 88788
P III	**21**	**LD15-5602**	44		**15**	**R**	142	48	**70**	**NR**	PI 88788
P III	**22**	**LD15-5619**	39		**13**	**R**	92	40	**45**	**LR**	PI 88788
P III	**23**	**LD15-6345**	17		**6**	**HR**	134	18	**66**	**NR**	PI 88788
P III	**24**	**LD15-6762**	59		**20**	**R**	198	16	**97**	**NR**	PI 88788
P III	**25**	**LD15-6975**	179	32	**60**	**NR**	132	4	**65**	**NR**	PI 88788, Peking
P III	**26**	**LD15-8291**	10		**3**	**HR**	79	26	**39**	**MR**	PI 88788, 468916
P III	**27**	**LD15-8459**	13		**4**	**HR**	76	46	**37**	**retest**	PI 88788, 468916
P III	**27**	**LD15-8459**					*81*	*3*	***29***	***MR***	
P III	**28**	**U16-925137**	215	18	**72**	**NR**	97	7	**48**	**LR**	Peking
U IV	**1**	**LD06-7620**	37		**12**	**R**	165	12	**81**	**NR**	PI 88788
U IV	**3**	**LD00-2817P**	3		**1**	**HR**	3		**1**	**HR**	PI 88788, 437654
U IV	**4**	**K15-1303**	43		**14**	**R**	101	13	**50**	**LR**	PI 88788
U IV	**5**	**K15-1310**	63		**21**	**R**	113	18	**56**	**LR**	PI 88788
U IV	**6**	**LD13-8769**	4		**1**	**HR**	49	6	**24**	**R**	PI 88788, 468916
U IV	**7**	**S13-2743C**	38		**13**	**R**	83	13	**41**	**LR**	PI 88788
U IV	**8**	**S13-10590C**	195	18	**65**	**NR**	102	8	**50**	**LR**	PI 437654
P IV	**4**	**JTN-4118**	138	25	**46**	**LR**	126	15	**62**	**NR**	PI 494182
P IV	**5**	**JTN-4218**	1		**0**	**HR**	3		**2**	**HR**	PI 494182

2018 NORTHERN REGIONAL SCN TESTS SCN SCREENING

			HG 0				HG 2.5.7				
Test	Ent.	Strain	mean	cv	FI	rating	mean	cv	FI	rating	SCN Resistance source
P IV	**6**	**JTN-4318**	138		**46**	**retest**	106	39	**52**	**LR**	PI 494182
P IV	**6**	**JTN-4318**	*39*	*26*	***28***	***MR***					
P IV	**7**	**K16-1390**	20	99	**7**	**retest**	103	47	**51**	**retest**	PI 88788
P IV	**7**	**K16-1390**	*3*		***2***	***HR***	*156*	*4*	***55***	***LR***	PI 88788
P IV	**8**	**K16-1403**	29		**10**	**R**	110	46	**54**	**LR**	PI 88788
P IV	**9**	**K16-1430**	5		**2**	**HR**	90	21	**44**	**LR**	PI 88788
P IV	**10**	**K16-1444**	40		**13**	**R**	88	49	**44**	**LR**	PI 88788
P IV	**11**	**K16-1445**	9		**3**	**HR**	57	24	**28**	**MR**	PI 88788
P IV	**12**	**K16-1543**	27		**9**	**HR**	132	35	**65**	**NR**	PI 88788
P IV	**13**	**LD15-3818**	59		**20**	**R**	127	3	**62**	**NR**	PI 88788
P IV	**14**	**LD15-8589**	9		**3**	**HR**	109	8	**54**	**LR**	PI 88788, 468916
P IV	**15**	**LD15-9214**	1		**0**	**HR**	55	26	**27**	**MR**	PI 88788, 567516C
P IV	**16**	**LD16-2955**	40		**13**	**R**	160	18	**79**	**NR**	PI 88788, 437654
P IV	**17**	**LD16-8745**	38		**13**	**R**	154	14	**76**	**NR**	PI 88788
P IV	**18**	**LD16-8753**	49		**16**	**R**	71	21	**35**	**MR**	PI 88788

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2018 NORTHERN REGIONAL SCN TESTS P. Sojae SCREENING

	Isolate	ISA 124 C-1 Race 1		Dorrance Race 3		Race 4	
	Dates rated			10/4/2018		11/21/2018	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
Williams	***rps***	89%	8/9	92%	11/12	64%	7/11
Union	**1a**	55%	6/11	83%	10/12	20%	2/10
Haro 13	**1b**	64%	7/11	0%	0/11	0%	0/10
Williams 79	**1c**	55%	6/11	9%	1/11	67%	4/6
	1d	0%	0/11	0%	0/12	0%	0/12
Williams 82	**1k**	0%	0/10	8%	1/12	0%	0/8
L76-1988	**2**	0%	0/12	0%	0/11	0%	0/11
PI 171442	**3a**	0%	0/12	0%	0/11	0%	0/8
PRX 146-36	**3b**	10%	1/10	0%	0/12	0%	0/11
PRX 145-48	**3c**	0%	0/12	0%	0/12	0%	0/9
L85-2352	**4**	0%	0/9	0%	0/12	0%	0/9
L85-3059	**5**	20%	2/10	8%	1/12	0%	0/9
Harosoy 62	**6**	0%	0/8	0%	0/11	0%	0/10
Harosoy	**7**	91%	10/11	82%	9/11	20%	2/10
PI 399073	**8**	50%	4/8	0%	0/4	n/a	n/a

Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
MN0083	**U00 1**	0%	0%	0%	0/12	0%	0/12
MN0095	**U00 2**	17%	2/12	92%	11/12	9%	1/11
ND Henson	**U00 3**	0%	0/10	0%	0/9	0%	0/12
M12-357057	**U00 5**	17%	2/12	8%	1/12	0%	0/12
M12-366065	**U00 6**	60%	6/10	83%	10/12	67%	6/9
MCH13-108037	**U00 7**	0%	0/12	0%	0/12	0%	0/10
MCH13-109053	**U00 8**	56%	5/9	100%	11/11	10%	1/10
MCH13-109062	**U00 9**	1%	1%	100%	12/12	83%	10/12
ND Stutsman	**U0 1**	100%	9/9	0%	0/11	90%	9/10
MN0404CN	**U0 3**	0%	0/12	0%	0/12	0%	0/12
MN1410	**U0 4**	100%	11/11	100%	12/12	0%	0/10
M12-354012	**U0 6**	25%	3/12	0%	0/11	0%	0/10
M12-386012	**U0 7**	75%	9/12	0%	0/11	0%	0/12
M12-440084	**U0 8**	0%	0/11	0%	0/12	0%	0/10
MCH13-104189	**U0 9**	100%	9/9	100%	12/12	45%	5/11
ND Benson	**U0 10**	0%	0/12	0%	0/11	0%	0/11
IA1022 (SCN)	**UI 2**	67%	8/12	82%	9/11	0%	0/6
U11-917032	**UI 4**	82%	9/11	100%	12/12	55%	6/11

2018 NORTHERN REGIONAL SCN TESTS P. Sojae SCREENING

	Isolate	Dorrance Race 7		Dorrance Race 17		Race 25	
	Dates rated	10/25/2018		11/20/2018		10/31/2018	
Differential Name	**Rps gene**	% Dead	# D/T	% Dead	% Dead	# D/T	% Dead
Williams	***rps***	100%	8/8	78%	7/9	100%	9/9
Union	**1a**	92%	11/12	0%	0/7	91%	10/11
Haro 13	**1b**	0%	0/12	100%	8/8	100%	12/12
Williams 79	**1c**	0%	0/11	14%	1/7	100%	10/10
	1d	0%	0/12	73%	8/11	0%	0/12
Williams 82	**1k**	0%	0/11	0%	0/11	64%	7/11
L76-1988	**2**	14%	1/7	64%	7/11	0%	0/9
PI 171442	**3a**	100%	12/12	100%	10/10	0%	0/12
PRX 146-36	**3b**	11%	1/9	75%	6/8	0%	0/12
PRX 145-48	**3c**	58%	7/12	60%	6/10	0%	0/11
L85-2352	**4**	89%	8/9	33%	3/9	17%	2/12
L85-3059	**5**	100%	12/12	42%	5/12	9%	1/11
Harosoy 62	**6**	75%	9/12	13%	1/8	0%	0/11
Harosoy	**7**	83%	10/12	73%	8/11	100%	11/11
PI 399073	**8**	11%	1/9	n/a	n/a	82%	9/11

Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
MN0083	**U00 1**	0%	0/11	0%	0/10	100%	12/12
MN0095	**U00 2**	100%	12/12	0%	0/6	100%	11/11
ND Henson	**U00 3**	63%	5/8	20%	2/10	17%	2/12
M12-357057	**U00 5**	0%	0/12	0%	0/8	92%	11/12
M12-366065	**U00 6**	45%	5/11	50%	5/10	100%	11/11
MCH13-108037	**U00 7**	0%	0/10	0%	0/12	10%	1/10
MCH13-109053	**U00 8**	30%	3/10	91%	10/11	73%	8/11
MCH13-109062	**U00 9**	83%	10/12	91%	10/11	91%	10/11
ND Stutsman	**U0 1**	0%	0/12	0%	0/10	100%	12/12
MN0404CN	**U0 3**	0%	0/12	0%	0/11	100%	11/11
MN1410	**U0 4**	75%	9/12	50%	5/10	75%	9/12
M12-354012	**U0 6**	0%	0/11	0%	0/9	91%	10/11
M12-386012	**U0 7**	0%	0/11	91%	10/11	100%	12/12
M12-440084	**U0 8**	75%	9/12	0%	0/10	0%	0/11
MCH13-104189	**U0 9**	100%	12/12	100%	11/11	92%	11/12
ND Benson	**U0 10**	100%	10/10	90%	9/10	30%	3/10
IA1022 (SCN)	**UI 2**	89%	8/9	100%	11/11	100%	12/12
U11-917032	**UI 4**	100%	8/8	100%	12/12	100%	12/12

2018 NORTHERN REGIONAL SCN TESTS P. Sojae SCREENING

	Isolate	ISA 124 C-1 Race 1		Dorrance Race 3		Race 4	
	Dates rated			10/4/2018		11/21/2018	
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
AR15-158072	**UI 5**	17%	2/12	50%	6/12	0%	0/12
AR16-162109	**UI 6**	100%	12/12	70%	7/10	11%	1/9
AR17-179006	**UI 7**	18%	2/11	92%	11/12	13%	1/8
AR17-179015	**UI 8**	10%	1/10	100%	12/12	73%	8/11
AR17-279008	**UI 9**	0%	0/9	100%	12/12	56%	5/9
AR17-279009	**UI 10**	8%	1/12	100%	12/12	71%	5/7
M12-373033	**UI 14**	64%	7/11	75%	9/12	20%	2/10
M12-373060	**UI 15**	50%	6/12	91%	10/11	0%	0/11
M12-386029	**UI 16**	0%	0/12	100%	11/11	18%	2/11
MCH13-104087	**UI 17**	18%	2/11	8%	1/12	10%	1/10
MCH13-104091	**UI 18**	0%	0/12	0%	0/11	0%	0/9
MCH13-104132	**UI 19**	33%	4/12	73%	8/11	0%	0/10
MCH13-108027	**UI 20**	83%	10/12	92%	11/12	27%	3/11
MCH13-110029	**UI 21**	10%	1/10	40%	4/10	11%	1/9
U16-918018	**UI 24**	10%	1/10	100%	12/12	89%	8/9
IA2102	**UII 1**	0%	0/8	100%	10/10	9%	1/11
LD02-4485	**UII 3**	42%	5/12	17%	2/12	0%	0/12
U11-920017	**UII 4**	25%	3/12	0%	0/11	0%	0/11
U14-925152	**UII 16**	100%	12/12	100%	12/12	83%	10/12
E16379	**PIIA 10**	60%	6/10	63%	5/8	20%	2/10
LD15-1350	**PIIA 14**	100%	12/12	100%	11/11	9%	1/11
LD15-6268	**PIIA 15**	100%	11/11	100%	12/12	58%	7/12
LD15-6280	**PIIA 16**	83%	10/12	100%	12/12	83%	10/12
LD16-4425a	**PIIA 17**	100%	12/12	100%	12/12	0%	0/12
LD16-4429a	**PIIA 18**	83%	10/12	100%	12/12	9%	1/11
LD16-5724a	**PIIA 19**	100%	11/11	100%	12/12	70%	7/10
AR15-258059	**PIIB 5**	0%	0/9	0%	0/10	57%	4/7
AR17-179001	**PIIB 6**	0%	0/11	42%	5/12	18%	2/11
AR17-179003	**PIIB 7**	0%	0/11	8%	1/12	9%	1/11
AR17-179012	**PIIB 8**	100%	10/10	100%	12/12	55%	6/11
AR17-179022	**PIIB 9**	91%	10/11	100%	12/12	67%	8/12
AR17-179026	**PIIB 10**	91%	10/11	100%	12/12	82%	9/11
AR17-279010	**PIIB 11**	10%	1/10	100%	12/12	40%	4/10
AR17-279018	**PIIB 12**	36%	4/11	0%	0/10	43%	3/7

2018 NORTHERN REGIONAL SCN TESTS P. Sojae SCREENING

	Isolate	Dorrance Race 7		Dorrance Race 17		Race 25	
	Dates rated	10/25/2018		11/20/2018		10/31/2018	
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	% Dead	# D/T	% Dead
AR15-158072	**UI 5**	55%	6/11	91%	10/11	50%	5/10
AR16-162109	**UI 6**	100%	8/8	100%	11/11	83%	10/12
AR17-179006	**UI 7**	18%	2/11	100%	11/11	33%	4/12
AR17-179015	**UI 8**	100%	12/12	0%	0/12	100%	12/12
AR17-279008	**UI 9**	100%	12/12	0%	0/10	100%	12/12
AR17-279009	**UI 10**	89%	8/9	0%	0/7	100%	12/12
M12-373033	**UI 14**	58%	7/12	100%	10/10	100%	10/10
M12-373060	**UI 15**	45%	5/11	89%	8/9	100%	11/11
M12-386029	**UI 16**	92%	11/12	0%	0/12	100%	11/11
MCH13-104087	**UI 17**	8%	1/12	0%	0/6	100%	11/11
MCH13-104091	**UI 18**	0%	0/12	0%	0/12	75%	9/12
MCH13-104132	**UI 19**	58%	7/12	50%	6/12	92%	11/12
MCH13-108027	**UI 20**	92%	11/12	70%	7/10	100%	12/12
MCH13-110029	**UI 21**	0%	0/12	10%	1/10	83%	10/12
U16-918018	**UI 24**	82%	9/11	0%	0/10	100%	11/11
IA2102	**UII 1**	67%	8/12	100%	11/11	100%	10/10
LD02-4485	**UII 3**	33%	3/9	11%	1/9	75%	9/12
U11-920017	**UII 4**	0%	0/11	0%	0/11	100%	6/6
U14-925152	**UII 16**	100%	12/12	92%	11/12	90%	9/10
E16379	**PIIA 10**	67%	4/6	75%	6/8	88%	7/8
LD15-1350	**PIIA 14**	67%	6/9	91%	10/11	75%	9/12
LD15-6268	**PIIA 15**	100%	12/12	91%	10/11	100%	12/12
LD15-6280	**PIIA 16**	75%	9/12	100%	10/10	100%	12/12
LD16-4425a	**PIIA 17**	75%	9/12	75%	9/12	100%	10/10
LD16-4429a	**PIIA 18**	58%	7/12	92%	11/12	75%	9/12
LD16-5724a	**PIIA 19**	100%	12/12	100%	10/10	80%	8/10
AR15-258059	**PIIB 5**	30%	3/10	0%	0/9	50%	3/6
AR17-179001	**PIIB 6**	45%	5/11	0%	0/12	83%	10/12
AR17-179003	**PIIB 7**	0%	0/12	0%	0/9	92%	11/12
AR17-179012	**PIIB 8**	100%	12/12	0%	0/12	100%	12/12
AR17-179022	**PIIB 9**	75%	6/8	90%	9/10	92%	11/12
AR17-179026	**PIIB 10**	92%	11/12	100%	11/11	100%	12/12
AR17-279010	**PIIB 11**	90%	9/10	0%	0/10	100%	11/11
AR17-279018	**PIIB 12**	0%	0/9	0%	0/8	92%	11/12

2018 NORTHERN REGIONAL SCN TESTS P. Sojae SCREENING

	Isolate	ISA 124 C-1 Race 1		Dorrance Race 3		Race 4	
	Dates rated			10/4/2018		11/21/2018	
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
AR17-279022	**PIIB 13**	50%	5/10	100%	10/10	29%	2/7
AR17-279024	**PIIB 14**	0%	0/10	100%	12/12	44%	4/9
LD15-456	**PIIB 15**	0%	0/11	0%	0/11	0%	0/11
LD15-467	**PIIB 16**	0%	0/10	0%	0/12	0%	0/10
LD15-5170a	**PIIB 17**	0%	0/12	0%	0/12	0%	0/11
U16-915064	**PIIB 18**	14%	1/7	38%	3/8	0%	0/5
U16-915073	**PIIB 19**	0%	0/8	13%	1/8	0%	0/6
U16-918088	**PIIB 20**	18%	2/11	67%	6/9	29%	2/7
U16-918097	**PIIB 21**	0%	0/12	67%	8/12	33%	2/6
U16-920087	**PIIB 22**	50%	4/8	100%	12/12	67%	4/6
U16-923137	**PIIB 23**	92%	11/12	100%	12/12	88%	7/8
LD11-2170	**PIII 1**	9%	1/11	0%	0%	0%	0/9
IA3048	**PIII 2**	67%	4/6	90%	9/10	14%	1/7
LD07-3395bf	**PIII 3**	89%	8/9	100%	12/12	40%	4/10
AR16-361032	**PIII 5**	75%	9/12	91%	10/11	20%	2/10
AR17-179007	**PIII 6**	9%	1/11	0%	0/9	18%	2/11
AR17-179009	**PIII 7**	42%	5/12	100%	11/11	70%	7/10
AR17-179016	**PIII 8**	36%	4/11	100%	12/12	80%	8/10
AR17-279003	**PIII 9**	0%	0/10	83%	10/12	22%	2/9
AR17-379003	**PIII 10**	100%	11/11	100%	12/12	33%	4/12
AR17-379009	**PIII 11**	89%	8/9	100%	10/10	33%	3/9
AR17-379012	**PIII 12**	50%	5/10	0%	0/11	36%	4/11
AR17-379013	**PIII 13**	100%	10/10	100%	12/12	89%	8/9
AR17-379019	**PIII 14**	100%	10/10	100%	11/11	38%	3/8
K16-1234	**PIII 15**	25%	1/4	100%	11/11	0%	0/7
K16-1424	**PIII 16**	64%	7/11	82%	9/11	11%	1/9
LD15-1477	**PIII 17**	8%	1/12	0%	0/11	0%	0/11
LD15-4596a	**PIII 18**	33%	3/9	25%	2/8	75%	6/8
LD15-4616a	**PIII 19**	30%	3/10	10%	1/10	40%	4/10
LD15-5599	**PIII 20**	83%	10/12	92%	11/12	25%	3/12
LD15-5602	**PIII 21**	73%	8/11	83%	10/12	18%	2/11
LD15-5619	**PIII 22**	75%	9/12	83%	10/12	20%	2/10
LD15-6345	**PIII 23**	91%	10/11	100%	11/11	27%	3/11
LD15-6975	**PIII 25**	0%	0/10	0%	0/12	0%	0/12
LD15-8291	**PIII 26**	70%	7/10	100%	12/12	20%	2/10
LD15-8459	**PIII 27**	100%	11/11	100%	11/11	10%	1/10
U16-925137	**PIII 28**	45%	5/11	0%	0/9	27%	3/11

2018 NORTHERN REGIONAL SCN TESTS P. Sojae SCREENING

	Isolate	Dorrance Race 7		Dorrance Race 17		Race 25	
	Dates rated	10/25/2018		11/20/2018		10/31/2018	
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	% Dead	# D/T	% Dead
AR17-279022	**PIIB 13**	100%	11/11	38%	3/8	100%	9/9
AR17-279024	**PIIB 14**	75%	9/12	10%	1/10	100%	11/11
LD15-456	**PIIB 15**	0%	0/11	0%	0/12	36%	4/11
LD15-467	**PIIB 16**	0%	0/11	0%	0/10	75%	9/12
LD15-5170a	**PIIB 17**	0%	0/11	0%	0/12	100%	11/11
U16-915064	**PIIB 18**	88%	7/8	78%	7/9	70%	7/10
U16-915073	**PIIB 19**	91%	10/11	20%	2/10	0%	0/12
U16-918088	**PIIB 20**	60%	6/10	0%	0/10	75%	9/12
U16-918097	**PIIB 21**	45%	5/11	0%	0/12	83%	10/12
U16-920087	**PIIB 22**	100%	10/10	57%	4/7	50%	5/10
U16-923137	**PIIB 23**	100%	12/12	78%	7/9	83%	10/12
LD11-2170	**PIII 1**	8%	1/12	0%	0/9	100%	9/9
IA3048	**PIII 2**	83%	10/12	75%	6/8	83%	5/6
LD07-3395bf	**PIII 3**	92%	11/12	50%	6/12	89%	8/9
AR16-361032	**PIII 5**	100%	10/10	100%	10/10	100%	10/10
AR17-179007	**PIII 6**	0%	0/12	0%	0/11	92%	11/12
AR17-179009	**PIII 7**	100%	12/12	0%	0/9	100%	12/12
AR17-179016	**PIII 8**	100%	12/12	0%	0/12	100%	11/11
AR17-279003	**PIII 9**	92%	11/12	0%	0/8	33%	3/9
AR17-379003	**PIII 10**	100%	12/12	100%	12/12	100%	12/12
AR17-379009	**PIII 11**	83%	10/12	73%	8/11	100%	12/12
AR17-379012	**PIII 12**	0%	0/11	0%	0/9	92%	11/12
AR17-379013	**PIII 13**	100%	12/12	100%	10/10	100%	11/11
AR17-379019	**PIII 14**	100%	11/11	100%	10/10	100%	10/10
K16-1234	**PIII 15**	80%	8/10	75%	6/8	90%	9/10
K16-1424	**PIII 16**	33%	3/9	73%	8/11	33%	3/9
LD15-1477	**PIII 17**	0%	0/12	0%	0/11	92%	11/12
LD15-4596a	**PIII 18**	67%	8/12	27%	3/11	100%	10/10
LD15-4616a	**PIII 19**	0%	0/11	0%	0/10	100%	11/11
LD15-5599	**PIII 20**	36%	4/11	75%	9/12	83%	10/12
LD15-5602	**PIII 21**	25%	3/12	44%	4/9	58%	7/12
LD15-5619	**PIII 22**	55%	6/11	100%	12/12	92%	11/12
LD15-6345	**PIII 23**	33%	4/12	100%	11/11	100%	11/11
LD15-6975	**PIII 25**	18%	2/11	0%	0/12	0%	0/12
LD15-8291	**PIII 26**	75%	9/12	82%	9/11	67%	8/12
LD15-8459	**PIII 27**	80%	8/10	100%	9/9	91%	10/11
U16-925137	**PIII 28**	0%	0/11	100%	10/10	80%	8/10

2018 NORTHERN REGIONAL SCN TESTS P. Sojae SCREENING

	Isolate	ISA 124 C-1 Race 1		Dorrance Race 3		Race 4	
	Dates rated			10/4/2018		11/21/2018	
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
LD06-7620	**UIV 1**	100%	10/10	100%	12/12	10%	1/10
LD00-2817P	**UIV 3**	83%	10/12	100%	11/11	50%	6/12
K15-1303	**UIV 4**	100%	9/9	100%	12/12	27%	3/11
K15-1310	**UIV 5**	100%	12/12	100%	12/12	45%	5/11
LD13-8769	**UIV 6**	90%	9/10	100%	12/12	30%	3/10
S13-2743C	**UIV 7**	0%	0/11	75%	6/8	0%	0/5
JTN-4118	**PIV 4**	100%	10/10	91%	10/11	43%	3/7
JTN-4218	**PIV 5**	100%	11/11	100%	12/12		
JTN-4318	**PIV 6**	100%	11/11	100%	10/10	60%	6/10
K16-1390	**PIV 7**	90%	9/10	91%	10/11	38%	3/8
K16-1403	**PIV 8**	100%	11/11	100%	10/10	11%	1/9
K16-1430	**PIV 9**	100%	12/12	100%	12/12	0%	0/10
K16-1444	**PIV 10**	100%	10/10	91%	10/11	0%	0/9
K16-1445	**PIV 11**	43%	3/7	82%	9/11	11%	1/9
K16-1543	**PIV 12**	75%	6/8	90%	9/10	33%	3/9
LD15-3818	**PIV 13**	92%	11/12	100%	12/12	13%	1/8
LD15-8589	**PIV 14**	75%	9/12	100%	12/12	0%	0/10
LD15-9214	**PIV 15**	80%	8/10	100%	11/11	0%	0/7
LD16-2955	**PIV 16**	100%	9/9	100%	12/12	67%	6/9
LD16-8745	**PIV 17**	100%	10/10	100%	12/12	42%	5/12
LD16-8753	**PIV 18**	92%	11/12	100%	12/12	33%	4/12

2018 NORTHERN REGIONAL SCN TESTS P. Sojae SCREENING

	Isolate	Dorrance Race 7		Dorrance Race 17		Race 25	
	Dates rated	10/25/2018		11/20/2018		10/31/2018	
Strain	**MG / Ent #**	% Dead	# D/T	% Dead	# D/T	% Dead	# D/T
LD06-7620	**UIV 1**	64%	7/11	100%	4/4	91%	10/11
LD00-2817P	**UIV 3**	89%	8/9	33%	4/12	100%	12/12
K15-1303	**UIV 4**	100%	12/12	100%	10/10	100%	12/12
K15-1310	**UIV 5**	92%	11/12	100%	11/11	92%	11/12
LD13-8769	**UIV 6**	91%	10/11	78%	7/9	91%	10/11
S13-2743C	**UIV 7**	67%	8/12	0%	0/8	67%	8/12
JTN-4118	**PIV 4**	100%	12/12	78%	7/9	90%	9/10
JTN-4218	**PIV 5**	92%	11/12	75%	6/8	70%	7/10
JTN-4318	**PIV 6**	100%	11/11	90%	9/10	100%	11/11
K16-1390	**PIV 7**	90%	9/10	75%	6/8	64%	7/11
K16-1403	**PIV 8**	100%	10/10	100%	8/8	100%	11/11
K16-1430	**PIV 9**	73%	8/11	50%	5/10	73%	8/11
K16-1444	**PIV 10**	80%	8/10	44%	4/9	75%	9/12
K16-1445	**PIV 11**	92%	11/12	67%	4/6	50%	5/10
K16-1543	**PIV 12**	90%	9/10	71%	5/7	91%	10/11
LD15-3818	**PIV 13**	100%	11/11	13%	1/8	90%	9/10
LD15-8589	**PIV 14**	100%	10/10	100%	8/8	83%	10/12
LD15-9214	**PIV 15**	82%	9/11	100%	7/7	67%	8/12
LD16-2955	**PIV 16**	100%	11/11	100%	12/12	100%	10/10
LD16-8745	**PIV 17**	100%	11/11	92%	11/12	92%	11/12
LD16-8753	**PIV 18**	100%	12/12	91%	10/11	100%	11/11

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2018 SCN UNIFORM TEST 00

	Strain	Descriptive code	Parentage	Previous testing
1	MN0083	WTy	NA	New
2	MN0095	PGibl	M92-270029 x M93-313135	3
3	ND Henson	PTbl	ND03-5672 x Hamlin	2
4	MN0208CN	WTy	MN0902CN x MN0201	3
5	M12-357057	WTy	ND07-4635 x M06-274098	New
6	M12-366065	WTy	M07-211456 x M06-310036	New
7	MCH13-108037	PTbr	M05-350061 x SD06-322	New
8	MCH13-109053	WTbr+y	M06-289264 x M06-380029	New
9	MCH13-109062	P+WTy	M06-289264 x M06-380029	New

	Strain	Gen comp	SCN res source	Traits
1	MN0083	F5		
2	MN0095	F5	none	Rps1
3	ND Henson	F4	none	Rps6
4	MN0208CN	F5	PI 88788	Rps1a
5	M12-357057	F5	PI 88788	
6	M12-366065	F5	PI 88788	
7	MCH13-108037	F5	PI 88788	
8	MCH13-109053	F5	PI 88788	
9	MCH13-109062	F5	PI 88788	

		IL SCN screen			
		HG Type 0		HG Type 2.5.7	
	Strain	FI	rating	FI	rating
1	MN0083	**77**	**NR**	**79**	**NR**
2	MN0095	**41**	**LR**	**90**	**NR**
3	ND Henson	**68**	**NR**	**70**	**NR**
4	MN0208CN	**9**	**HR**	**63**	**NR**
5	M12-357057	**5**	**HR**	**47**	**LR**
6	M12-366065	**10**	**R**	**52**	**LR**
7	MCH13-108037	**10**	**R**	**93**	**NR**
8	MCH13-109053	**35**	**MR**	**86**	**NR**
9	MCH13-109062	**17**	**R**	**62**	**NR**

2018 SCN UNIFORM TEST 00

Summary

		Yield									Seed			
		All		Infested		Non-infested		Maturity	Lodging	Height	quality	weight	protein	oil
	Strain	bu/a	rank	bu/a	rank	bu/a	rank	date	score	inches	score	g/100	@13%	@13%
	Locations	3		2		1		3	3	2	2	2	2	2
1	MN0083	**40.7**	**9**	40.3	8	41.7	9	9/07	1.0	20	1.9	15.8	37.3	17.2
2	MN0095	**46.6**	**5**	42.9	6	53.9	2	3	1.0	20	2.0	14.5	36.1	18.1
3	ND Henson	**44.4**	**7**	40.9	7	51.3	7	3	1.0	19	2.2	18.1	35.8	18.1
4	MN0208CN	**45.8**	**6**	42.9	5	51.6	6	4	1.1	24	2.4	14.6	37.6	17.3
5	M12-357057	**47.2**	**4**	45.6	3	50.2	8	1	1.0	20	2.9	16.4	37.3	16.1
6	M12-366065	**56.4**	**1**	54.5	1	60.1	1	8	1.7	21	1.9	15.8	35.1	18.0
7	MCH13-108037	**44.0**	**8**	39.6	9	52.8	3	7	1.1	25	1.5	17.9	37.8	17.7
8	MCH13-109053	**48.7**	**2**	47.0	2	52.2	5	5	1.0	26	1.9	15.2	35.5	17.8
9	MCH13-109062	**47.6**	**3**	45.0	4	52.8	3	2	1.1	21	1.9	14.5	35.2	17.5
	Mean	**46.8**		44.3		51.8		10.3	1.1	21.7	2.0	15.8	36.4	17.5
	LSD(.05)	**4.0**		3.9		6.7		1.2	0.2	4.7				
	C.V. %	**7.0**		7.6		6.1		12.5	15.0	18.5				
	Replications	**9**		6		3		9	9	6				

2018 SCN UNIFORM TEST 00

Yield (bu/a)

		Callaway MN	Wyndmere ND	Ottawa ON
	SCN HG Type	2.5.7	2.5.7	NI
	Strain			
1	MN0083	34.7	45.8	41.7
2	MN0095	39.5	46.3	53.9
3	ND Henson	32.8	49.0	51.3
4	MN0208CN	38.0	47.8	51.6
5	M12-357057	39.7	51.6	50.2
6	M12-366065	40.9	68.2	60.1
7	MCH13-108037	40.3	38.8	52.8
8	MCH13-109053	37.8	56.1	52.2
9	MCH13-109062	39.0	51.0	52.8
	Average	38.1	50.5	51.8
	LSD(.05)	6.5	5.8	6.7
	C.V. %	10.1	6.6	6.1
	Replications	3	3	3
	Row width (in.)	30	30	15

Yield (rank)

		Callaway MN	Wyndmere ND	Ottawa ON
	SCN HG Type	2.5.7	2.5.7	NI
	Strain			
1	MN0083	8	8	9
2	MN0095	4	7	2
3	ND Henson	9	5	7
4	MN0208CN	6	6	6
5	M12-357057	3	3	8
6	M12-366065	1	1	1
7	MCH13-108037	2	9	3
8	MCH13-109053	7	2	5
9	MCH13-109062	5	4	3

2018 SCN UNIFORM TEST 00

Maturity

	SCN HG Type	Callaway MN 2.5.7	Wyndmere ND 2.5.7	Ottawa ON NI
	Strain			
1	MN0083	9/13	9/04	9/03
2	MN0095	2	2	6
3	ND Henson	-3	3	8
4	MN0208CN	2	6	5
5	M12-357057	0	2	2
6	M12-366065	0	11	12
7	MCH13-108037	5	6	9
8	MCH13-109053	2	5	8
9	MCH13-109062	0	2	4
	Planted	5/26	5/14	5/16

Lodging (score)

	SCN HG Type	Callaway MN 2.5.7	Wyndmere ND 2.5.7	Ottawa ON NI
	Strain			
1	MN0083	1.0	1.0	1.0
2	MN0095	1.0	1.0	1.0
3	ND Henson	1.0	1.0	1.0
4	MN0208CN	1.0	1.3	1.0
5	M12-357057	1.0	1.0	1.0
6	M12-366065	1.0	3.0	1.0
7	MCH13-108037	1.0	1.3	1.0
8	MCH13-109053	1.0	1.0	1.0
9	MCH13-109062	1.0	1.3	1.0

2018 SCN UNIFORM TEST 00

Height (inches)

	SCN HG Type	Callaway MN 2.5.7	Wyndmere ND 2.5.7	Ottawa ON NI
	Strain			
1	MN0083	20		20
2	MN0095	20		20
3	ND Henson	19		19
4	MN0208CN	19		28
5	M12-357057	20		21
6	M12-366065	19		24
7	MCH13-108037	20		29
8	MCH13-109053	29		24
9	MCH13-109062	20		23

Seed Quality (score)

	SCN HG Type	Callaway MN 2.5.7	Wyndmere ND 2.5.7	Ottawa ON NI
	Strain			
1	MN0083	1.0		2.7
2	MN0095	1.0		3.0
3	ND Henson	2.0		2.3
4	MN0208CN	1.0		3.7
5	M12-357057	2.0		3.7
6	M12-366065	1.0		2.7
7	MCH13-108037	1.0		2.0
8	MCH13-109053	1.0		2.7
9	MCH13-109062	1.0		2.7

2018 SCN UNIFORM TEST 00

Seed Weight (g/100)

		Callaway MN	Wyndmere ND	Ottawa ON
	SCN HG Type	2.5.7	2.5.7	NI
	Strain			
1	MN0083	12.3		19.3
2	MN0095	11.3		17.7
3	ND Henson	13.7		22.4
4	MN0208CN	11.8		17.3
5	M12-357057	14.1		18.6
6	M12-366065	12.7		18.9
7	MCH13-108037	14.1		21.6
8	MCH13-109053	12.3		18.1
9	MCH13-109062	11.1		17.9

Protein (%)

		Callaway MN	Wyndmere ND	Ottawa ON
	SCN HG Type	2.5.7	2.5.7	NI
	Strain			
1	MN0083	35.9		38.6
2	MN0095	35.3		36.8
3	ND Henson	34.0		37.5
4	MN0208CN	37.0		38.2
5	M12-357057	36.9		37.8
6	M12-366065	34.6		35.7
7	MCH13-108037	37.1		38.6
8	MCH13-109053	34.6		36.3
9	MCH13-109062	34.6		35.8

Oil (%)

		Callaway MN	Wyndmere ND	Ottawa ON
	SCN HG Type	2.5.7	2.5.7	NI
	Strain			
1	MN0083	16.6		17.7
2	MN0095	17.7		18.4
3	ND Henson	17.7		18.5
4	MN0208CN	16.4		18.2
5	M12-357057	15.7		16.6
6	M12-366065	17.3		18.6
7	MCH13-108037	17.2		18.3
8	MCH13-109053	17.3		18.4
9	MCH13-109062	16.7		18.4

2018 SCN UNIFORM TEST 0

	Strain	Descriptive code	Parentage	Previous testing
1	ND Stutsman	PGy	Sheyenne x LaMoure	
2	MN0095	PGibl	M92-270029 x M93-313135	14-16 UT 0
3	MN0404CN	PTbl	MN0902CN x MN0304	7
4	MN1410	WGbf	Unknown	New
5	M08-362045L	WLtbl	MN0606CN x U03-100612	12
6	M12-354012	WLty	AR10-205011 x ND07-4027	New
7	M12-386012	WGy	M06-289192 x M06-286029	New
8	M12-440084	MGy	PI638510 x M05-353086	New
9	MCH13-104189	PGbf	M06-288181 x M06-358188	New
10	ND Benson	WGbf	ND03-7566 x ND03-5441 x LaMoure	New
11	ND14-2194	PGgr	ND07-4069 x ND07-3994	15-16 UT 0
12	ND14-2671	WGy	ND07-4635 x ND03-7566	New
13	ND14-2678	WTy+br	ND07-4635 x ND03-7566	New
14	ND14-3606	WTbr	Duel x AR09-191050	New
15	ND14-3926	PGy+gr	Sheyenne x ND07-4635	New
16	ND14-4507	PMy	ND04-11421 x Sheyenne	New

	Strain	Gen comp	SCN res source	Traits
1	ND Stutsman	F4	none	
2	MN0095	F5	none	Rps1
3	MN0404CN	F5		Rps1k
4	MN1410	F5	none	
5	M08-362045L	F5	PI 88788	
6	M12-354012	F5	PI 88788	
7	M12-386012	F5	PI 88788	
8	M12-440084	F5	PI 88788	Diversity
9	MCH13-104189	F5	PI 88788	
10	ND Benson	F4	PI 88788	Rps6
11	ND14-2194	F4	PI 88788	Rps6
12	ND14-2671	F4	PI 88788	
13	ND14-2678	F4	PI 88788	
14	ND14-3606	F4	PI 88788	
15	ND14-3926	F4	PI 88788	
16	ND14-4507	F4	PI 88788	Rps1c

2018 SCN UNIFORM TEST 0

		IL SCN screen			
		HG Type 0		HG Type 2.5.7	
	Strain	FI	rating	FI	rating
1	ND Stutsman	**61**	**NR**	**60**	**NR**
2	MN0095	**41**	**LR**	**90**	**NR**
3	MN0404CN	**12**	**R**	**81**	**NR**
4	MN1410	**74**	**NR**	**88**	**NR**
5	M08-362045L	**3**	**HR**	**60**	**LR**
6	M12-354012	**4**	**HR**	**74**	**NR**
7	M12-386012	**33**	****	**70**	**NR**
8	M12-440084	**69**	**NR**	**86**	**NR**
9	MCH13-104189	**31**	**MR**	**56**	**LR**
10	ND Benson	**0**	**HR**	**59**	**LR**
11	ND14-2194	**27**	**MR**	**57**	**LR**
12	ND14-2671	**12**	**R**	**48**	**LR**
13	ND14-2678	**5**	**HR**	**51**	**LR**
14	ND14-3606	**64**	**NR**	**57**	**LR**
15	ND14-3926	**21**	**R**	**55**	**LR**
16	ND14-4507	**23**	**R**	**60**	**NR**

**rep data too variable to rate

2018 SCN UNIFORM TEST 0

Summary

		Yield									Seed			
		All		Infested		Non-infested		Maturity	Lodging	Height	quality	weight	protein	oil
	Strain	bu/a	rank	bu/a	rank	bu/a	rank	date	score	inches	score	g/100	@13%	@13%
	Locations	**7**		4		3		7	7	6	6	6	6	6
1	ND Stutsman	**52.4**	**8**	49.5	12	55.1	4	9/17	1.3	32	1.7	16.0	34.4	18.2
2	MN0095	**42.3**	**16**	41.1	16	43.6	14	-7	1.2	25	1.5	14.0	34.9	18.4
3	MN0404CN	**44.5**	**15**	45.9	15	43.8	13	-6	2.0	28	1.7	14.9	34.6	18.7
4	MN1410	**57.6**	**1**	56.0	3	60.6	1	5	1.8	37	1.5	18.3	35.3	18.2
5	M08-362045L	**56.4**	**3**	57.1	2	56.0	3	0	1.5	30	1.4	16.1	35.1	18.4
6	M12-354012	**53.5**	**6**	54.0	6	54.0	5	-1	1.8	30	2.8	15.7	35.1	18.3
7	M12-386012	**50.2**	**10**	50.5	11	46.4	11	-3	1.2	31	1.5	16.6	36.0	17.9
8	M12-440084	**50.7**	**9**	50.8	10	49.3	9	0	1.9	33	1.5	17.9	36.0	17.5
9	MCH13-104189	**52.7**	**7**	53.1	7	52.8	6	0	1.5	35	1.3	15.7	34.2	18.3
10	ND Benson	**47.0**	**12**	47.9	13	44.5	12	-3	1.4	31	1.4	15.7	35.5	17.9
11	ND14-2194	**44.7**	**14**	46.7	14	43.2	15	-7	1.1	29	1.8	16.9	34.6	19.2
12	ND14-2671	**57.3**	**2**	59.5	1	56.2	2	2	1.7	35	2.7	16.8	33.2	18.2
13	ND14-2678	**46.2**	**13**	52.3	8	39.2	16	-5	1.1	24	1.9	17.3	33.9	18.5
14	ND14-3606	**49.4**	**11**	52.0	9	46.5	10	-2	1.4	25	1.5	18.1	34.6	18.5
15	ND14-3926	**54.5**	**5**	55.8	4	52.6	8	1	1.6	37	2.4	18.0	34.5	18.4
16	ND14-4507	**54.6**	**4**	55.4	5	52.6	7	0	1.4	30	1.8	16.6	35.3	17.5
	Mean	**50.9**		51.7		49.8		15.3	1.5	30.8	1.8	16.5	34.8	18.3
	LSD(.05)	**3.1**		3.9		4.9		1.1	0.2	1.6				
	C.V. %	**9.9**		9.5		10.4		11.9	25.3	7.7				
	Replications	**21**		12		9		21	21	18				

2018 SCN UNIFORM TEST 0

Yield (bu/a)

		Davners MN	Fairfax MN	Rosemount MN	Wyndmere ND	Ottawa ON	Elora ON	Woodstock ON
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	NI	NI	NI
	Strain							
1	ND Stutsman	58.5	55.0	27.3	57.3	50.0	71.3	43.9
2	MN0095	52.9	35.1	23.8	52.8	39.9	56.4	34.5
3	MN0404CN	55.1	51.0	26.9	50.5	41.3	50.4	39.7
4	MN1410	60.0	68.4	31.4	64.4	54.5	73.3	54.1
5	M08-362045L	66.7	63.6	35.5	62.6	54.2	65.9	48.0
6	M12-354012	56.5	62.7	31.4	65.6	51.0	58.9	52.1
7	M12-386012	61.3	53.9	29.9	56.9	40.8	61.6	36.7
8	M12-440084	55.7	56.0	36.3	55.0	45.9	61.1	40.8
9	MCH13-104189	58.7	62.2	30.9	60.4	51.5	62.5	44.5
10	ND Benson	53.2	51.4	30.7	56.1	40.8	56.4	36.3
11	ND14-2194	58.5	46.4	28.3	53.7	37.1	54.7	37.9
12	ND14-2671	69.7	67.3	38.4	62.7	52.4	66.6	49.6
13	ND14-2678	63.5	51.8	33.1	60.8	35.5	46.4	35.6
14	ND14-3606	63.6	61.6	25.4	57.5	44.7	58.4	36.5
15	ND14-3926	65.7	61.6	34.2	61.6	52.4	65.3	40.0
16	ND14-4507	63.9	63.8	33.1	60.6	53.0	61.8	43.0
	Average	60.2	57.0	31.0	58.7	46.6	60.7	42.1
	LSD(.05)	9.4	7.8	6.5	8.9	6.4	5.2	7.6
	C.V. %	9.4	8.2	12.6	8.9	6.7	5.2	10.8
	Replications	3	3	3	3	3	3	3
	Row width (in.)	30	30	30	30	15	14	14

2018 SCN UNIFORM TEST 0

Yield (rank)

		Davners MN	Fairfax MN	Rosemount MN	Wyndmere ND	Ottawa ON	Elora ON	Woodstock ON
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	NI	NI	NI
	Strain							
1	ND Stutsman	10	10	13	10	8	2	6
2	MN0095	16	16	16	15	14	13	16
3	MN0404CN	14	14	14	16	11	15	10
4	MN1410	8	1	7	2	1	1	1
5	M08-362045L	1	4	3	4	2	4	4
6	M12-354012	12	5	7	1	7	10	2
7	M12-386012	7	11	11	11	12	8	12
8	M12-440084	13	9	2	13	9	9	8
9	MCH13-104189	9	6	9	8	6	6	5
10	ND Benson	15	13	10	12	12	12	14
11	ND14-2194	10	15	12	14	15	14	11
12	ND14-2671	1	2	1	3	4	3	3
13	ND14-2678	6	12	5	6	16	16	15
14	ND14-3606	5	7	15	9	10	11	13
15	ND14-3926	3	7	4	5	4	5	9
16	ND14-4507	4	3	5	7	3	7	7

2018 SCN UNIFORM TEST 0

Maturity

		Davners MN	Fairfax MN	Rosemount MN	Wyndmere ND	Ottawa ON	Elora ON	Woodstock ON
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	NI	NI	NI
	Strain							
1	ND Stutsman	9/8	9/11	9/13	9/20	9/16	9/29	9/22
2	MN0095	-1	-1	-10	-13	-10	-11	0
3	MN0404CN	-2	-1	-4	-12	-10	-13	-3
4	MN1410	8	6	4	6	5	2	3
5	M08-362045L	4	3	2	-3	0	-9	0
6	M12-354012	2	2	1	-1	0	-8	-5
7	M12-386012	1	1	1	-6	-5	-9	-5
8	M12-440084	2	2	2	-1	3	-7	0
9	MCH13-104189	3	1	0	-1	1	-7	4
10	ND Benson	-1	1	0	-8	-2	-9	1
11	ND14-2194	-2	-2	-10	-8	-11	-14	-1
12	ND14-2671	4	3	2	2	3	-1	0
13	ND14-2678	1	-1	-3	-13	-7	-10	-2
14	ND14-3606	1	-1	-5	-3	-3	-8	3
15	ND14-3926	3	2	1	0	1	-1	1
16	ND14-4507	4	1	-1	-2	1	-7	1
	Planted	5/21	5/28	6/01	5/14	5/18	5/29	5/25

2018 SCN UNIFORM TEST 0

Lodging (score)

		Davners MN	Fairfax MN	Rosemount MN	Wyndmere ND	Ottawa ON	Elora ON	Woodstock ON
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	NI	NI	NI
	Strain							
1	ND Stutsman	1.0	1.0	2.0	2.0	1.0	1.0	1.1
2	MN0095	1.0	1.0	2.3	1.0	1.0	1.1	1.0
3	MN0404CN	2.3	3.3	3.3	2.2	1.0	1.2	1.0
4	MN1410	1.7	1.7	2.0	2.8	1.3	1.2	1.8
5	M08-362045L	2.0	1.0	1.7	2.5	1.0	1.1	1.3
6	M12-354012	2.0	3.0	1.7	2.5	1.0	1.7	1.0
7	M12-386012	1.0	1.3	1.7	1.7	1.0	1.0	1.0
8	M12-440084	1.9	2.3	2.7	2.7	1.0	1.5	1.4
9	MCH13-104189	1.0	1.3	1.7	2.3	1.0	1.6	1.3
10	ND Benson	1.3	2.0	1.7	1.3	1.0	1.2	1.0
11	ND14-2194	1.0	1.0	1.7	1.0	1.0	1.2	1.0
12	ND14-2671	1.3	1.5	2.3	3.2	1.0	1.4	1.0
13	ND14-2678	1.0	1.0	1.0	1.0	1.0	1.4	1.2
14	ND14-3606	1.3	1.7	2.3	1.0	1.0	1.3	1.2
15	ND14-3926	1.3	1.3	2.3	2.8	1.0	1.1	1.2
16	ND14-4507	1.3	1.3	2.0	1.7	1.0	1.4	1.1

Height (inches)

		Davners MN	Fairfax MN	Rosemount MN	Wyndmere ND	Ottawa ON	Elora ON	Woodstock ON
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	NI	NI	NI
	Strain							
1	ND Stutsman	38	31	33		19	37	35
2	MN0095	27	23	24		15	33	31
3	MN0404CN	30	29	24		19	37	30
4	MN1410	42	38	34		28	39	43
5	M08-362045L	34	31	27		22	30	33
6	M12-354012	36	31	27		22	34	32
7	M12-386012	40	35	33		19	30	27
8	M12-440084	36	34	33		20	36	38
9	MCH13-104189	39	36	34		23	38	41
10	ND Benson	38	33	26		22	31	35
11	ND14-2194	32	27	28		19	35	33
12	ND14-2671	41	36	31		25	39	35
13	ND14-2678	32	25	22		17	24	24
14	ND14-3606	29	24	21		18	27	30
15	ND14-3926	43	38	36		25	41	40
16	ND14-4507	36	32	27		23	31	33

2018 SCN UNIFORM TEST 0

Seed Quality (score)

		Davners	Fairfax	Rosemount	Wyndmere	Ottawa	Elora	Woodstock
		MN	MN	MN	ND	ON	ON	ON
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	NI	NI	NI
	Strain							
1	ND Stutsman	1.0	1.0	2.0		2.3	2.0	2.0
2	MN0095	1.0	1.0	2.0		2.0	1.5	1.5
3	MN0404CN	2.0	1.0	2.0		1.6	1.5	2.0
4	MN1410	1.0	1.0	2.0		1.7	1.5	1.5
5	M08-362045L	1.0	1.0	1.0		2.0	1.5	2.0
6	M12-354012	2.0	3.0	2.0		3.0	3.0	3.5
7	M12-386012	1.0	1.0	1.0		2.0	1.5	2.5
8	M12-440084	1.0	2.0	1.0		2.0	1.5	1.5
9	MCH13-104189	1.0	1.0	1.0		1.7	1.5	1.5
10	ND Benson	1.0	1.0	1.0		1.3	1.5	2.5
11	ND14-2194	2.0	1.0	2.0		2.3	1.5	2.0
12	ND14-2671	1.0	3.0	2.0		2.6	3.5	4.0
13	ND14-2678	2.0	1.0	2.0		2.4	2.0	2.0
14	ND14-3606	1.0	1.0	2.0		2.0	1.5	1.5
15	ND14-3926	2.0	2.0	2.0		2.6	2.5	3.0
16	ND14-4507	2.0	1.0	2.0		2.0	1.5	2.0

Seed Weight (g/100)

		Davners	Fairfax	Rosemount	Wyndmere	Ottawa	Elora	Woodstock
		MN	MN	MN	ND	ON	ON	ON
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	NI	NI	NI
	Strain							
1	ND Stutsman	14.5	15.9	12.0		19.2	16.0	18.5
2	MN0095	13.4	13.1	11.1		16.8	13.8	15.7
3	MN0404CN	14.1	15.1	11.6		17.8	14.8	16.0
4	MN1410	15.2	17.5	13.0		21.0	20.2	22.8
5	M08-362045L	15.4	15.3	12.9		17.4	17.0	18.3
6	M12-354012	14.7	15.5	11.3		18.4	16.9	17.2
7	M12-386012	14.6	15.7	11.7		20.7	16.8	19.9
8	M12-440084	16.2	18.3	14.6		19.4	19.0	20.1
9	MCH13-104189	14.4	15.3	12.2		17.4	16.2	18.5
10	ND Benson	15.2	15.8	11.3		17.0	16.6	18.0
11	ND14-2194	15.5	17.9	12.4		19.5	17.1	18.7
12	ND14-2671	16.7	16.0	12.3		18.6	17.5	19.5
13	ND14-2678	17.8	17.2	13.4		17.9	17.5	19.7
14	ND14-3606	17.7	17.8	13.3		20.6	18.5	20.4
15	ND14-3926	17.1	18.9	13.9		20.1	18.0	20.1
16	ND14-4507	15.8	16.4	13.1		18.1	18.1	18.3

2018 SCN UNIFORM TEST 0

Protein (%)

		Davners MN	Fairfax MN	Rosemount MN	Wyndmere ND	Ottawa ON	Elora ON	Woodstock ON
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	NI	NI	NI
	Strain							
1	ND Stutsman	34.9	33.2	36.4		34.4	32.6	34.8
2	MN0095	34.5	33.9	35.8		36.7	33.2	35.5
3	MN0404CN	34.8	33.6	36.5		35.1	32.8	34.8
4	MN1410	35.2	33.2	35.2		35.4	35.7	36.8
5	M08-362045L	35.8	33.9	36.4		35.1	33.5	35.7
6	M12-354012	36.0	34.6	35.7		35.8	33.1	35.6
7	M12-386012	34.5	33.4	35.5		39.3	35.9	37.3
8	M12-440084	36.8	34.0	36.2		36.4	36.0	36.8
9	MCH13-104189	34.8	32.9	35.5		34.1	33.0	35.0
10	ND Benson	36.1	34.2	36.9		35.8	33.6	36.2
11	ND14-2194	35.1	32.7	35.3		35.6	32.7	35.9
12	ND14-2671	33.4	32.1	34.9		33.8	32.1	33.1
13	ND14-2678	34.5	32.6	35.5		34.5	31.2	35.0
14	ND14-3606	35.1	34.2	35.2		35.3	33.1	34.6
15	ND14-3926	34.8	33.9	36.2		34.2	33.2	35.0
16	ND14-4507	36.8	34.4	36.3		34.8	34.2	35.5

Oil (%)

		Davners MN	Fairfax MN	Rosemount MN	Wyndmere ND	Ottawa ON	Elora ON	Woodstock ON
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	NI	NI	NI
	Strain							
1	ND Stutsman	17.5	18.2	17.1		19.4	18.4	18.5
2	MN0095	19.1	18.8	17.7		18.4	18.5	18.0
3	MN0404CN	18.3	19.8	17.0		19.1	19.2	19.0
4	MN1410	17.8	18.4	17.3		19.5	17.3	18.5
5	M08-362045L	18.6	18.4	17.0		18.9	18.6	19.1
6	M12-354012	17.2	18.3	17.1		19.2	18.8	19.4
7	M12-386012	17.0	18.7	17.1		17.9	18.4	18.5
8	M12-440084	17.2	18.2	16.6		18.0	16.9	18.1
9	MCH13-104189	17.4	18.7	17.2		19.4	18.3	18.9
10	ND Benson	16.8	18.4	16.7		18.8	18.6	18.2
11	ND14-2194	18.7	19.7	18.6		19.8	19.6	18.8
12	ND14-2671	17.3	18.9	17.5		19.5	18.3	17.7
13	ND14-2678	17.5	19.2	17.7		19.6	19.4	17.9
14	ND14-3606	18.6	18.4	18.4		19.1	18.3	18.1
15	ND14-3926	17.2	19.1	17.3		19.7	18.6	18.5
16	ND14-4507	16.1	18.5	16.5		18.7	17.6	17.4

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2018 SCN UNIFORM TEST I

	Strain	Descriptive code	Parentage	Previous testing
1	MN1410	WGbf	Unknown	12
2	IA1022 (SCN)	PGy	Dairyland 98822 x A00-711024	10
3	ND Stutsman	PGy	Sheyenne x LaMoure	New
4	U11-917032	PTbl	LD02-4485 x U03-100612	3
5	AR15-158072	PLtbr/bl	AR16SCN x U09-105007	16 SCN P I
6	AR16-162109	PGbl	A95-684043 x LS99-2235 x AR06-165058	New
7	AR17-179006	WGbf	AR11-114057 x AR09-291011	New
8	AR17-179015	PGbf	AR09-192019 x AR09-291011	New
9	AR17-279008	WGy	AR09-192019 x AR09-291011	New
10	AR17-279009	WGbf	AR09-192019 x AR09-291011	New
11	E15338	PGibl	E09088 x E12901	17 PT IIA
12	E16346	PMbl+bf+ibl	PI 540453 x LD02-4485	New
13	LD14-4098a	PTbl/br	LD08-4202 x LDX10-277-1-30	17 PT IIA
14	M12-373033	PGy	AR09-191003 x M06-388016	New
15	M12-373060	PGy	AR09-191003 x M06-388016	New
16	M12-386029	PGy	M06-289192 x M06-386029	New
17	MCH13-104087	PGbf	M06-288181 x M06-358188	New
18	MCH13-104091	PGbf	M06-288181 x M06-358188	New
19	MCH13-104132	WGbf	M06-288181 x M06-358188	New
20	MCH13-108027	WMbf	M05-350061 x SD06-322	New
21	MCH13-110029	PGy	M07-209037 x M06-310036	New
22	ORC 4217N	PGy	RCAT 1001 x S23-T5	New
23	U15-934067	PTbl	U11-919011 x U11-921041	17 PT I
24	U16-918018	PGbf	U11-614119 x AR09-191018	New

2018 SCN UNIFORM TEST I

	Strain	Gen comp	SCN res source	Traits
1	MN1410	F5	None	
2	IA1022 (SCN)	F5	PI 88788	
3	ND Stutsman	F4	None	
4	U11-917032	F6	PI 88788	
5	AR15-158072	F3	PI 88788	
6	AR16-162109	F5	PI 88788	
7	AR17-179006	F4	PI 507354/Peking/ PI 88788	SDS
8	AR17-179015	F4	PI 507354/Peking/ PI 88788	
9	AR17-279008	F4	PI 507354/Peking/ PI 88788	
10	AR17-279009	F4	PI 507354/Peking/ PI 88788	
11	E15338	F5	PI 88788	
12	E16346	F5	PI 88788	
13	LD14-4098a	F5	PI 88788	Rag 1+2
14	M12-373033	F5	PI 88788	
15	M12-373060	F5	PI 88788	
16	M12-386029	F5	PI 88788	
17	MCH13-104087	F5	PI 88788	
18	MCH13-104091	F5	PI 88788	
19	MCH13-104132	F5	PI 88788	
20	MCH13-108027	F5	PI 88788	
21	MCH13-110029	F5	PI 88788	
22	ORC 4217N	F4	PI 88788	Food-grade
23	U15-934067	F5	PI 88788	Rsv4
24	U16-918018	F5	Peking	Rps

2018 SCN UNIFORM TEST I

		IL SCN screen			
		HG Type 0		HG Type 2.5.7	
	Strain	FI	rating	FI	rating
1	MN1410	**74**	**NR**	**88**	**NR**
2	IA1022 (SCN)	**24**	**R**	**54**	**LR**
3	ND Stutsman	**61**	**NR**	**60**	**NR**
4	U11-917032	**16**	**R**	**62**	**NR**
5	AR15-158072	**14**	**R**	**88**	**NR**
6	AR16-162109	**20**	**R**	**68**	**NR**
7	AR17-179006	**42**	**LR**	**77**	**NR**
8	AR17-179015	**1**	**HR**	**1**	**HR**
9	AR17-279008	**29**	**MR**	**59**	**LR**
10	AR17-279009	**2**	**HR**	**15**	******
11	E15338	**9**	**HR**	**69**	**NR**
12	E16346	**9**	**HR**	**71**	**NR**
13	LD14-4098a	**5**	**HR**	**48**	**LR**
14	M12-373033	**10**	**R**	**52**	**LR**
15	M12-373060	**13**	**R**	**31**	**MR**
16	M12-386029	**17**	**R**	**67**	**NR**
17	MCH13-104087	**13**	**R**	**56**	**LR**
18	MCH13-104091	**13**	**R**	**94**	**NR**
19	MCH13-104132	**5**	**HR**	**60**	**NR**
20	MCH13-108027	**8**	**HR**	**60**	**NR**
21	MCH13-110029	**4**	**HR**	**33**	**MR**
22	ORC 4217N	**22**	**R**	**38**	**MR**
23	U15-934067	**47**	**LR**	**65**	**NR**
24	U16-918018	**78**	**NR**	**93**	**NR**

2018 SCN UNIFORM TEST I

	Strain	ISU IDC AnNutri score	ISU IDC Bruner score
1	MN1410	2.5	3.8
2	IA1022 (SCN)	.	1.8
3	ND Stutsman	1.8	1.5
4	U11-917032	3.0	3.0
5	AR15-158072	4.0	1.8
6	AR16-162109	2.3	1.8
7	AR17-179006	2.3	3.5
8	AR17-179015	1.8	2.0
9	AR17-279008	3.0	.
10	AR17-279009	2.3	2.3
11	E15338	1.5	2.0
12	E16346	2.0	2.0
13	LD14-4098a	1.8	1.5
14	M12-373033	2.0	1.5
15	M12-373060	2.5	2.0
16	M12-386029	1.3	1.8
17	MCH13-104087	2.3	2.8
18	MCH13-104091	1.5	2.0
19	MCH13-104132	1.5	2.0
20	MCH13-108027	1.8	1.0
21	MCH13-110029	.	3.0
22	ORC 4217N	2.0	2.0
23	U15-934067	2.0	1.5
24	U16-918018	1.8	2.5
	Mean:	2.1	2.1
	LSD value:	1.1	1.1
	CV (%):	24.6	25.9

2018 SCN UNIFORM TEST I

Summary

		Yield									Seed			
		All		Infested		Non-infested		Maturity	Lodging	Height	quality	weight	protein	oil
	Strain	bu/a	rank	bu/a	rank	bu/a	rank	date	score	inches	score	g/100	@13%	@13%
	Locations	**10**		10		0		8	9	9	9	9	9	9
1	MN1410	**48.9**	**19**	48.9	19			9/11	1.8	33	1.3	16.6	36.5	18.2
2	IA1022 (SCN)	**58.5**	**7**	58.5	7			7	1.9	32	1.5	16.4	33.4	19.8
3	ND Stutsman	**40.5**	**24**	40.5	24			-4	1.6	28	2.5	16.5	35.3	19.1
4	U11-917032	**56.9**	**10**	56.9	10			8	2.0	31	1.7	16.6	33.7	19.4
5	AR15-158072	**61.2**	**2**	61.2	2			7	1.5	31	1.3	18.8	35.2	19.0
6	AR16-162109	**50.9**	**18**	50.9	18			3	1.6	31	1.3	17.6	35.7	18.6
7	AR17-179006	**56.5**	**11**	56.5	11			7	1.5	33	1.1	19.9	34.7	18.5
8	AR17-179015	**61.1**	**5**	61.1	5			8	1.6	31	1.1	17.4	34.9	18.3
9	AR17-279008	**59.6**	**6**	59.6	6			10	1.7	32	1.4	17.4	35.6	17.9
10	AR17-279009	**61.2**	**2**	61.2	2			12	1.8	33	1.3	16.9	34.9	17.8
11	E15338	**61.2**	**2**	61.2	2			6	1.8	35	1.4	17.2	34.2	18.2
12	E16346	**53.8**	**14**	53.8	14			8	1.5	31	1.2	13.8	33.2	18.8
13	LD14-4098a	**62.8**	**1**	62.8	1			9	1.7	33	1.2	19.5	35.8	18.1
14	M12-373033	**57.2**	**9**	57.2	9			4	1.7	33	1.6	17.1	33.5	19.9
15	M12-373060	**58.4**	**8**	58.4	8			5	1.7	33	1.4	17.4	33.4	19.7
16	M12-386029	**47.5**	**21**	47.5	21			-2	1.7	32	2.0	17.8	37.8	18.3
17	MCH13-104087	**55.1**	**13**	55.1	13			1	1.6	35	1.7	16.3	35.0	18.5
18	MCH13-104091	**55.6**	**12**	55.6	12			2	1.5	35	1.7	18.4	35.5	19.4
19	MCH13-104132	**47.5**	**21**	47.5	21			-1	1.4	32	2.3	16.7	35.5	18.5
20	MCH13-108027	**47.2**	**23**	47.2	23			0	2.0	35	1.3	16.0	36.3	19.0
21	MCH13-110029	**48.4**	**20**	48.4	20			-1	1.7	31	1.9	18.1	35.2	19.0
22	ORC 4217N	**51.7**	**17**	51.7	17			-2	1.7	30	1.3	17.2	36.5	18.1
23	U15-934067	**52.2**	**16**	52.2	16			7	1.5	30	1.1	15.2	35.0	18.0
24	U16-918018	**52.4**	**15**	52.4	15			8	1.5	34	1.2	17.5	34.3	19.1
	Mean	**54.4**		54.4				15.6	1.7	32.2	1.5	17.2	35.0	18.7
	LSD(.05)	**3.3**		3.3				1.2	0.2	1.6				
	C.V. %	**12.1**		12.1				13.7	20.8	9.2				
	Replications	**27**		27				22	24	24				

2018 SCN UNIFORM TEST I

Yield (bu/a)

		Ames IA	Mason City IA	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN	Waseca MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf	Inf
	Strain							
1	MN1410	32.9	58.4	50.3	36.6	56.7	59.0	48.2
2	IA1022 (SCN)	47.1	60.7	52.0	45.7	63.5	66.1	62.0
3	ND Stutsman	26.5	43.7	40.2	31.6	49.2	46.3	21.8
4	U11-917032	51.7	63.6	60.5	52.1	60.8	60.8	48.1
5	AR15-158072	54.0	59.9	59.0	48.8	62.1	64.8	59.6
6	AR16-162109	46.2	57.3	47.0	37.1	57.3	51.4	54.4
7	AR17-179006	45.7	56.1	61.6	43.6	68.4	60.4	57.3
8	AR17-179015	60.0	73.7	62.2	47.9	65.2	64.4	58.7
9	AR17-279008	56.6	65.0	63.6	44.1	57.7	58.3	60.6
10	AR17-279009	58.5	65.9	65.5	54.8	62.9	63.9	54.0
11	E15338	55.0	64.1	63.8	57.1	63.3	70.0	61.1
12	E16346	49.3	58.2	61.1	46.5	55.2	56.4	46.7
13	LD14-4098a	67.7	63.3	60.8	52.1	58.8	63.4	56.4
14	M12-373033	47.6	61.8	56.7	41.0	64.4	66.0	58.6
15	M12-373060	48.2	61.3	53.7	45.9	65.4	60.7	59.0
16	M12-386029	32.6	51.8	43.1	40.4	48.8	57.3	40.6
17	MCH13-104087	35.5	56.1	55.3	46.4	64.2	59.3	53.5
18	MCH13-104091	34.5	52.2	55.5	48.9	69.5	63.7	48.6
19	MCH13-104132	32.3	46.6	44.7	34.9	62.1	57.0	45.5
20	MCH13-108027	30.4	46.5	36.5	44.1	54.4	50.8	51.6
21	MCH13-110029	29.4	54.1	45.8	38.3	56.5	50.5	43.3
22	ORC 4217N	34.6	49.8	48.5	47.1	59.4	52.7	47.5
23	U15-934067	56.8	62.0	55.0	28.1	54.6	48.1	58.5
24	U16-918018	45.7	47.8	64.0	38.6	60.8	56.0	55.1
	Average	44.9	57.5	54.4	43.8	60.0	58.6	52.1
	LSD(.05)	13.7	12.5	9.2	11.1	8.7	12.8	8.5
	C.V. %	14.8	10.5	8.2	12.9	8.8	13.3	9.9
	Replications	2	2	2	3	3	3	3
	Row width (in.)	30	30	30	30	30	30	30

2018 SCN UNIFORM TEST I

Yield (bu/a)

		Ridgetown ON	Chatham ON	Harrow ON
	SCN HG Type	2.5.7	2.5.7	2.5.7
	Strain			
1	MN1410	75.8	29.8	41.8
2	IA1022 (SCN)	77.8	55.1	55.5
3	ND Stutsman	66.9	44.6	34.8
4	U11-917032	73.8	51.9	48.1
5	AR15-158072	84.9	67.4	53.4
6	AR16-162109	61.5	48.2	47.5
7	AR17-179006	79.4	46.2	48.2
8	AR17-179015	73.7	57.1	50.0
9	AR17-279008	76.0	60.3	56.1
10	AR17-279009	80.0	59.4	49.0
11	E15338	74.6	58.1	47.4
12	E16346	65.9	50.3	48.6
13	LD14-4098a	83.1	55.5	69.9
14	M12-373033	78.9	49.7	47.9
15	M12-373060	88.7	50.3	53.3
16	M12-386029	59.6	56.4	46.5
17	MCH13-104087	77.9	52.3	53.1
18	MCH13-104091	80.9	54.1	50.8
19	MCH13-104132	68.1	49.0	36.9
20	MCH13-108027	66.1	49.0	44.9
21	MCH13-110029	68.4	51.9	44.9
22	ORC 4217N	82.4	53.9	43.7
23	U15-934067	75.6	39.6	41.6
24	U16-918018	80.0	33.2	45.2
	Average	75.0	51.0	48.3
	LSD(.05)	6.6	9.2	10.3
	C.V. %	8.6	9.1	13.0
	Replications	3	3	3
	Row width (in.)	17	24	24

2018 SCN UNIFORM TEST I

Yield (rank)

		Ames IA	Mason City IA	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN	Waseca MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf	Inf
	Strain							
1	MN1410	19	12	17	21	18	13	17
2	IA1022 (SCN)	12	10	16	12	7	2	1
3	ND Stutsman	24	24	23	23	23	24	24
4	U11-917032	8	5	9	3	13	9	18
5	AR15-158072	7	11	10	6	10	4	4
6	AR16-162109	13	14	19	20	17	20	12
7	AR17-179006	14	15	6	15	2	11	9
8	AR17-179015	2	1	5	7	4	5	6
9	AR17-279008	5	3	4	14	16	14	3
10	AR17-279009	3	2	1	2	9	6	13
11	E15338	6	4	3	1	8	1	2
12	E16346	9	13	7	9	20	14	20
13	LD14-4098a	1	6	8	4	15	8	10
14	M12-373033	11	8	11	16	5	3	7
15	M12-373060	10	9	15	11	3	10	5
16	M12-386029	20	19	22	17	24	15	23
17	MCH13-104087	16	15	13	10	6	12	14
18	MCH13-104091	18	18	12	5	1	7	16
19	MCH13-104132	21	22	21	22	10	16	21
20	MCH13-108027	22	23	24	13	22	21	15
21	MCH13-110029	23	17	20	19	19	22	22
22	ORC 4217N	17	20	18	8	14	19	19
23	U15-934067	4	7	14	24	21	23	8
24	U16-918018	14	21	2	18	12	18	11

2018 SCN UNIFORM TEST I

Yield (rank)

		Ridgetown ON	Chatham ON	Harrow ON
	SCN HG Type	2.5.7	2.5.7	2.5.7
	Strain			
1	MN1410	13	24	21
2	IA1022 (SCN)	11	8	3
3	ND Stutsman	20	21	24
4	U11-917032	16	13	12
5	AR15-158072	2	1	4
6	AR16-162109	23	19	14
7	AR17-179006	8	20	11
8	AR17-179015	17	5	8
9	AR17-279008	12	2	2
10	AR17-279009	6	3	9
11	E15338	15	4	15
12	E16346	22	15	10
13	LD14-4098a	3	7	1
14	M12-373033	9	16	13
15	M12-373060	1	14	5
16	M12-386029	24	6	16
17	MCH13-104087	10	11	6
18	MCH13-104091	5	9	7
19	MCH13-104132	19	17	23
20	MCH13-108027	21	18	18
21	MCH13-110029	18	12	19
22	ORC 4217N	4	10	20
23	U15-934067	14	22	22
24	U16-918018	7	23	17

2018 SCN UNIFORM TEST I

Maturity

		Ames IA	Mason City IA	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN	Waseca MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf	Inf
	Strain							
1	MN1410	8/30		8/17		9/17	9/14	9/13
2	IA1022 (SCN)	9		7		8	4	4
3	ND Stutsman	-1		-7		-5	-6	-4
4	U11-917032	13		9		8	6	6
5	AR15-158072	10		12		7	5	4
6	AR16-162109	8		4		4	0	6
7	AR17-179006	12		6		9	5	6
8	AR17-179015	12		10		7	4	7
9	AR17-279008	15		11		8	11	7
10	AR17-279009	10		17		10	13	10
11	E15338	7		8		6	2	5
12	E16346	13		15		8	7	3
13	LD14-4098a	10		12		7	7	4
14	M12-373033	4		3		2	3	2
15	M12-373060	9		5		3	2	3
16	M12-386029	-1		-5		-5	-4	-1
17	MCH13-104087	0		0		1	0	3
18	MCH13-104091	0		2		1	1	3
19	MCH13-104132	0		-5		-1	-2	-1
20	MCH13-108027	3		-3		1	-2	0
21	MCH13-110029	-1		-3		-3	-2	-2
22	ORC 4217N	-1		-4		-4	-3	-3
23	U15-934067	11		9		5	6	6
24	U16-918018	9		12		9	6	9
	Planted	5/14	5/22	5/08	4/30	5/28	5/16	5/07

2018 SCN UNIFORM TEST I

Maturity

		Ridgetown ON	Chatham ON	Harrow ON
	SCN HG Type	2.5.7	2.5.7	2.5.7
	Strain			
1	MN1410	9/28	9/22	9/15
2	IA1022 (SCN)	7	10	6
3	ND Stutsman	0	2	-9
4	U11-917032	3	11	7
5	AR15-158072	5	12	6
6	AR16-162109	1	2	2
7	AR17-179006	3	11	3
8	AR17-179015	5	15	9
9	AR17-279008	7	16	9
10	AR17-279009	6	16	12
11	E15338	5	7	6
12	E16346	6	8	8
13	LD14-4098a	7	16	11
14	M12-373033	5	7	4
15	M12-373060	4	8	6
16	M12-386029	-1	0	0
17	MCH13-104087	2	3	3
18	MCH13-104091	1	4	3
19	MCH13-104132	3	1	-2
20	MCH13-108027	0	3	1
21	MCH13-110029	3	3	-1
22	ORC 4217N	0	1	-3
23	U15-934067	4	10	8
24	U16-918018	6	7	7
	Planted	5/30	6/05	6/04

2018 SCN UNIFORM TEST I

Lodging (score)

		Ames IA	Mason City IA	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN	Waseca MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf	Inf
	Strain							
1	MN1410	2.5	2.0	1.3		1.7	2.0	1.0
2	IA1022 (SCN)	4.0	1.0	1.3		1.7	1.3	1.0
3	ND Stutsman	3.5	1.0	1.0		1.5	1.0	1.0
4	U11-917032	4.5	1.5	1.5		2.3	1.0	1.0
5	AR15-158072	3.0	1.5	1.0		1.0	1.0	1.0
6	AR16-162109	3.0	2.5	1.0		1.0	1.0	1.0
7	AR17-179006	2.5	2.0	1.3		1.0	1.0	1.0
8	AR17-179015	2.5	2.0	1.3		1.0	1.0	1.0
9	AR17-279008	3.5	1.0	1.5		1.0	1.0	1.0
10	AR17-279009	3.0	2.5	1.5		1.0	1.0	1.0
11	E15338	3.0	1.0	2.0		1.7	1.0	1.0
12	E16346	3.0	1.5	1.0		1.0	1.0	1.0
13	LD14-4098a	3.5	1.5	1.3		1.3	1.0	1.0
14	M12-373033	3.5	1.0	1.5		1.7	1.0	1.0
15	M12-373060	3.5	1.0	1.3		1.0	1.0	1.0
16	M12-386029	3.0	1.5	1.5		1.3	1.0	1.0
17	MCH13-104087	2.0	2.5	1.0		1.0	1.0	1.0
18	MCH13-104091	3.0	1.5	1.0		1.0	1.0	1.0
19	MCH13-104132	1.5	2.0	1.0		1.0	1.0	1.0
20	MCH13-108027	4.0	1.5	1.0		2.3	2.0	1.0
21	MCH13-110029	3.0	2.0	1.0		1.3	1.0	1.0
22	ORC 4217N	2.5	2.0	1.0		1.3	1.0	1.0
23	U15-934067	2.0	2.0	1.0		1.0	1.0	1.0
24	U16-918018	3.0	1.0	1.3		1.3	1.0	1.0

2018 SCN UNIFORM TEST I

Lodging (score)

		Ridgetown ON	Chatham ON	Harrow ON
	SCN HG Type	2.5.7	2.5.7	2.5.7
	Strain			
1	MN1410	4.0	1.2	1.0
2	IA1022 (SCN)	4.7	1.0	1.2
3	ND Stutsman	4.0	1.0	1.0
4	U11-917032	4.0	1.0	1.0
5	AR15-158072	3.0	1.0	1.0
6	AR16-162109	4.1	1.0	1.0
7	AR17-179006	2.3	1.0	1.0
8	AR17-179015	3.7	1.0	1.0
9	AR17-279008	4.3	1.0	1.2
10	AR17-279009	4.0	1.0	1.0
11	E15338	4.7	1.0	1.0
12	E16346	3.1	1.0	1.0
13	LD14-4098a	3.7	1.0	1.0
14	M12-373033	3.7	1.0	1.0
15	M12-373060	4.0	1.0	1.2
16	M12-386029	4.0	1.2	1.0
17	MCH13-104087	3.3	1.2	1.0
18	MCH13-104091	3.0	1.0	1.0
19	MCH13-104132	3.3	1.0	1.0
20	MCH13-108027	4.0	1.2	1.3
21	MCH13-110029	3.1	1.2	1.0
22	ORC 4217N	4.3	1.0	1.0
23	U15-934067	3.3	1.0	1.0
24	U16-918018	2.7	1.0	1.0

2018 SCN UNIFORM TEST I

Height (inches)

		Ames IA	Mason City IA	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN	Waseca MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf	Inf
	Strain							
1	MN1410	34	33	32		40	33	30
2	IA1022 (SCN)	34	31	31		35	33	29
3	ND Stutsman	30	31	27		32	31	19
4	U11-917032	35	23	31		33	32	31
5	AR15-158072	30	30	28		34	29	30
6	AR16-162109	28	32	29		36	29	28
7	AR17-179006	33	30	32		38	31	31
8	AR17-179015	29	34	30		34	30	27
9	AR17-279008	37	30	32		34	30	30
10	AR17-279009	35	29	34		38	32	31
11	E15338	34	33	35		37	36	33
12	E16346	31	31	32		33	34	30
13	LD14-4098a	35	29	32		32	35	31
14	M12-373033	35	28	33		33	34	30
15	M12-373060	31	32	32		37	32	27
16	M12-386029	34	27	32		36	34	31
17	MCH13-104087	35	32	32		42	35	34
18	MCH13-104091	37	31	31		42	35	32
19	MCH13-104132	29	34	29		39	31	27
20	MCH13-108027	34	28	33		43	35	34
21	MCH13-110029	31	30	28		33	30	26
22	ORC 4217N	28	33	29		33	27	28
23	U15-934067	30	32	26		34	27	27
24	U16-918018	32	29	37		37	36	33

2018 SCN UNIFORM TEST I

Height (inches)

		Ridgetown ON	Chatham ON	Harrow ON
	SCN HG Type	2.5.7	2.5.7	2.5.7
	Strain			
1	MN1410	32	31	32
2	IA1022 (SCN)	33	35	29
3	ND Stutsman	34	28	24
4	U11-917032	41	30	27
5	AR15-158072	40	33	28
6	AR16-162109	38	33	28
7	AR17-179006	45	32	28
8	AR17-179015	34	35	27
9	AR17-279008	32	37	29
10	AR17-279009	36	37	28
11	E15338	43	34	26
12	E16346	38	31	24
13	LD14-4098a	36	34	32
14	M12-373033	40	35	28
15	M12-373060	39	35	30
16	M12-386029	38	37	21
17	MCH13-104087	40	37	31
18	MCH13-104091	42	35	31
19	MCH13-104132	40	31	26
20	MCH13-108027	42	36	31
21	MCH13-110029	40	34	28
22	ORC 4217N	38	33	24
23	U15-934067	42	27	29
24	U16-918018	40	34	30

2018 SCN UNIFORM TEST I

Seed Quality (score)

		Ames IA	Mason City IA	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN	Waseca MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf	Inf
	Strain							
1	MN1410	3.0	1.0	2.0		1.0	1.0	1.0
2	IA1022 (SCN)	2.0	1.0	2.0		1.0	1.0	1.0
3	ND Stutsman	5.0	1.0	2.0		1.0	3.0	4.0
4	U11-917032	2.0	1.0	2.0		1.0	1.0	2.0
5	AR15-158072	1.0	1.0	2.0		1.0	1.0	1.0
6	AR16-162109	3.0	1.0	1.0		1.0	1.0	1.0
7	AR17-179006	2.0	1.0	1.0		1.0	1.0	1.0
8	AR17-179015	1.0	1.0	1.0		1.0	1.0	1.0
9	AR17-279008	1.0	1.0	2.0		1.0	2.0	1.0
10	AR17-279009	2.0	1.0	2.0		1.0	1.0	1.0
11	E15338	2.0	1.0	1.0		2.0	1.0	1.0
12	E16346	2.0	1.0	1.0		1.0	2.0	1.0
13	LD14-4098a	1.0	1.0	2.0		1.0	1.0	1.0
14	M12-373033	4.0	1.0	1.0		1.0	1.0	1.0
15	M12-373060	2.0	1.0	2.0		1.0	1.0	1.0
16	M12-386029	3.0	1.0	2.0		1.0	2.0	3.0
17	MCH13-104087	3.0	1.0	2.0		1.0	1.0	1.0
18	MCH13-104091	3.0	1.0	2.0		1.0	1.0	1.0
19	MCH13-104132	3.0	2.0	2.0		1.0	3.0	4.0
20	MCH13-108027	2.0	1.0	1.0		1.0	2.0	1.0
21	MCH13-110029	3.0	2.0	2.0		1.0	1.0	3.0
22	ORC 4217N	3.0	1.0	1.0		1.0	1.0	1.0
23	U15-934067	1.0	1.0	1.0		1.0	1.0	1.0
24	U16-918018	2.0	1.0	1.0		1.0	1.0	1.0

2018 SCN UNIFORM TEST I

Seed Quality (score)

	SCN HG Type	Ridgetown ON 2.5.7	Chatham ON 2.5.7	Harrow ON 2.5.7
	Strain			
1	MN1410	1.0	1.0	1.0
2	IA1022 (SCN)	2.3	1.5	2.0
3	ND Stutsman	3.3	2.2	1.3
4	U11-917032	2.7	1.2	2.2
5	AR15-158072	1.0	1.0	2.3
6	AR16-162109	1.1	1.0	2.0
7	AR17-179006	1.0	1.0	1.3
8	AR17-179015	1.0	1.0	1.7
9	AR17-279008	2.3	1.3	1.3
10	AR17-279009	1.3	1.2	1.5
11	E15338	1.7	1.3	1.2
12	E16346	1.1	1.0	1.0
13	LD14-4098a	1.0	1.2	1.5
14	M12-373033	2.0	1.5	2.3
15	M12-373060	2.0	1.5	1.0
16	M12-386029	3.3	1.3	1.3
17	MCH13-104087	2.7	2.5	1.3
18	MCH13-104091	3.0	2.2	1.5
19	MCH13-104132	2.7	2.2	1.0
20	MCH13-108027	1.3	1.0	1.8
21	MCH13-110029	2.1	1.8	1.3
22	ORC 4217N	1.0	1.0	1.3
23	U15-934067	1.0	1.0	1.7
24	U16-918018	1.0	1.2	1.5

2018 SCN UNIFORM TEST I

Seed Weight (g/100)

		Ames IA	Mason City IA	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN	Waseca MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf	Inf
	Strain							
1	MN1410	11.5	16.3	16.9		15.8	16.6	17.5
2	IA1022 (SCN)	14.6	14.6	13.6		15.8	14.8	15.9
3	ND Stutsman	16.9	14.9	15.1		16.2	15.8	16.1
4	U11-917032	14.6	15.8	13.9		18.0	14.7	14.4
5	AR15-158072	16.8	15.5	16.5		19.3	16.6	19.2
6	AR16-162109	15.6	15.6	16.1		18.2	16.8	17.9
7	AR17-179006	16.0	18.0	18.2		20.4	19.5	19.8
8	AR17-179015	16.4	15.5	15.2		16.3	15.5	17.1
9	AR17-279008	15.9	15.8	15.4		16.4	15.5	16.0
10	AR17-279009	16.3	15.4	15.0		15.6	15.3	17.2
11	E15338	15.6	14.4	15.6		15.9	16.4	17.4
12	E16346	13.1	10.7	12.3		13.0	11.8	12.8
13	LD14-4098a	18.6	17.9	15.9		17.3	18.3	18.1
14	M12-373033	16.3	14.8	14.8		15.7	16.1	17.3
15	M12-373060	16.3	14.9	14.2		16.3	14.9	17.6
16	M12-386029	18.1	16.2	16.1		17.6	17.2	17.8
17	MCH13-104087	14.4	14.0	16.0		15.0	15.2	17.1
18	MCH13-104091	15.6	16.5	17.4		18.4	18.6	19.2
19	MCH13-104132	14.6	15.6	15.9		16.9	16.4	16.8
20	MCH13-108027	15.5	12.0	13.1		16.5	13.8	17.7
21	MCH13-110029	17.5	15.8	16.9		18.6	17.3	17.8
22	ORC 4217N	15.6	15.3	14.0		17.0	16.3	17.8
23	U15-934067	15.4	15.3	14.4		15.3	13.8	15.0
24	U16-918018	16.3	15.4	15.8		17.2	15.8	17.6

2018 SCN UNIFORM TEST I

Seed Weight (g/100)

		Ridgetown ON	Chatham ON	Harrow ON
	SCN HG Type	2.5.7	2.5.7	2.5.7
	Strain			
1	MN1410	22.2	16.1	16.3
2	IA1022 (SCN)	20.8	18.6	18.4
3	ND Stutsman	22.4	18.3	13.2
4	U11-917032	21.3	18.9	18.3
5	AR15-158072	23.5	21.7	20.5
6	AR16-162109	21.0	19.1	18.2
7	AR17-179006	24.6	21.6	20.6
8	AR17-179015	21.3	19.8	19.1
9	AR17-279008	22.2	20.2	19.2
10	AR17-279009	21.0	18.6	17.4
11	E15338	21.5	20.0	17.9
12	E16346	19.4	15.3	15.7
13	LD14-4098a	24.8	21.9	22.6
14	M12-373033	21.1	19.5	18.4
15	M12-373060	23.3	19.8	19.1
16	M12-386029	19.7	20.9	16.6
17	MCH13-104087	20.3	18.4	16.6
18	MCH13-104091	20.7	20.4	18.4
19	MCH13-104132	19.2	18.7	15.7
20	MCH13-108027	19.6	19.4	16.7
21	MCH13-110029	22.0	20.9	16.5
22	ORC 4217N	21.7	20.0	17.0
23	U15-934067	18.9	14.1	14.8
24	U16-918018	23.6	17.2	18.5

2018 SCN UNIFORM TEST I

Protein (%)

		Ames IA	Mason City IA	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN	Waseca MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf	Inf
	Strain							
1	MN1410	38.3	38.7	37.0		35.1	36.1	34.1
2	IA1022 (SCN)	35.2	33.7	32.2		33.1	32.8	31.1
3	ND Stutsman	39.9	36.9	34.7		32.2	34.2	34.1
4	U11-917032	33.3	35.6	32.5		33.1	32.9	30.6
5	AR15-158072	36.4	36.4	34.2		34.0	34.5	32.5
6	AR16-162109	36.9	35.9	34.6		34.5	35.4	33.5
7	AR17-179006	36.3	35.0	34.8		33.8	34.8	31.6
8	AR17-179015	35.9	35.6	34.0		32.4	34.9	33.0
9	AR17-279008	36.1	36.9	34.4		34.0	34.6	33.8
10	AR17-279009	35.5	35.3	34.7		33.5	35.3	32.1
11	E15338	34.9	34.4	33.4		32.3	33.8	33.3
12	E16346	33.1	34.3	30.6		32.5	33.2	31.5
13	LD14-4098a	35.3	38.0	33.5		33.8	35.0	33.7
14	M12-373033	36.5	34.3	30.9		32.2	33.1	31.5
15	M12-373060	35.4	33.5	32.5		31.4	32.6	32.1
16	M12-386029	41.9	38.9	36.9		33.5	37.8	35.6
17	MCH13-104087	35.3	35.8	33.3		33.0	34.6	34.0
18	MCH13-104091	37.4	36.1	33.6		33.5	35.5	34.4
19	MCH13-104132	38.0	36.6	33.6		32.8	36.3	34.4
20	MCH13-108027	38.6	37.0	35.4		34.8	36.9	33.8
21	MCH13-110029	39.1	36.9	33.9		32.4	35.1	34.1
22	ORC 4217N	36.9	38.1	35.2		33.6	36.8	35.8
23	U15-934067	35.6	37.3	33.5		32.7	35.1	31.9
24	U16-918018	36.8	35.4	31.9		33.1	33.3	32.6

2018 SCN UNIFORM TEST I

Protein (%)

		Ridgetown ON	Chatham ON	Harrow ON
	SCN HG Type	2.5.7	2.5.7	2.5.7
	Strain			
1	MN1410	37.6	34.6	36.7
2	IA1022 (SCN)	35.1	32.8	34.4
3	ND Stutsman	36.5	35.1	34.6
4	U11-917032	35.8	34.4	35.2
5	AR15-158072	37.3	35.2	36.7
6	AR16-162109	37.6	35.9	37.1
7	AR17-179006	35.8	34.3	35.8
8	AR17-179015	36.4	35.2	36.7
9	AR17-279008	37.5	36.2	37.3
10	AR17-279009	36.7	35.1	35.9
11	E15338	36.4	34.4	35.1
12	E16346	35.4	33.9	34.0
13	LD14-4098a	37.8	36.8	38.5
14	M12-373033	35.7	32.9	34.5
15	M12-373060	35.5	32.6	34.6
16	M12-386029	39.5	38.3	37.6
17	MCH13-104087	36.9	35.5	36.2
18	MCH13-104091	37.1	35.6	36.1
19	MCH13-104132	36.4	35.8	36.1
20	MCH13-108027	37.5	36.1	36.1
21	MCH13-110029	35.7	34.9	34.9
22	ORC 4217N	38.7	36.6	36.5
23	U15-934067	37.0	34.9	36.6
24	U16-918018	35.6	33.9	35.6

2018 SCN UNIFORM TEST I

Oil (%)

		Ames IA	Mason City IA	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN	Waseca MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf	Inf
	Strain							
1	MN1410	19.8	17.0	16.4		17.2	17.2	18.3
2	IA1022 (SCN)	20.5	19.3	19.0		19.7	18.3	19.4
3	ND Stutsman	20.9	18.7	17.3		19.1	18.0	19.0
4	U11-917032	21.0	18.1	19.3		18.3	17.7	19.6
5	AR15-158072	18.8	18.2	18.5		18.7	17.8	19.1
6	AR16-162109	19.5	17.8	18.4		18.4	17.3	18.4
7	AR17-179006	19.4	17.7	17.1		18.4	16.4	18.1
8	AR17-179015	18.8	17.8	17.9		18.2	17.0	17.6
9	AR17-279008	18.3	17.2	17.6		18.0	16.7	17.0
10	AR17-279009	18.5	17.4	16.7		17.7	16.2	17.1
11	E15338	18.8	17.5	17.7		17.5	16.6	17.5
12	E16346	19.6	17.4	18.7		18.4	17.3	18.7
13	LD14-4098a	18.7	17.3	18.1		17.9	16.7	17.7
14	M12-373033	20.2	19.4	19.5		19.4	18.3	19.8
15	M12-373060	20.1	19.4	18.9		19.4	18.4	19.1
16	M12-386029	18.8	17.6	17.0		18.7	16.7	19.2
17	MCH13-104087	20.5	17.7	17.7		18.4	17.1	18.2
18	MCH13-104091	20.7	18.6	18.6		19.3	17.7	19.1
19	MCH13-104132	18.7	18.2	17.6		18.4	17.4	18.7
20	MCH13-108027	20.1	17.5	17.3		18.8	17.9	19.1
21	MCH13-110029	19.9	18.1	17.7		19.1	18.0	19.1
22	ORC 4217N	19.0	16.7	16.6		18.2	17.0	18.5
23	U15-934067	18.4	17.0	17.4		18.5	17.1	17.3
24	U16-918018	19.5	18.8	19.1		19.4	17.7	18.3

2018 SCN UNIFORM TEST I

Oil (%)

	SCN HG Type	Ridgetown ON 2.5.7	Chatham ON 2.5.7	Harrow ON 2.5.7
	Strain			
1	MN1410	19.3	19.7	19.0
2	IA1022 (SCN)	20.1	20.9	20.8
3	ND Stutsman	20.1	19.5	19.1
4	U11-917032	19.9	20.4	20.5
5	AR15-158072	19.5	20.4	20.4
6	AR16-162109	19.1	19.6	19.2
7	AR17-179006	19.5	19.9	19.6
8	AR17-179015	19.1	19.2	19.0
9	AR17-279008	18.7	18.5	18.7
10	AR17-279009	18.3	19.1	19.1
11	E15338	18.6	19.6	19.7
12	E16346	19.9	19.3	19.9
13	LD14-4098a	18.9	19.1	18.9
14	M12-373033	20.7	21.1	20.9
15	M12-373060	20.4	21.1	20.9
16	M12-386029	19.3	18.7	18.5
17	MCH13-104087	19.1	19.2	18.9
18	MCH13-104091	20.3	20.0	19.7
19	MCH13-104132	19.3	19.1	18.8
20	MCH13-108027	20.2	19.9	19.7
21	MCH13-110029	19.9	19.5	19.4
22	ORC 4217N	19.3	18.9	18.9
23	U15-934067	18.8	18.7	18.8
24	U16-918018	19.4	20.0	20.0

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2018 SCN UNIFORM TEST II

	Strain	Descriptive code	Parentage	Previous testing
1	IA2102	WGy	A04-545045 x AgriPro 98180-A01-06131	5
2	IA1022 (SCN)	PGy	Dairyland 98822 x A00-711024	9
3	LD02-4485	PGbf	M90-184111 x IA3010	12
4	U11-920017	PLtbr	HS5-3417 x LD02-4485	1
5	E15339	WGbf	IA2102 x LD02-4485	17 PT IIA
6	E15345	WGy	IA2102 x LD02-4485	17 PT IIA
7	E15347	WGbf	IA2102 x E07051	17 PT IIA
8	E15349	PGy	IA2102 x E07051	17 PT IIA
9	E15351	WGbf	IA2102 x E07051	17 PT IIA
10	E15390	PGibl	E07048 x E06186	17 PT IIA
11	E15346T	P+WGy	IA2102 x E07051	17 UT II RR
12	LD13-6678	PLtbl	LD07-3395 x NE0900094	17 UT II
13	U14-217227	WT+Ltbl	U11-935093 x LD07-3419	17 PT IIB
14	U14-910097	PGbf	U09-105007 x LD07-3419	17 UT II
15	U14-915126	PGibl	U09-215057 x U09-126009	17 UT II
16	U14-925152	PGibl	U11-935093 x LD07-3419	17 UT II
17	U15-917133	PLtbl	U09-133005 x U11-614093	17 PT IIB

	Strain	Gen comp	SCN res source	Traits
1	IA2102	F4	None	
2	IA1022 (SCN)	F5	PI 88788	
3	LD02-4485	F5	PI 88788	
4	U11-920017	F6	None	Rps
5	E15339	F5	PI 88788	
6	E15345	F5	PI 88788	
7	E15347	F5	PI 88788	
8	E15349	F5	PI 88788	
9	E15351	F5	PI 88788	
10	E15390	F5	PI 88788	
11	E15346T	F5	PI 88788	Meal?
12	LD13-6678	F5	PI 88788	
13	U14-217227	F5	PI 88788,437654	IDC
14	U14-910097	F5	PI 88788,437654	
15	U14-915126	F5		Rps, Dt
16	U14-925152	F5	PI 88788,437654	IDC
17	U15-917133	F5		Rps1k

2018 SCN UNIFORM TEST II

		IL SCN screen				ISU IDC	ISU IDC
		HG Type 0		HG Type 2.5.7		AnNutri	Bruner
	Strain	FI	rating	FI	rating	score	score
1	IA2102	**12**	**R**	**65**	**NR**	3.0	.
2	IA1022 (SCN)	**24**	**R**	**54**	**LR**	2.5	2.0
3	LD02-4485	**10**	**R**	**61**	**NR**	2.0	1.8
4	U11-920017	**56**	**LR**	**72**	**NR**	.	1.8
5	E15339	**6**	**HR**	**55**	**LR**	1.0	1.3
6	E15345	**10**	**R**	**67**	**NR**	1.5	.
7	E15347	**9**	**HR**	**64**	**NR**	3.0	1.5
8	E15349	**8**	**HR**	**90**	**NR**	2.3	2.0
9	E15351	**10**	**R**	**58**	**LR**	3.0	3.0
10	E15390	**54**	**LR**	**52**	**LR**	3.0	3.0
11	E15346T	**11**	**R**	**61**	**NR**	3.0	2.0
12	LD13-6678	**15**	**R**	**82**	**NR**	.	2.3
13	U14-217227	**11**	**R**	**59**	**LR**	3.5	3.3
14	U14-910097	**0**	**HR**	**1**	**HR**	4.0	2.8
15	U14-915126	**73**	**NR**	**58**	**LR**	2.5	1.8
16	U14-925152	**1**	**HR**	**1**	**HR**	3.8	3.3
17	U15-917133	**53**	**LR**	**108**	**NR**	3.0	1.8
	Mean:					2.7	2.2
	LSD value:					0.6	1.3
	CV (%):					9.5	27.5

2018 SCN UNIFORM TEST II

Summary

		Yield									Seed			
		All		Infested		Non-infested		Maturity	Lodging	Height	quality	weight	protein	oil
	Strain	bu/a	rank	bu/a	rank	bu/a	rank	date	score	inches	score	g/100	@13%	@13%
	Locations	**12***		10*		2		10	12	12	11	11	12	12
1	IA2102	**60.6**	**6**	59.9	6	63.9	15	9/20	2.0	35	1.7	16.1	34.4	17.8
2	IA1022 (SCN)	**52.4**	**17**	51.7	16	55.2	17	-8	1.8	32	1.5	15.2	32.7	19.6
3	LD02-4485	**62.7**	**4**	60.6	4	72.8	7	1	1.9	36	1.7	14.5	32.4	18.5
4	U11-920017	**58.4**	**12**	55.0	13	75.3	3	1	1.8	33	1.1	16.0	32.0	18.8
5	E15339	**59.9**	**9**	58.2	9	68.4	13	3	2.2	34	2.0	15.5	33.4	18.8
6	E15345	**61.7**	**5**	60.2	5	68.5	12	5	2.1	36	1.7	15.0	33.2	18.2
7	E15347	**60.1**	**8**	58.7	7	66.5	14	1	1.4	34	1.5	16.5	33.9	17.7
8	E15349	**60.2**	**7**	58.3	8	69.0	10	0	1.8	34	1.4	15.8	34.5	18.0
9	E15351	**64.7**	**3**	62.6	3	75.5	2	-1	1.6	33	2.2	16.7	34.1	17.8
10	E15390	**58.3**	**13**	55.6	12	71.3	9	4	1.7	35	1.5	18.3	35.8	17.8
11	E15346T	**59.9**	**9**	58.0	10	68.8	11	-1	1.7	34	1.7	17.2	34.2	18.5
12	LD13-6678	**59.8**	**11**	57.0	11	73.2	6	3	1.6	34	1.7	16.5	33.9	18.2
13	U14-217227	**55.0**	**15**	53.4	15	62.5	16	5	1.7	37	1.8	13.9	33.6	18.0
14	U14-910097	**69.0**	**1**	67.1	1	77.9	1	6	2.2	34	1.2	15.1	32.9	19.1
15	U14-915126	**54.1**	**16**	50.6	17	71.7	8	-1	1.3	35	1.4	13.9	33.0	18.3
16	U14-925152	**65.8**	**2**	64.2	2	73.3	3	4	1.5	35	1.4	14.6	33.9	18.8
17	U15-917133	**56.8**	**14**	53.4	14	73.3	3	3	1.5	37	1.5	15.9	33.8	18.4
	Mean	**60.0**		57.9		69.8		21.7	1.8	34.5	1.6	15.7	33.6	18.4
	LSD(.05)	**3.0**		3.3		4.8		0.9	0.2	1.4				
	C.V. %	**10.7**		11.4		6.0		8.3	21.0	8.5				
	Replications	**32**		26		6		27	31	31				

*Bellwood, NE yield data not included in analysis.

2018 SCN UNIFORM TEST II

Yield (bu/a)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain							
1	IA2102	60.1	72.2	72.0	70.3	47.2	59.9	55.3
2	IA1022 (SCN)	53.5	57.9	62.9	56.2	30.8	59.4	48.6
3	LD02-4485	67.4	69.9	70.8	70.3	56.4	60.7	64.6
4	U11-920017	58.3	63.0	70.0	70.2	40.0	61.7	65.9
5	E15339	59.1	61.7	68.0	64.5	48.6	59.1	60.2
6	E15345	60.6	67.9	74.4	63.1	50.8	56.9	70.5
7	E15347	57.8	74.8	68.0	63.6	54.4	63.8	52.3
8	E15349	53.1	77.7	71.9	65.6	53.3	58.9	52.9
9	E15351	57.7	87.4	70.5	70.9	52.9	72.0	61.4
10	E15390	63.2	72.3	65.9	72.1	41.4	57.4	56.6
11	E15346T	53.9	75.0	69.7	63.0	47.5	62.7	49.2
12	LD13-6678	68.3	54.3	65.2	69.6	50.1	54.1	57.9
13	U14-217227	58.5	46.9	72.7	72.2	43.3	52.1	55.3
14	U14-910097	76.4	73.5	79.2	85.6	70.7	57.1	53.7
15	U14-915126	56.0	63.4	62.7	68.9	25.3	61.9	53.9
16	U14-925152	75.8	57.7	72.2	72.0	64.1	55.3	60.2
17	U15-917133	63.2	66.3	74.2	73.9	34.6	61.5	46.7
	Average	61.3	67.2	70.0	68.9	47.7	59.7	56.8
	LSD(.05)	7.9	12.9	7.1	8.0	10.1	9.6	10.2
	C.V. %	6.0	9.1	4.8	5.5	12.7	9.6	10.8
	Replications	2	2	2	2	3	3	3
	Row width (in.)	30	30	30	30	30	30	30

2018 SCN UNIFORM TEST II

Yield (bu/a)

	SCN HG Type	Waseca MN Inf	Bellwood NE Inf	Chatham ON 2.5.7	Harrow ON 2.5.7	West Lafayette IN NI	Hoytville OH NI
	Strain						
1	IA2102	65.9	54.6	61.1	47.8	63.1	64.7
2	IA1022 (SCN)	47.3	51.8	56.9	41.2	51.8	58.6
3	LD02-4485	41.6	50.7	57.8	49.3	72.0	73.6
4	U11-920017	53.4	33.1	31.4	40.6	73.2	77.3
5	E15339	53.1	28.7	66.6	45.2	63.6	73.1
6	E15345	47.5	42.5	65.3	49.7	68.2	68.7
7	E15347	56.4	49.2	60.2	40.4	66.1	66.8
8	E15349	43.8	55.3	62.5	48.3	73.2	64.9
9	E15351	39.6	38.1	63.4	41.5	77.8	73.3
10	E15390	58.0	43.1	42.3	31.7	68.8	73.7
11	E15346T	61.3	47.1	58.6	44.1	67.4	70.2
12	LD13-6678	44.1	44.1	65.0	44.8	66.2	80.3
13	U14-217227	60.0	26.5	39.7	37.9	55.8	69.2
14	U14-910097	50.2	47.6	71.9	55.6	75.3	80.5
15	U14-915126	61.9	19.7	27.7	30.9	66.9	76.5
16	U14-925152	63.5	52.9	67.2	58.1	70.7	75.9
17	U15-917133	50.0	53.7	35.0	33.7	72.9	73.6
	Average	52.8	43.1	54.9	43.6	67.8	71.8
	LSD(.05)	11.8	26.7	10.7	9.8	6.2	7.5
	C.V. %	14.1	26.4	11.7	13.5	5.5	6.3
	Replications	3	2	3	3	3	3
	Row width (in.)	30	30	24	24	30	30

2018 SCN UNIFORM TEST II

Yield (rank)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain							
1	IA2102	8	7	6	7	11	8	9
2	IA1022 (SCN)	16	14	16	17	16	9	16
3	LD02-4485	4	8	8	7	3	7	3
4	U11-920017	11	12	10	9	14	5	2
5	E15339	9	13	13	13	9	10	5
6	E15345	7	9	2	15	7	14	1
7	E15347	12	4	12	14	4	2	14
8	E15349	17	2	7	12	5	11	13
9	E15351	13	1	9	6	6	1	4
10	E15390	6	6	14	4	13	12	8
11	E15346T	15	3	11	16	10	3	15
12	LD13-6678	3	16	15	10	8	16	7
13	U14-217227	10	17	4	3	12	17	9
14	U14-910097	1	5	1	1	1	13	12
15	U14-915126	14	11	17	11	17	4	11
16	U14-925152	2	15	5	5	2	15	5
17	U15-917133	5	10	3	2	15	6	17

2018 SCN UNIFORM TEST II

Yield (rank)

		Waseca MN	Bellwood NE	Chatham ON	Harrow ON	West Lafayette IN	Hoytville OH
	SCN HG Type	Inf	Inf	2.5.7	2.5.7	NI	NI
	Strain						
1	IA2102	1	2	8	6	15	15
2	IA1022 (SCN)	13	5	12	11	17	16
3	LD02-4485	16	6	11	4	6	7
4	U11-920017	8	14	16	12	3	3
5	E15339	9	15	3	7	14	9
6	E15345	12	12	4	3	9	12
7	E15347	7	7	9	13	13	13
8	E15349	15	1	7	5	3	14
9	E15351	17	13	6	10	1	8
10	E15390	6	11	13	16	8	6
11	E15346T	4	9	10	9	10	10
12	LD13-6678	14	10	5	8	12	2
13	U14-217227	5	16	14	14	16	11
14	U14-910097	10	8	1	2	2	1
15	U14-915126	3	17	17	17	11	4
16	U14-925152	2	4	2	1	7	5
17	U15-917133	11	3	15	15	5	7

2018 SCN UNIFORM TEST II

Maturity

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain							
1	IA2102	9/16		9/04	8/31		10/3	10/1
2	IA1022 (SCN)	-12		-10	-8		-6	-12
3	LD02-4485	3		-2	3		0	0
4	U11-920017	2		-1	2		-1	1
5	E15339	2		-1	2		-1	2
6	E15345	4		1	7		2	7
7	E15347	2		1	4		-1	0
8	E15349	-2		-1	1		1	-2
9	E15351	-5		-5	-1		-1	-5
10	E15390	2		4	5		1	5
11	E15346T	-2		-1	0		-4	-5
12	LD13-6678	6		1	6		1	6
13	U14-217227	14		6	9		2	7
14	U14-910097	14		8	8		1	8
15	U14-915126	1		-2	1		-3	-2
16	U14-925152	-1		5	5		3	7
17	U15-917133	3		2	3		2	5
	Planted	5/14	5/11	5/08	5/08	4/30	5/28	5/16

2018 SCN UNIFORM TEST II

Maturity

		Waseca	Bellwood	Chatham	Harrow	West Lafayette	Hoytville
		MN	NE	ON	ON	IN	OH
	SCN HG Type	Inf	Inf	2.5.7	2.5.7	NI	NI
	Strain						
1	IA2102	9/26		10/6	9/28	9/09	9/20
2	IA1022 (SCN)	-9		-10	-9	-6	0
3	LD02-4485	-3		-1	-1	7	3
4	U11-920017	-2		2	-3	8	2
5	E15339	2		3	2	13	3
6	E15345	3		4	6	8	6
7	E15347	4		2	1	1	2
8	E15349	-3		-1	-1	7	1
9	E15351	-3		2	4	0	1
10	E15390	6		0	5	8	5
11	E15346T	0		2	-1	-1	1
12	LD13-6678	0		-2	3	7	6
13	U14-217227	6		-1	0	4	5
14	U14-910097	4		3	2	12	5
15	U14-915126	3		-5	2	-5	2
16	U14-925152	6		0	2	6	4
17	U15-917133	1		1	1	6	6
	Planted	5/07	5/09	6/05	6/04	5/10	5/30

2018 SCN UNIFORM TEST II

Lodging (score)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain							
1	IA2102	4.0	3.0	2.0	1.8		3.7	2.0
2	IA1022 (SCN)	4.0	3.5	2.0	1.3		1.7	1.0
3	LD02-4485	4.0	3.0	1.8	1.8		2.7	2.0
4	U11-920017	3.0	4.0	1.0	1.3		2.3	1.3
5	E15339	4.0	4.0	2.3	2.3		3.7	1.7
6	E15345	4.0	4.0	2.3	2.0		3.0	2.0
7	E15347	2.0	2.5	1.3	1.0		1.3	1.3
8	E15349	3.5	3.5	1.5	1.5		2.0	1.7
9	E15351	3.0	3.5	1.3	1.0		2.6	1.0
10	E15390	2.0	3.0	1.8	1.5		3.0	1.7
11	E15346T	4.0	4.0	1.5	1.5		1.7	1.0
12	LD13-6678	2.5	3.0	1.3	1.3		2.0	2.0
13	U14-217227	3.0	3.0	1.5	1.3		2.3	2.0
14	U14-910097	3.5	3.0	2.0	1.5		3.0	2.3
15	U14-915126	1.5	3.0	1.0	1.0		1.0	1.0
16	U14-925152	3.0	3.0	1.0	1.0		2.0	1.3
17	U15-917133	2.5	2.5	1.5	1.0		1.3	1.7

2018 SCN UNIFORM TEST II

Lodging (score)

		Waseca	Bellwood	Chatham	Harrow	West Lafayette	Hoytville
		MN	NE	ON	ON	IN	OH
	SCN HG Type	Inf	Inf	2.5.7	2.5.7	NI	NI
	Strain						
1	IA2102	1.0	2.5	1.2	1.2	1.0	1.0
2	IA1022 (SCN)	1.0	3.0	1.2	1.0	1.0	1.0
3	LD02-4485	1.0	2.5	1.0	1.0	1.0	1.0
4	U11-920017	1.0	3.5	1.0	1.0	1.0	1.0
5	E15339	1.0	3.0	1.7	1.0	1.3	1.0
6	E15345	1.0	2.0	1.7	1.0	1.7	1.0
7	E15347	1.0	2.5	1.0	1.0	1.0	1.0
8	E15349	1.0	3.0	1.0	1.0	1.0	1.0
9	E15351	1.0	2.0	1.0	1.0	1.0	1.0
10	E15390	1.0	2.5	1.0	1.0	1.5	1.0
11	E15346T	1.0	2.0	1.2	1.0	1.0	1.0
12	LD13-6678	1.0	2.0	1.0	1.0	1.0	1.0
13	U14-217227	1.0	2.5	1.0	1.0	1.0	1.0
14	U14-910097	1.0	4.5	1.5	1.0	2.0	1.0
15	U14-915126	1.0	2.5	1.0	1.0	1.0	1.0
16	U14-925152	1.0	2.0	1.0	1.0	1.0	1.0
17	U15-917133	1.0	2.5	1.0	1.0	1.0	1.0

2018 SCN UNIFORM TEST II

Height (inches)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain							
1	IA2102	33	48	44	37		36	32
2	IA1022 (SCN)	35	45	36	32		34	33
3	LD02-4485	36	50	41	37		39	37
4	U11-920017	35	47	39	35		37	35
5	E15339	37	48	41	35		36	38
6	E15345	38	52	40	36		37	36
7	E15347	34	46	42	34		37	31
8	E15349	33	47	40	37		37	34
9	E15351	30	46	36	34		37	36
10	E15390	31	45	40	37		38	38
11	E15346T	33	48	41	33		36	32
12	LD13-6678	34	45	39	37		39	34
13	U14-217227	35	49	43	40		41	41
14	U14-910097	35	46	39	37		37	34
15	U14-915126	35	46	40	35		41	40
16	U14-925152	34	46	39	34		39	36
17	U15-917133	38	53	44	40		41	38

2018 SCN UNIFORM TEST II

Height (inches)

		Waseca	Bellwood	Chatham	Harrow	West Lafayette	Hoytville
		MN	NE	ON	ON	IN	OH
	SCN HG Type	Inf	Inf	2.5.7	2.5.7	NI	NI
	Strain						
1	IA2102	30	31	38	30	32	27
2	IA1022 (SCN)	25	29	35	23	34	25
3	LD02-4485	28	33	38	26	35	30
4	U11-920017	28	32	26	24	35	28
5	E15339	27	27	38	28	30	29
6	E15345	31	34	39	27	34	29
7	E15347	27	29	39	25	35	29
8	E15349	26	33	36	28	35	29
9	E15351	23	32	37	27	36	29
10	E15390	30	33	36	25	39	29
11	E15346T	31	30	35	26	38	29
12	LD13-6678	27	28	35	24	34	31
13	U14-217227	36	29	31	24	41	32
14	U14-910097	31	30	35	25	37	30
15	U14-915126	33	34	29	23	35	31
16	U14-925152	32	33	36	27	35	31
17	U15-917133	33	34	31	24	41	32

2018 SCN UNIFORM TEST II

Seed Quality (score)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain							
1	IA2102	2.0	2.0	2.0	3.0		1.0	1.0
2	IA1022 (SCN)	1.0	3.0	1.0	2.0		1.0	1.0
3	LD02-4485	1.0	3.0	2.0	2.0		1.0	1.0
4	U11-920017	1.0	1.0	1.0	2.0		1.0	1.0
5	E15339	2.0	3.0	2.0	2.0		1.0	1.0
6	E15345	1.0	2.0	3.0	2.0		1.0	1.0
7	E15347	2.0	1.0	2.0	2.0		1.0	1.0
8	E15349	1.0	1.0	2.0	2.0		1.0	1.0
9	E15351	2.0	2.0	2.0	3.0		1.0	3.0
10	E15390	1.0	1.0	2.0	2.0		2.0	2.0
11	E15346T	2.0	2.0	2.0	2.0		1.0	2.0
12	LD13-6678	1.0	2.0	2.0	2.0		1.0	2.0
13	U14-217227	2.0	3.0	3.0	2.0		1.0	2.0
14	U14-910097	1.0	1.0	2.0	2.0		1.0	1.0
15	U14-915126	1.0	1.0	3.0	2.0		1.0	1.0
16	U14-925152	1.0	2.0	2.0	2.0		1.0	2.0
17	U15-917133	1.0	1.0	2.0	2.0		1.0	2.0

2018 SCN UNIFORM TEST II

Seed Quality (score)

		Waseca MN	Bellwood NE	Chatham ON	Harrow ON	West Lafayette IN	Hoytville OH
	SCN HG Type	Inf	Inf	2.5.7	2.5.7	NI	NI
	Strain						
1	IA2102	1.0	2.0	1.2	1.2		2.0
2	IA1022 (SCN)	1.0	2.0	1.2	1.5		2.0
3	LD02-4485	2.0	2.0	1.2	1.2		2.0
4	U11-920017	1.0	1.0	1.2	1.2		1.0
5	E15339	2.0	2.0	1.7	2.0		3.0
6	E15345	2.0	2.0	1.8	1.0		2.0
7	E15347	1.0	2.0	1.5	1.5		2.0
8	E15349	1.0	2.0	1.2	1.2		2.0
9	E15351	2.0	3.0	1.8	2.3		2.0
10	E15390	1.0	2.0	1.0	1.2		1.0
11	E15346T	1.0	2.0	1.5	1.7		2.0
12	LD13-6678	2.0	1.0	1.5	1.7		2.0
13	U14-217227	1.0	1.5	1.2	1.3		2.0
14	U14-910097	1.0	1.5	1.2	1.0		1.0
15	U14-915126	1.0	2.0	1.2	1.3		1.0
16	U14-925152	1.0	1.0	1.2	1.0		1.0
17	U15-917133	1.0	1.5	1.5	1.5		2.0

2018 SCN UNIFORM TEST II

Seed Weight (g/100)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain							
1	IA2102	16.3	15.5	13.9	15.6		17.2	15.1
2	IA1022 (SCN)	14.7	14.1	12.9	13.0		16.3	15.9
3	LD02-4485	14.8	12.5	11.9	13.5		15.9	14.0
4	U11-920017	18.2	15.4	15.0	15.2		16.4	15.0
5	E15339	14.1	14.0	12.7	14.8		17.2	14.9
6	E15345	15.5	14.2	12.7	13.5		15.9	14.0
7	E15347	16.4	14.3	14.0	15.8		17.3	15.8
8	E15349	16.3	15.8	15.0	14.2		15.8	14.5
9	E15351	15.9	18.2	14.1	16.3		16.7	15.5
10	E15390	19.2	19.2	17.3	18.9		19.6	17.8
11	E15346T	16.9	16.1	15.4	17.0		17.2	17.5
12	LD13-6678	17.4	14.0	13.0	15.5		16.3	16.8
13	U14-217227	15.6	10.1	12.6	13.6		15.4	13.9
14	U14-910097	17.0	12.9	13.0	13.8		15.6	15.0
15	U14-915126	16.1	11.7	12.4	13.8		14.7	14.2
16	U14-925152	16.3	10.3	13.2	13.8		15.2	13.2
17	U15-917133	16.9	15.3	14.5	15.8		17.2	15.3

2018 SCN UNIFORM TEST II

Seed Weight (g/100)

		Waseca MN	Bellwood NE	Chatham ON	Harrow ON	West Lafayette IN	Hoytville OH
	SCN HG Type	Inf	Inf	2.5.7	2.5.7	NI	NI
	Strain						
1	IA2102	16.5	14.3	19.6	17.9		14.9
2	IA1022 (SCN)	16.6	13.3	18.5	17.8		14.0
3	LD02-4485	13.5	13.2	18.8	17.9		13.4
4	U11-920017	15.0	14.2	16.8	19.3		16.0
5	E15339	15.5	13.8	20.0	17.8		16.4
6	E15345	14.3	14.8	18.5	17.5		13.9
7	E15347	17.1	13.3	21.0	20.0		16.2
8	E15349	15.5	14.3	19.0	18.5		14.4
9	E15351	16.1	13.7	21.0	20.5		15.6
10	E15390	15.3	16.3	19.3	21.5		17.2
11	E15346T	17.3	14.0	21.8	20.2		16.4
12	LD13-6678	15.9	13.9	20.6	22.3		16.2
13	U14-217227	15.0	10.5	14.6	17.6		13.8
14	U14-910097	15.2	13.4	18.3	18.6		13.8
15	U14-915126	15.5	11.9	12.9	15.9		13.9
16	U14-925152	15.8	12.4	18.1	18.7		14.1
17	U15-917133	16.8	16.7	11.8	18.7		15.6

2018 SCN UNIFORM TEST II

Protein (%)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain							
1	IA2102	36.6	35.1	32.5	33.5		33.9	35.0
2	IA1022 (SCN)	34.4	33.0	31.3	32.4		32.4	32.9
3	LD02-4485	32.7	31.8	30.3	30.5		32.5	32.3
4	U11-920017	31.5	31.3	30.4	31.2		32.3	32.1
5	E15339	33.7	33.0	30.9	31.7		34.2	33.7
6	E15345	34.3	33.1	30.5	32.3		33.0	32.2
7	E15347	35.2	33.2	32.0	31.8		33.8	34.6
8	E15349	36.1	33.3	32.2	33.8		33.9	34.5
9	E15351	35.5	33.9	33.0	32.7		34.2	33.4
10	E15390	37.7	35.0	34.1	34.8		35.7	35.7
11	E15346T	35.0	34.4	33.0	34.1		32.8	34.5
12	LD13-6678	36.0	34.1	32.5	32.8		32.1	35.2
13	U14-217227	34.3	33.2	30.3	31.7		34.6	34.9
14	U14-910097	34.5	32.0	30.6	31.0		34.4	34.2
15	U14-915126	35.1	32.1	31.5	31.4		33.0	33.5
16	U14-925152	35.3	33.7	32.6	31.7		34.5	33.9
17	U15-917133	35.4	33.6	31.6	32.5		34.0	34.8

2018 SCN UNIFORM TEST II

Protein (%)

	SCN HG Type	Waseca MN Inf	Bellwood NE Inf	Chatham ON 2.5.7	Harrow ON 2.5.7	West Lafayette IN NI	Hoytville OH NI
	Strain						
1	IA2102	32.6	35.6	35.2	36.0	32.3	34.7
2	IA1022 (SCN)	30.7	34.9	32.6	33.1	30.5	34.0
3	LD02-4485	31.5	33.2	33.6	34.2	31.9	33.8
4	U11-920017	30.6	33.5	32.9	33.3	31.1	33.7
5	E15339	31.7	34.1	34.2	34.9	33.5	34.8
6	E15345	30.8	34.7	34.2	35.0	34.0	34.3
7	E15347	32.5	34.7	34.6	36.0	32.8	35.6
8	E15349	32.5	35.9	35.2	36.5	34.3	36.1
9	E15351	32.5	34.0	34.5	36.3	33.1	35.7
10	E15390	32.5	37.2	36.6	38.0	34.7	37.3
11	E15346T	31.9	34.6	34.8	36.0	33.6	35.9
12	LD13-6678	30.2	34.8	34.8	36.4	32.9	34.5
13	U14-217227	32.5	33.8	34.1	35.9	33.3	34.6
14	U14-910097	31.2	33.1	33.1	35.0	31.9	34.0
15	U14-915126	30.0	34.8	33.9	33.9	32.4	34.1
16	U14-925152	33.7	33.5	33.5	35.5	34.7	34.3
17	U15-917133	30.7	35.8	34.7	35.0	33.3	34.1

2018 SCN UNIFORM TEST II

Oil (%)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Fairfax MN	Lamberton MN
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain							
1	IA2102	17.7	18.0	18.0	17.7		17.9	16.7
2	IA1022 (SCN)	20.2	20.1	19.4	19.2		19.1	18.3
3	LD02-4485	18.9	18.8	18.3	18.6		19.0	17.1
4	U11-920017	19.7	19.1	19.2	18.9		18.4	17.2
5	E15339	19.5	19.9	18.7	18.1		19.0	17.4
6	E15345	18.6	18.4	18.4	17.6		18.7	17.3
7	E15347	17.7	17.7	17.4	17.9		17.3	16.9
8	E15349	18.5	18.7	18.2	17.5		18.5	17.2
9	E15351	18.3	17.9	17.1	17.6		18.6	17.2
10	E15390	17.6	18.1	17.7	17.5		18.5	16.9
11	E15346T	19.3	19.1	18.5	18.0		18.9	17.3
12	LD13-6678	18.1	18.9	18.1	17.7		18.2	17.1
13	U14-217227	18.1	18.8	18.4	17.6		18.9	16.8
14	U14-910097	19.2	19.4	19.2	19.0		19.7	17.7
15	U14-915126	18.3	18.5	18.1	18.5		19.2	18.0
16	U14-925152	18.9	18.9	18.6	18.9		19.3	18.0
17	U15-917133	18.6	19.0	18.6	18.7		17.7	17.3

2016 SCN UNIFORM TEST II

Oil (%)

	SCN HG Type	Waseca MN Inf	Bellwood NE Inf	Chatham ON 2.5.7	Harrow ON 2.5.7	West Lafayette IN NI	Hoytville OH NI
	Strain						
1	IA2102	17.5	16.9	18.7	19.0	18.2	17.1
2	IA1022 (SCN)	19.4	18.8	20.9	21.4	20.2	18.4
3	LD02-4485	18.2	18.2	19.6	19.8	18.0	17.2
4	U11-920017	18.6	18.4	19.7	20.9	19.3	16.7
5	E15339	19.1	17.9	19.8	20.2	18.4	17.7
6	E15345	18.6	17.9	19.1	19.2	17.6	17.4
7	E15347	17.9	17.5	19.1	19.2	17.6	16.6
8	E15349	17.3	17.5	19.3	19.1	17.5	16.8
9	E15351	17.1	17.6	19.2	19.2	17.6	16.5
10	E15390	18.2	17.2	18.6	18.5	18.1	16.0
11	E15346T	18.4	18.0	19.4	19.7	18.5	17.1
12	LD13-6678	18.4	17.8	19.5	19.1	18.4	17.1
13	U14-217227	17.1	17.6	19.3	19.2	17.5	17.1
14	U14-910097	19.2	18.6	20.4	20.4	18.8	17.1
15	U14-915126	18.3	17.0	18.9	19.9	18.1	17.2
16	U14-925152	18.6	18.5	20.5	20.2	17.7	17.4
17	U15-917133	18.1	17.7	19.7	20.1	18.1	17.1

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2018 SCN PRELIMINARY TEST IIA

	Strain	Descriptive code	Parentage
1	IA2102	WGy	A04-545045 x AgriPro 98180-A01-06131
2	IA1022 (SCN)	PGy	Dairyland 98822 x A00-711024
3	LD02-4485	PGbf	M90-184111 x IA3010
4	U11-920017	PLtbr	HS5-3417 x LD02-4485
5	E16184	PGy	S20-20 x E07051
6	E16186	PGbf	S20-20 x E07051
7	E16265	PGibl	E13902 x E07051
8	E16266	PGibl	E13902 x E07051
9	E16267	PGibl	E13902 x E07051
10	E16379	P+WGbf	E07051 x E06381
11	E16380	WGbf	E07051 x E10174
12	E16387	PGy+bf	E07051 x E10175
13	E16398	PGy+ibl	E10175 x E07051
14	LD15-1350	WLty+br	WN0902577 x LD08-3994
15	LD15-6268	PLt+Gbl+br+bf+ibl	AR10-205011 x LD10-10226
16	LD15-6280	PMbf+br	AR10-205011 x LD10-10226
17	LD16-4425a	PMbf+br	AR10-205011 x LDX11033a
18	LD16-4429a	P+WTbl	AR10-205011 x LDX11050a
19	LD16-5724a	PGgr	LD10-10226 x LDX11050a
20	ORC 5317N	PGy	Kenjiangdou 43 x XC 2211
21	ORC 5517N	WT+Lty	RCAT 1005 x S23-T5

2018 SCN PRELIMINARY TEST IIA

	Strain	Gen comp	SCN res source	Traits
1	IA2102	F4	None	
2	IA1022 (SCN)	F5	PI 88788	
3	LD02-4485	F5	PI 88788	
4	U11-920017	F6	None	Rps
5	E16184	F5	PI 88788	
6	E16186	F5	PI 88788	
7	E16265	F5	PI 88788	
8	E16266	F5	PI 88788	
9	E16267	F5	PI 88788	
10	E16379	F5	PI 88788	
11	E16380	F5	PI 88788	
12	E16387	F5	PI 88788	
13	E16398	F5	PI 88788	
14	LD15-1350	F5	PI 88788	
15	LD15-6268	F5	PI 88788	
16	LD15-6280	F5	PI 88788	
17	LD16-4425a	F5	PI 88788	Rag 1+2
18	LD16-4429a	F5	PI 88788	Rag 1+2
19	LD16-5724a	F5	PI 88788	Rag 1+2
20	ORC 5317N	F4	PI 88788	Food-grade
21	ORC 5517N	F4	PI 88788	Food-grade

2018 SCN PRELIMINARY TEST IIA

		IL SCN screen				ISU IDC	ISU IDC
		HG Type 0		HG Type 2.5.7		AnNutri	Bruner
	Strain	FI	rating	FI	rating	score	score
1	IA2102	**12**	**R**	**65**	**NR**	3.0	2.5
2	IA1022 (SCN)	**24**	**R**	**54**	**LR**	3.3	1.5
3	LD02-4485	**10**	**R**	**61**	**NR**	3.0	1.3
4	U11-920017	**56**	**LR**	**72**	**NR**	2.0	1.8
5	E16184	**13**	**R**	**67**	**NR**	2.8	2.0
6	E16186	**16**	**R**	**75**	**NR**	3.0	1.5
7	E16265	**16**	**R**	**39**	**MR**	3.3	2.5
8	E16266	**11**	**R**	**66**	**NR**	3.3	2.0
9	E16267	**8**	**HR**	**66**	**NR**	2.5	1.0
10	E16379	**8**	**HR**	**73**	**NR**	3.5	3.0
11	E16380	**10**	**R**	**72**	**NR**	4.0	3.0
12	E16387	**16**	**R**	**65**	**NR**	3.3	2.8
13	E16398	**6**	**HR**	**50**	**LR**	.	3.0
14	LD15-1350	**10**	**R**	**67**	**NR**	3.5	1.5
15	LD15-6268	**13**	**R**	**81**	**NR**	2.0	2.3
16	LD15-6280	**10**	**R**	**70**	**NR**	4.0	1.8
17	LD16-4425a	**18**	**R**	**61**	**NR**	1.8	1.5
18	LD16-4429a	**7**	**HR**	**63**	**NR**	3.0	2.0
19	LD16-5724a	**24**	**R**	**52**	**LR**	1.5	1.8
20	ORC 5317N	**25**	**MR**	**61**	**NR**	3.0	1.5
21	ORC 5517N	**16**	**R**	**51**	**LR**	.	1.5
					Mean:	2.9	2.0
					LSD value:	0.8	0.9
					CV (%):	12.3	20.8

2018 SCN PRELIMINARY TEST IIA

Summary

		Yield									Seed			
		All		Infested		Non-infested		Maturity	Lodging	Height	quality	weight	protein	oil
	Strain	bu/a	rank	bu/a	rank	bu/a	rank	date	score	inches	score	g/100	@13%	@13%
	Locations	**8***		8*		0		6	8	8	8	8	8	8
1	IA2102	**60.6**	**5**	60.6	5			918	2.6	36	1.6	15.6	33.6	17.4
2	IA1022 (SCN)	**54.3**	**20**	54.3	20			-9	2.2	33	1.5	14.7	32.2	19.2
3	LD02-4485	**62.4**	**3**	62.4	3			-1	2.2	36	1.5	14.1	31.7	17.7
4	U11-920017	**60.6**	**5**	60.6	5			1	2.3	35	1.4	15.8	31.3	18.6
5	E16184	**58.5**	**12**	58.5	12			7	1.8	37	1.5	16.0	33.4	17.4
6	E16186	**57.6**	**14**	57.6	14			4	1.8	40	1.6	14.7	34.3	17.3
7	E16265	**58.5**	**12**	58.5	12			4	1.5	35	1.4	17.9	35.4	17.1
8	E16266	**58.8**	**10**	58.8	10			-2	1.6	34	1.4	17.4	34.8	17.0
9	E16267	**56.3**	**17**	56.3	17			-1	1.8	33	1.3	17.5	34.7	17.3
10	E16379	**57.3**	**15**	57.3	15			8	2.0	38	1.9	16.8	35.2	17.5
11	E16380	**58.6**	**11**	58.6	11			9	1.4	36	1.7	18.1	33.7	17.2
12	E16387	**55.1**	**18**	55.1	18			7	2.1	36	1.8	15.3	33.3	17.5
13	E16398	**54.6**	**19**	54.6	19			7	1.9	37	1.8	16.8	34.1	18.6
14	LD15-1350	**60.6**	**5**	60.6	5			-1	2.1	35	1.4	14.5	34.0	18.3
15	LD15-6268	**64.0**	**1**	64.0	1			1	1.8	36	1.2	16.8	35.1	16.8
16	LD15-6280	**63.9**	**2**	63.9	2			3	1.9	35	1.5	14.9	34.0	17.8
17	LD16-4425a	**56.4**	**16**	56.4	16			-1	2.3	33	1.3	14.9	34.0	18.2
18	LD16-4429a	**58.9**	**9**	58.9	9			-1	1.8	34	1.2	15.0	33.5	17.9
19	LD16-5724a	**61.2**	**4**	61.2	4			-1	1.4	33	1.1	14.6	33.0	17.8
20	ORC 5317N	**54.2**	**21**	54.2	21			-6	1.5	29	1.6	18.7	35.7	16.6
21	ORC 5517N	**59.2**	**8**	59.2	8			0	1.7	34	1.7	17.0	34.2	16.6
	Mean													
	LSD(.05)	**58.6**		58.6				19.1	1.9	34.9	1.5	16.1	33.9	17.6
	C.V. %	**3.9**		3.9				1.5	0.3	1.7				
	Replications	**9.5**		9.5				9.6	26.0	7.0				

*Bellwood, NE yield data not included in analysis.

2018 SCN PRELIMINARY TEST IIA

Yield (bu/a)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	65.5	67.6	70.0	68.9	48.2	64.4	58.6	41.9	49.4
2	IA1022 (SCN)	54.6	64.9	66.0	55.1	30.6	60.7	63.4	50.2	28.7
3	LD02-4485	63.3	66.9	73.8	73.3	48.3	68.2	62.5	54.3	42.1
4	U11-920017	66.6	62.7	80.9	75.6	37.3	72.9	41.7	46.8	44.3
5	E16184	67.1	70.8	69.7	70.8	47.5	55.3	44.6	42.0	33.5
6	E16186	63.3	67.7	65.9	67.0	51.8	50.3	56.0	39.0	45.4
7	E16265	66.5	75.1	68.1	62.3	42.2	56.5	52.2	45.0	29.9
8	E16266	57.8	78.3	65.6	62.8	40.4	69.4	53.2	42.8	29.8
9	E16267	59.6	72.4	60.0	52.0	49.2	68.8	43.1	45.1	38.3
10	E16379	61.4	64.4	63.7	59.9	45.4	53.6	55.5	54.8	35.5
11	E16380	69.9	51.6	65.1	69.8	46.7	57.0	50.2	58.7	36.1
12	E16387	64.3	56.6	60.1	61.8	43.2	56.7	42.5	55.8	29.4
13	E16398	53.4	58.8	69.8	70.6	35.5	60.1	50.7	37.9	37.5
14	LD15-1350	66.1	70.5	67.6	69.5	40.3	59.0	55.0	56.9	33.9
15	LD15-6268	74.0	70.8	74.8	70.2	51.4	63.1	58.9	48.5	50.6
16	LD15-6280	73.8	69.6	72.7	68.8	46.2	61.8	68.2	49.8	39.1
17	LD16-4425a	54.3	69.8	68.5	59.4	35.9	57.1	53.7	52.5	36.2
18	LD16-4429a	65.2	54.6	70.0	64.5	42.2	56.6	63.9	54.5	57.7
19	LD16-5724a	60.4	70.9	72.4	66.9	37.5	67.0	54.4	60.3	40.9
20	ORC 5317N	43.3	75.8	58.6	59.7	44.7	66.3	47.6	37.2	33.6
21	ORC 5517N	61.6	61.9	59.7	61.7	40.1	67.7	74.6	46.6	32.8
	Average									
	LSD(.05)	62.5	66.7	67.8	65.3	43.1	61.5	54.8	48.6	38.3
	C.V. %	9.7	11.7	5.5	5.2	13.0	12.5	15.4	12.3	17.1
	Replications	7.5	8.4	3.9	3.8	11.9	9.8	13.6	12.5	20.9
	Row width (in.)	2	2	2	2	2	2	2	2	2

2018 SCN PRELIMINARY TEST IIA

Yield (rank)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	8	12	6	8	5	8	7	18	3
2	IA1022 (SCN)	18	14	13	20	21	11	4	9	21
3	LD02-4485	11	13	3	2	4	4	5	7	6
4	U11-920017	5	16	1	1	18	1	21	12	5
5	E16184	4	7	9	3	6	19	18	17	16
6	E16186	11	11	14	10	1	21	8	19	4
7	E16265	6	3	11	14	13	18	14	15	18
8	E16266	17	1	15	13	14	2	13	16	19
9	E16267	16	4	19	21	3	3	19	14	9
10	E16379	14	15	17	17	9	20	9	5	13
11	E16380	3	21	16	6	7	15	16	2	12
12	E16387	10	19	18	15	11	16	20	4	20
13	E16398	20	18	8	4	20	12	15	20	10
14	LD15-1350	7	8	12	7	15	13	10	3	14
15	LD15-6268	1	6	2	5	2	9	6	11	2
16	LD15-6280	2	10	4	9	8	10	2	10	8
17	LD16-4425a	19	9	10	19	19	14	12	8	11
18	LD16-4429a	9	20	6	12	12	17	3	6	1
19	LD16-5724a	15	5	5	11	17	6	11	1	7
20	ORC 5317N	21	2	21	18	10	7	17	21	15
21	ORC 5517N	13	17	20	16	16	5	1	13	17

2018 SCN PRELIMINARY TEST IIA

Maturity

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	9/16		9/03	8/31		10/3	9/30	9/26	
2	IA1022 (SCN)	-9		-8	-10		-4	-11	-11	
3	LD02-4485	0		-1	2		-1	-3	-2	
4	U11-920017	1		1	2		1	2	0	
5	E16184	10		9	10		1	11	0	
6	E16186	8		3	8		1	9	-2	
7	E16265	7		3	7		-1	3	5	
8	E16266	2		1	2		-4	-3	-7	
9	E16267	2		1	1		-2	-3	-2	
10	E16379	11		9	11		1	10	9	
11	E16380	.		10	10		1	11	11	
12	E16387	3		8	8		1	11	9	
13	E16398	10		9	12		0	10	-2	
14	LD15-1350	-2		0	2		-5	-3	0	
15	LD15-6268	-1		1	1		-1	1	2	
16	LD15-6280	2		3	4		1	2	6	
17	LD16-4425a	-4		-1	1		-3	-1	2	
18	LD16-4429a	-3		1	1		-4	2	0	
19	LD16-5724a	-2		-1	1		-3	-1	-1	
20	ORC 5317N	-4		-6	-7		-5	-4	-9	
21	ORC 5517N	1		-1	1		-4	2	-2	
	Planted	5/14	5/11	5/08	5/08	4/30	5/16	5/16	5/07	

2018 SCN PRELIMINARY TEST IIA

Lodging (score)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	4.0	3.0	1.8	1.5		4.0	1.0	1.0	4.5
2	IA1022 (SCN)	3.5	3.5	2.0	1.0		3.0	1.5	1.0	2.0
3	LD02-4485	3.0	3.5	1.8	1.3		2.5	1.0	1.0	3.5
4	U11-920017	3.0	4.0	1.3	1.0		3.0	1.0	1.0	4.0
5	E16184	3.0	2.0	1.8	1.3		3.0	1.0	1.0	1.5
6	E16186	2.0	2.5	2.0	1.0		2.5	1.0	1.0	2.5
7	E16265	2.5	2.5	1.0	1.0		1.5	1.0	1.0	1.5
8	E16266	2.0	2.0	1.3	1.0		1.5	1.0	1.0	3.0
9	E16267	2.5	2.5	1.0	1.0		1.5	1.0	1.0	3.5
10	E16379	3.0	3.0	1.5	1.0		3.0	1.0	1.0	2.5
11	E16380	1.0	2.5	1.0	1.0		1.5	1.0	1.0	2.0
12	E16387	3.0	4.0	1.0	1.0		3.0	1.0	1.0	3.0
13	E16398	3.0	3.0	1.8	1.0		3.0	1.0	1.0	1.5
14	LD15-1350	4.5	3.5	1.3	1.0		2.0	1.0	1.0	2.5
15	LD15-6268	3.0	2.5	1.3	1.0		2.5	1.0	1.0	2.0
16	LD15-6280	2.0	2.5	1.3	1.0		2.5	1.0	1.0	4.0
17	LD16-4425a	4.0	4.0	1.0	1.0		4.5	1.0	1.0	1.5
18	LD16-4429a	4.0	2.5	1.0	1.0		1.5	1.0	1.0	2.5
19	LD16-5724a	2.0	2.5	1.0	1.0		1.0	1.0	1.0	2.0
20	ORC 5317N	3.0	2.0	1.3	1.0		1.0	1.0	1.0	2.0
21	ORC 5517N	3.5	3.5	1.0	1.0		1.0	1.0	1.0	1.5

2018 SCN PRELIMINARY TEST IIA

Height (inches)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	37	45	42	36		37	32	32	29
2	IA1022 (SCN)	33	44	36	29		36	35	25	27
3	LD02-4485	35	49	37	33		34	37	28	34
4	U11-920017	32	46	38	35		36	33	29	30
5	E16184	34	48	40	39		36	35	32	31
6	E16186	38	52	44	42		41	41	35	31
7	E16265	34	44	38	34		37	33	30	32
8	E16266	35	44	35	33		38	30	28	31
9	E16267	33	44	35	31		40	27	29	28
10	E16379	33	46	41	37		43	37	36	33
11	E16380	34	42	38	38		40	33	30	36
12	E16387	36	43	37	37		39	31	32	34
13	E16398	34	44	41	40		39	36	31	31
14	LD15-1350	36	42	39	33		35	34	30	31
15	LD15-6268	36	40	42	35		40	34	32	31
16	LD15-6280	35	42	40	36		38	33	32	29
17	LD16-4425a	33	38	36	30		38	29	32	28
18	LD16-4429a	33	40	38	31		35	30	31	34
19	LD16-5724a	33	41	37	30		35	31	27	29
20	ORC 5317N	29	31	30	28		34	23	24	31
21	ORC 5517N	32	44	38	33		37	35	29	30

2018 SCN PRELIMINARY TEST IIA

Seed Quality (score)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	2.0	1.0	1.0	2.0		1.0	2.0	2.0	2.0
2	IA1022 (SCN)	1.0	2.0	1.0	2.0		1.0	1.0	2.0	2.0
3	LD02-4485	1.0	2.0	2.0	2.0		1.0	1.0	2.0	1.0
4	U11-920017	1.0	1.0	2.0	2.0		1.0	2.0	1.0	1.0
5	E16184	1.0	1.0	2.0	2.0		1.0	3.0	1.0	1.0
6	E16186	2.0	2.0	2.0	2.0		1.0	2.0	1.0	1.0
7	E16265	1.0	2.0	2.0	2.0		1.0	1.0	1.0	1.5
8	E16266	1.0	1.0	2.0	2.0		1.0	2.0	1.0	1.0
9	E16267	1.0	2.0	2.0	1.0		1.0	1.0	1.0	1.5
10	E16379	1.0	1.0	2.0	3.0		1.0	3.0	2.0	2.0
11	E16380	1.0	1.0	3.0	2.0		1.0	2.0	2.0	1.5
12	E16387	1.0	1.0	3.0	3.0		1.0	2.0	2.0	1.5
13	E16398	2.0	1.0	2.0	2.0		1.0	3.0	2.0	1.0
14	LD15-1350	1.0	2.0	2.0	1.0		1.0	1.0	1.0	2.0
15	LD15-6268	1.0	1.0	1.0	1.0		1.0	1.0	2.0	1.5
16	LD15-6280	2.0	1.0	2.0	2.0		1.0	1.0	1.0	2.0
17	LD16-4425a	1.0	1.0	2.0	1.0		1.0	1.0	1.0	2.0
18	LD16-4429a	1.0	2.0	1.0	1.0		1.0	1.0	1.0	1.5
19	LD16-5724a	1.0	1.0	2.0	1.0		1.0	1.0	1.0	1.0
20	ORC 5317N	1.0	1.0	2.0	2.0		1.0	2.0	1.0	2.5
21	ORC 5517N	1.0	3.0	2.0	2.0		1.0	1.0	2.0	1.5

2018 SCN PRELIMINARY TEST IIA

Seed Weight (g/100)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	16.8	14.9	13.8	16.3		17.6	14.9	15.4	14.8
2	IA1022 (SCN)	15.9	14.4	13.7	13.5		16.3	14.7	15.6	13.3
3	LD02-4485	15.5	14.6	12.9	13.7		15.4	13.3	12.8	14.5
4	U11-920017	17.9	15.0	15.6	15.5		17.4	14.0	15.3	15.6
5	E16184	17.5	14.5	15.1	17.1		18.4	15.4	16.2	14.0
6	E16186	16.2	14.7	13.4	14.8		16.0	15.4	14.7	12.6
7	E16265	18.2	16.9	16.7	18.2		21.2	16.7	19.1	16.3
8	E16266	16.9	18.6	16.2	18.2		19.0	16.8	18.2	15.4
9	E16267	17.1	16.7	16.2	17.7		20.0	17.7	18.8	15.4
10	E16379	17.7	17.2	15.9	17.0		19.8	14.8	17.9	14.3
11	E16380	19.2	16.1	15.9	18.7		20.5	17.9	21.2	14.9
12	E16387	16.8	13.8	13.4	15.0		17.5	14.3	18.8	12.8
13	E16398	18.5	12.5	16.1	17.2		20.0	17.2	18.2	14.7
14	LD15-1350	15.4	14.2	13.1	14.0		16.8	14.1	14.8	13.8
15	LD15-6268	17.9	14.7	15.1	15.9		22.8	16.4	16.8	15.1
16	LD15-6280	15.4	13.2	14.4	14.5		16.6	15.0	15.7	14.5
17	LD16-4425a	15.8	16.5	13.7	13.6		17.5	13.6	14.0	14.8
18	LD16-4429a	15.0	12.9	13.8	14.1		17.7	15.0	16.7	15.0
19	LD16-5724a	15.7	12.5	13.7	14.6		16.1	14.8	15.5	13.6
20	ORC 5317N	17.8	18.4	19.5	20.8		21.1	13.0	18.7	20.4
21	ORC 5517N	17.8	14.4	15.2	16.3		19.9	18.1	18.8	15.7

2018 SCN PRELIMINARY TEST IIA

Protein (%)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	34.6	32.4	32.9	33.2		34.9	34.6	31.0	35.1
2	IA1022 (SCN)	34.4	32.7	31.6	30.9		33.0	32.8	28.5	33.9
3	LD02-4485	33.4	31.8	29.4	30.7		32.4	33.2	28.8	34.2
4	U11-920017	32.5	31.3	29.6	30.3		32.2	32.2	28.9	33.2
5	E16184	35.1	32.8	32.8	32.7		34.6	34.3	30.0	35.3
6	E16186	36.1	34.7	32.9	34.1		34.6	35.6	31.7	35.0
7	E16265	37.6	36.7	35.2	35.3		36.2	36.9	29.5	36.3
8	E16266	35.3	37.0	33.2	34.9		35.0	36.3	31.0	35.9
9	E16267	35.9	34.2	34.4	36.7		35.1	36.8	29.0	35.6
10	E16379	37.7	37.3	32.9	35.0		35.2	35.9	31.5	35.6
11	E16380	33.9	33.8	32.5	33.5		34.7	34.4	31.0	36.0
12	E16387	34.2	33.8	32.5	32.6		35.0	34.0	29.7	34.8
13	E16398	35.8	33.0	32.7	34.1		35.1	36.0	30.7	35.0
14	LD15-1350	34.8	34.1	32.7	33.8		36.0	34.8	30.7	35.3
15	LD15-6268	37.2	36.5	33.9	34.5		35.4	36.7	31.0	35.7
16	LD15-6280	36.0	34.0	32.9	32.6		35.5	35.1	30.0	36.2
17	LD16-4425a	35.2	34.7	33.4	32.3		35.7	35.4	29.4	35.7
18	LD16-4429a	33.7	34.9	32.2	31.7		35.8	34.8	29.2	36.0
19	LD16-5724a	34.6	32.6	31.3	32.6		33.2	34.6	30.4	34.8
20	ORC 5317N	37.5	34.8	35.5	36.5		35.2	37.8	30.4	37.7
21	ORC 5517N	35.8	34.9	32.7	32.9		35.7	35.6	30.3	35.7

2018 SCN PRELIMINARY TEST IIA

Oil (%)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	18.1	18.8	17.3	17.6		18.2	16.9	14.9	17.5
2	IA1022 (SCN)	20.1	19.5	19.7	19.8		18.7	18.8	16.9	19.7
3	LD02-4485	18.6	18.7	18.4	18.3		17.7	16.8	15.7	17.7
4	U11-920017	19.2	19.5	19.2	19.3		18.8	18.3	15.9	18.5
5	E16184	18.0	17.8	16.9	17.5		18.7	17.5	15.7	16.9
6	E16186	17.9	17.8	17.5	17.4		18.3	17.4	15.0	17.1
7	E16265	17.2	17.7	16.8	17.0		17.7	17.1	15.6	17.5
8	E16266	17.6	17.1	17.5	16.7		16.9	17.3	15.4	17.3
9	E16267	17.7	18.1	17.3	16.5		18.2	17.4	15.8	17.2
10	E16379	17.9	18.1	18.1	17.5		17.9	17.5	15.7	17.1
11	E16380	18.1	17.4	17.1	16.9		18.3	17.4	15.3	17.4
12	E16387	18.5	17.8	17.4	18.1		17.6	17.9	15.5	17.1
13	E16398	20.2	19.6	19.1	18.3		19.5	18.5	15.7	18.1
14	LD15-1350	19.8	19.9	19.0	18.6		18.3	19.0	15.1	17.0
15	LD15-6268	17.0	16.8	17.1	16.9		17.8	16.5	15.0	17.0
16	LD15-6280	18.5	18.4	18.4	18.9		18.0	17.5	15.4	17.6
17	LD16-4425a	19.1	19.0	18.3	18.8		18.8	17.7	15.6	18.5
18	LD16-4429a	19.1	17.9	18.8	18.7		17.1	18.1	16.1	17.8
19	LD16-5724a	18.5	19.1	18.1	18.0		18.0	17.7	15.6	17.7
20	ORC 5317N	16.6	17.1	16.2	16.2		17.6	15.7	16.4	16.9
21	ORC 5517N	17.1	16.7	17.1	17.4		16.2	16.2	15.5	16.8

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2018 SCN PRELIMINARY TEST IIB

	Strain	Descriptive code	Parentage
1	IA2102	WGy	A04-545045 x AgriPro 98180-A01-06131
2	IA1022 (SCN)	PGy	Dairyland 98822 x A00-711024
3	LD02-4485	PGbf	M90-184111 x IA3010
4	U11-920017	PLtbr	HS5-3417 x LD02-4485
5	AR15-258059	P+WMbf+br	IAR1902 SCN x ND07-4635
6	AR17-179001	PTbr	AR08-286003 x RxEF59-70
7	AR17-179003	WGy	AR09-292004 x ND03-5441
8	AR17-179012	PMy	AR09-192019 x AR11-113050
9	AR17-179022	P+WGy+bf+ibl	AR11-213003 x ND03-5441
10	AR17-179026	PGy	AR09-192019 x AR11-113050
11	AR17-279010	WGbf	AR09-192019 x AR09-291011
12	AR17-279018	PMbl+ibl	AR11-214022 x AR09-191018
13	AR17-279022	PMy	AR09-192019 x AR11-113050
14	AR17-279024	P+WGy	AR09-292004 x AR09-192019
15	LD15-456	WGbl	HM09-W084 x LD10-10226
16	LD15-467	WGbl	HM09-W084 x LD10-10226
17	LD15-5170a	PGbf	LD09-10220 x LD12-6623
18	U16-915064	PGbf	U09-105007-174 x AR09-191018
19	U16-915073	PGbf	U09-105007-174 x AR09-191018
20	U16-918088	WLtbl	U11-614119 x AR09-191018
21	U16-918097	WLtbr+bl	U11-614119 x AR09-191018
22	U16-920087	PGbf+ibl	U11-919011 x AR09-191018
23	U16-923137	PLtbl	U11-614119 x AR09-191018

2018 SCN PRELIMINARY TEST IIB

	Strain	Gen comp	SCN res source	Traits
1	IA2102	F4	None	
2	IA1022 (SCN)	F5	PI 88788	
3	LD02-4485	F5	PI 88788	
4	U11-920017	F6	None	Rps
5	AR15-258059	F3	Peking	
6	AR17-179001	F5		SDS
7	AR17-179003	F4		
8	AR17-179012	F4	PI 438489B / PI 88788	
9	AR17-179022	F4	PI 438489B / PI 88788	
10	AR17-179026	F4	PI 438489B / PI 88788	
11	AR17-279010	F4	PI 507354/Peking/ PI 88788	
12	AR17-279018	F4	Peking	SDS
13	AR17-279022	F4	PI 438489B / PI 88788	
14	AR17-279024	F4		
15	LD15-456	F5	PI 88788	
16	LD15-467	F5	PI 88788	
17	LD15-5170a	F5	PI 88788	Rag 1+2
18	U16-915064	F5	Peking	Rps
19	U16-915073	F5	Peking	Rps
20	U16-918088	F5	Peking	Rps
21	U16-918097	F5	Peking	Rps
22	U16-920087	F5	Peking	Rps
23	U16-923137	F5	Peking	Rps

2018 SCN PRELIMINARY TEST IIB

		IL SCN screen				ISU IDC	ISU IDC
		HG Type 0		HG Type 2.5.7		AnNutri	Bruner
	Strain	FI	rating	FI	rating	score	score
1	IA2102	**12**	**R**	**65**	**NR**	1.8	1.3
2	IA1022 (SCN)	**24**	**R**	**54**	**LR**	3.3	1.3
3	LD02-4485	**10**	**R**	**61**	**NR**	2.5	1.5
4	U11-920017	**56**	**LR**	**72**	**NR**	1.5	1.3
5	AR15-258059	**0**	**HR**	**2**	**HR**	2.5	2.3
6	AR17-179001	**29**	**MR**	**23**	**R**	1.5	1.8
7	AR17-179003	**7**	**HR**	**40**	**LR**	2.8	2.0
8	AR17-179012	**8**	**HR**	**49**	**LR**	2.8	1.8
9	AR17-179022	**13**	**R**	**68**	**NR**	1.5	1.5
10	AR17-179026	**3**	**HR**	**51**	**LR**	2.0	1.5
11	AR17-279010	**5**	**HR**	**3**	**HR**	2.3	2.0
12	AR17-279018	**9**	**HR**	**53**	**LR**	1.3	1.8
13	AR17-279022	**11**	**R**	**51**	**LR**	3.0	1.5
14	AR17-279024	**16**	**R**	**54**	**LR**	.	1.3
15	LD15-456	**4**	**HR**	**59**	**LR**	3.3	3.3
16	LD15-467	**3**	**HR**	**91**	**NR**	2.0	3.0
17	LD15-5170a	**9**	**HR**	**55**	**LR**	3.0	2.0
18	U16-915064	**40**	**LR**	**61**	**NR**	1.0	1.8
19	U16-915073	**53**	**LR**	**14**	******	2.5	.
20	U16-918088	**2**	**HR**	**59**	**LR**	2.5	1.3
21	U16-918097	**13**	**R**	**62**	**NR**	2.3	1.5
22	U16-920087	**1**	**HR**	**23**	**R**	3.3	2.5
23	U16-923137	**27**	**MR**	**51**	**LR**	2.0	1.3
					Mean:	2.3	1.8
					LSD value:	1.1	1.3
					CV (%):	22.7	34.3

2018 SCN PRELIMINARY TEST IIB

Summary

		Yield									Seed			
		All		Infested		Non-infested		Maturity	Lodging	Height	quality	weight	protein	oil
	Strain	bu/a	rank	bu/a	rank	bu/a	rank	date	score	inches	score	g/100	@13%	@13%
	Locations	**7***		7*		0		6	8	8	8	8	8	8
1	IA2102	**63.7**	**4**	63.7	4			9/19	2.9	38	1.6	15.5	33.9	18.0
2	IA1022 (SCN)	**51.8**	**23**	51.8	23			-9	2.3	32	1.4	14.2	32.5	19.5
3	LD02-4485	**62.9**	**7**	62.9	7			-1	2.3	37	1.8	13.6	31.6	18.4
4	U11-920017	**59.2**	**15**	59.2	15			-2	2.1	35	1.6	15.4	31.6	19.0
5	AR15-258059	**61.7**	**10**	61.7	10			-1	2.3	35	1.9	14.5	32.9	18.8
6	AR17-179001	**59.2**	**15**	59.2	15			-4	2.3	34	1.6	14.3	35.4	17.9
7	AR17-179003	**55.9**	**21**	55.9	21			-5	1.7	31	1.8	17.0	34.0	18.0
8	AR17-179012	**59.5**	**14**	59.5	14			-4	1.8	34	1.3	15.2	34.8	18.4
9	AR17-179022	**55.9**	**20**	55.9	20			-3	2.4	37	2.0	15.0	33.5	18.3
10	AR17-179026	**62.9**	**7**	62.9	7			-4	1.9	33	1.4	16.5	35.0	18.5
11	AR17-279010	**63.1**	**6**	63.1	6			-2	2.1	35	1.5	14.6	33.7	17.8
12	AR17-279018	**56.5**	**19**	56.5	19			-3	2.2	36	1.3	15.7	34.3	18.2
13	AR17-279022	**59.5**	**13**	59.5	13			-3	1.7	36	1.3	14.9	34.2	18.7
14	AR17-279024	**58.1**	**17**	58.1	17			-2	2.3	35	1.9	15.0	33.4	17.9
15	LD15-456	**68.2**	**2**	68.2	2			5	2.0	39	1.3	16.4	34.3	18.2
16	LD15-467	**68.4**	**1**	68.4	1			6	1.9	38	1.4	16.1	34.3	18.2
17	LD15-5170a	**65.4**	**3**	65.4	3			2	2.4	38	1.5	15.1	33.3	18.2
18	U16-915064	**56.8**	**18**	56.8	18			-4	1.6	36	1.3	14.1	32.0	19.3
19	U16-915073	**54.8**	**22**	54.8	22			-2	2.1	38	1.3	14.7	33.5	18.3
20	U16-918088	**63.6**	**5**	63.6	5			-1	2.1	37	1.4	16.8	33.5	18.8
21	U16-918097	**62.6**	**9**	62.6	9			4	2.5	40	1.6	16.0	32.1	18.5
22	U16-920087	**61.5**	**11**	61.5	11			0	2.2	41	1.8	13.1	32.7	18.5
23	U16-923137	**60.4**	**12**	60.4	12			3	2.1	39	1.8	12.9	31.5	18.4
	Mean													
	LSD(.05)	**60.5**		60.5				17.8	2.1	36.2	1.5	15.1	33.4	18.4
	C.V. %	**4.1**		4.1				1.4	0.4	2.3				
	Replications	**9.6**		9.6				9.9	24.3	9.1				

*Bellwood, NE yield data not included in analysis.

2018 SCN PRELIMINARY TEST IIB

Yield (bu/a)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	63.1	82.9	67.9	64.2	46.3	67.8	67.7	50.0	37.3
2	IA1022 (SCN)	55.1	54.6	63.7	48.9	26.6	60.0	62.7	42.9	25.3
3	LD02-4485	72.5	70.8	73.6	71.8	46.7	66.8	67.0	34.4	50.5
4	U11-920017	63.2	59.0	71.2	74.4	28.0	57.4	75.0	45.2	45.7
5	AR15-258059	66.7	72.7	64.8	62.2	57.7	53.1	67.1	49.1	25.5
6	AR17-179001	52.2	72.5	70.3	59.2	45.4	57.6	69.3	46.7	50.0
7	AR17-179003	58.4	64.3	57.5	46.1	45.9	56.6	65.6	53.0	48.9
8	AR17-179012	60.2	63.1	68.6	64.3	40.7	58.3	69.5	51.3	15.0
9	AR17-179022	54.6	63.6	64.2	50.7	49.5	59.6	61.5	43.9	47.3
10	AR17-179026	60.8	81.4	71.0	65.5	46.9	54.9	68.9	54.0	60.3
11	AR17-279010	61.0	79.8	67.8	74.0	50.5	46.7	67.2	57.7	54.4
12	AR17-279018	67.8	66.6	63.1	56.5	38.2	53.8	58.5	47.7	37.7
13	AR17-279022	53.0	73.3	64.3	59.5	43.6	66.2	66.3	50.0	35.8
14	AR17-279024	58.0	58.5	69.9	57.5	45.4	64.2	66.5	44.5	49.7
15	LD15-456	79.2	70.3	76.0	74.9	54.1	65.6	69.8	56.0	50.8
16	LD15-467	73.4	69.0	74.7	72.9	54.5	79.1	62.1	61.6	46.4
17	LD15-5170a	61.4	77.9	72.3	68.9	59.2	64.8	59.6	58.9	53.1
18	U16-915064	49.8	57.9	69.4	70.1	35.8	70.7	59.6	41.1	41.2
19	U16-915073	54.9	57.8	66.8	68.7	28.8	56.8	56.4	47.9	21.8
20	U16-918088	58.6	79.9	66.5	73.0	49.9	59.0	68.7	52.8	31.5
21	U16-918097	64.4	67.0	72.9	75.7	47.0	62.5	61.2	50.4	31.2
22	U16-920087	63.7	75.2	66.1	69.8	48.6	60.3	54.3	53.8	38.0
23	U16-923137	63.3	61.3	73.5	73.5	25.0	61.3	64.8	60.8	42.2
	Average									
	LSD(.05)	61.5	68.7	68.5	65.3	44.1	61.0	64.8	50.2	39.9
	C.V. %	8.6	15.7	12.0	8.5	9.0	17.0	10.6	12.8	14.7
	Replications	6.7	11.1	8.4	6.3	8.2	13.6	8.0	12.5	17.3
	Row width (in.)	2	2	2	2	2	2	2	2	2

2018 SCN PRELIMINARY TEST IIB

Yield (rank)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	10	1	13	15	12	3	7	12	16
2	IA1022 (SCN)	18	23	21	22	22	12	15	21	21
3	LD02-4485	3	10	3	8	11	4	10	23	5
4	U11-920017	9	19	7	3	21	17	1	18	11
5	AR15-258059	5	8	18	16	2	22	9	14	20
6	AR17-179001	22	9	9	18	14	16	4	17	6
7	AR17-179003	16	15	23	23	13	19	13	8	8
8	AR17-179012	14	17	12	14	17	15	3	10	23
9	AR17-179022	20	16	20	21	7	13	17	20	9
10	AR17-179026	13	2	8	13	10	20	5	6	1
11	AR17-279010	12	4	14	4	5	23	8	4	2
12	AR17-279018	4	14	22	20	18	21	21	16	15
13	AR17-279022	21	7	19	17	16	5	12	12	17
14	AR17-279024	17	20	10	19	15	8	11	19	7
15	LD15-456	1	11	1	2	4	6	2	5	4
16	LD15-467	2	12	2	7	3	1	16	1	10
17	LD15-5170a	11	5	6	11	1	7	19	3	3
18	U16-915064	23	21	11	9	19	2	19	22	13
19	U16-915073	19	22	15	12	20	18	22	15	22
20	U16-918088	15	3	16	6	6	14	6	9	18
21	U16-918097	6	13	5	1	9	9	18	11	19
22	U16-920087	7	6	17	10	8	11	23	7	14
23	U16-923137	8	18	4	5	23	10	14	2	12

2018 SCN PRELIMINARY TEST IIB

Maturity

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	9/19		9/04	8/31		10/1	10/5	9/27	
2	IA1022 (SCN)	-9		-10	-9		-12	-6	-11	
3	LD02-4485	2		-2	4		-3	-2	-6	
4	U11-920017	-4		-1	2		0	-1	-7	
5	AR15-258059	-2		0	1		-3	-4	-1	
6	AR17-179001	-5		-3	-2		-4	-5	-8	
7	AR17-179003	-6		-9	-7		-5	-5	-1	
8	AR17-179012	-7		-2	-1		-7	-6	-2	
9	AR17-179022	-7		-4	1		-5	-5	-1	
10	AR17-179026	-7		-2	-1		-5	-5	-5	
11	AR17-279010	-4		-1	3		-4	-5	-1	
12	AR17-279018	-4		-1	-2		-4	-5	-5	
13	AR17-279022	-8		-2	0		-4	-4	-4	
14	AR17-279024	1		0	-1		1	-4	-4	
15	LD15-456	4		6	3		12	-1	7	
16	LD15-467	1		6	4		12	-1	10	
17	LD15-5170a	2		2	2		6	-2	4	
18	U16-915064	-7		-2	0		-3	-5	-5	
19	U16-915073	-2		-1	3		-2	-4	-5	
20	U16-918088	-6		-1	2		-1	-4	1	
21	U16-918097	1		4	8		9	-1	4	
22	U16-920087	-5		-1	4		0	-1	3	
23	U16-923137	1		0	7		9	-1	3	
	Planted	5/14	5/11	5/08	5/08	4/30	5/16	5/28	5/07	5/09

2018 SCN PRELIMINARY TEST IIB

Lodging (score)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	4.5	3.5	2.0	2.0		2.5	4.0	1.0	3.5
2	IA1022 (SCN)	3.0	3.5	2.0	1.0		1.0	3.5	1.0	3.0
3	LD02-4485	3.0	3.0	1.8	1.3		1.5	3.5	1.0	3.0
4	U11-920017	3.5	3.5	1.0	1.0		1.5	3.0	1.0	2.5
5	AR15-258059	3.5	4.0	1.5	1.0		1.5	2.5	1.0	3.5
6	AR17-179001	4.0	4.0	1.0	1.0		1.5	3.0	1.0	2.5
7	AR17-179003	2.5	3.0	1.3	1.0		1.0	1.5	1.0	2.0
8	AR17-179012	3.0	3.0	1.5	1.0		1.0	1.5	1.0	2.5
9	AR17-179022	4.0	2.5	1.8	1.0		1.5	3.5	1.0	4.0
10	AR17-179026	3.0	3.0	1.0	1.0		1.5	3.0	1.0	2.0
11	AR17-279010	3.5	3.5	1.5	1.0		1.5	2.5	1.0	2.0
12	AR17-279018	3.5	3.5	1.5	1.0		1.5	1.9	1.0	3.5
13	AR17-279022	2.5	3.0	1.3	1.0		1.0	1.0	1.0	2.5
14	AR17-279024	2.5	3.0	1.5	1.0		2.0	3.5	1.0	4.0
15	LD15-456	3.0	2.5	1.5	1.0		1.5	3.5	1.0	2.0
16	LD15-467	2.0	2.5	1.3	1.0		2.0	3.5	1.0	2.0
17	LD15-5170a	3.0	3.0	2.0	1.5		2.0	4.0	1.0	3.0
18	U16-915064	1.5	3.0	1.0	1.0		2.0	1.5	1.0	2.0
19	U16-915073	2.5	3.0	1.5	1.3		2.0	3.5	1.0	2.0
20	U16-918088	3.0	3.5	1.5	1.0		1.5	2.5	1.0	2.5
21	U16-918097	3.0	3.0	2.0	1.5		2.5	4.0	1.0	3.0
22	U16-920087	3.0	3.0	1.5	1.0		2.0	3.0	1.0	3.0
23	U16-923137	2.0	3.0	1.5	1.5		2.0	3.5	1.0	2.0

2018 SCN PRELIMINARY TEST IIB

Height (inches)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	42	44	40	35		36	40	30	27
2	IA1022 (SCN)	33	39	35	28		29	40	24	34
3	LD02-4485	38	48	38	29		38	42	27	33
4	U11-920017	32	41	39	34		37	38	31	32
5	AR15-258059	34	41	39	31		32	41	31	31
6	AR17-179001	35	41	38	32		31	38	29	31
7	AR17-179003	31	35	32	27		28	42	26	29
8	AR17-179012	32	44	37	33		32	38	33	31
9	AR17-179022	33	47	41	32		35	38	35	30
10	AR17-179026	31	40	38	32		30	36	29	36
11	AR17-279010	32	42	41	33		30	41	31	33
12	AR17-279018	38	45	38	34		33	47	31	30
13	AR17-279022	34	43	39	33		37	40	30	30
14	AR17-279024	32	42	38	32		35	40	30	34
15	LD15-456	35	45	41	37		38	47	32	30
16	LD15-467	33	45	42	37		42	45	32	35
17	LD15-5170a	35	49	42	31		35	46	34	32
18	U16-915064	32	42	38	33		40	43	29	31
19	U16-915073	35	46	42	35		41	43	30	34
20	U16-918088	38	44	39	36		36	41	30	33
21	U16-918097	38	51	43	40		44	43	32	33
22	U16-920087	40	47	43	41		41	46	35	31
23	U16-923137	42	51	44	38		44	46	34	33

2018 SCN PRELIMINARY TEST IIB

Seed Quality (score)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	1.0	2.0	3.0	2.0		1.0	1.0	1.0	2.0
2	IA1022 (SCN)	2.0	1.0	1.0	2.0		1.0	1.0	1.0	2.0
3	LD02-4485	2.0	2.0	2.0	2.0		1.0	2.0	1.0	2.0
4	U11-920017	1.0	2.0	3.0	2.0		1.0	2.0	1.0	1.0
5	AR15-258059	2.0	2.0	2.0	2.0		1.0	1.0	3.0	2.5
6	AR17-179001	1.0	1.0	3.0	2.0		1.0	1.0	2.0	2.0
7	AR17-179003	2.0	2.0	2.0	2.0		2.0	1.0	2.0	1.0
8	AR17-179012	1.0	2.0	1.0	2.0		1.0	1.0	1.0	1.5
9	AR17-179022	2.0	3.0	2.0	3.0		1.0	1.0	1.0	3.0
10	AR17-179026	1.0	1.0	2.0	2.0		1.0	1.0	1.0	2.0
11	AR17-279010	2.0	1.0	2.0	2.0		1.0	1.0	1.0	2.0
12	AR17-279018	1.0	1.0	2.0	2.0		1.0	1.0	1.0	1.0
13	AR17-279022	1.0	1.0	2.0	1.0		1.0	1.0	1.0	2.0
14	AR17-279024	2.0	2.0	2.0	2.0		3.0	1.0	1.0	2.0
15	LD15-456	1.0	1.0	2.0	2.0		1.0	1.0	1.0	1.5
16	LD15-467	1.0	1.0	2.0	1.0		2.0	2.0	1.0	1.5
17	LD15-5170a	2.0	1.0	2.0	2.0		2.0	1.0	1.0	1.0
18	U16-915064	1.0	1.0	1.0	2.0		1.0	1.0	1.0	2.0
19	U16-915073	1.0	1.0	2.0	1.0		1.0	1.0	1.0	2.0
20	U16-918088	1.0	1.0	3.0	1.0		1.0	1.0	1.0	2.0
21	U16-918097	1.0	1.0	2.0	2.0		2.0	2.0	1.0	2.0
22	U16-920087	2.0	1.0	2.0	2.0		2.0	2.0	1.0	2.5
23	U16-923137	1.0	2.0	2.0	2.0		2.0	2.0	1.0	2.0

2018 SCN PRELIMINARY TEST IIB

Seed Weight (g/100)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	16.4	16.5	13.5	14.8		14.8	18.1	15.1	14.6
2	IA1022 (SCN)	15.6	14.5	13.0	12.4		15.2	16.1	15.1	12.0
3	LD02-4485	15.4	12.4	12.8	12.4		13.1	16.2	12.7	13.6
4	U11-920017	17.2	15.0	14.7	14.5		14.5	16.7	15.3	15.4
5	AR15-258059	15.6	14.2	12.8	13.3		14.0	16.5	15.3	14.0
6	AR17-179001	15.4	12.3	13.8	13.5		14.1	16.8	15.4	12.7
7	AR17-179003	17.6	17.4	14.9	15.6		17.3	19.9	19.0	14.6
8	AR17-179012	16.7	13.5	15.1	14.8		14.9	17.2	16.1	13.0
9	AR17-179022	15.9	13.2	13.9	14.2		13.4	18.4	15.9	15.0
10	AR17-179026	20.6	16.2	15.5	15.2		15.1	18.3	16.3	15.1
11	AR17-279010	15.3	14.5	13.5	13.4		13.9	17.2	15.2	13.5
12	AR17-279018	17.6	15.5	14.3	14.9		14.6	17.4	18.2	12.9
13	AR17-279022	14.8	13.3	14.8	14.5		14.7	16.9	15.6	15.0
14	AR17-279024	16.2	14.1	15.0	15.3		16.4	17.7	15.9	9.7
15	LD15-456	17.2	15.6	15.1	15.4		17.6	18.7	17.5	14.1
16	LD15-467	17.4	15.0	14.3	15.3		17.4	18.6	16.7	14.4
17	LD15-5170a	16.0	15.8	13.6	14.4		16.0	16.6	15.6	12.7
18	U16-915064	15.3	11.8	13.4	13.1		14.5	16.2	13.8	14.9
19	U16-915073	17.6	13.4	14.1	13.6		14.8	17.8	14.6	11.5
20	U16-918088	17.8	17.4	14.6	16.0		17.5	18.4	17.8	15.3
21	U16-918097	17.2	15.0	14.4	14.8		16.6	19.4	16.7	13.8
22	U16-920087	14.7	11.4	12.1	11.9		12.5	14.7	13.8	13.4
23	U16-923137	14.6	11.0	11.3	12.4		13.2	14.5	14.1	12.3

2018 SCN PRELIMINARY TEST IIB

Protein (%)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	Inf	2.5.7	Inf	Inf
	Strain									
1	IA2102	33.9	34.5	32.7	32.8		34.6	35.0	32.1	35.6
2	IA1022 (SCN)	34.7	31.9	31.6	30.4		33.2	33.8	31.6	32.8
3	LD02-4485	32.7	30.4	29.3	30.3		32.5	33.3	30.9	33.1
4	U11-920017	32.6	34.4	29.5	30.0		31.2	31.8	30.1	33.3
5	AR15-258059	34.4	32.5	31.8	32.2		32.6	33.1	32.2	34.5
6	AR17-179001	36.9	34.5	33.9	34.5		36.4	36.4	33.9	36.4
7	AR17-179003	35.2	33.6	34.2	33.1		34.7	35.2	32.2	33.9
8	AR17-179012	36.6	35.3	33.6	34.1		35.7	34.5	33.0	35.6
9	AR17-179022	35.8	34.8	32.4	32.1		33.9	33.1	32.6	33.4
10	AR17-179026	36.8	34.7	34.6	33.3		36.1	35.2	33.2	36.2
11	AR17-279010	34.3	34.2	32.7	32.8		33.6	34.8	31.3	35.6
12	AR17-279018	35.4	34.1	33.2	33.6		36.3	34.9	32.9	34.1
13	AR17-279022	35.2	33.4	34.3	33.8		34.5	35.6	31.8	35.3
14	AR17-279024	34.3	33.0	32.3	33.2		34.5	32.5	32.4	35.2
15	LD15-456	35.5	34.5	32.9	32.8		36.3	34.4	32.3	35.6
16	LD15-467	36.2	34.0	32.6	31.9		37.6	35.5	32.0	34.4
17	LD15-5170a	33.9	34.0	32.3	31.9		35.4	35.1	30.5	33.8
18	U16-915064	34.2	31.1	31.1	30.2		32.7	33.7	29.3	33.6
19	U16-915073	36.8	33.1	31.4	32.3		35.4	34.7	29.8	34.9
20	U16-918088	35.1	32.0	32.3	32.7		35.8	34.1	30.8	35.0
21	U16-918097	32.3	31.4	30.7	31.4		33.5	33.1	29.5	34.8
22	U16-920087	34.1	31.0	30.7	29.6		34.0	34.4	31.1	36.4
23	U16-923137	31.6	31.4	29.9	30.3		33.2	32.5	30.5	32.9

2018 SCN PRELIMINARY TEST IIB

Oil (%)

		Ames IA	Moorhead IA	Pontiac IL	Urbana IL	Decatur MI	Lamberton MN	Fairfax MN	Waseca MN	Bellwood NE
	SCN HG Type		2.5.7	2.5.7	2.5.7					
	Strain									
1	IA2102	18.8	18.6	17.8	17.9		17.5	18.3	17.8	17.2
2	IA1022 (SCN)	19.8	20.0	19.5	19.7		19.2	19.3	19.4	19.5
3	LD02-4485	18.0	19.3	19.2	18.6		18.0	17.6	18.2	18.0
4	U11-920017	19.3	18.3	19.9	19.2		18.9	18.4	19.5	18.3
5	AR15-258059	18.7	19.4	18.7	18.6		18.4	19.5	18.8	18.0
6	AR17-179001	18.5	18.9	17.9	17.9		17.5	16.9	18.4	17.3
7	AR17-179003	19.0	18.6	17.4	18.1		17.1	16.8	18.8	18.0
8	AR17-179012	18.7	18.7	18.7	18.1		17.7	18.7	18.8	17.7
9	AR17-179022	18.2	19.2	18.3	18.7		17.7	18.5	17.9	18.2
10	AR17-179026	18.7	19.1	18.3	19.0		18.1	17.8	18.8	18.0
11	AR17-279010	18.8	17.7	17.7	17.7		17.7	17.0	18.3	17.6
12	AR17-279018	18.1	19.3	18.6	17.8		17.4	18.5	18.2	17.8
13	AR17-279022	19.0	19.3	18.6	18.6		18.1	18.9	19.2	18.0
14	AR17-279024	18.8	18.7	18.3	18.2		17.1	17.0	17.7	17.3
15	LD15-456	18.2	18.8	18.3	18.1		17.7	18.7	18.8	17.2
16	LD15-467	18.7	18.1	18.8	18.5		17.3	17.6	18.6	17.7
17	LD15-5170a	18.9	17.8	17.8	18.6		17.7	18.3	18.4	17.9
18	U16-915064	19.4	19.8	19.5	19.4		18.5	19.4	20.2	18.5
19	U16-915073	17.6	18.6	18.7	18.5		17.6	18.0	19.8	17.9
20	U16-918088	19.5	19.2	18.9	19.1		17.7	17.5	19.4	18.9
21	U16-918097	19.5	19.5	19.2	18.3		17.7	17.2	19.1	17.8
22	U16-920087	18.6	19.0	18.9	18.9		17.7	19.1	18.9	17.1
23	U16-923137	19.0	18.8	18.9	18.3		18.0	17.4	18.7	18.0

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2018 SCN UNIFORM TEST III

	Strain	Descriptive code	Parentage	Previous testing
1	LD11-2170	PLtbr	Syngenta 03JR313108 x LD05-3171	2
2	IA3048	WGy	Dairyland 99540 x IA2068	7
3	LD07-3395bf	WGbf	Syngenta WW115926 x LD00-2817	2
4	U11-920017	PLtbr	HS5-3417 x LD02-4485	1
5	LD14-3698	PLtbl	LD07-4477 x LG06-5798	17 PT IV
6	SA13-1310	PTbl	K07-1633 x LD04-13265	17 UT III
7	SA13-1363	PTbl	K07-1633 x LD04-13265	17 UT III
8	SA13-1385	WLtbl	K07-1633 x LD04-13265	17 UT III
9	SA13-2699	PGibl	LS07-3125 x LD04-13265	17 UT III
10	SA14-9653	PTbl	LD07-4477 x LD02-9050	17 PT IIIB
11	U13-231286	PLtbl	LD04-13265 x UX2759-1 (F1)	17 UT III
12	U14-211209	PLtbl+ibl+br	U09-407147 x LD02-4485	17 PT IIIB
13	U14-211226	PGibl	U09-407147 x LD02-4485	17 PT IIIB
14	U14-212231	PLtbl	U09-407147 x LD02-4485	17 PT IIIB
15	U14-605217	WGbf	U09-215057 x LD07-3419	17 UT III
16	U14-924158	PLtbl	U11-935093 x LD07-3419	17 UT III
17	U15-606207	PGbf	LD07-3419 x U09-105007	17 PT IIIB
18	U15-613163	PGibl	LD07-3419 x U11-919011	17 PT IIIB

	Strain	Gen comp	SCN res source	Traits
1	LD11-2170	F5	PI 88788	
2	IA3048	F4	PI 88788	
3	LD07-3395bf	F5	PI 88788,437654	
4	U11-920017	F6	None	Rps
5	LD14-3698	F5	PI 88788	
6	SA13-1310	F4	PI 88788	
7	SA13-1363	F4	PI 88788	
8	SA13-1385	F4	PI 88788	
9	SA13-2699	F4	PI 88788	
10	SA14-9653	F4	PI 88788	
11	U13-231286	F5	PI 88788	Rps, Dt
12	U14-211209	F5	PI 88788	Rps1k, Rps
13	U14-211226	F5	PI 88788	Rps1k, Rps
14	U14-212231	F5	PI 88788	Rps1k, Rps
15	U14-605217	F5	PI 88788,437654	Rps, Dt
16	U14-924158	F5	PI 88788,437654	IDC
17	U15-606207	F5	PI 88788,437654	Rps
18	U15-613163	F5	PI 88788,437654	Rps

2018 SCN UNIFORM TEST III

		IL SCN screen				ISU IDC	ISU IDC
		HG Type 0		HG Type 2.5.7		AnNutri	Bruner
	Strain	FI	rating	FI	rating	score	score
1	LD11-2170	**10**	**R**	**36**	**MR**	2.5	1.5
2	IA3048	**6**	**HR**	**57**	**LR**	2.0	1.8
3	LD07-3395bf	**2**	**HR**	**1**	**HR**	3.0	2.3
4	U11-920017	**56**	**LR**	**72**	**NR**	1.8	1.3
5	LD14-3698	**7**	**HR**	**67**	**NR**	3.3	2.0
6	SA13-1310	**7**	**HR**	**59**	**LR**	4.0	4.3
7	SA13-1363	**2**	**HR**	**49**	**LR**	4.0	3.0
8	SA13-1385	**5**	**HR**	**54**	**LR**	3.0	1.5
9	SA13-2699	**14**	**R**	**49**	**LR**	3.0	2.3
10	SA14-9653	**12**	**R**	**62**	**NR**	3.5	.
11	U13-231286	**60**	**NR**	**61**	**NR**	3.3	1.8
12	U14-211209	**25**	**R**	**64**	**NR**	2.0	3.0
13	U14-211226	**10**	**R**	**56**	**LR**	.	3.0
14	U14-212231	**68**	**NR**	**58**	**LR**	3.3	1.3
15	U14-605217	**51**	**LR**	**52**	**LR**	.	2.0
16	U14-924158	**1**	**HR**	**13**	**R**	3.3	2.0
17	U15-606207	**1**	**HR**	**1**	**HR**	2.5	1.3
18	U15-613163	**30**	**MR**	**48**	**LR**	2.5	2.5
					Mean:	2.9	2.1
					LSD value:	1.0	1.3
					CV (%):	15.4	29.6

2018 SCN UNIFORM TEST III

Summary

		Yield									Seed			
		All		Infested		Non-infested		Maturity	Lodging	Height	quality	weight	protein	oil
	Strain	bu/a	rank	bu/a	rank	bu/a	rank	date	score	inches	score	g/100	@13%	@13%
	Locations	**9***		7*		2		8	10	10	8	8	8	8
1	LD11-2170	**71.1**	**3**	71.5	2	70.1	6	9/17	1.7	34	1.9	14.3	34.4	18.9
2	IA3048	**63.9**	**13**	63.4	13	65.9	14	1	2.1	37	1.6	13.7	34.5	17.9
3	LD07-3395bf	**66.7**	**10**	67.8	10	63.5	16	7	1.9	34	2.0	14.1	32.5	18.5
4	U11-920017	**62.7**	**16**	60.3	16	71.5	3	-7	1.7	33	1.9	15.0	31.4	19.6
5	LD14-3698	**71.3**	**2**	71.2	3	72.1	1	8	1.7	37	1.6	15.8	34.9	17.6
6	SA13-1310	**69.1**	**5**	69.9	5	66.8	12	10	1.9	36	1.6	14.4	33.7	18.3
7	SA13-1363	**64.8**	**11**	66.0	11	60.9	18	9	1.9	34	1.6	12.7	32.9	18.2
8	SA13-1385	**68.1**	**7**	68.1	9	68.7	8	9	1.7	38	1.6	13.0	32.6	17.7
9	SA13-2699	**68.4**	**6**	69.1	6	66.4	13	11	1.6	39	1.7	14.0	34.4	17.0
10	SA14-9653	**64.8**	**11**	64.3	12	67.1	11	8	2.2	39	1.3	15.3	35.6	17.1
11	U13-231286	**63.3**	**15**	62.6	14	66.0	14	8	1.2	34	1.7	13.0	33.0	18.5
12	U14-211209	**68.1**	**7**	68.4	7	67.8	10	1	2.3	38	2.1	13.1	32.4	18.2
13	U14-211226	**70.2**	**4**	70.1	4	70.8	5	2	1.9	39	2.1	14.5	33.1	18.0
14	U14-212231	**60.8**	**17**	58.5	17	69.0	7	-1	1.6	38	1.6	12.9	31.1	19.1
15	U14-605217	**63.7**	**14**	61.7	15	71.3	4	3	1.6	35	1.9	14.9	32.5	18.7
16	U14-924158	**68.1**	**7**	68.3	8	68.0	9	-1	1.6	34	1.6	12.9	31.4	19.0
17	U15-606207	**73.4**	**1**	73.9	1	71.8	2	3	1.7	34	1.8	14.8	32.7	18.3
18	U15-613163	**57.3**	**18**	56.2	18	61.6	17	-3	2.0	34	2.6	12.7	32.7	18.1
	Mean	**66.4**		66.2		67.7		20.7	1.8	35.6	1.8	13.9	33.1	18.3
	LSD(.05)	**2.5**		2.8		5.4		1.1	0.2	1.3				
	C.V. %	**7.1**		6.9		6.9		9.7	22.0	6.9				
	Replications	**23**		17		6		21	25	25				

*Bellwood, NE yield data not included in analysis.

2018 SCN UNIFORM TEST III

Yield (bu/a)

		Muscatine IA	Oskaloosa IA	Arthur IL	Urbana IL	Manhattan KS	Novelty MO	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	2.5.7	Inf
	Strain								
1	LD11-2170	60.6	71.4	110.0	74.1	38.6	66.2	82.2	35.3
2	IA3048	54.7	61.5	97.6	71.1	37.4	58.9	65.3	38.5
3	LD07-3395bf	66.3	67.1	110.3	72.7	31.3	58.5	70.9	23.7
4	U11-920017	42.2	55.9	93.6	76.7	32.0	48.2	76.1	29.2
5	LD14-3698	58.2	73.0	105.2	75.1	40.9	66.9	81.9	37.3
6	SA13-1310	64.0	72.4	101.6	77.5	38.9	64.3	73.6	32.5
7	SA13-1363	61.3	63.8	97.4	69.6	44.6	60.2	68.1	39.7
8	SA13-1385	61.7	60.8	101.9	71.9	42.8	64.6	75.5	29.3
9	SA13-2699	59.6	61.7	103.7	78.4	36.2	63.6	83.3	30.3
10	SA14-9653	58.9	68.2	95.5	65.4	40.5	57.6	66.9	33.1
11	U13-231286	45.4	60.6	94.8	75.0	28.0	52.8	84.7	24.3
12	U14-211209	52.0	63.6	103.1	82.6	39.7	59.8	80.6	15.6
13	U14-211226	61.7	69.6	106.0	79.0	41.2	62.1	74.0	28.2
14	U14-212231	36.5	56.0	92.1	75.5	29.8	44.8	77.7	14.1
15	U14-605217	44.0	62.1	102.6	79.2	30.5	41.8	74.4	39.2
16	U14-924158	68.9	64.2	107.2	75.6	41.4	49.2	74.4	21.4
17	U15-606207	67.4	71.9	114.0	81.7	37.3	61.2	86.7	36.7
18	U15-613163	41.8	51.6	96.2	66.0	24.5	46.9	68.9	14.8
	Average	55.9	64.2	101.8	74.8	36.9	57.1	75.8	28.5
	LSD(.05)	10.1	10.4	11.3	8.8	7.6	5.4	8.2	20.3
	C.V. %	8.5	7.7	5.3	5.6	12.4	5.7	6.5	29.9
	Replications	2	2	2	2	3	3	3	3
	Row width (in.)	30	30	30	30	30	30	30	30

2018 SCN UNIFORM TEST III

Yield (bu/a)

	SCN HG Type	West Lafayette IN NI	Hoytville OH NI
	Strain		
1	LD11-2170	64.5	75.8
2	IA3048	61.9	70.0
3	LD07-3395bf	58.4	68.5
4	U11-920017	67.3	75.7
5	LD14-3698	66.3	77.8
6	SA13-1310	60.0	73.6
7	SA13-1363	55.0	66.8
8	SA13-1385	62.0	75.3
9	SA13-2699	60.3	72.5
10	SA14-9653	57.6	76.5
11	U13-231286	56.7	75.4
12	U14-211209	60.8	74.8
13	U14-211226	66.9	74.8
14	U14-212231	63.9	74.2
15	U14-605217	59.9	82.7
16	U14-924158	61.7	74.2
17	U15-606207	62.8	80.9
18	U15-613163	53.7	69.4
	Average	61.1	74.4
	LSD(.05)	4.4	7.6
	C.V. %	4.4	6.1
	Replications	3	3
	Row width (in.)	30	30

2018 SCN UNIFORM TEST III

Yield (rank)

	SCN HG Type	Muscatine IA 2.5.7	Oskaloosa IA 2.5.7	Arthur IL 2.5.7	Urbana IL 2.5.7	Manhattan KS Inf	Novelty MO 2.5.7	Rock Port MO 2.5.7	Bellwood NE Inf
	Strain								
1	LD11-2170	8	4	3	12	9	2	4	6
2	IA3048	12	13	12	15	10	10	18	3
3	LD07-3395bf	3	7	2	13	14	11	14	14
4	U11-920017	16	17	17	7	13	15	8	11
5	LD14-3698	11	1	6	10	5	1	5	4
6	SA13-1310	4	2	11	6	8	4	13	8
7	SA13-1363	7	9	13	16	1	8	16	1
8	SA13-1385	5	14	10	14	2	3	9	10
9	SA13-2699	9	12	7	5	12	5	3	9
10	SA14-9653	10	6	15	18	6	12	17	7
11	U13-231286	14	15	16	11	17	13	2	13
12	U14-211209	13	10	8	1	7	9	6	16
13	U14-211226	5	5	5	4	4	6	12	12
14	U14-212231	18	16	18	9	16	17	7	18
15	U14-605217	15	11	9	3	15	18	10	2
16	U14-924158	1	8	4	8	3	14	11	15
17	U15-606207	2	3	1	2	11	7	1	5
18	U15-613163	17	18	14	17	18	16	15	17

2018 SCN UNIFORM TEST III

Yield (rank)

	SCN HG Type	West Lafayette IN NI	Hoytville OH NI
	Strain		
1	LD11-2170	4	5
2	IA3048	8	13
3	LD07-3395bf	14	15
4	U11-920017	1	6
5	LD14-3698	3	3
6	SA13-1310	12	11
7	SA13-1363	17	16
8	SA13-1385	7	8
9	SA13-2699	11	12
10	SA14-9653	15	4
11	U13-231286	16	7
12	U14-211209	10	9
13	U14-211226	2	9
14	U14-212231	5	10
15	U14-605217	13	1
16	U14-924158	9	10
17	U15-606207	6	2
18	U15-613163	18	14

2018 SCN UNIFORM TEST III

Maturity

		Muscatine IA	Oskaloosa IA	Arthur IL	Urbana IL	Manhattan KS	Novelty MO	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	2.5.7	Inf
	Strain								
1	LD11-2170	9/14		9/07	9/13	9/21	9/13	9/23	
2	IA3048	1		6	0	-1	0	-1	
3	LD07-3395bf	9		9	4	10	6	2	
4	U11-920017	-13		-7	-11	-6	-10	-2	
5	LD14-3698	10		8	8	11	9	12	
6	SA13-1310	12		13	7	8	10	14	
7	SA13-1363	7		13	6	8	10	15	
8	SA13-1385	13		12	9	11	10	9	
9	SA13-2699	13		13	10	14	10	12	
10	SA14-9653	10		9	9	5	6	12	
11	U13-231286	5		10	6	16	8	6	
12	U14-211209	-1		4	2	-3	1	0	
13	U14-211226	2		5	2	-2	2	2	
14	U14-212231	-4		0	-1	0	-4	0	
15	U14-605217	-1		2	1	5	1	5	
16	U14-924158	1		0	-5	-4	-2	-3	
17	U15-606207	3		2	-1	7	4	1	
18	U15-613163	-5		-3	-6	2	-6	-1	
	Planted	5/07	5/08	5/07	5/08	5/18	5/16	5/22	5/09

2018 SCN UNIFORM TEST III

Maturity

	SCN HG Type	West Lafayette IN NI	Hoytville OH NI
	Strain		
1	LD11-2170	9/18	9/28
2	IA3048	2	1
3	LD07-3395bf	5	9
4	U11-920017	-2	-4
5	LD14-3698	-1	7
6	SA13-1310	8	9
7	SA13-1363	8	7
8	SA13-1385	0	7
9	SA13-2699	10	10
10	SA14-9653	7	6
11	U13-231286	5	7
12	U14-211209	3	3
13	U14-211226	4	3
14	U14-212231	3	0
15	U14-605217	2	6
16	U14-924158	2	0
17	U15-606207	-1	5
18	U15-613163	-6	0
	Planted	5/10	5/30

2018 SCN UNIFORM TEST III

Lodging (score)

		Muscatine IA	Oskaloosa IA	Arthur IL	Urbana IL	Manhattan KS	Novelty MO	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	2.5.7	Inf
	Strain								
1	LD11-2170	1.0	2.0	1.3	1.0	2.0	2.3	2.8	2.5
2	IA3048	2.0	2.5	2.5	1.0	2.0	2.7	4.0	2.0
3	LD07-3395bf	1.0	1.5	2.0	1.5	2.0	2.0	3.7	2.5
4	U11-920017	1.5	2.0	1.5	1.0	1.7	1.5	3.3	2.5
5	LD14-3698	1.5	1.5	1.8	1.5	1.7	1.7	3.3	2.0
6	SA13-1310	1.0	1.5	2.0	1.0	1.7	2.7	3.8	3.0
7	SA13-1363	1.5	2.0	2.5	1.0	2.0	1.7	4.0	2.5
8	SA13-1385	1.5	2.0	2.0	1.0	1.7	1.8	3.2	1.5
9	SA13-2699	1.0	1.5	1.8	1.0	1.7	1.8	3.3	1.5
10	SA14-9653	2.0	2.0	2.5	1.5	2.0	2.5	3.5	4.0
11	U13-231286	1.0	1.0	1.3	1.0	1.3	1.3	2.3	1.0
12	U14-211209	2.0	2.0	2.8	2.0	2.3	2.0	3.8	4.0
13	U14-211226	1.5	1.5	2.8	1.5	1.7	2.3	3.5	2.0
14	U14-212231	1.0	2.0	2.3	1.0	2.0	1.8	2.7	1.5
15	U14-605217	1.0	2.0	1.5	1.0	2.0	1.8	3.5	1.0
16	U14-924158	1.0	1.5	1.5	1.0	1.7	1.3	2.8	3.0
17	U15-606207	1.0	1.5	1.5	1.0	1.7	2.0	2.7	3.0
18	U15-613163	1.0	2.5	2.5	1.0	2.0	2.0	3.8	3.5

Lodging (score)

	SCN HG Type	West Lafayette IN NI	Hoytville OH NI
	Strain		
1	LD11-2170	1.0	1.0
2	IA3048	1.0	1.0
3	LD07-3395bf	1.5	1.0
4	U11-920017	1.0	1.0
5	LD14-3698	1.0	1.0
6	SA13-1310	1.0	1.0
7	SA13-1363	1.0	1.0
8	SA13-1385	1.0	1.0
9	SA13-2699	1.0	1.0
10	SA14-9653	1.3	1.0
11	U13-231286	1.0	1.0
12	U14-211209	1.0	1.0
13	U14-211226	1.0	1.0
14	U14-212231	1.0	1.0
15	U14-605217	1.0	1.0
16	U14-924158	1.0	1.0
17	U15-606207	1.5	1.0
18	U15-613163	1.0	1.0

2018 SCN UNIFORM TEST III

Height (inches)

		Muscatine IA	Oskaloosa IA	Arthur IL	Urbana IL	Manhattan KS	Novelty MO	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	2.5.7	Inf
	Strain								
1	LD11-2170	26	33	43	34	34	30	43	32
2	IA3048	35	36	45	37	32	31	48	33
3	LD07-3395bf	32	35	43	35	32	28	37	33
4	U11-920017	28	32	37	35	34	32	43	28
5	LD14-3698	33	34	48	39	36	32	48	32
6	SA13-1310	33	37	47	38	31	32	45	32
7	SA13-1363	30	33	44	36	35	29	45	28
8	SA13-1385	34	37	49	40	41	33	47	34
9	SA13-2699	36	39	50	38	37	32	47	34
10	SA14-9653	36	40	48	40	38	35	46	37
11	U13-231286	30	33	43	35	33	27	42	19
12	U14-211209	35	37	46	41	41	35	49	27
13	U14-211226	34	39	43	39	42	37	52	35
14	U14-212231	31	35	48	39	40	36	52	32
15	U14-605217	30	34	43	38	33	28	43	24
16	U14-924158	32	35	44	34	34	28	45	29
17	U15-606207	32	35	42	33	35	30	41	30
18	U15-613163	31	33	39	35	34	28	42	35

2018 SCN UNIFORM TEST III

Height (inches)

	SCN HG Type	West Lafayette IN NI	Hoytville OH NI
	Strain		
1	LD11-2170	35	30
2	IA3048	41	31
3	LD07-3395bf	36	29
4	U11-920017	31	28
5	LD14-3698	34	31
6	SA13-1310	37	31
7	SA13-1363	35	30
8	SA13-1385	37	32
9	SA13-2699	41	33
10	SA14-9653	39	32
11	U13-231286	37	29
12	U14-211209	39	33
13	U14-211226	41	33
14	U14-212231	37	33
15	U14-605217	37	33
16	U14-924158	35	29
17	U15-606207	35	30
18	U15-613163	37	29

2018 SCN UNIFORM TEST III

Seed Quality (score)

		Muscatine IA	Oskaloosa IA	Arthur IL	Urbana IL	Manhattan KS	Novelty MO	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	2.5.7	Inf
	Strain								
1	LD11-2170	2.0	2.0	2.0	2.0		2.5	2.0	2.0
2	IA3048	2.0	1.0	1.0	1.0		1.5	2.0	2.0
3	LD07-3395bf	1.0	1.0	2.0	2.0		3.0	3.0	2.0
4	U11-920017	3.0	1.0	2.0	2.0		2.0	2.0	2.0
5	LD14-3698	1.0	1.0	2.0	1.0		2.5	2.5	2.0
6	SA13-1310	1.0	2.0	2.0	1.0		2.0	2.0	2.0
7	SA13-1363	1.0	1.0	3.0	1.0		1.5	2.5	1.5
8	SA13-1385	1.0	1.0	2.0	2.0		2.0	2.5	1.0
9	SA13-2699	1.0	1.0	2.0	2.0		2.5	2.0	2.0
10	SA14-9653	1.0	1.0	1.0	1.0		1.5	2.0	2.0
11	U13-231286	1.0	1.0	2.0	2.0		2.0	1.5	2.0
12	U14-211209	1.0	1.0	2.0	2.0		3.5	3.5	1.5
13	U14-211226	2.0	1.0	2.0	2.0		3.0	3.0	2.0
14	U14-212231	2.0	1.0	2.0	1.0		2.0	2.0	1.5
15	U14-605217	2.0	1.0	2.0	2.0		2.5	2.0	2.0
16	U14-924158	2.0	1.0	1.0	1.0		3.0	2.5	1.5
17	U15-606207	2.0	1.0	2.0	2.0		3.0	2.0	1.5
18	U15-613163	4.0	2.0	3.0	2.0		3.0	2.5	2.0

2018 SCN UNIFORM TEST III

Seed Quality (score)

	SCN HG Type	West Lafayette IN NI	Hoytville OH NI
	Strain		
1	LD11-2170		1.0
2	IA3048		2.0
3	LD07-3395bf		2.0
4	U11-920017		1.0
5	LD14-3698		1.0
6	SA13-1310		1.0
7	SA13-1363		1.0
8	SA13-1385		1.0
9	SA13-2699		1.0
10	SA14-9653		1.0
11	U13-231286		2.0
12	U14-211209		2.0
13	U14-211226		2.0
14	U14-212231		1.0
15	U14-605217		2.0
16	U14-924158		1.0
17	U15-606207		1.0
18	U15-613163		2.0

2018 SCN UNIFORM TEST III

Seed Weight (g/100)

		Muscatine IA	Oskaloosa IA	Arthur IL	Urbana IL	Manhattan KS	Novelty MO	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	2.5.7	Inf
	Strain								
1	LD11-2170	14.2	13.8	16.2	14.5		15.7	14.3	11.2
2	IA3048	13.9	12.2	16.4	13.6		14.3	14.1	11.2
3	LD07-3395bf	14.7	13.1	16.7	14.6		13.4	15.0	11.9
4	U11-920017	12.9	13.4	17.9	15.8		16.1	14.0	13.8
5	LD14-3698	16.8	14.7	17.1	16.3		17.0	17.3	11.6
6	SA13-1310	13.9	13.0	16.4	15.0		15.4	15.1	12.1
7	SA13-1363	12.8	11.4	15.4	12.1		13.2	13.8	10.2
8	SA13-1385	13.5	11.3	15.0	13.1		13.8	14.5	10.2
9	SA13-2699	13.7	12.3	15.9	14.3		15.8	16.0	10.5
10	SA14-9653	15.6	13.8	18.1	15.5		16.9	16.4	10.7
11	U13-231286	12.5	11.9	14.3	13.2		14.7	14.2	10.0
12	U14-211209	11.9	11.8	15.9	13.5		13.5	13.5	10.8
13	U14-211226	14.1	13.1	17.4	15.2		14.9	15.3	11.7
14	U14-212231	11.7	11.1	15.0	13.6		14.3	12.8	11.0
15	U14-605217	13.6	13.7	17.7	16.3		16.7	13.7	11.4
16	U14-924158	13.0	11.7	15.9	13.1		12.5	13.0	10.3
17	U15-606207	13.9	12.8	18.1	15.4		15.7	16.3	11.2
18	U15-613163	11.6	11.6	15.4	12.6		14.0	12.5	10.1

2018 SCN UNIFORM TEST III

Seed Weight (g/100)

	SCN HG Type	West Lafayette IN NI	Hoytville OH NI
	Strain		
1	LD11-2170		14.7
2	IA3048		14.0
3	LD07-3395bf		13.1
4	U11-920017		15.9
5	LD14-3698		15.5
6	SA13-1310		13.9
7	SA13-1363		12.4
8	SA13-1385		12.9
9	SA13-2699		13.2
10	SA14-9653		15.7
11	U13-231286		13.5
12	U14-211209		14.0
13	U14-211226		14.6
14	U14-212231		13.8
15	U14-605217		15.8
16	U14-924158		13.4
17	U15-606207		15.1
18	U15-613163		14.0

2018 SCN UNIFORM TEST III

Protein (%)

		Muscatine IA	Oskaloosa IA	Arthur IL	Urbana IL	Manhattan KS	Novelty MO	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	2.5.7	Inf
	Strain								
1	LD11-2170	34.3	33.1	33.7	34.3			34.5	35.4
2	IA3048	34.5	31.5	34.0	33.8			36.1	35.7
3	LD07-3395bf	32.7	31.0	31.7	31.5			34.1	33.7
4	U11-920017	32.2	29.8	30.7	30.2			32.6	33.2
5	LD14-3698	36.2	33.9	34.7	33.7			34.6	35.3
6	SA13-1310	33.4	33.7	33.3	33.0			34.6	33.2
7	SA13-1363	32.9	31.1	33.7	31.8			33.9	33.1
8	SA13-1385	33.7	31.0	32.1	31.7			32.9	33.4
9	SA13-2699	35.3	32.6	33.6	33.2			35.7	34.8
10	SA14-9653	37.0	34.6	35.0	35.5			34.8	35.6
11	U13-231286	32.1	30.7	33.0	30.9			34.8	34.6
12	U14-211209	31.6	30.9	31.7	30.1			33.1	35.0
13	U14-211226	33.4	31.5	32.3	31.6			34.0	34.7
14	U14-212231	31.0	30.8	30.0	30.2			30.5	33.9
15	U14-605217	31.8	31.2	31.9	31.9			33.9	33.6
16	U14-924158	30.5	28.8	30.1	30.3			33.5	33.8
17	U15-606207	32.7	30.7	31.6	32.4			33.5	33.9
18	U15-613163	33.5	30.8	31.9	31.1			34.8	34.6

2018 SCN UNIFORM TEST III

Protein (%)

	SCN HG Type	West Lafayette IN NI	Hoytville OH NI
	Strain		
1	LD11-2170	33.4	36.2
2	IA3048	35.2	35.4
3	LD07-3395bf	31.7	33.4
4	U11-920017	30.3	32.4
5	LD14-3698	35.0	35.6
6	SA13-1310	33.6	34.8
7	SA13-1363	33.5	32.9
8	SA13-1385	32.6	33.3
9	SA13-2699	34.4	35.9
10	SA14-9653	35.4	36.9
11	U13-231286	33.7	34.4
12	U14-211209	33.3	33.4
13	U14-211226	33.1	34.0
14	U14-212231	31.2	31.6
15	U14-605217	32.4	33.0
16	U14-924158	31.8	32.3
17	U15-606207	33.4	33.3
18	U15-613163	31.5	33.6

2018 SCN UNIFORM TEST III

Oil (%)

		Muscatine IA	Oskaloosa IA	Arthur IL	Urbana IL	Manhattan KS	Novelty MO	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	2.5.7	Inf	2.5.7	2.5.7	Inf
	Strain								
1	LD11-2170	21.0	20.6	18.6	18.1			19.6	16.9
2	IA3048	19.9	19.7	17.1	17.4			18.4	16.5
3	LD07-3395bf	19.9	19.6	18.3	18.0			19.0	17.4
4	U11-920017	21.4	21.0	19.2	19.1			19.8	18.9
5	LD14-3698	18.7	18.6	17.6	17.2			18.5	16.3
6	SA13-1310	20.1	19.3	17.8	18.4			18.5	17.5
7	SA13-1363	19.8	19.6	17.5	18.4			18.1	16.9
8	SA13-1385	18.4	19.0	17.1	17.6			18.5	16.0
9	SA13-2699	18.5	18.4	16.7	16.9			17.3	16.0
10	SA14-9653	18.1	18.3	16.7	16.6			18.2	16.0
11	U13-231286	20.6	20.2	18.5	18.8			18.6	17.0
12	U14-211209	20.6	19.5	17.6	18.0			18.6	16.9
13	U14-211226	19.4	19.6	17.7	17.9			18.5	16.5
14	U14-212231	21.4	20.2	19.0	18.7			19.8	17.1
15	U14-605217	20.2	19.8	18.5	18.3			18.8	17.8
16	U14-924158	20.8	21.1	19.0	18.1			19.3	17.3
17	U15-606207	20.1	19.9	18.1	17.9			18.7	17.2
18	U15-613163	19.9	20.2	17.5	17.6			18.2	16.8

2018 SCN UNIFORM TEST III

Oil (%)

	SCN HG Type	West Lafayette IN NI	Hoytville OH NI
	Strain		
1	LD11-2170	18.8	17.3
2	IA3048	17.3	16.7
3	LD07-3395bf	18.6	17.3
4	U11-920017	19.5	17.7
5	LD14-3698	17.5	16.5
6	SA13-1310	17.9	17.1
7	SA13-1363	17.9	17.6
8	SA13-1385	17.6	17.1
9	SA13-2699	16.5	15.9
10	SA14-9653	17.0	16.0
11	U13-231286	17.6	16.8
12	U14-211209	17.7	17.1
13	U14-211226	17.7	16.5
14	U14-212231	18.7	18.0
15	U14-605217	18.1	17.6
16	U14-924158	18.3	18.1
17	U15-606207	17.3	16.9
18	U15-613163	17.5	16.9

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	Strain	Descriptive code	Parentage
1	LD11-2170	PLtbr	Syngenta 03JR313108 x LD05-3171
2	IA3048	WGy	Dairyland 99540 x IA2068
3	LD07-3395bf	WGbf	Syngenta WW115926 x LD00-2817
4	U11-920017	PLtbr	HS5-3417 x LD02-4485
5	AR16-361032	PTbl	AR10-205047 x Var 75881
6	AR17-179007	PMbl+ibl	AR11-214022 x AR09-191018
7	AR17-179009	WT+Ltbl+bf	AR09-192019 x AR11-113050
8	AR17-179016	WGy	AR09-192019 x AR09-291011
9	AR17-279003	WGbf	AR11-114057 x AR09-291011
10	AR17-379003	PTbl	AR10-305198 x RxEF59-16
11	AR17-379009	WGbf	AR11-114057 x AR09-291011
12	AR17-379012	PGbf	AR11-214022 x AR09-191018
13	AR17-379013	PGy	AR09-192019 x AR11-113050
14	AR17-379019	PMy+bf+bl+ibl	AR09-292004 x AR09-192019
15	K16-1234	P+WGibl	LS07-3125 x K10-8556
16	K16-1424	PTbl	S08-17361 x K10-8556
17	LD15-1477	WLtbr	WN0902577 x LD07-4477
18	LD15-4596a	PGbf	WN0902577 x LD08-12435a
19	LD15-4616a	WLtbr	WN0902577 x LD08-12435a
20	LD15-5599	PGgr	LD07-3419 x LD10-10226
21	LD15-5602	WGy	LD07-3419 x LD10-10226
22	LD15-5619	PGy+gr	LD07-3419 x LD10-10226
23	LD15-6345	PLtbl	AR10-205011 x LD07-4477
24	LD15-6762	PGbf	WN0902577 x SD08CV-2102
25	LD15-6975	PGibl	LD07-3419 x LD09-10220
26	LD15-8291	PLtbl	LD07-4477 x LD09-30454
27	LD15-8459	PT+Ltbl	BN09002129 x LD09-30454
28	U16-925137	PLTbl	U11-614119 x AR09-191018

2018 SCN PRELIMINARY TEST III

	Strain	Gen comp	SCN res source	Traits
1	LD11-2170	F5	PI 88788	
2	IA3048	F4	PI 88788	
3	LD07-3395bf	F5	PI 88788,437654	
4	U11-920017	F6	None	Rps
5	AR16-361032	F3	PI 88788	
6	AR17-179007	F4	Peking	SDS
7	AR17-179009	F4	PI 438489B / PI 88788	
8	AR17-179016	F4	PI 507354/Peking/ PI 88788	
9	AR17-279003	F4	PI 507354/Peking/ PI 88788	SDS
10	AR17-379003	F5	PI 438489B	SDS
11	AR17-379009	F4	PI 507354/Peking/ PI 88788	SDS
12	AR17-379012	F4	Peking	SDS
13	AR17-379013	F4	PI 438489B / PI 88788	
14	AR17-379019	F4		
15	K16-1234	F5	PI 88788	
16	K16-1424	F5	PI 88788	
17	LD15-1477	F5	PI 88788	
18	LD15-4596a	F5	PI 88788	Rag 2
19	LD15-4616a	F5	PI 88788	Rag 2
20	LD15-5599	F5	PI 88788	
21	LD15-5602	F5	PI 88788	
22	LD15-5619	F5	PI 88788	
23	LD15-6345	F5	PI 88788	
24	LD15-6762	F5	PI 88788	
25	LD15-6975	F5	PI 88788, Peking	
26	LD15-8291	F5	PI 88788, 468916	2 G.soja QTL
27	LD15-8459	F5	PI 88788, 468916	2 G.soja QTL
28	U16-925137	F5	Peking	Rps

2018 SCN PRELIMINARY TEST III

		IL SCN screen				ISU IDC	ISU IDC
		HG Type 0		HG Type 2.5.7		AnNutri	Bruner
	Strain	FI	rating	FI	rating	score	score
1	LD11-2170	**10**	**R**	**36**	**MR**	3.5	1.8
2	IA3048	**6**	**HR**	**57**	**LR**	2.5	2.3
3	LD07-3395bf	**2**	**HR**	**1**	**HR**	3.0	1.5
4	U11-920017	**56**	**LR**	**72**	**NR**	1.5	1.0
5	AR16-361032	**7**	**HR**	**70**	**NR**	2.0	1.8
6	AR17-179007	**1**	**HR**	**12**	**R**	2.8	1.0
7	AR17-179009	**20**	**R**	**42**	**LR**	2.5	1.5
8	AR17-179016	**33**	**MR**	**43**	**LR**	2.5	1.3
9	AR17-279003	**3**	**HR**	**1**	**HR**	3.0	1.5
10	AR17-379003	**8**	**HR**	**58**	**LR**	3.0	1.5
11	AR17-379009	**2**	**HR**	**42**	**LR**	3.5	1.5
12	AR17-379012	**9**	**HR**	**28**	**MR**	2.3	2.0
13	AR17-379013	**12**	**R**	**73**	**NR**	2.3	1.3
14	AR17-379019	**14**	**R**	**59**	**LR**	3.0	1.5
15	K16-1234	**28**	**MR**	**79**	**NR**	2.5	2.8
16	K16-1424	**1**	**HR**	**34**	**MR**	3.0	1.8
17	LD15-1477	**7**	**HR**	**62**	**NR**	3.3	1.3
18	LD15-4596a	**22**	**R**	**62**	**NR**	1.3	1.5
19	LD15-4616a	**15**	**R**	**50**	**LR**	2.8	1.3
20	LD15-5599	**19**	**R**	**49**	**LR**	3.0	1.5
21	LD15-5602	**15**	**R**	**70**	**NR**	4.0	1.5
22	LD15-5619	**13**	**R**	**45**	**LR**	3.5	1.8
23	LD15-6345	**6**	**HR**	**66**	**NR**	3.5	1.8
24	LD15-6762	**20**	**R**	**97**	**NR**	2.5	1.5
25	LD15-6975	**60**	**NR**	**65**	**NR**	2.8	1.5
26	LD15-8291	**3**	**HR**	**39**	**MR**	3.3	1.5
27	LD15-8459	**4**	**HR**	**29**	**MR**	2.5	1.0
28	U16-925137	**72**	**NR**	**48**	**LR**	2.0	1.0
					Mean:	2.8	1.5
					LSD value:	1.4	1.2
					CV (%):	24.3	38.6

2018 SCN PRELIMINARY TEST III

Summary

		Yield									Seed			
		All		Infested		Non-infested		Maturity	Lodging	Height	quality	weight	protein	oil
	Strain	bu/a	rank	bu/a	rank	bu/a	rank	date	score	inches	score	g/100	@13%	@13%
	Locations	**5***		5*				4	6	6	5	5	5	5
1	LD11-2170	**73.7**	**1**	73.7	1			9/16	2.0	36	1.3	14.3	34.3	19.2
2	IA3048	**67.6**	**13**	67.6	13			0	2.5	39	1.8	13.3	35.0	18.2
3	LD07-3395bf	**68.9**	**8**	68.9	8			6	2.0	35	2.0	14.2	33.0	18.9
4	U11-920017	**62.8**	**20**	62.8	20			-6	2.5	34	2.0	14.3	32.2	20.0
5	AR16-361032	**66.0**	**15**	66.0	15			-2	2.9	36	2.3	14.6	35.5	18.7
6	AR17-179007	**52.7**	**28**	52.7	28			-7	2.4	36	3.4	15.4	36.7	19.4
7	AR17-179009	**54.4**	**27**	54.4	27			-8	2.0	32	3.4	15.2	35.1	19.6
8	AR17-179016	**60.0**	**24**	60.0	24			-7	3.3	33	3.1	14.6	35.9	18.5
9	AR17-279003	**62.6**	**21**	62.6	21			1	2.3	37	2.4	15.2	33.9	17.6
10	AR17-379003	**58.8**	**25**	58.8	25			0	3.0	42	1.6	13.9	35.2	18.0
11	AR17-379009	**65.9**	**16**	65.9	16			2	2.2	38	2.0	15.8	33.9	17.6
12	AR17-379012	**65.4**	**17**	65.4	17			0	2.5	37	2.3	14.2	35.4	18.5
13	AR17-379013	**57.4**	**26**	57.4	26			-6	2.2	34	2.8	14.6	35.1	18.4
14	AR17-379019	**61.0**	**23**	61.0	23			-4	3.0	35	3.0	14.8	35.2	18.6
15	K16-1234	**62.2**	**22**	62.2	22			9	1.8	37	1.8	13.6	33.8	18.0
16	K16-1424	**69.8**	**6**	69.8	6			7	2.6	36	1.6	14.2	33.2	18.1
17	LD15-1477	**71.9**	**5**	71.9	5			3	2.6	39	1.6	13.4	35.1	18.0
18	LD15-4596a	**69.0**	**7**	69.0	7			-1	2.4	34	1.5	15.4	34.5	19.1
19	LD15-4616a	**66.9**	**14**	66.9	14			-1	2.0	34	1.8	14.4	34.6	18.2
20	LD15-5599	**73.6**	**3**	73.6	3			3	1.7	32	2.2	15.0	32.9	18.7
21	LD15-5602	**68.8**	**9**	68.8	9			-2	2.6	35	1.7	15.0	33.8	18.9
22	LD15-5619	**67.9**	**11**	67.9	11			-2	2.9	34	2.4	15.6	33.4	18.9
23	LD15-6345	**68.1**	**10**	68.1	10			2	2.8	38	1.7	16.0	33.8	18.9
24	LD15-6762	**72.4**	**4**	72.4	4			2	2.7	40	1.5	14.0	35.0	18.1
25	LD15-6975	**63.3**	**19**	63.3	19			3	2.6	38	1.7	14.4	33.9	18.5
26	LD15-8291	**67.9**	**11**	67.9	11			12	1.9	41	1.7	13.6	34.5	17.7
27	LD15-8459	**73.6**	**2**	73.6	2			8	2.9	40	1.7	15.4	33.2	18.6
28	U16-925137	**63.5**	**18**	63.5	18			5	1.8	36	1.8	14.3	34.0	18.6
	Mean	**65.6**		65.6				17.1	2.4	36.2	2.1	14.6	34.4	18.6
	LSD(.05)	**3.2**		3.2				2.6	0.4	1.7				
	C.V. %	**5.5**		5.5				15.2	19.9	5.7				
	Replications	**10**		10				8	12	12				

*Bellwood, NE yield data not included in analysis.

2018 SCN PRELIMINARY TEST III

Yield (bu/a)

		Muscatine IA	Oskaloosa IA	Arthur IL	Manhattan KS	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain						
1	LD11-2170	63.5	74.0	107.2	43.7	80.2	30.7
2	IA3048	60.5	65.6	105.5	36.4	70.1	23.4
3	LD07-3395bf	69.3	61.2	108.9	40.7	64.4	26.2
4	U11-920017	42.4	59.6	102.9	32.1	77.2	23.6
5	AR16-361032	53.3	61.4	104.3	39.9	71.2	35.0
6	AR17-179007	35.3	42.6	85.6	25.9	74.2	18.8
7	AR17-179009	41.0	48.7	92.1	28.9	61.3	18.7
8	AR17-179016	46.5	51.3	92.2	26.9	83.4	6.1
9	AR17-279003	58.0	62.4	96.1	28.9	67.5	38.3
10	AR17-379003	51.9	57.3	88.7	30.2	66.0	37.5
11	AR17-379009	60.5	60.6	100.8	31.6	75.9	29.7
12	AR17-379012	59.1	57.4	97.2	32.2	82.5	15.1
13	AR17-379013	46.2	52.0	99.6	27.8	61.4	23.0
14	AR17-379019	49.9	55.2	96.7	30.9	72.4	34.7
15	K16-1234	51.1	59.0	95.9	41.9	62.9	18.9
16	K16-1424	65.0	64.5	102.1	41.5	75.8	23.5
17	LD15-1477	62.3	69.6	97.8	42.0	87.5	23.8
18	LD15-4596a	61.8	69.1	95.7	45.7	72.8	28.7
19	LD15-4616a	53.9	67.4	97.9	36.7	78.5	41.3
20	LD15-5599	58.8	70.5	111.5	43.3	83.6	29.1
21	LD15-5602	54.8	67.2	98.8	41.9	81.3	18.5
22	LD15-5619	53.0	66.9	103.5	40.2	76.0	30.7
23	LD15-6345	56.2	60.1	100.7	40.6	82.9	34.0
24	LD15-6762	65.4	73.9	97.0	41.9	83.7	35.9
25	LD15-6975	60.0	58.1	104.2	30.0	64.3	32.8
26	LD15-8291	68.1	62.0	96.2	37.4	77.0	24.6
27	LD15-8459	68.9	70.3	108.3	35.8	85.1	44.9
28	U16-925137	47.2	69.5	100.6	27.7	72.4	28.5
	Average	55.9	62.0	99.6	36.1	74.7	27.6
	LSD(.05)	5.3	7.9	9.1	5.1	8.8	18.4
	C.V. %	4.7	6.2	4.5	6.8	5.7	27.2
	Replications	2	2	2	2	2	2
	Row width (in.)	30	30	30	30	30	30

2018 SCN PRELIMINARY TEST III

Yield (rank)

		Muscatine IA	Oskaloosa IA	Arthur IL	Manhattan KS	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain						
1	LD11-2170	6	1	4	2	9	11
2	IA3048	9	11	5	15	21	21
3	LD07-3395bf	1	16	2	9	24	16
4	U11-920017	26	19	9	18	11	19
5	AR16-361032	18	15	6	12	20	6
6	AR17-179007	28	28	28	28	16	24
7	AR17-179009	27	27	26	23	28	25
8	AR17-179016	24	26	25	27	5	28
9	AR17-279003	14	13	22	23	22	3
10	AR17-379003	20	23	27	21	23	4
11	AR17-379009	10	17	11	19	14	12
12	AR17-379012	12	22	18	17	7	27
13	AR17-379013	25	25	14	25	27	22
14	AR17-379019	22	24	20	20	18	7
15	K16-1234	21	20	23	5	26	23
16	K16-1424	5	12	10	8	15	20
17	LD15-1477	7	5	17	4	1	18
18	LD15-4596a	8	7	24	1	17	14
19	LD15-4616a	17	8	16	14	10	2
20	LD15-5599	13	3	1	3	4	13
21	LD15-5602	16	9	15	5	8	26
22	LD15-5619	19	10	8	11	13	10
23	LD15-6345	15	18	12	10	6	8
24	LD15-6762	4	2	19	5	3	5
25	LD15-6975	11	21	7	22	25	9
26	LD15-8291	3	14	21	13	12	17
27	LD15-8459	2	4	3	16	2	1
28	U16-925137	23	6	13	26	19	15

Maturity

		Muscatine IA	Oskaloosa IA	Arthur IL	Manhattan KS	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain						
1	LD11-2170	9/14		9/07	9/21	9/23	
2	IA3048	2		1	-2	-2	
3	LD07-3395bf	9		5	10	2	
4	U11-920017	-10		-6	-6	-1	
5	AR16-361032	-3		-1	-3	-1	
6	AR17-179007	-11		-9	-5	-4	
7	AR17-179009	-13		-9	-4	-5	
8	AR17-179016	-8		-9	-4	-5	
9	AR17-279003	5		1	-1	0	
10	AR17-379003	-1		-1	4	-2	
11	AR17-379009	5		1	3	0	
12	AR17-379012	3		0	-4	0	
13	AR17-379013	-10		-5	-4	-5	
14	AR17-379019	-5		-4	-5	-1	
15	K16-1234	8		9	11	8	
16	K16-1424	5		7	11	8	
17	LD15-1477	1		0	8	1	
18	LD15-4596a	1		-3	-2	0	
19	LD15-4616a	-2		-2	0	-1	
20	LD15-5599	1		6	6	0	
21	LD15-5602	-4		-1	-2	0	
22	LD15-5619	-7		1	1	-1	
23	LD15-6345	1		3	-1	3	
24	LD15-6762	3		3	2	2	
25	LD15-6975	4		2	6	1	
26	LD15-8291	12		10	14	12	
27	LD15-8459	7		6	8	11	
28	U16-925137	7		4	9	1	
	Planted	5/07	5/08	5/07	5/18	5/22	5/09

2018 SCN PRELIMINARY TEST III

Lodging (score)

		Muscatine IA	Oskaloosa IA	Arthur IL	Manhattan KS	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain						
1	LD11-2170	1.5	2.0	1.5	2.0	3.0	2.0
2	IA3048	1.5	2.5	3.3	2.5	3.0	2.5
3	LD07-3395bf	1.5	1.0	2.0	2.0	3.0	2.5
4	U11-920017	1.0	2.5	2.5	2.0	3.8	3.0
5	AR16-361032	2.0	2.5	3.3	3.0	4.0	2.5
6	AR17-179007	1.5	3.0	3.0	2.0	3.0	2.0
7	AR17-179009	1.0	2.0	2.3	2.0	1.8	3.0
8	AR17-179016	1.5	2.5	4.3	3.5	3.8	4.0
9	AR17-279003	2.0	2.0	2.0	2.0	2.8	3.0
10	AR17-379003	2.0	2.5	3.8	2.0	3.8	4.0
11	AR17-379009	1.5	2.0	2.3	2.0	3.3	2.0
12	AR17-379012	1.5	2.0	2.0	3.0	3.3	3.0
13	AR17-379013	1.5	2.5	1.8	3.0	3.3	1.0
14	AR17-379019	2.0	3.0	3.3	3.0	3.5	3.0
15	K16-1234	1.0	1.5	2.0	2.0	2.5	1.5
16	K16-1424	2.0	2.5	3.0	2.0	3.5	2.5
17	LD15-1477	2.0	2.0	2.8	2.5	3.5	3.0
18	LD15-4596a	1.5	2.0	2.5	2.5	3.3	2.5
19	LD15-4616a	1.5	2.0	1.8	2.0	2.8	2.0
20	LD15-5599	1.0	2.0	2.0	2.0	2.0	1.0
21	LD15-5602	2.0	2.0	3.5	3.0	3.0	2.0
22	LD15-5619	2.5	3.0	3.5	3.0	3.3	2.0
23	LD15-6345	2.0	2.5	3.0	2.5	4.0	3.0
24	LD15-6762	2.0	2.5	3.3	2.5	2.8	3.0
25	LD15-6975	2.0	2.5	2.8	2.0	3.3	3.0
26	LD15-8291	1.0	1.5	2.8	2.0	3.3	1.0
27	LD15-8459	1.5	2.5	2.8	3.0	5.0	2.5
28	U16-925137	1.0	2.0	1.5	2.0	2.0	2.0

2018 SCN PRELIMINARY TEST III

Height (inches)

		Muscatine IA	Oskaloosa IA	Arthur IL	Manhattan KS	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain						
1	LD11-2170	32	34	45	34	43	30
2	IA3048	34	37	40	40	50	34
3	LD07-3395bf	32	36	41	34	40	29
4	U11-920017	29	31	38	35	41	29
5	AR16-361032	32	34	40	36	43	30
6	AR17-179007	31	34	41	29	47	33
7	AR17-179009	27	32	39	33	38	26
8	AR17-179016	27	32	37	39	44	21
9	AR17-279003	36	35	43	36	42	32
10	AR17-379003	38	43	44	39	54	35
11	AR17-379009	35	33	44	36	47	32
12	AR17-379012	33	33	42	42	44	30
13	AR17-379013	27	29	37	43	38	35
14	AR17-379019	32	34	41	34	46	25
15	K16-1234	32	36	47	37	44	28
16	K16-1424	32	35	45	35	43	29
17	LD15-1477	34	37	47	39	48	32
18	LD15-4596a	31	32	37	33	42	30
19	LD15-4616a	30	35	42	35	41	24
20	LD15-5599	26	30	35	32	41	31
21	LD15-5602	29	35	39	37	44	26
22	LD15-5619	28	33	37	33	39	34
23	LD15-6345	34	35	44	38	48	29
24	LD15-6762	36	38	46	38	47	34
25	LD15-6975	34	35	41	36	45	36
26	LD15-8291	38	39	49	41	47	34
27	LD15-8459	37	37	44	40	48	34
28	U16-925137	30	35	46	35	43	28

2018 SCN PRELIMINARY TEST III

Seed Quality (score)

		Muscatine IA	Oskaloosa IA	Arthur IL	Manhattan KS	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain						
1	LD11-2170	1.0	1.0	1.0		2.0	1.5
2	IA3048	1.0	1.0	2.0		3.0	2.0
3	LD07-3395bf	2.0	1.0	2.0		4.0	1.0
4	U11-920017	2.0	2.0	2.0		2.0	2.0
5	AR16-361032	2.0	2.0	2.0		3.5	2.0
6	AR17-179007	5.0	4.0	3.0		3.0	2.0
7	AR17-179009	4.0	5.0	2.0		4.0	2.0
8	AR17-179016	4.0	4.0	2.0		3.5	2.0
9	AR17-279003	2.0	3.0	2.0		3.0	2.0
10	AR17-379003	1.0	1.0	2.0		2.0	2.0
11	AR17-379009	1.0	2.0	2.0		3.0	2.0
12	AR17-379012	1.0	4.0	2.0		3.0	1.5
13	AR17-379013	3.0	4.0	2.0		3.0	2.0
14	AR17-379019	3.0	4.0	3.0		3.0	2.0
15	K16-1234	1.0	1.0	2.0		3.0	2.0
16	K16-1424	1.0	1.0	2.0		2.0	2.0
17	LD15-1477	1.0	1.0	1.0		3.0	2.0
18	LD15-4596a	1.0	1.0	2.0		2.0	1.5
19	LD15-4616a	2.0	1.0	2.0		2.0	2.0
20	LD15-5599	2.0	2.0	3.0		3.0	1.0
21	LD15-5602	2.0	1.0	1.0		2.5	2.0
22	LD15-5619	3.0	1.0	3.0		3.0	2.0
23	LD15-6345	1.0	1.0	2.0		3.0	1.5
24	LD15-6762	1.0	1.0	2.0		1.5	2.0
25	LD15-6975	1.0	2.0	2.0		2.0	1.5
26	LD15-8291	1.0	1.0	2.0		3.5	1.0
27	LD15-8459	1.0	1.0	2.0		3.0	1.5
28	U16-925137	2.0	1.0	2.0		3.0	1.0

2018 SCN PRELIMINARY TEST III

Seed Weight (g/100)

		Muscatine IA	Oskaloosa IA	Arthur IL	Manhattan KS	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain						
1	LD11-2170	14.6	14.0	16.0		15.1	11.9
2	IA3048	14.7	11.9	15.9		13.2	10.9
3	LD07-3395bf	14.6	13.0	17.1		15.0	11.3
4	U11-920017	12.7	13.2	18.1		14.5	13.0
5	AR16-361032	14.2	13.5	18.0		14.2	13.3
6	AR17-179007	14.6	13.9	17.8		15.6	15.3
7	AR17-179009	13.8	13.8	19.2		16.3	13.1
8	AR17-179016	13.5	14.1	18.9		15.5	10.9
9	AR17-279003	14.3	14.3	18.3		15.4	13.7
10	AR17-379003	13.0	12.4	17.2		14.7	12.4
11	AR17-379009	14.3	14.3	18.9		18.4	12.9
12	AR17-379012	13.8	13.8	15.7		15.9	11.6
13	AR17-379013	14.1	14.6	18.3		14.7	11.5
14	AR17-379019	13.9	13.8	18.2		15.1	13.1
15	K16-1234	13.6	12.8	16.1		14.5	11.1
16	K16-1424	13.8	12.9	16.7		15.8	12.0
17	LD15-1477	13.5	12.4	15.3		14.6	11.1
18	LD15-4596a	14.7	14.1	19.1		16.7	12.5
19	LD15-4616a	14.3	13.8	17.2		16.1	10.8
20	LD15-5599	14.1	13.7	19.2		15.3	12.6
21	LD15-5602	14.3	14.3	18.5		15.6	12.2
22	LD15-5619	15.0	11.3	20.8		17.4	13.4
23	LD15-6345	16.0	14.5	18.9		17.4	13.2
24	LD15-6762	13.5	13.7	16.6		14.9	11.4
25	LD15-6975	14.3	12.9	17.2		15.0	12.7
26	LD15-8291	13.5	12.7	15.4		13.7	12.6
27	LD15-8459	14.2	18.4	16.7		16.3	11.6
28	U16-925137	14.3	13.6	17.2		14.8	11.5

2018 SCN PRELIMINARY TEST III

Protein (%)

		Muscatine IA	Oskaloosa IA	Arthur IL	Manhattan KS	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain						
1	LD11-2170	34.3	33.1	32.9		35.9	35.3
2	IA3048	35.0	32.7	34.1		36.3	36.7
3	LD07-3395bf	33.5	31.2	32.2		34.7	33.5
4	U11-920017	32.7	30.6	31.2		32.6	33.9
5	AR16-361032	35.8	33.9	35.0		35.7	36.8
6	AR17-179007	38.9	37.2	34.2		36.8	36.3
7	AR17-179009	36.1	34.3	33.7		34.5	36.8
8	AR17-179016	36.7	35.7	34.1		36.2	36.9
9	AR17-279003	34.7	33.6	32.2		34.2	34.6
10	AR17-379003	35.6	32.8	34.3		36.2	37.0
11	AR17-379009	34.8	33.0	32.1		35.1	34.7
12	AR17-379012	36.0	34.5	33.4		36.3	36.8
13	AR17-379013	34.6	35.2	33.6		35.3	36.9
14	AR17-379019	36.7	35.0	33.9		34.3	36.4
15	K16-1234	33.4	32.5	32.8		35.2	35.0
16	K16-1424	33.7	32.4	32.4		34.0	33.7
17	LD15-1477	33.9	34.4	34.7		36.4	36.1
18	LD15-4596a	35.4	32.7	33.6		35.5	35.2
19	LD15-4616a	35.9	33.3	33.1		36.0	34.5
20	LD15-5599	32.8	31.6	32.9		33.7	33.4
21	LD15-5602	33.0	31.8	33.5		35.4	35.1
22	LD15-5619	35.2	32.7	32.5		33.2	33.5
23	LD15-6345	33.9	31.8	33.2		34.8	35.1
24	LD15-6762	34.9	33.3	34.7		36.2	35.9
25	LD15-6975	33.1	32.6	33.9		34.7	35.2
26	LD15-8291	36.5	33.0	34.2		34.6	34.1
27	LD15-8459	33.9	31.6	32.4		34.4	33.7
28	U16-925137	35.8	32.7	32.3		33.6	35.5

2018 SCN PRELIMINARY TEST III

Oil (%)

		Muscatine IA	Oskaloosa IA	Arthur IL	Manhattan KS	Rock Port MO	Bellwood NE
	SCN HG Type	2.5.7	2.5.7	2.5.7	Inf	2.5.7	Inf
	Strain						
1	LD11-2170	20.8	19.8	18.5		18.6	18.0
2	IA3048	19.7	18.9	17.9		18.7	15.9
3	LD07-3395bf	19.8	19.9	18.4		18.9	17.4
4	U11-920017	21.9	21.1	19.1		19.3	18.5
5	AR16-361032	19.9	19.6	18.1		18.6	17.2
6	AR17-179007	20.4	21.0	18.3		19.0	18.0
7	AR17-179009	20.7	21.8	18.0		19.7	17.7
8	AR17-179016	20.0	20.3	17.2		18.6	16.6
9	AR17-279003	18.4	18.1	17.0		17.8	16.6
10	AR17-379003	19.0	19.5	17.4		17.9	16.5
11	AR17-379009	18.0	18.6	17.1		18.2	16.2
12	AR17-379012	18.9	20.0	18.4		18.9	16.2
13	AR17-379013	19.6	19.5	17.8		18.3	16.8
14	AR17-379019	19.5	18.8	18.0		18.9	17.6
15	K16-1234	19.3	18.8	17.7		17.2	17.1
16	K16-1424	18.5	18.9	17.7		18.4	17.0
17	LD15-1477	19.6	18.6	17.5		18.1	16.1
18	LD15-4596a	20.4	19.9	18.4		19.3	17.5
19	LD15-4616a	19.0	18.9	17.8		18.1	17.1
20	LD15-5599	19.9	19.6	17.7		18.7	17.9
21	LD15-5602	20.9	20.4	17.6		18.5	17.1
22	LD15-5619	19.2	20.2	17.3		19.3	18.5
23	LD15-6345	19.8	20.3	17.8		18.9	17.7
24	LD15-6762	19.1	19.4	17.3		18.3	16.5
25	LD15-6975	19.7	19.3	17.8		18.5	17.1
26	LD15-8291	17.7	18.5	17.4		18.1	16.7
27	LD15-8459	19.1	19.8	18.2		19.0	17.1
28	U16-925137	19.3	20.0	18.6		18.5	16.6

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2018 SCN UNIFORM TEST IV

	Strain	Descriptive code	Parentage	Previous testing
1	LD06-7620	PLtbl	IA3023 x LD00-3309	6
2	LD07-3395bf	WGbf	Syngenta WW115926 x LD00-2817	4
3	LD00-2817P	PGibl	Ina x Dwight	9
4	K15-1303	PTbl	LD06-7620 x 435.TCS	17 PT IV
5	K15-1310	PTbl	LD06-7620 x 435.TCS	17 PT IV
6	LD13-8769	PLtbl	LD06-7596 x LD00-3309(5) x LD07-5065	17 UT IV
7	S13-2743C	WGbf	S08-17361 x S05-11482	17 UT IV
8	S13-10590C	WTbl	LS07-3125 x S05-11400	

	Strain	Gen comp	SCN res source	Traits
1	LD06-7620	F5	PI 88788	
2	LD07-3395bf	F5	PI 88788, 437654	
3	LD00-2817P	F5	PI 88788, 437654	
4	K15-1303	F5	PI 88788	
5	K15-1310	F5	PI 88788	STS
6	LD13-8769	F5	PI 88788, 468916	2 G. soja QTL
7	S13-2743C		PI 88788	
8	S13-10590C		PI 437654	

2018 SCN UNIFORM TEST IV

		IL SCN screen			
		HG Type 0		HG Type 2.5.7	
	Strain	FI	rating	FI	rating
1	LD06-7620	**12**	**R**	**81**	**NR**
2	LD07-3395bf	**2**	**HR**	**1**	**HR**
3	LD00-2817P	**1**	**HR**	**1**	**HR**
4	K15-1303	**14**	**R**	**50**	**LR**
5	K15-1310	**21**	**R**	**56**	**LR**
6	LD13-8769	**1**	**HR**	**24**	**R**
7	S13-2743C	**13**	**R**	**41**	**LR**
8	S13-10590C	**65**	**NR**	**50**	**LR**

2018 SCN UNIFORM TEST IV

Summary

		Yield									Seed			
		All		Infested		Non-infested		Maturity	Lodging	Height	quality	weight	protein	oil
	Strain	bu/a	rank	bu/a	rank	bu/a	rank	date	score	inches	score	g/100	@13%	@13%
	Locations	**8***		5*		3		9	9	9	6	6	4	4
1	LD06-7620	**54.0**	**5**	59.2	1	45.4	8	9/21	1.8	29	2.8	13.6	34.6	17.3
2	LD07-3395bf	**53.5**	**6**	55.9	5	49.2	6	-3	1.7	29	2.9	14.5	33.1	18.7
3	LD00-2817P	**52.9**	**7**	55.8	6	47.6	7	3	2.0	36	2.8	12.4	33.4	18.0
4	K15-1303	**56.4**	**1**	59.1	2	51.7	3	4	2.4	32	2.9	15.5	35.1	17.0
5	K15-1310	**54.4**	**4**	55.0	7	53.1	2	5	1.9	32	2.6	14.4	35.0	17.3
6	LD13-8769	**55.6**	**2**	58.3	3	50.8	5	-1	2.1	34	2.4	12.5	34.3	17.7
7	S13-2743C	**55.3**	**3**	56.0	4	53.8	1	4	1.9	36	2.3	12.7	33.9	18.2
8	S13-10590C	**49.8**	**8**	48.4	8	51.6	4	6	1.9	34	2.7	14.8	35.5	17.6
	Mean	**54.0**		55.9		50.4		23.5	1.9	32.7	2.7	13.8	34.4	17.7
	LSD(.05)	**2.4**		3.0		4.0		1.1	0.2	1.1				
	C.V. %	**7.7**		7.3		8.3		9.0	18.0	6.4				
	Replications	**21**		14		7		26	26	26				

2018 SCN UNIFORM TEST IV

Yield (bu/a)

		Neoga IL	Manhattan KS	Onaga KS	Novelty MO	Rock Port MO	Clarkton MO
	SCN HG Type	2.5.7	Inf	Inf	2.5.7	2.5.7	2.5.7
	Strain						
1	LD06-7620	76.3	43.9	32.5	62.1	80.1	12.7
2	LD07-3395bf	82.5	37.5	30.8	59.1	69.5	18.4
3	LD00-2817P	77.2	29.0	34.3	63.8	75.8	23.0
4	K15-1303	83.8	43.2	33.0	61.6	73.9	10.7
5	K15-1310	74.6	32.8	31.7	60.1	76.1	15.2
6	LD13-8769	77.9	39.3	31.1	65.6	77.6	5.2
7	S13-2743C	62.5	36.3	43.1	61.8	76.5	15.1
8	S13-10590C	59.0	28.3	30.7	55.4	70.1	23.0
	Average	74.2	36.4	33.9	61.2	74.9	15.4
	LSD(.05)	14.3	5.9	5.9	4.6	9.5	10.1
	C.V. %	8.2	9.3	10.1	5.0	6.9	30.7
	Replications	2	3	3	3	3	3
	Row width (in.)	30	30	30	30	30	30

Yield (rank)

		Neoga IL	Manhattan KS	Onaga KS	Novelty MO	Rock Port MO	Clarkton MO
	SCN HG Type	2.5.7	Inf	Inf	2.5.7	2.5.7	2.5.7
	Strain						
1	LD06-7620	5	1	4	3	1	6
2	LD07-3395bf	2	4	7	7	8	3
3	LD00-2817P	4	7	2	2	5	1
4	K15-1303	1	2	3	5	6	7
5	K15-1310	6	6	5	6	4	4
6	LD13-8769	3	3	6	1	2	8
7	S13-2743C	7	5	1	4	3	5
8	S13-10590C	8	8	8	8	7	1

2018 SCN UNIFORM TEST IV

Yield (bu/a)

	SCN HG Type	Portage-ville MO NI	Ottawa KS NI	Jackson TN NI
	Strain			
1	LD06-7620	51.4	34.6	53.1
2	LD07-3395bf	50.2	32.9	67.7
3	LD00-2817P	46.1	35.8	64.2
4	K15-1303	56.2	36.8	65.4
5	K15-1310	58.2	35.6	68.8
6	LD13-8769	51.3	39.5	64.8
7	S13-2743C	58.0	44.8	61.9
8	S13-10590C	61.7	35.8	60.6
	Average	54.1	37.0	63.3
	LSD(.05)	7.7	0.0	8.0
	C.V. %	6.7	12.8	7.2
	Replications	3	3*	3
	Row width (in.)	30	30	30

Yield (rank)

	SCN HG Type	Portage-ville MO NI	Ottawa KS NI	Jackson TN NI
	Strain			
1	LD06-7620	5	7	8
2	LD07-3395bf	7	8	2
3	LD00-2817P	8	4	5
4	K15-1303	4	3	3
5	K15-1310	2	6	1
6	LD13-8769	6	2	4
7	S13-2743C	3	1	6
8	S13-10590C	1	4	7

*Only one rep of yield data collected

2018 SCN UNIFORM TEST IV

Maturity

		Neoga IL	Manhattan KS	Onaga KS	Novelty MO	Rock Port MO	Clarkton MO
	SCN HG Type	2.5.7	Inf	Inf	2.5.7	2.5.7	2.5.7
	Strain						
1	LD06-7620	9/20	10/02	9/22	9/22	10/06	9/10
2	LD07-3395bf	-6	-3	0	-2	-14	1
3	LD00-2817P	4	5	2	1	5	7
4	K15-1303	4	3	7	1	6	3
5	K15-1310	3	8	8	1	7	3
6	LD13-8769	1	-1	1	-1	0	-1
7	S13-2743C	3	7	5	2	8	3
8	S13-10590C	1	8	10	2	5	8
	Planted	5/11	5/18	5/11	5/16	5/22	5/08

Lodging (score)

		Neoga IL	Manhattan KS	Onaga KS	Novelty MO	Rock Port MO	Clarkton MO
	SCN HG Type	2.5.7	Inf	Inf	2.5.7	2.5.7	2.5.7
	Strain						
1	LD06-7620	2.5	2.0	1.0	2.8	3.7	1.0
2	LD07-3395bf	2.8	2.0	1.0	1.5	2.7	1.0
3	LD00-2817P	3.0	2.0	1.0	2.7	3.7	1.0
4	K15-1303	3.5	3.0	1.3	3.8	4.3	1.0
5	K15-1310	2.8	2.0	1.0	3.2	3.0	1.0
6	LD13-8769	2.8	2.7	1.0	2.7	3.7	1.0
7	S13-2743C	2.8	2.0	1.7	3.0	3.3	1.0
8	S13-10590C	2.0	2.0	1.7	2.8	3.2	1.0

2018 SCN UNIFORM TEST IV

Maturity

	SCN HG Type	Portage-ville MO NI	Ottawa KS NI	Jackson TN NI
	Strain			
1	LD06-7620	9/24	9/20	9/05
2	LD07-3395bf	-3	-1	-1
3	LD00-2817P	3	3	0
4	K15-1303	5	4	4
5	K15-1310	5	7	2
6	LD13-8769	-5	0	0
7	S13-2743C	2	2	6
8	S13-10590C	7	8	7
	Planted	5/28	5/15	5/15

Lodging (score)

	SCN HG Type	Portage-ville MO NI	Ottawa KS NI	Jackson TN NI
	Strain			
1	LD06-7620	1.0	1.0	1.0
2	LD07-3395bf	1.7	1.0	1.7
3	LD00-2817P	1.7	1.0	2.0
4	K15-1303	1.7	1.0	1.7
5	K15-1310	1.0	1.0	1.7
6	LD13-8769	2.0	1.0	2.0
7	S13-2743C	1.0	1.0	1.3
8	S13-10590C	1.7	1.0	2.0

2018 SCN UNIFORM TEST IV

Height (inches)

		Neoga IL	Manhattan KS	Onaga KS	Novelty MO	Rock Port MO	Clarkton MO
	SCN HG Type	2.5.7	Inf	Inf	2.5.7	2.5.7	2.5.7
	Strain						
1	LD06-7620	39	35	28	31	42	12
2	LD07-3395bf	38	33	28	29	39	15
3	LD00-2817P	45	40	35	35	50	16
4	K15-1303	44	38	31	34	45	15
5	K15-1310	44	36	31	33	45	17
6	LD13-8769	43	40	34	36	47	15
7	S13-2743C	48	42	33	38	49	15
8	S13-10590C	44	37	33	33	48	17

Seed Quality (score)

		Neoga IL	Manhattan KS	Onaga KS	Novelty MO	Rock Port MO	Clarkton MO
	SCN HG Type	2.5.7	Inf	Inf	2.5.7	2.5.7	2.5.7
	Strain						
1	LD06-7620	2.0			2.0	3.0	5.0
2	LD07-3395bf	2.0			3.0	2.5	4.7
3	LD00-2817P	2.0			3.0	1.5	4.3
4	K15-1303	2.0			3.0	3.0	4.7
5	K15-1310	2.0			2.5	2.5	3.3
6	LD13-8769	1.0			2.5	2.5	4.3
7	S13-2743C	1.0			2.5	2.0	4.0
8	S13-10590C	2.0			2.5	1.5	4.3

Seed Weight (g/100)

		Neoga IL	Manhattan KS	Onaga KS	Novelty MO	Rock Port MO	Clarkton MO
	SCN HG Type	2.5.7	Inf	Inf	2.5.7	2.5.7	2.5.7
	Strain						
1	LD06-7620	13.4			13.9	14.7	12.4
2	LD07-3395bf	14.8			14.5	14.3	12.9
3	LD00-2817P	13.5			12.8	14.5	11.0
4	K15-1303	16.6			14.8	16.1	13.7
5	K15-1310	14.4			15.3	15.8	12.5
6	LD13-8769	12.3			14.2	13.9	10.8
7	S13-2743C	11.9			12.3	15.3	12.4
8	S13-10590C	13.9			15.2	16.7	13.4

2018 SCN UNIFORM TEST IV

Height (inches)

	SCN HG Type	Portage-ville MO NI	Ottawa KS NI	Jackson TN NI
	Strain			
1	LD06-7620	24	24	29
2	LD07-3395bf	26	22	29
3	LD00-2817P	34	27	38
4	K15-1303	29	23	33
5	K15-1310	28	24	34
6	LD13-8769	31	26	36
7	S13-2743C	33	29	39
8	S13-10590C	28	27	37

Seed Quality (score)

	SCN HG Type	Portage-ville MO NI	Ottawa KS NI	Jackson TN NI
	Strain			
1	LD06-7620	3.0		2.0
2	LD07-3395bf	3.3		2.0
3	LD00-2817P	4.0		2.0
4	K15-1303	2.7		2.0
5	K15-1310	3.0		2.0
6	LD13-8769	2.3		2.0
7	S13-2743C	2.3		2.0
8	S13-10590C	3.7		2.0

Seed Weight (g/100)

	SCN HG Type	Portage-ville MO NI	Ottawa KS NI	Jackson TN NI
	Strain			
1	LD06-7620	14.2		13.0
2	LD07-3395bf	14.5		15.7
3	LD00-2817P	10.9		11.7
4	K15-1303	15.8		15.7
5	K15-1310	14.0		14.2
6	LD13-8769	11.5		12.2
7	S13-2743C	12.2		12.2
8	S13-10590C	14.8		14.6

2018 SCN UNIFORM TEST IV

Protein (%)

		Neoga IL	Manhattan KS	Onaga KS	Novelty MO	Rock Port MO	Clarkton MO
	SCN HG Type	2.5.7	Inf	Inf	2.5.7	2.5.7	2.5.7
	Strain						
1	LD06-7620	34.3				34.5	
2	LD07-3395bf	33.1				34.2	
3	LD00-2817P	34.1				34.6	
4	K15-1303	36.0				35.3	
5	K15-1310	35.3				35.2	
6	LD13-8769	34.9				35.7	
7	S13-2743C	34.6				35.3	
8	S13-10590C	35.5				36.3	

Oil (%)

		Neoga IL	Manhattan KS	Onaga KS	Novelty MO	Rock Port MO	Clarkton MO
	SCN HG Type	2.5.7	Inf	Inf	2.5.7	2.5.7	2.5.7
	Strain						
1	LD06-7620	17.5				17.6	
2	LD07-3395bf	18.3				19.1	
3	LD00-2817P	16.9				18.9	
4	K15-1303	16.5				17.3	
5	K15-1310	16.7				17.9	
6	LD13-8769	17.3				17.5	
7	S13-2743C	17.4				18.0	
8	S13-10590C	17.1				18.0	

2018 SCN UNIFORM TEST IV

Protein (%)

	SCN HG Type	Portage-ville MO NI	Ottawa KS NI	Jackson TN NI
	Strain			
1	LD06-7620	35.1		34.4
2	LD07-3395bf	32.3		32.6
3	LD00-2817P	32.6		32.2
4	K15-1303	35.0		34.2
5	K15-1310	34.9		34.4
6	LD13-8769	33.7		32.9
7	S13-2743C	32.5		33.4
8	S13-10590C	35.8		34.6

Oil (%)

	SCN HG Type	Portage-ville MO NI	Ottawa KS NI	Jackson TN NI
	Strain			
1	LD06-7620	17.0		17.3
2	LD07-3395bf	18.9		18.5
3	LD00-2817P	18.3		18.0
4	K15-1303	17.2		17.0
5	K15-1310	17.3		17.2
6	LD13-8769	17.8		18.4
7	S13-2743C	18.7		18.7
8	S13-10590C	17.3		17.9

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	Strain	Descriptive code	Parentage
1	LD06-7620	PLtbl	IA3023 x LD00-3309
2	LD07-3395bf	WGbf	Syngenta WW115926 x LD00-2817
3	LD00-2817P	PGibl	Ina x Dwight
4	JTN-4118	PTbr	5002T x PI 494182
5	JTN-4218	WTy	5002T x PI 494182
6	JTN-4318	WTbr	5002T x PI 494182
7	K16-1390	WLtbl	K07-1633 x S08-17361
8	K16-1403	WTbl	K07-1633 x S08-17361
9	K16-1430	WTbl	S08-17361 x K10-8556
10	K16-1444	PLtbl	S08-17361 x K10-8556
11	K16-1445	WTbl	S08-17361 x K10-8556
12	K16-1543	WGbf	S08-17361 x LS07-3125
13	LD15-3818	PLtbl	LD09-3913 x BN09002129
14	LD15-8589	PGibl	LS07-3131 x LD09-30454
15	LD15-9214	PTbr	(LD00-3309(5) x IA3023) x (LD00-3309(2) x PI 567516C)
16	LD16-2955	PLtbl	LD07-3395 x LD10-10219
17	LD16-8745	WLtbl	LG10-2695 x LD10-9434
18	LD16-8753	WLtbl	LG10-2695 x LD10-9434

2018 SCN PRELIMINARY TEST IV

	Strain	Gen comp	SCN res source	Traits
1	LD06-7620	F5	PI 88788	
2	LD07-3395bf	F5	PI 88788, 437654	
3	LD00-2817P	F5	PI 88788, 437654	
4	JTN-4118	F9	PI 494182	new res source
5	JTN-4218	F9	PI 494182	new res source
6	JTN-4318	F9	PI 494182	new res source
7	K16-1390	F5	PI 88788	
8	K16-1403	F5	PI 88788	
9	K16-1430	F5	PI 88788	
10	K16-1444	F5	PI 88788	
11	K16-1445	F5	PI 88788	
12	K16-1543	F5	PI 88788	
13	LD15-3818	F5	PI 88788	
14	LD15-8589	F5	PI 88788, 468916	2 G. soja QTL
15	LD15-9214	F4	PI 88788, 567516C	
16	LD16-2955	F5	PI 88788, 437654	
17	LD16-8745	F5	PI 88788	
18	LD16-8753	F5	PI 88788	

2018 SCN PRELIMINARY TEST IV

		IL SCN screen			
		HG Type 0		HG Type 2.5.7	
	Strain	FI	rating	FI	rating
1	LD06-7620	**12**	**R**	**81**	**NR**
2	LD07-3395bf	**2**	**HR**	**1**	**HR**
3	LD00-2817P	**1**	**HR**	**1**	**HR**
4	JTN-4118	**46**	**LR**	**62**	**NR**
5	JTN-4218	**0**	**HR**	**2**	**HR**
6	JTN-4318	**28**	**MR**	**52**	**LR**
7	K16-1390	**2**	**HR**	**55**	**LR**
8	K16-1403	**10**	**R**	**54**	**LR**
9	K16-1430	**2**	**HR**	**44**	**LR**
10	K16-1444	**13**	**R**	**44**	**LR**
11	K16-1445	**3**	**HR**	**28**	**MR**
12	K16-1543	**9**	**HR**	**65**	**NR**
13	LD15-3818	**20**	**R**	**62**	**NR**
14	LD15-8589	**3**	**HR**	**54**	**LR**
15	LD15-9214	**0**	**HR**	**27**	**MR**
16	LD16-2955	**13**	**R**	**79**	**NR**
17	LD16-8745	**13**	**R**	**76**	**NR**
18	LD16-8753	**16**	**R**	**35**	**MR**

2018 SCN PRELIMINARY TEST IV

Summary

		Yield									Seed			
		All		Infested		Non-infested		Maturity	Lodging	Height	quality	weight	protein	oil
	Strain	bu/a	rank	bu/a	rank	bu/a	rank	date	score	inches	score	g/100	@13%	@13%
	Locations	**6***		5		1*		7	7	7	4	4	4	4
1	LD06-7620	**60.0**	**1**	63.0	1	44.9	10	9/22	1.9	34	2.1	13.8	34.0	17.3
2	LD07-3395bf	**55.8**	**8**	57.7	7	46.7	8	-3	1.9	33	2.4	14.5	32.9	18.5
3	LD00-2817P	**56.7**	**6**	57.1	9	54.7	1	3	1.9	40	2.3	13.1	33.4	17.5
4	JTN-4118	**39.7**	**17**	39.8	17	39.4	16	7	2.5	31	1.6	11.5	35.1	17.4
5	JTN-4218	**40.6**	**16**	40.2	16	42.6	12	9	3.1	42	2.4	12.0	36.8	16.7
6	JTN-4318	**37.4**	**18**	36.3	18	42.5	14	9	3.2	44	2.5	9.2	35.9	16.1
7	K16-1390	**52.3**	**13**	52.9	13	49.1	5	6	2.0	41	2.1	13.4	35.1	16.7
8	K16-1403	**54.4**	**11**	54.7	11	53.1	2	11	2.5	44	1.9	12.7	33.0	17.3
9	K16-1430	**55.8**	**8**	56.7	10	51.7	3	6	2.5	40	1.6	13.4	34.3	16.8
10	K16-1444	**48.8**	**14**	50.2	14	41.7	15	8	2.3	38	2.3	14.0	33.9	16.7
11	K16-1445	**56.4**	**7**	57.6	8	50.6	4	9	2.6	39	2.0	14.4	33.8	17.3
12	K16-1543	**52.4**	**12**	53.8	12	45.3	9	9	1.7	42	1.9	13.9	35.3	17.1
13	LD15-3818	**60.0**	**1**	62.4	2	48.0	6	0	1.7	35	2.0	14.3	34.4	18.4
14	LD15-8589	**57.2**	**4**	60.1	4	42.6	12	2	1.5	35	2.0	14.2	33.5	18.0
15	LD15-9214	**45.4**	**15**	45.7	15	43.4	11	5	2.7	39	2.3	10.9	34.7	16.0
16	LD16-2955	**57.5**	**3**	59.7	5	46.9	7	1	1.3	30	2.0	15.8	33.0	19.0
17	LD16-8745	**56.8**	**5**	60.4	3	38.7	17	0	1.6	39	2.1	11.9	33.6	17.7
18	LD16-8753	**54.7**	**10**	58.5	6	35.9	18	-1	1.7	37	1.9	12.3	34.0	17.6
	Mean	**52.3**		53.7		45.4		26.5	2.1	37.9	2.1	13.1	34.3	17.3
	LSD(.05)	**4.3**		4.4		14.0		1.8	0.3	1.8				
	C.V. %	**10.0**		9.2		14.6		9.1	20.8	6.2				
	Replications	**12**		10		2		14	14	14				

* Ottawa, KS yield data not inculded in analysis

2018 SCN PRELIMINARY TEST IV

Yield (bu/a)

		Neoga IL	Urbana IL	Manhattan KS	Onaga KS	Rock Port MO	Ottawa KS	Jackson TN
	SCN HG Type	2.5.7	2.5.7	Inf	Inf	2.5.7	NI	NI
	Strain							
1	LD06-7620	79.6	79.7	50.5	34.9	70.4	33.9	44.9
2	LD07-3395bf	76.3	74.6	40.0	32.3	65.1	33.9	46.7
3	LD00-2817P	73.0	79.5	32.4	33.6	67.1	37.0	54.7
4	JTN-4118	34.0	54.8	24.9	33.7	51.5	39.1	39.4
5	JTN-4218	49.8	54.0	21.5	30.0	45.7	38.0	42.6
6	JTN-4318	26.7	41.5	24.9	40.3	48.3	47.2	42.5
7	K16-1390	68.2	72.1	30.8	36.4	57.2	44.1	49.1
8	K16-1403	69.6	70.3	28.1	32.8	72.5	43.7	53.1
9	K16-1430	68.6	65.3	40.8	40.6	68.1	43.4	51.7
10	K16-1444	56.5	67.2	34.6	37.8	54.7	17.5	41.7
11	K16-1445	68.2	74.4	33.0	39.6	72.9	42.2	50.6
12	K16-1543	62.7	75.4	24.0	33.8	73.0	45.6	45.3
13	LD15-3818	68.1	84.4	45.1	33.1	81.3	38.3	48.0
14	LD15-8589	69.6	79.4	32.1	38.7	80.9	35.9	42.6
15	LD15-9214	61.3	51.4	34.1	30.8	51.1	34.9	43.4
16	LD16-2955	70.2	78.0	41.0	34.0	75.1	34.2	46.9
17	LD16-8745	65.6	75.6	46.3	32.2	82.4	23.7	38.7
18	LD16-8753	62.9	71.6	48.2	36.9	72.8	40.2	35.9
	Average	62.8	69.4	35.3	35.1	66.1	38.2	45.4
	LSD(.05)	13.2	8.8	4.7	5.6	15.4	0.0	14.0
	C.V. %	9.9	6.0	6.3	7.5	11.1	19.2	14.6
	Replications	2	2	2	2	2	2*	2
	Row width (in.)	30	30	30	30	30	30	30

*Only one rep of yield data collected

2018 SCN PRELIMINARY TEST IV

Yield (rank)

		Neoga IL	Urbana IL	Manhattan KS	Onaga KS	Rock Port MO	Ottawa KS	Jackson TN
	SCN HG Type	2.5.7	2.5.7	Inf	Inf	2.5.7	NI	NI
	Strain							
1	LD06-7620	1	2	1	8	9	15	10
2	LD07-3395bf	2	8	7	15	12	15	8
3	LD00-2817P	3	3	11	12	11	11	1
4	JTN-4118	17	15	15	11	15	8	16
5	JTN-4218	16	16	18	18	18	10	12
6	JTN-4318	18	18	15	2	17	1	14
7	K16-1390	8	10	13	7	13	3	5
8	K16-1403	5	12	14	14	8	4	2
9	K16-1430	7	14	6	1	10	5	3
10	K16-1444	15	13	8	5	14	18	15
11	K16-1445	8	9	10	3	6	6	4
12	K16-1543	13	7	17	10	5	2	9
13	LD15-3818	10	1	4	13	2	9	6
14	LD15-8589	5	4	12	4	3	12	12
15	LD15-9214	14	17	9	17	16	13	11
16	LD16-2955	4	5	5	9	4	14	7
17	LD16-8745	11	6	3	16	1	17	17
18	LD16-8753	12	11	2	6	7	7	18

2018 SCN PRELIMINARY TEST IV

Maturity

		Neoga IL	Urbana IL	Manhattan KS	Onaga KS	Rock Port MO	Ottawa KS	Jackson TN
	SCN HG Type	2.5.7	2.5.7	Inf	Inf	2.5.7	NI	NI
	Strain							
1	LD06-7620	9/21	9/23	10/03	9/22	10/03	9/19	9/01
2	LD07-3395bf	-5	-6	-2	-1	-9	0	1
3	LD00-2817P	1	1	0	4	3	6	4
4	JTN-4118	0	7	8	14	8	9	7
5	JTN-4218	5	9	11	13	8	9	7
6	JTN-4318	4	9	10	13	9	11	7
7	K16-1390	2	4	10	5	7	8	5
8	K16-1403	5	4	16	16	8	14	12
9	K16-1430	5	5	4	8	7	7	6
10	K16-1444	4	7	11	9	9	6	10
11	K16-1445	4	7	12	15	8	14	6
12	K16-1543	5	8	15	12	8	8	8
13	LD15-3818	-4	-4	-1	2	4	1	1
14	LD15-8589	-3	-3	9	0	-1	7	3
15	LD15-9214	3	-2	9	8	7	7	4
16	LD16-2955	-6	-2	8	7	-8	3	3
17	LD16-8745	-5	-4	-1	6	0	4	1
18	LD16-8753	-7	-6	-1	0	0	3	0
	Planted	5/11	5/08	5/18	5/11	5/22	5/15	5/15

2018 SCN PRELIMINARY TEST IV

Lodging (score)

		Neoga IL	Urbana IL	Manhattan KS	Onaga KS	Rock Port MO	Ottawa KS	Jackson TN
	SCN HG Type	2.5.7	2.5.7	Inf	Inf	2.5.7	NI	NI
	Strain							
1	LD06-7620	3.3	1.0	2.0	1.0	4.0	1.0	1.0
2	LD07-3395bf	3.5	2.0	2.0	1.0	3.0	1.0	1.0
3	LD00-2817P	3.0	1.0	2.0	1.0	3.5	1.0	1.5
4	JTN-4118	3.5	2.5	2.5	1.5	5.0	1.0	1.5
5	JTN-4218	3.8	2.0	4.0	2.5	5.0	3.0	1.5
6	JTN-4318	3.5	3.5	3.5	3.0	5.0	2.5	1.5
7	K16-1390	3.0	2.0	2.0	1.5	3.5	1.0	1.0
8	K16-1403	3.3	2.0	2.5	2.0	4.0	1.0	2.5
9	K16-1430	3.8	2.5	2.0	2.0	4.3	1.0	2.0
10	K16-1444	3.5	2.5	2.0	1.5	4.3	1.0	1.5
11	K16-1445	3.5	2.0	2.5	3.1	4.3	1.0	2.0
12	K16-1543	3.0	1.0	2.0	1.0	2.8	1.0	1.0
13	LD15-3818	2.3	1.0	2.0	1.0	3.3	1.0	1.0
14	LD15-8589	2.8	1.0	1.0	1.0	2.5	1.0	1.0
15	LD15-9214	4.3	3.5	2.0	2.0	4.8	1.0	1.0
16	LD16-2955	1.3	1.0	2.0	1.0	1.5	1.0	1.0
17	LD16-8745	2.5	1.0	2.0	1.0	2.0	1.0	1.5
18	LD16-8753	2.5	2.0	2.0	1.0	2.5	1.0	1.0

2018 SCN PRELIMINARY TEST IV

Height (inches)

		Neoga IL	Urbana IL	Manhattan KS	Onaga KS	Rock Port MO	Ottawa KS	Jackson TN
	SCN HG Type	2.5.7	2.5.7	Inf	Inf	2.5.7	NI	NI
	Strain							
1	LD06-7620	43	38	36	29	44	23	28
2	LD07-3395bf	39	36	36	27	44	24	27
3	LD00-2817P	47	43	41	34	53	28	34
4	JTN-4118	34	31	33	29	39	27	22
5	JTN-4218	44	42	44	40	57	38	30
6	JTN-4318	53	37	50	38	60	38	31
7	K16-1390	46	41	44	37	53	33	34
8	K16-1403	49	45	48	36	58	32	40
9	K16-1430	46	42	42	35	53	26	35
10	K16-1444	41	42	40	33	51	28	33
11	K16-1445	42	40	40	35	49	29	36
12	K16-1543	50	46	43	36	52	30	37
13	LD15-3818	38	37	38	32	44	26	32
14	LD15-8589	42	38	36	29	45	26	27
15	LD15-9214	43	44	41	32	52	29	35
16	LD16-2955	36	35	30	25	41	20	28
17	LD16-8745	47	42	43	32	50	28	32
18	LD16-8753	45	41	40	33	45	27	31

2018 SCN PRELIMINARY TEST IV

Seed Quality (score)

		Neoga IL	Urbana IL	Manhattan KS	Onaga KS	Rock Port MO	Ottawa KS	Jackson TN
	SCN HG Type	2.5.7	2.5.7	Inf	Inf	2.5.7	NI	NI
	Strain							
1	LD06-7620	2.0	2.0			2.0		2.5
2	LD07-3395bf	2.0	2.0			2.5		3.0
3	LD00-2817P	3.0	2.0			2.0		2.0
4	JTN-4118	2.0	1.0			1.5		2.0
5	JTN-4218	2.0	3.0			2.0		2.5
6	JTN-4318	3.0	3.0			1.5		2.5
7	K16-1390	2.0	2.0			2.5		2.0
8	K16-1403	2.0	2.0			1.5		2.0
9	K16-1430	2.0	1.0			1.5		2.0
10	K16-1444	3.0	2.0			1.5		2.5
11	K16-1445	2.0	2.0			2.0		2.0
12	K16-1543	2.0	2.0			1.5		2.0
13	LD15-3818	2.0	2.0			1.5		2.5
14	LD15-8589	2.0	2.0			1.5		2.5
15	LD15-9214	2.0	2.0			3.0		2.0
16	LD16-2955	1.0	2.0			2.5		2.5
17	LD16-8745	2.0	2.0			1.5		3.0
18	LD16-8753	1.0	1.0			2.0		3.5

2018 SCN PRELIMINARY TEST IV

Seed Weight (g/100)

		Neoga IL	Urbana IL	Manhattan KS	Onaga KS	Rock Port MO	Ottawa KS	Jackson TN
	SCN HG Type	2.5.7	2.5.7	Inf	Inf	2.5.7	NI	NI
	Strain							
1	LD06-7620	13.4	14.2			14.6		12.8
2	LD07-3395bf	15.0	13.8			15.5		13.8
3	LD00-2817P	13.7	13.3			13.8		11.6
4	JTN-4118	10.5	11.1			13.0		11.4
5	JTN-4218	11.9	11.2			13.5		11.3
6	JTN-4318	8.1	8.5			10.7		9.4
7	K16-1390	13.5	13.1			14.0		12.8
8	K16-1403	12.8	12.0			14.3		11.8
9	K16-1430	13.7	13.6			14.7		11.5
10	K16-1444	13.7	14.6			15.8		11.9
11	K16-1445	14.3	14.2			16.6		12.6
12	K16-1543	12.8	14.2			16.3		12.2
13	LD15-3818	13.2	14.7			16.6		12.5
14	LD15-8589	13.6	14.9			16.0		12.1
15	LD15-9214	10.7	10.6			12.3		10.1
16	LD16-2955	14.7	16.3			17.3		14.7
17	LD16-8745	10.4	12.0			14.0		11.0
18	LD16-8753	11.0	12.2			14.0		11.8

2018 SCN PRELIMINARY TEST IV

Protein (%)

		Neoga IL	Urbana IL	Manhattan KS	Onaga KS	Rock Port MO	Ottawa KS	Jackson TN
	SCN HG Type	2.5.7	2.5.7	Inf	Inf	2.5.7	NI	NI
	Strain							
1	LD06-7620	34.5	33.8			34.2		33.3
2	LD07-3395bf	33.9	31.4			33.2		33.0
3	LD00-2817P	34.2	32.1			34.5		32.8
4	JTN-4118	36.2	33.5			34.8		35.7
5	JTN-4218	37.2	36.1			37.5		36.5
6	JTN-4318	36.8	35.1			35.4		36.1
7	K16-1390	36.1	34.4			36.8		33.1
8	K16-1403	34.1	32.2			33.7		32.0
9	K16-1430	35.7	33.7			34.5		33.3
10	K16-1444	34.6	33.3			34.4		33.1
11	K16-1445	34.0	33.8			33.9		33.5
12	K16-1543	35.8	35.6			35.7		34.1
13	LD15-3818	36.4	33.7			35.7		31.7
14	LD15-8589	35.1	32.2			34.6		32.1
15	LD15-9214	36.0	34.4			34.9		33.5
16	LD16-2955	34.3	32.1			33.9		31.7
17	LD16-8745	35.4	33.0			34.2		32.0
18	LD16-8753	36.1	32.9			35.1		31.9

2018 SCN PRELIMINARY TEST IV

Oil (%)

		Neoga IL	Urbana IL	Manhattan KS	Onaga KS	Rock Port MO	Ottawa KS	Jackson TN
	SCN HG Type	2.5.7	2.5.7	Inf	Inf	2.5.7	NI	NI
	Strain							
1	LD06-7620	16.8	16.8			17.7		18.1
2	LD07-3395bf	18.1	18.2			19.4		18.3
3	LD00-2817P	16.9	17.1			17.9		17.9
4	JTN-4118	16.6	17.3			18.2		17.3
5	JTN-4218	16.6	16.3			17.1		16.6
6	JTN-4318	15.1	16.2			16.8		16.4
7	K16-1390	16.2	16.0			16.8		18.0
8	K16-1403	16.5	17.1			17.8		17.7
9	K16-1430	15.7	16.1			17.9		17.4
10	K16-1444	16.2	15.8			17.8		17.1
11	K16-1445	16.9	16.4			18.4		17.7
12	K16-1543	16.9	15.7			17.6		18.1
13	LD15-3818	17.2	18.1			18.4		19.9
14	LD15-8589	17.1	17.4			18.6		18.9
15	LD15-9214	15.0	15.2			17.3		16.6
16	LD16-2955	18.4	18.3			19.3		20.1
17	LD16-8745	16.5	17.2			18.8		18.3
18	LD16-8753	16.1	16.9			18.2		19.3