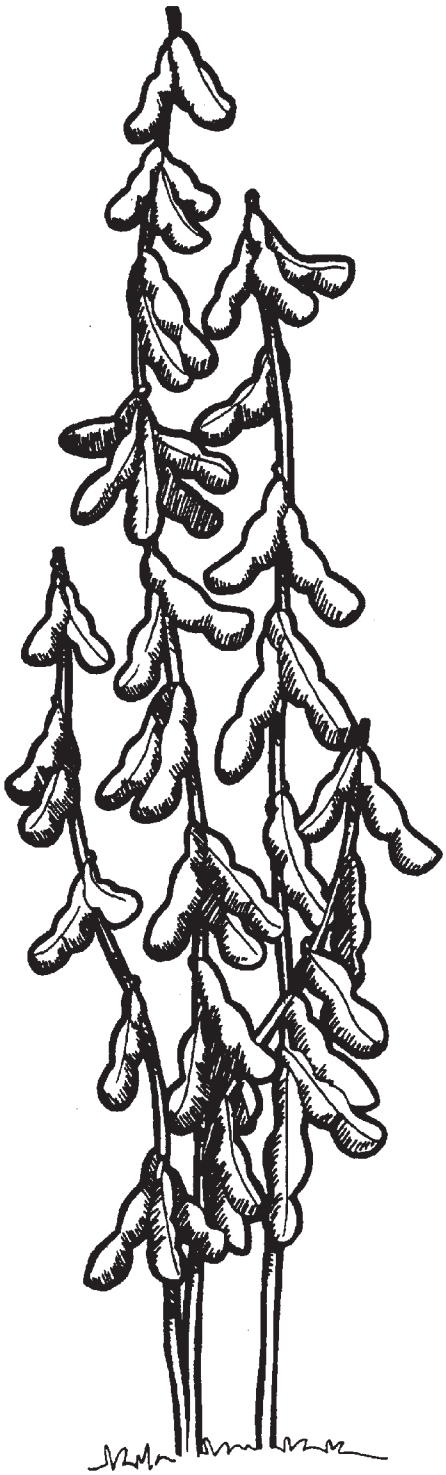
A-843 (Revised)

North Dakota SOYBEAN Performance Testing 2011



Compiled by Hans Kandel, Extension Agronomist

Blaine Schatz, Tim Indergaard, Bob Smith,
Paul Hendrickson and Steve Schaubert,
Carrington Research Extension Center
Eric Eriksmoen and Rick Olson,
Hettinger Research Extension Center
Bryan Hanson and Richard Wilhelmi,
Langdon Research Extension Center
Walter Albus and Leonard Besemann,
Oakes Irrigation Research Center
Mark Halvorson, Angela Sebelius and James Tarasenko,
North Central Research Extension Center, Minot
Gordon Bradbury, Sara Loomer,
Tyler Tjelde and Cameron Wahlstrom,
Williston Research Extension Center
Ted C. Helms,
NDSU Plant Sciences Department
Berlin D. Nelson and Sam Markell,
NDSU Plant Pathology Department
R. Jay Goos and Brian Johnson,
NDSU Soil Science Department

NDSU | EXTENSION SERVICE

NDSU | NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION

December 2011

ACKNOWLEDGEMENTS

We would like to thank the following producer cooperators for contributing their time, labor, land and other material to the 2011 soybean yield trial program in the central and southern Red River Valley sites.

Gebeke Bros. ……. ……...Arthur, N.D.

Jon McSparron ……. …….Grandin, N.D.

Jeff Leinen …… ……Great Bend, N.D.

Tyler Speich…… ..…….……...Milnor, N.D.

Paul and Vanessa Kummer …….. ……...Colfax, N.D.

Scott and Willard Pedersen …….. ……Northwood, N.D.

Dennis Feiken ……... ……...LaMoure, N.D.

Presentation of data for the varieties tested does not imply approval or endorsement by the authors or agencies conducting the tests. NDSU approves the reproduction of any table in this publication only if no portion is deleted, if appropriate footnotes are given, and if the order of the data is not rearranged and NDSU is credited for the data.

Trials are supported in part by fees collected from entrants of private varieties. We acknowledge the support from the North Dakota Soybean Council for Ted Helms' research project.

Research specialists and technicians helped with the field work and data compilation. Several secretaries assisted with this document by typing information. A special thank you goes to Lisa Johnson, Extension Plant Sciences secretary, for assisting in the compilation of this publication.

List of Tables

Soybean Variety Selection and Adaptation

Hans Kandel, hans.kandel@ndsu.edu, Extension Agronomist
Sam Markell, samuel.markell@ndsu.edu, Extension Plant Pathologist
Ted Helms, ted.helms@ndsu.edu, NDSU Soybean Breeder

Selection

Soybean variety selection should be based on maturity, yield, seed quality, lodging, iron-deficiency chlorosis tolerance and disease reaction. Later-maturing varieties tend to yield more than early maturing varieties when evaluated at the same location. After determining a suitable maturity for the farm, comparing yields of varieties that are of similar maturity is important. Although late maturity increases yield potential, later-maturing cultivars are more risky to grow than earlier-maturing varieties because an early fall frost may kill a late-maturing variety before the beans have completely filled in the pods, which will reduce yield greatly.

Soybean Maturity

Soybeans respond to day length and heat units, so the actual calendar date a variety will mature is highly influenced by latitude; each variety has a narrow range of north to south adaptation. Soybean yield and quality are affected if a season-ending freeze occurs before a variety reaches physiological maturity. Dates of maturity are listed in the performance tables and indicate when varieties were physiologically mature. In 2011 frost hit many parts of North Dakota by the middle of September. Usually harvest can commence approximately seven to 14 days after the soybean crop is physiologically mature. Relative maturity ratings also are provided for many of the varieties entered in the trials at various locations. Relative maturity ratings for private varieties were provided by the companies entering the variety in the trial.

Varieties of maturity groups 00 (double zero), 0 (zero) and 1 are suitable for eastern North Dakota and northwestern Minnesota. Maturity group 00 is very early and primarily grown in the northern Red River Valley and the north-central area of North Dakota. Maturity group 0 is adapted to Traill, Cass, Richland, Barnes, Sargent and Richland counties and other counties with similar latitudes. Maturity group 1 is primarily suitable for southern areas. These maturity groups are further subdivided. For example, a 0.1 maturity group is an early group 0 variety and a 0.9 is a late-maturity group 0 variety.

The best way to select a high-yielding variety is to use data averaged across several locations and years. Because weather conditions are unknown in advance, averaging across several years' data will identify a variety that likely will yield well across different weather conditions. Selecting a variety that has performed well in dry and moist conditions is the best way to pinpoint a variety that does relatively well, regardless of weather fluctuations.

Phytophthora

Phytophthora root rot is the No. 1 disease problem of soybeans in North Dakota. Phytophthora root rot tends to be more of a problem in the Red River Valley and on poorly drained, heavy soils, but the disease can cause significant stand reduction and yield loss in other areas when conditions are favorable. Most varieties have phytophthora root rot-resistance genes. Each gene for resistance confers resistance to a different race (or races) of phytophthora. For example, a gene that may confer resistance to Race 3 may not confer resistance to Race 4, and vice versa. According to a survey of phytophthora races done by NDSU's soybean pathologist, Berlin Nelson, Races 3 and 4 are most common in North Dakota. However, numerous other races are found in the state. Based on these findings, resistance genes RPS 6 and RPS 1K (commonly called the K gene) are the most likely genes to provide resistance against the races common in North Dakota. Although selection of RPS 6 or RPS 1K does not guarantee control, selection of one of these two resistance genes will maximize the likelihood of some protection against phytophthora root rot.

White Mold

Varieties have genetic differences for tolerance or resistance to white mold. Varieties that are less susceptible to white mold should be grown on fields where white mold has a past history of causing problems. The same pathogen causing white mold in soybeans causes white mold in other crops (dry beans, sunflowers, peas, canola, etc.); therefore, recent white mold problems in any crop in that field should be noted.

Iron-deficiency Chlorosis
Iron-deficiency chlorosis (IDC) is a major problem in the eastern part of North Dakota. Iron chlorosis symptoms might be present during the two- to seven-trifoliolate-leaf stages. Plants tend to recover and start to turn green again during the flowering and pod-filling stages. However, IDC during the early vegetative stages can reduce yield severely. Some varieties are more tolerant to IDC than others. For high pH soils with known IDC problems, select an iron chlorosis-tolerant variety of suitable maturity that is high yielding. Due to challenging field conditions, no IDC scores were generated in 2011; however, IDC scores for previous years are posted on Jay Goos' website at *www.yellowsoybeans.com*. For varieties tested in 2011, the 2010 IDC scores are provided in Tables 5-6.

Soybean Cyst Nematode
The soybean cyst nematode (SCN), *Heterodera glycines*, is a small parasitic roundworm that attacks the roots of soybeans. Soybean cyst nematode has been found and verified in Richland (2003), Cass (2007), Dickey (2009), LaMoure (2010), Ransom (2010), Barnes (2010), Grand Forks (2010), Traill (2011), Sargent (2011), Steele (2011), Pembina (2011) and Emmons (2011) counties of North Dakota. The soybean cyst nematode likely exists in other counties as well. Soybean cyst nematode causes yield losses in infested fields. Crop rotation and resistance are the most important practices growers must use to manage the disease. Growers may want to consider testing their soils for SCN. If a nematode problem is in the field, resistant soybean varieties should be planted.

General Information About the Tables
Variety trial data from all NDSU Research Extension Centers for all crops can be found at *www.ag.ndsu.edu/varietytrials.* The agronomic data presented in this publication are from replicated research plots using experimental designs that enable the use of statistical analysis. The least significant difference (LSD) numbers beneath the columns in tables are derived from the statistical analyses and only apply to the numbers in the column in which they appear. If the difference between two varieties exceeds the LSD value, it means that with 95 percent probability, the higher-yielding variety has a significant yield advantage. If the difference between two varieties is less than the LSD value, then the variety yields are considered similar. The abbreviation NS is used to indicate no significant difference for that trait among any of the varieties. The CV is a measure of variability in the trial. The CV stands for coefficient of variation and is expressed as a percentage. Large CVs indicate that a large amount of variation could not be attributed to differences in the varieties. In the tables, the mean indicates the average of the observations in the column. Soybean yield, oil and protein information are adjusted to 13 percent moisture content in the seed. Maturity date indicates physiological maturity, which is the date 95 percent of the pods are brown or tan. At Langdon, the maturity date indicates the day when one pod on the main stem obtained the mature brown or tan color.

Look for trends for the desired trait among different experimental sites and years. Table 4 provides the full company name, abbreviated company name used in the tables and a website for the company.

Table 1. Soil Test Report From Locations Used in Research Conducted by Ted Helms – 2011.

Location	N	P	K	pH	EC
	(lb/a)	--------(ppm)-------			(mmhos/cm)
Arthur	26	7	180	7.5	0.54
Colfax	26	10	115	7.4	0.21
Grandin	30	17	430	7.2	0.47
Great Bend	10	44	720	7.4	0.69
LaMoure	7	48	510	7.0	0.18
Milnor	12	24	170	6.1	0.89
Northwood	44	22	445	5.7	0.22

Soil sample: 0 to 6 inches.

Table 2. Locations and Planting Dates, 2011 North Dakota Soybean Trials.	
Location Author/Investigator	**Material Tested/Planting Date**
Arthur, N.D. ….……...……...……Ted Helms	Roundup Ready and conventional……...……...…..…..May 25
Colfax, N.D. ……...……...…..Ted Helms	Roundup Ready and conventional…….....…..…….…..June 7
Fargo, N.D. ……..Ted Helms	Roundup Ready …….June 4
Grandin, N.D. ……...…..Ted Helms	Roundup Ready and conventional……...…..…….. June 1
Great Bend, N.D. ….…….……Ted Helms	Roundup Ready and conventional……..…..…..…….. June 4
Milnor, N.D. ……Ted Helms	Roundup Ready and conventional…….……June 1
Northwood, N.D. ……..……..……Ted Helms	Roundup Ready and conventional….……..……..……..June 5
Carrington Research Extension Center…….. Blaine Schatz, Tim Indergaard and Bob Smith	Dryland, Roundup Ready ……..……May 19 Irrigated Roundup Ready and conventional……..…….May 19 Dryland Conventional……..…...…...…..…May 23
Barnes County trials, Dazey, N.D……..…Blaine Schatz, Tim Indergaard and Paul Hendrickson	Dryland, Roundup Ready and conventional.....May 25
LaMoure County trials…….. Ted Helms and Blaine Schatz	Roundup Ready and conventional……..……..……...May 25
Oakes Research site…….….Walter Albus, Blaine Schatz and Leonard Besemann	Irrigated Roundup Ready and conventional……...…....May 24
Langdon Research Extension Center ……..Bryan Hanson and Richard Wilhelmi	Roundup Ready…….……..…….May 20 Conventional…….…...…….…..……..May 19
Pembina County, Cavalier, N.D. ..…….. Bryan Hanson and Richard Wilhelmi	Roundup Ready…….……..……..……..June 3
Walsh County, Voss, N.D. ……..... Bryan Hanson and Richard Wilhelmi	Roundup Ready and conventional…….....……June 1
Nelson County, Lakota, N.D……..Bryan Hanson and Richard Wilhelmi	Roundup Ready…….…….June 6
North Central Research Extension Center, Minot, N.D. …….. Mark Halvorson, Angela Sebelius and James Tarasenko	Roundup Ready…….……..……...…...…...May 25
McLean County……. Mark Halvorson, Angela Sebelius and James Tarasenko	Roundup Ready……..……..……..June 6
Sheridan County……Mark Halvorson, Angela Sebelius and James Tarasenko	Roundup Ready……..……...…….....May 26
Hettinger Research Extension Center…….Eric Eriksmoen and Rick Olson	Roundup Ready and conventional…….…….…….May 17
Williston Research Extension Center.....Gordon Bradbury, Sara Loomer, Tyler Tjelde and Cameron Wahlstrom	Dryland Roundup Ready and conventional……May 25 Irrigated Roundup Ready and conventional.....…….May 19

Table 3. Agronomic Characteristics of Public Soybean Varieties Suitable for North Dakota Production.

Variety	Maturity Group	Fargo Relative Maturity	Height	Hilium Color	Remarks[1]
Jim	00.6	early	short	yellow	7
Cavalier	00.7	early	short	yellow	1, 5
Traill	0.0	early med.	med.	yellow	1, 7
Walsh	0.0	early med.	med.	yellow	1, 5
Nornatto	0.3	med.	short	yellow	3, 7, 9
Nannonatto	0.3	med.	short	yellow	3, 7, 9
Ashtabula	0.4	med.	med.	yellow	1,5
Prosoy	0.8	med. late	tall	yellow	4, 7, 10
Sheyenne	0.8	med. late	med.	yellow	1,6
Hamlin	0.9	late	med.	black	1, 4, 5
Surge	0.9	late	med.	imp. black	1, 4
Deuel	1.0	late	med.	black	5
SD1093RR	1.0	late	med.	imp. black	2,8

[1] Remarks 1 = Good iron chlorosis resistance, 2 = Moderate tolerance to iron chlorosis, 3 = Sensitive to iron chlorosis on high pH soils, 4 = Plant early, 5 = Resistant to races 1-4 of phytophthora root rot, 6 = Resistant to races 1, 2 and 3 of phytophthora root rot, 7 = Susceptible to phytophthora root rot, 8 = Roundup Ready variety, 9 = Natto bean, 10 = Tofu bean.

Table 4. Full Company Name, Abbreviated Name Used in Tables and Website.

Company	Abbreviated	Website
AgVenture Inc.	AgVenture	www.agventure.com
Asgrow	Asgrow	www.asgrowanddekalb.com
Channel Bio	Channel Bio	www.channelbio.com
Croplan Genetics Inc.	Croplan	www.croplangenetics.com
Dairyland Seed Co. Inc.	Dairyland	www.dairylandseed.com
Dyna-Gro Seed	Dyna-Gro	www.dynagroseed.com
Gold Country Seed Inc.	Gold Cntry	www.goldcountryseed.com
Gowan Seed	Gowan	--
Hefty Seed Co.	Hefty	www.heftyseed.com
Hyland Seeds	Hyland	www.dowagro.com/hyland
Integra Seed	Integra	www.integraseed.com
Kruger Seeds Inc.	Kruger	www.krugerseed.com
Legend Seeds Inc.	Legend	www.legendseeds.net
Meridian Seeds	Meridian	www.meridianseeds.com
Mustang Brand Seeds	Mustang	www.mustangseeds.com
Mycogen Seeds	Mycogen	www.mycogen.com
NorthStar Genetics	NorthStar	www.northstargenetics.com
N.D. Foundation Seed	NDSU	www.ag.ndsu.nodak.edu/aginfo/seedstock/fss/
NuTech Seed	NuTech	www.nutechseed.com
Peterson Farms Seed (PFS)	Peterson	www.petersonfarmsseed.com
Pioneer Hi-Bred International Inc.	Pioneer	www.pioneer.com
Prairie Brand Seed	Prairie	www.prairiebrandseed.com
Proseed Inc.	Proseed	www.proseed.net
REA Hybrids	REA	www.rea-hybrids.com
Renk Seeds	Renk	www.renkseed.com
Richland Organics	Richland	www.richlandorganics.com
Roughrider Genetics	Roughrider	www.roughridergenetics.com
Seeds 2000	Seeds 2000	www.seeds2000.net
SoDak Genetics	SoDak	www.roughridergenetics.com/So_Dak.htm
South Dakota State University	SDSU	www.sdstate.edu/ps/sdfssd/index.cfm
Stine Seed Co.	Stine	www.stineseed.com
SunOpta	SunOpta	www.sunopta.com/foods/index.aspx
Syngenta NK Brand	Syng NK	www.nk-us.com
Terning Seed	Terning	www.terningseeds.com
Thunder Seed	Thunder	www.thunderseeds.com
Unity	Unity	www.unityseed.com
Wensman Seed	Wensman	www.wensmanseed.com
Wolf River Valley Seed	Wolf River	www.wolfrivervalleyseeds.com/soybeans.htm

Screening Soybean Varieties for Resistance to Iron Chlorosis

R. Jay Goos (rj.goos@ndsu.edu) and Brian Johnson
Department of Soil Science, NDSU, Fargo, ND 58108-6050

How the Experiments Were Conducted

Due to the challenging field conditions, no data were developed for the 2011 growing season. However, in this publication, data from 2010 are presented for varieties that were tested in yield trials during the 2011 season.

Data from 2010 are based on field studies that were conducted at five locations to measure the resistance of about 300 Roundup Ready soybean varieties and about 70 non-Roundup Ready varieties to iron chlorosis. For details, see the 2010 soybean performance testing publication.

Each plot consisted of a hill. Eight seeds were planted in a hill, and the resulting growth was thinned soon after emergence to three plants. The experimental design was a randomized complete block with four replicates at each site. Separate trials were held for Roundup Ready and non-Roundup Ready varieties at each site. Visual ratings were made on a 1 to 5 scale, with 1 representing no chlorosis and 5 the most severe chlorosis. Ratings were taken at the two- to three- and five- to six-trifoliolate stages. Thus, each five-site average shown in the data tables (Tables 5-6) is an average of 40 observations (five sites times four replicates times two ratings per plot). As far as we know, this is the most comprehensive evaluation available to farmers.

In the conventional variety trial, six "standard" varieties were entered to help in the interpretation of the results. The varieties, listed in expected order from the most resistant to most susceptible, were Iowa State ISU A11, Traill, Council, Glacier and Mycogen 5072, which is equal to Stine 0480.

In the Roundup Ready trial, three varieties representing the range of chlorosis resistance in commercial varieties were included as standards. All standards were entered twice to provide information on the reproducibility of our ratings.

The "Chlorosis Report Card"

In 2008, we introduced the concept of the chlorosis "report card." We received many favorable comments about this system. We still report the numerical results (2.2, 3.1, etc.), but a disadvantage of this method is that chlorosis scores, like yields, go up and down from year to year. Thus, a score of 2.5 in one year may not mean the same thing as a rating of 2.5 in another year. Thus, we are reporting a second way of interpreting the data, "The Chlorosis Report Card."

The Chlorosis Report Card gives a variety a letter grade, from A to D-, representing how a variety rated compared with the other offerings in the marketplace. The range in the scores of commercial varieties is divided into 11 categories (A, A-, B+, B, B-, C+, C, C-, D+, D, D-), and the varieties were placed into these 11 categories. In other words, the most resistant commercial variety defined the top end of the "A" range, and the most susceptible commercial variety defined the bottom of the "D-" range. We did not give a variety an "A+" grade because we never have seen a variety immune to chlorosis. We did not give out any "F" grades, either, because no commercial variety has proven to be as susceptible as the two most susceptible varieties identified (T203 and Pride B216).

For chlorosis-prone land, a good interpretation of this system would be:

1. **Flee the D's!** These varieties are not adapted for chlorosis-prone land.
2. **You can do better than a C!** Many varieties exist with better chlorosis resistance.
3. **A grade of B or B- is a good grade**, especially for fields that tend to have slight to moderate chlorosis for a couple of weeks and recover or where chlorosis is present some years and not others. By going with a B, B- or stronger, you are selecting from the top 25 percent of the varieties on the market with regard to chlorosis resistance.
4. **For the fields with significant chlorosis problems, consider a variety with a grade of A, A- or B+**, consistent with your other objectives, such as maturity. This represents about the top 5 to 10 percent of the varieties with regard to chlorosis resistance.
5. **Taking on new land? Be careful.** If a farmer is buying or renting new land, the soil test shows calcium carbonate in the topsoil and pH values above 7.6, and the farmer is not sure of the chlorosis history of the field, the farmer probably should be conservative and go with a variety with higher levels of resistance.
6. **Chlorosis ratings are not perfect.** Chlorosis is a variable problem within a field, and chlorosis ratings are affected by experimental error. Ratings do vary from year to year. Consistency of performance is important for selecting varieties for fields with severe chlorosis problems. A variety with a proven performance across more than one year's trials is a safer bet for chlorosis-prone land than a new variety with a limited track record.
7. **No chlorosis? Then these charts aren't for you**! Not every production area, not every field, has chlorosis. Chlorosis generally is seen only on poorly drained fields or fields with lime in the topsoil. The letter grades listed here deal only with chlorosis. A variety may have a chlorosis grade of C or D but be an excellent choice for a field with no chlorosis problems.

The results for the Roundup Ready and conventional trials are sorted by company in alphabetical order and varieties are sorted by name in alphabetical order. The results are shown in Tables 5 and 6.

The authors thank the North Dakota Soybean Council for its generous support of these trials.

Table 5. 2010 Roundup Ready Chlorosis Trial, Sorted by Average Chlorosis Score Within a Company and 2011 Location in Which Varieties Were Tested for Yield (Page 1 of 3).

Company/ Brand	Variety	Mat. Group Company Provided	avg. 2010	"Grade" 2010	Central RR Table 7	Southern RR Table 9	Saturated Soil Table 11	Carrington, dryland Table 12	Carrington, irrigated Table 13	Dazey Table 16	LaMoure Table 18	Oakes, irrigated Table 20	Langdon Table 22	Cavalier Table 24	Voss Table 26	Lakota Table 27	Minot Table 28
Asgrow	AG0131	0.1	1.99	B+										x	x	x	x
Asgrow	AG0231	0.2	2.07	B	x										x	x	x
Asgrow	AG0430	0.4	2.58	C	x			x	x							x	
Asgrow	AG0730	0.7	3.04	D			x										
Asgrow	AG1031	1.0	2.21	B-		x											
Dairyland	DSR-0502/R2Y	0.5	2.78	C-				x									
Dairyland	DSR-0747/R2Y	0.7	2.99	D	x			x	x	x		x					
Dairyland	DSR-1215/R2Y	1.4	2.13	B		x						x					
Dairyland	DSR-1370/R2Y	1.4	2.28	B-								x					
Dyna-Gro	30RY09	00.9	2.01	B+									x	x	x	x	
Dyna-Gro	35RY01	0.1	1.86	A-	x			x	x	x			x	x	x	x	x
Dyna-Gro	37RY10	1.0	2.16	B		x					x						
Gold Cntry	0140	0.1	1.82	A-	x			x					x	x	x	x	x
Gold Cntry	0840	0.8	2.29	B-	x	x	x			x	x						
Gold Cntry	1040	1.0	2.49	C+		x											
Hyland	HS 009RY01	00.9	2.13	B	x								x	x	x		
Hyland	HS 01RY02	0.1	2.17	B	x								x	x	x		
Hyland	HS 04RY03	0.4	2.50	C+	x			x	x								
Hyland	HS 08RY05	0.8	2.46	C+		x											
Integra	20090 RR2Y	00.9	2.03	B+									x		x	x	x
Integra	20400 RR2Y	0.4	2.50	C+				x									
Integra	20800 RR2Y	0.8	2.67	C-			x										
Integra	78070 R	0.9	2.95	D+		x	x	x		x	x	x					
Integra	97001 R	00.3	1.93	B+									x			x	
Integra	97014 R	0.1	1.97	B+											x		
Kruger	K2-0401	0.4	2.43	C+				x	x	x	x	x					
Kruger	K2-0402	0.4	2.24	B-							x						
Kruger	K2-0801	0.8	2.38	C+	x	x		x	x	x	x	x					
Kruger	K2-1001	1.0	2.87	D+				x	x	x	x	x					
Kruger	K2-1102	1.1	2.57	C		x					x	x					
NorthStar	NS 0096R2	00.9	1.93	B+												x	
NorthStar	NS 0216R2	0.2	1.83	A-												x	
NorthStar	NS 0516R2	0.5	2.38	C+	x												
NorthStar	NS 0853RR	0.8	3.07	D					x	x		x					
NorthStar	NS 1125R2	1.1	2.45	C+		x											
NuTech	6011	--	2.63	C									x	x	x	x	x
NuTech	6078	0.7	3.11	D-	x	x											
NuTech	6118	1.1	2.62	C		x		x	x	x	x	x					
NuTech	0686 RR	0.6	3.05	D	x			x			x						
NuTech	G2-0090 RR	00.9	2.18	B													x

Table 5. 2010 Roundup Ready Chlorosis Trial, Sorted by Average Chlorosis Score Within a Company and 2011 Location in Which Varieties Were Tested for Yield (Page 2 of 3).

Company/ Brand	Variety	Mat. Group Company Provided	avg. 2010	"Grade" 2010	Central RR Table 7	Southern RR Table 9	Saturated Soil Table 11	Carrington, dryland Table 12	Carrington, irrigated Table 13	Dazey Table 16	LaMoure Table 18	Oakes, irrigated Table 20	Langdon Table 22	Cavalier Table 24	Voss Table 26	Lakota Table 27	Minot Table 28
NuTech	G2-6009	00.9	2.41	C+									x	x	x	x	
NuTech	G2-6030	0.3	2.96	D	x				x								
NuTech	G2-6050	0.5	2.86	D+	x				x	x							
NuTech	G2-6070	0.7	2.39	C+	x			x	x	x	x						
NuTech	G2-6088	0.8	3.07	D	x	x		x	x	x	x	x					
NuTech	G2-6098	0.9	2.29	B-		x		x	x	x	x	x					
Peterson	1002 RR	0.2	2.61	C				x									
Peterson	11R01	0.1	2.00	B+									x	x	x	x	x
Peterson	11R03	0.3	1.99	B+	x												
Peterson	11R08	0.8	2.79	C-		x	x			x	x						
Peterson	12R02	0.2	1.76	A-										x	x	x	
Pioneer	900Y71	00.7	2.29	B-									x	x	x	x	
Pioneer	90M80	0.8	2.68	C-						x	x	x					
Pioneer	90M92	0.9	2.42	C+							x	x					
Pioneer	90Y20	0.2	2.21	B-	x			x	x								
Pioneer	90Y42	0.4	2.50	C+	x			x	x								
Pioneer	90Y50	0.5	2.39	C+	x		x	x	x								
Pioneer	90Y70	0.7	1.99	B+		x		x	x	x	x	x					
Pioneer	90Y80	0.8	2.58	C		x				x	x	x					
Pioneer	91Y70	1.7	2.55	C							x	x					
Prairie	PB-00950R2	--	1.78	A-										x	x		
Prairie	PB-0650R2	0.6	1.74	A				x		x							
Prairie	PB-0721R2	0.7	2.50	C+						x							
Prairie	PB-1120R2	1.1	3.07	D						x							
Proseed	80-80	0.8	2.45	C+						x	x						
Proseed	P2 10-08	00.8	1.86	A-									x	x			
Proseed	P2 10-20	0.2	1.92	B+				x							x	x	x
Proseed	P2 10-80	0.8	2.68	C-	x	x	x			x	x	x					
REA	59G51	00.9	1.99	B+									x	x	x	x	
REA	61G21	0.1	1.93	B+										x	x	x	
REA	63G31	0.3	2.61	C			x	x								x	
REA	65G51	0.6	2.07	B	x			x			x						
REA	67G61	0.7	2.64	C	x	x		x	x		x						
REA	71G20	1.1	2.51	C		x					x						
Renk	RS050RR	0.5	2.32	B-				x	x	x							
Seeds 2000	0091RR2Y	00.9	1.99	B+	x								x	x	x	x	x
Seeds 2000	2091RR2YN	0.9	2.21	B-		x					x	x					
SoDak	SD1093RR	0.9	2.58	C		x											
Syng NK	S06-W2	0.6	2.70	C-	x	x		x		x							
Syng NK	S08-A2	0.8	2.33	B-	x	x	x	x		x	x	x					

Table 5. 2010 Roundup Ready Chlorosis Trial, Sorted by Average Chlorosis Score Within a Company and 2011 Location in Which Varieties Were Tested for Yield (Page 3 of 3).

Company/ Brand	Variety	Mat. Group Company Provided	avg. 2010	"Grade" 2010	Central RR Table 7	Southern RR Table 9	Saturated Soil Table 11	Carrington, dryland Table 12	Carrington, irrigated Table 13	Dazey Table 16	LaMoure Table 18	Oakes, irrigated Table 20	Langdon Table 22	Cavalier Table 24	Voss Table 26	Lakota Table 27	Minot Table 28
Syng NK	S09-N6	0.9	2.95	D+		x				x	x	x					
Thunder	30005RR	00.5	2.11	B									x	x	x	x	
Thunder	31009R2Y	00.9	2.00	B+									x	x	x	x	
Thunder	3105R2Y	0.5	2.20	B-	x		x										
Thunder	3106R2Y	0.6	2.03	B+	x		x	x	x	x							
Thunder	3108R2Y	0.8	2.66	C-		x					x	x					
Wensman	W 30084R2	00.8	1.91	B+									x	x	x	x	
Wensman	W 30091R2	00.9	1.99	B+									x	x	x	x	
Wensman	W 3096R2	0.9	2.39	C+				x	x	x		x					
Wensman	W 3131R2	1.3	2.09	B		x											
Standards	Strong std.	--	1.68	A													
Standards	Intermed. std	--	2.38	C+													
Standards	Weak std.	--	3.03	D													

Table 6. 2010 Conventional and Liberty Link Soybean Chlorosis Trial, Sorted by Average Chlorosis Score Within a Company and 2011 Location in Which Varieties Were Tested for Yield.

Company/ Brand	Variety	Mat. Group Company Provided	avg. 2010	"Grade" 2010	Central con Table 8	Southern con Table 10	Carrington, dryland Table 14	Carrington, irrigated Table 15	Dazey Table 17	LaMoure Table 19	Oakes, irrigated Table 21	Langdon Table 23	Voss Table 25	Hettinger Table 32	Williston Table 35
Brushvale	BS 29		2.87	D		x									
NDSU	Ashtabula	0.4	2.29	B-	x	x	x	x	x	x				x	x
NDSU	Cavalier	00.7	2.38	C+	x		x	x	x			x	x	x	x
NDSU	Nannonatto	0.3	2.65	C-	x										
NDSU	Nornatto	0.3	2.48	C	x										
NDSU	ProSoy	0.8	2.61	C-		x	x	x	x	x				x	x
NDSU	Sheyenne	0.8	2.29	B-	x	x	x	x	x	x				x	x
NDSU	ND 1005T	--	2.20	B-			x	x	x						x
Peterson	L05-11N LL	0.5	2.11	B	x		x						x		
Peterson	L08-10 LL	0.8	2.63	C-						x					
Pioneer	91M10	1.1	2.58	C		x				x					
Proseed	80-61LL	0.6	2.21	B-	x		x		x	x					
Proseed	91-12LL	1.1	2.20	B-		x				x					
Richland	MK 0205	0.2	2.65	C-			x		x			x	x		
Richland	MK 0508	0.5	2.50	C			x		x	x	x				
Richland	MK1016	1.0	2.40	C+					x	x	x				
Richland	MK9101	1.0	2.19	B-						x	x				
SDSU	Deuel	1.0	2.44	C+		x									
SDSU	Surge	0.9	2.26	B-		x									
SK Foods	SK 0786	0.7	2.93	D			x								
SK Foods	SK 095	0.9	2.90	D		x	x								
SK Foods	SK 972	0.3	2.81	D+	x		x								
SK Foods	SK 9801	--	2.48	C		x									x
SunOpta	Bravado	0.2	2.43	C+	x		x	x				x	x		
SunOpta	Excalibur	0.5	1.96	B+	x		x	x							
SunOpta	S0-0070	0.5	2.78	D+			x	x							
SunOpta	Valor	0.3	2.15	B	x		x	x							
Thunder	4906LL	0.6	2.29	B-	x										
Thunder	4910LL	1.0	2.38	C+		x									
Standards	Council	0.6	2.10	B											
Standards	Glacier	00.8	2.60	C											
Standards	ISU-A11	--	1.54	A											
Standards	Mycogen 5072	--	2.86	D											
Standards	Stine 0480	--	2.89	D											
Standards	Traill	0.0	2.08	B	x		x	x	x			x	x	x	x

Table 7. 2011 NDSU Combined Central Roundup Ready Soybean Locations in North Dakota - Author, T. Helms (Page 1 of 2).

Company/ Brand	Variety	Maturity[1]	Plant Height	Plant Lodge[2]	Seed Oil	Seed Protein	Seed Yield				
							Northwood	Arthur	Grandin	2011 Average	2-yr. Avg.
		(date)	(inch)	(1-5)	(%)	(%)	(bu/a)				
Asgrow	AG0231	9/19	31	2.4	18.7	32.5	63.4	42.8	59.0	55.1	56.7
Asgrow	AG0430	9/21	32	1.7	18.3	34.3	59.5	48.8	59.1	55.8	57.7
Asgrow	AG0532	9/24	34	1.4	17.9	34.1	66.9	39.3	55.8	54.0	--
Asgrow	AG0732	9/26	34	1.2	17.8	33.7	61.8	41.5	52.9	52.1	--
Channel	0100R2	9/19	33	2.7	17.7	34.9	64.3	34.7	52.6	50.5	--
Channel	0205R2	9/21	35	2.8	18.1	33.2	61.7	45.3	55.2	54.1	--
Channel	0501R2	9/22	33	1.6	18.7	34.7	58.0	44.9	55.7	52.9	--
Channel	0605R2	9/29	39	1.9	17.5	34.7	44.7	48.8	57.1	50.2	--
Croplan	R2T0091	9/18	34	2.6	17.6	33.8	60.9	38.5	54.5	51.3	--
Croplan	R2T0730	9/23	32	1.0	17.3	34.8	50.1	36.7	52.8	46.5	--
Dairyland	DSR-0200/R2Y	9/20	36	2.6	18.3	33.2	62.6	42.1	57.7	54.1	--
Dairyland	DSR-0603/R2Y	9/27	32	2.7	19.8	30.1	51.5	48.5	56.3	52.1	--
Dairyland	DSR-0747/R2Y	9/30	33	2.1	19.5	32.0	54.9	47.9	59.8	54.2	56.9
Dyna-Gro	34RY03	9/21	34	2.8	18.0	34.5	59.0	41.4	61.4	53.9	--
Dyna-Gro	35RY01	9/18	35	2.3	18.2	33.3	59.0	34.7	52.8	48.8	--
Dyna-Gro	37RY06	9/26	31	1.9	18.6	33.0	56.3	49.8	60.5	55.5	--
G2 Genetics	6030	9/24	31	1.3	16.8	34.1	56.8	42.3	53.3	50.8	54.6
G2 Genetics	6050	9/24	35	1.9	18.2	34.2	57.9	38.7	57.2	51.3	52.9
G2 Genetics	6070	9/27	34	2.2	18.2	33.5	56.0	50.0	57.8	54.6	56.4
G2 Genetics	6088	9/29	32	1.3	17.6	35.1	55.8	47.8	62.0	55.2	59.8
Gold Cntry	0140	9/20	33	2.1	18.1	34.3	63.1	39.6	53.2	51.9	--
Gold Cntry	0641	9/26	35	2.2	17.8	33.4	59.3	48.7	58.2	55.4	--
Gold Cntry	0840	9/27	34	1.5	18.2	33.5	57.3	47.1	58.7	54.3	56.5
Hyland	HS 009RY01	9/22	28	2.0	17.1	34.7	61.8	22.6	45.2	43.2	49.8
Hyland	HS 01RY02	9/20	30	1.8	18.2	34.6	54.0	22.8	49.6	42.1	48.2
Hyland	HS 04RY03	9/16	28	2.0	17.4	34.6	62.5	33.3	45.9	47.2	50.5
Integra	20530 RR2Y	9/23	31	1.4	18.0	33.3	59.9	43.3	57.2	53.5	--
Integra	20600	9/25	33	2.6	18.0	35.4	58.9	45.7	46.1	50.2	--
Kruger	K-072+RR	9/29	32	1.0	17.8	34.4	56.6	49.4	59.7	55.3	--
Kruger	K-X0721R	9/27	31	1.0	17.8	34.4	56.5	41.6	54.2	50.8	--
Kruger	K2-0701	10/1	34	1.9	18.1	33.7	52.7	46.1	57.4	52.1	--
Kruger	K2-0801	9/26	33	1.5	17.7	34.0	59.2	44.4	58.0	53.9	56.0
Mustang	02311	9/19	39	2.0	17.9	34.3	54.2	36.3	50.5	47.0	--
Mustang	04401	9/15	28	1.8	18.5	33.7	61.8	33.5	51.7	49.0	52.1
Mustang	06942	9/25	31	2.1	18.7	32.5	53.5	48.3	58.0	53.3	--
Mycogen	5B024R2	9/21	34	2.6	17.4	36.2	62.2	42.0	58.3	54.2	--
Mycogen	5B034RR	9/24	28	1.4	17.5	32.7	55.6	45.0	46.2	49.0	--
Mycogen	5B065R2	9/24	28	2.1	18.3	33.1	55.6	52.3	57.3	55.0	--
NorthStar	NS 0516R2	9/23	31	1.5	17.8	35.9	57.5	46.9	48.3	50.9	53.7
NorthStar	NS 0327NR2	9/23	30	2.8	18.2	34.3	58.5	34.8	47.8	47.0	--
NorthStar	NS 0626R2	9/27	30	1.5	17.2	34.6	54.3	47.3	50.6	50.8	--
NorthStar	NS 0717R2	9/28	27	1.4	18.5	34.6	52.4	46.2	49.3	49.3	--
Mean		9/24	32	1.9	18.0	34.0	57.1	42.9	54.7	51.6	53.5
CV %		3.9	8.2	27.3	5.6	5.7	7.4	11.6	12.1	10.4	--
LSD 0.05		3	4	1.1	1.6	3.1	6.7	7.8	10.6	4.9	--

Table 7. 2011 NDSU Combined Central Roundup Ready Soybean Locations in North Dakota - Author, T. Helms (Page 2 of 2).

Company/ Brand	Variety	Maturity[1]	Plant Height	Plant Lodge[2]	Seed Oil	Seed Protein	Seed Yield				
							Northwood	Arthur	Grandin	2011 Average	2-yr. Avg.
		(date)	(inch)	(1-5)	(%)	(%)	(bu/a)				
NuTech	0686 RR	9/25	34	1.5	18.1	34.6	57.9	52.3	59.0	56.4	57.2
NuTech	6056	9/25	30	1.8	17.4	33.7	51.8	31.9	48.2	44.0	50.8
NuTech	6075	9/29	32	1.8	18.6	32.0	51.1	47.1	54.4	50.8	--
NuTech	6078	9/29	29	1.2	17.8	36.6	54.1	43.5	60.2	52.6	59.5
Peterson	11R03	9/25	32	2.0	17.6	33.5	58.9	41.9	57.3	52.7	--
Peterson	12R05	9/25	32	2.3	18.4	34.0	53.9	49.0	59.9	54.3	--
Peterson	12R06	9/24	31	1.6	17.2	34.3	53.2	45.7	53.9	50.9	--
Peterson	12R07	9/30	34	1.8	18.3	33.7	54.7	50.0	55.9	53.5	--
Pioneer	90Y20	9/23	33	2.5	16.5	35.7	53.3	39.6	52.6	48.5	51.1
Pioneer	90Y42	9/22	29	1.3	17.7	35.2	58.7	23.9	51.6	44.7	47.2
Pioneer	90Y50	9/25	33	1.8	18.5	34.7	58.6	41.7	55.6	52.0	53.4
Proseed	P2 10-80	9/26	33	1.5	18.7	31.8	54.5	41.8	58.3	51.5	53.6
Proseed	P2 11-50	9/26	31	1.8	17.9	35.4	59.0	47.7	58.0	54.9	--
Proseed	P2 11-60	9/24	33	1.2	17.3	34.4	54.2	41.5	58.1	51.2	--
Proseed	P2 11-90	9/29	37	1.5	17.6	34.6	50.2	47.5	53.9	50.5	--
REA	65G22	9/24	34	2.3	18.2	34.2	59.5	46.8	61.7	56.0	--
REA	65G51	9/29	33	3.1	18.2	33.4	53.0	39.5	52.8	48.4	51.8
REA	66G22	9/25	33	1.8	17.4	34.5	58.4	50.6	57.2	55.4	--
REA	67G61	9/27	33	1.2	17.6	34.9	54.5	49.8	56.1	53.5	--
Seeds 2000	0091RR2Y	9/20	29	2.6	17.1	35.0	66.4	37.0	46.1	49.9	52.8
Seeds 2000	2051RR2Y	9/24	32	1.9	18.6	32.9	54.9	47.1	57.1	53.0	--
Stine	04RC08	9/26	33	1.9	17.6	34.4	55.0	46.2	58.9	53.4	--
Stine	05RC68	9/25	31	1.9	18.8	32.6	56.6	46.0	57.0	53.2	--
Syng NK	S02-B4	9/16	31	2.5	18.5	31.9	59.9	29.0	47.1	45.3	--
Syng NK	S06-W2	9/24	35	2.3	17.6	34.1	55.0	41.3	50.1	48.8	51.5
Syng NK	S08-A2	9/27	30	1.3	17.3	34.8	56.5	43.2	44.4	48.0	52.6
Terning	TS4060 RR2Y	9/25	31	2.3	17.7	34.0	58.1	46.5	57.1	53.9	--
Thunder	3103R2Y	9/25	34	2.0	18.1	35.2	55.1	41.2	50.0	48.8	--
Thunder	3105R2Y	9/24	31	1.4	17.4	33.9	55.3	38.3	52.7	48.8	51.8
Thunder	3106R2Y	9/30	30	2.3	18.5	34.9	51.9	34.4	45.2	43.8	49.4
Thunder	3205R2Y	9/25	33	2.5	18.4	34.7	60.5	41.0	57.1	52.9	--
Wensman	W 3030R2	9/22	32	2.4	18.3	34.0	65.3	44.5	59.7	56.5	--
Wensman	W 3058R2	9/24	33	1.8	17.7	34.7	57.4	48.7	55.6	53.9	--
Wensman	W WX 059	9/25	33	2.3	18.8	33.6	57.6	49.3	56.8	54.6	--
Wensman	W 3076R2	9/29	35	1.5	17.7	32.3	52.0	53.8	58.6	54.8	--
Mean		9/24	32	1.9	18.0	34.0	57.1	42.9	54.7	51.6	53.5
CV %		3.9	8.2	27.3	5.6	5.7	7.4	11.6	12.1	10.4	--
LSD 0.05		3	4	1.1	1.6	3.1	6.7	7.8	10.6	4.9	--

[1]Maturity is date of 95 percent brown or tan pods.

[2]Lodging: 1-upright, 5-flat on ground.

Table 8. 2011 NDSU Combined Central Conventional and Liberty Link Soybean Locations in North Dakota. - Author, T. Helms.

Company/ Brand	Variety	Maturity[1]	Plant Height	Plant Lodge[2]	Seed Oil	Seed Protein	Seed Yield				
							Northwood	Arthur	Grandin	2011 Average	2-yr. Avg.
		(date)	(inch)	(1-5)	(%)	(%)	----------(bu/a)----------				
NDSU	Ashtabula	9/23	29	1.6	16.7	30.1	53.8	22.7	47.9	41.5	47.8
NDSU	Cavalier	9/17	26	1.6	18.6	33.1	51.8	11.9	36.9	33.5	38.1
NDSU	Nannonatto	9/20	22	3.5	18.4	32.8	36.8	8.8	33.2	26.2	33.1
NDSU	Nornatto	9/20	25	3.5	17.9	34.2	41.5	9.0	38.5	29.7	35.9
NDSU	ProSoy	9/29	31	2.2	18.6	34.9	38.3	29.5	48.4	38.7	43.1
NDSU	Sheyenne	9/28	37	1.5	17.6	35.7	44.0	26.5	56.0	42.2	48.6
NDSU	Traill	9/19	27	1.1	17.7	34.5	47.8	8.1	42.7	32.9	39.9
NorthStar	NS 0576 NLL	9/24	30	1.5	18.1	32.5	49.7	34.0	53.3	45.6	--
NuTech	2062L	9/26	30	1.0	19.4	31.6	62.2	31.9	54.1	49.4	--
Peterson	L03-12N	9/23	32	1.2	18.7	33.1	46.4	32.1	56.7	45.0	--
Peterson	L05-11N	9/26	31	1.7	18.5	34.4	47.0	35.8	57.3	46.7	--
Proseed	P2 91-12LL	9/30	34	1.8	17.7	34.6	47.3	39.3	49.4	45.3	--
Proseed	80-61 LL	9/27	33	1.0	19.4	30.6	32.1	23.0	49.7	34.9	41.7
SK Food	SK 0034	9/22	24	1.6	19.3	32.8	37.0	6.5	33.1	25.5	--
SK Food	SK 0092Ex	9/6	22	1.8	18.6	34.9	30.1	2.3	22.8	18.4	--
SK Food	SK 918	9/28	32	1.8	18.1	33.7	35.7	15.6	44.6	32.1	--
SK Food	SK 972	9/24	33	1.8	18.7	34.7	55.3	17.9	48.7	40.6	47.8
Stine	06LC26	9/26	29	1.0	18.3	32.5	56.5	33.4	52.1	47.3	--
SunOpta	Bravado	9/17	26	2.3	18.2	33.3	57.4	20.3	33.4	37.0	41.8
SunOpta	Excalibur	9/23	31	2.2	17.9	33.1	52.2	18.8	43.6	38.2	41.3
Sun Opta	Valor	9/19	32	2.1	18.1	34.9	45.1	24.0	45.9	38.3	43.5
Thunder	4906LL	9/26	30	1.2	18.6	31.8	34.7	19.8	47.9	34.1	43.4
Thunder	5905LL	9/24	33	1.3	18.4	35.0	56.7	28.6	59.1	48.1	--
Unity	CA 135	9/24	27	2.2	18.8	32.8	53.3	18.1	38.5	36.6	41.5
Unity	Cobra	9/29	32	1.6	17.9	33.1	39.2	29.3	43.7	37.4	--
Mean		9/23	30	1.7	18.3	33.4	46.1	21.9	45.5	37.8	42.0
CV %		5.0	9.1	25.2	5.2	7.3	15.2	7.1	9.2	6.4	--
LSD 0.05		3	4	1.6	1.5	3.9	20.7	20.9	12.8	18.4	--

[1]Maturity is date of 95 percent brown or tan pods.

[2]Lodging: 1-upright, 5-flat on ground.

Table 9. 2011 NDSU Combined Southern Roundup Ready Soybean Locations in North Dakota - Author, T. Helms (Page 1 of 2).

Company/ Brand	Variety	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Seed Yield				
						Great Bend	Milnor	Colfax	2011 Average	2-yr. Avg.
		(date)	(inch)	(%)	(%)	(bu/a)				
Asgrow	AG0732	9/26	30	19.9	32.1	36.6	41.6	54.1	44.1	--
Asgrow	AG1031	9/28	37	16.9	33.2	46.0	49.3	45.0	46.8	48.3
Asgrow	AG1131	9/29	32	19.2	32.8	34.7	37.9	41.6	38.1	--
Asgrow	AG1431	9/29	34	18.9	33.9	44.5	50.5	48.9	47.9	--
Channel	0705R2	9/27	33	18.9	33.2	34.6	40.9	39.1	38.2	--
Channel	0905R2	9/26	37	18.2	32.9	36.4	38.3	37.5	37.4	--
Channel	1101R2	10/1	31	18.9	33.9	46.8	39.2	42.0	42.7	--
Channel	1105R2	9/28	32	18.6	35.6	48.4	42.9	43.0	44.8	--
Croplan	R2T0860	9/25	35	18.0	35.7	43.7	46.9	52.9	47.8	--
Dairyland	DSR-0603/R2Y	9/25	27	17.8	34.8	45.6	37.8	43.4	42.3	--
Dairyland	DSR-1215/R2Y	10/2	33	19.2	31.9	39.3	42.5	32.9	38.2	43.5
Dairyland	DST08-002/R2Y	9/24	30	19.4	33.6	17.0	30.8	27.2	25.0	--
Dyna-Gro	31RY08	9/26	35	18.5	34.7	47.1	53.1	47.8	49.3	--
Dyna-Gro	32RY08	9/28	28	20.1	31.5	31.7	42.0	44.4	39.4	45.0
Dyna-Gro	37RY10	9/27	33	18.2	33.9	53.2	47.2	47.8	49.4	50.9
Dyna-Gro	38RY13	10/3	36	18.1	31.8	46.6	48.7	43.7	46.3	--
G2 Genetics	6088	9/26	30	18.6	33.6	45.7	49.2	44.2	46.4	48.0
G2 Genetics	6092	9/26	32	18.5	34.1	36.7	41.0	49.1	42.2	--
G2 Genetics	6098	9/22	35	17.4	35.9	18.6	50.4	44.7	37.9	41.5
G2 Genetics	7102	9/26	29	18.7	31.3	43.1	52.8	43.8	46.6	--
Gold Cntry	0840	9/25	32	19.1	31.9	43.9	46.6	41.1	43.9	--
Gold Cntry	0941	9/26	39	18.5	34.4	36.6	44.7	39.1	40.1	--
Gold Cntry	1040	9/27	31	17.8	34.1	56.9	45.9	42.9	48.6	50.7
Hyland	HS 08RY05	9/26	33	18.2	34.3	48.4	44.8	40.2	44.5	45.1
Integra	20810	9/27	37	18.2	35.5	51.8	53.9	53.2	53.0	--
Integra	20820 RR2Y	9/27	33	18.9	33.4	44.8	47.6	42.5	45.0	--
Integra	21102	9/28	33	19.2	33.0	46.6	42.5	41.3	43.4	--
Integra	78070 R	9/24	31	14.3	30.8	33.4	55.4	43.7	44.1	46.4
Kruger	K2-0601	9/20	32	17.3	33.9	45.6	49.3	43.9	46.3	--
Kruger	K2-0701	9/30	28	17.7	35.0	37.8	42.9	47.2	42.6	--
Kruger	K2-0801	9/23	31	18.5	33.4	39.8	42.2	39.7	40.6	45.3
Kruger	K2-1102	10/1	37	19.4	33.3	40.8	48.1	48.0	45.6	49.5
Mustang	08331	9/24	29	19.5	31.7	40.1	47.4	45.5	44.3	47.5
Mustang	09822	9/26	29	18.2	33.6	43.8	52.6	44.7	47.0	--
Mustang	11302	9/28	33	18.2	33.2	50.6	44.4	45.6	46.9	--
Mycogen	5B080R2	9/15	31	17.9	35.8	31.2	46.9	43.6	40.6	--
Mycogen	5B103R2	9/27	33	18.2	34.1	42.3	43.8	43.0	43.1	--
Mycogen	5B130R2	10/2	33	18.6	32.7	44.8	41.7	49.3	45.3	--
Mycogen	5N090R2	9/27	32	17.8	30.9	41.6	50.2	47.7	46.5	--
NorthStar	NS 0717R2	9/24	33	17.9	33.8	30.9	40.1	32.1	34.4	--
NorthStar	NS 1125R2	10/1	36	18.3	34.4	43.5	43.9	33.2	40.2	44.9
NorthStar	NS 1177NR2	9/27	39	20.0	32.8	40.4	38.9	28.0	35.8	--
NorthStar	NS 1257R2	9/27	35	18.6	33.1	37.7	44.9	36.9	39.8	--
Mean		9/26	33	18.4	33.6	40.2	44.4	42.0	42.2	45.1
CV %		4.7	10.4	6.1	5.9	11.4	9.0	9.4	6.4	--
LSD 0.05		3	6	1.8	3.2	17.9	12.6	19.2	16.7	--

Table 9. 2011 NDSU Combined Southern Roundup Ready Soybean Locations in North Dakota - Author, T. Helms (Page 2 of 2).

Company/ Brand	Variety	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Seed Yield				
						Great Bend	Milnor	Colfax	2011 Average	2-yr. Avg.
		(date)	(inch)	(%)	(%)	(bu/a)				
NuTech	6075	9/26	33	18.5	33.9	31.6	54.5	47.0	44.4	--
NuTech	6078	9/27	28	17.6	31.8	48.0	47.8	36.6	44.1	44.1
NuTech	6118	9/30	34	18.7	33.5	46.6	48.5	42.5	45.8	--
Peterson	11R08	9/24	31	18.5	33.8	46.8	45.3	41.6	44.6	--
Peterson	11R10	9/25	33	18.3	33.5	41.5	44.8	43.5	43.3	--
Peterson	12R10	9/28	34	18.5	33.2	51.3	48.3	40.7	46.8	--
Peterson	12R12	9/27	33	18.4	34.1	41.2	42.2	46.0	43.1	--
Pioneer	90Y70	9/21	29	19.1	33.7	24.2	38.1	32.1	31.5	37.6
Pioneer	90Y80	9/18	32	17.7	34.8	27.1	40.0	32.3	33.1	--
Pioneer	90Y90	9/22	34	17.9	33.7	22.1	43.4	39.8	35.1	--
Proseed	P2 10-80	9/24	29	17.9	33.4	39.3	40.5	38.9	39.6	--
Proseed	P2 11-11	9/27	33	18.2	35.1	42.6	44.9	40.4	42.6	--
Proseed	P2 11-14	10/2	37	18.6	33.1	43.9	48.4	29.6	40.6	--
Proseed	P2 11-90	9/27	33	18.0	33.7	45.9	47.8	39.3	44.4	--
REA	66G22	9/21	31	18.8	33.1	45.2	44.0	43.4	44.2	--
REA	67G61	9/22	33	17.9	35.0	31.6	43.7	44.3	39.9	--
REA	69G22	9/28	38	18.9	33.3	42.0	48.0	48.2	46.1	--
REA	71G20	9/25	33	17.9	33.3	26.0	38.5	42.3	35.6	--
Renk	RS052NR2	9/16	29	17.8	36.7	29.6	37.6	35.5	34.3	--
Renk	RS082R2	9/25	32	17.8	33.9	46.3	46.0	37.7	43.4	--
Renk	RS122R2	10/1	39	18.3	35.2	40.4	42.6	35.9	39.6	--
Seeds 2000	2051RR2Y	9/18	33	17.7	34.3	42.9	46.4	46.7	45.3	--
Seeds 2000	2082RR2Y	9/28	32	19.1	33.0	48.6	43.4	44.6	45.5	--
Seeds 2000	2091RR2YN	9/27	33	18.6	33.3	37.6	44.0	44.6	42.0	43.9
Seeds 2000	2121RR2Y	9/28	31	17.9	33.2	42.4	42.3	46.8	43.8	--
SoDak	SD1093RR	9/23	32	18.7	34.3	37.9	38.2	41.2	39.1	42.8
SoDak	SD2121RR	10/3	34	18.2	34.2	44.0	37.6	40.3	40.6	--
Syng NK	S06-W2	9/15	32	18.3	35.2	22.9	36.4	44.8	34.7	37.6
Syng NK	S08-A2	9/23	30	18.9	33.4	25.9	40.1	42.9	36.3	41.7
Syng NK	S09-N6	9/21	31	18.2	34.6	38.6	47.8	45.2	43.9	46.2
Syng NK	S10-G7	9/26	34	18.6	33.3	44.8	51.0	49.5	48.5	--
Terning	TS4079N RR2Y	9/23	32	18.9	33.3	43.4	45.3	39.7	42.8	--
Terning	TS4101 RR2Y	9/28	34	17.6	34.0	45.6	42.5	45.8	44.6	--
Terning	TS5098NRR	9/29	32	18.2	31.5	47.8	48.7	40.5	45.7	--
Thunder	3108R2Y	9/24	31	18.9	33.2	38.5	41.2	41.9	40.5	44.8
Thunder	3209R2YN	9/27	29	18.0	34.2	37.6	39.5	31.2	36.1	--
Thunder	3211R2Y	9/27	33	18.1	34.0	47.4	42.5	38.5	42.8	--
Wensman	W 3099R2	9/28	35	18.1	33.9	54.1	54.1	44.0	50.8	--
Wensman	W 3108R2	9/28	33	18.0	34.1	33.9	47.7	49.5	43.7	--
Wensman	W 3120R2	10/1	34	17.6	30.5	39.1	38.5	44.8	40.8	--
Wensman	W 3131R2	9/30	37	19.2	33.4	44.8	40.4	36.6	40.6	47.3
Mean		9/26	33	18.4	33.6	40.2	44.4	42.0	42.2	45.1
CV %		4.7	10.4	6.1	5.9	11.4	9.0	9.4	6.4	--
LSD 0.05		3	6	1.8	3.2	17.9	12.6	19.2	16.7	--

[1]Maturity is date of 95 percent brown or tan pods.

Table 10. 2011 NDSU Combined Southern Conventional and Liberty Link Soybean Locations in North Dakota - Author, T. Helms.

Company/ Brand	Variety	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Seed Yield				
						Great Bend	Milnor	Colfax	2011 Average	2-yr. Average
		(date)	(inch)	(%)	(%)	(bu/a)				
Brushvale	BS 19	9/23	32	17.3	36.6	26.8	24.7	27.2	26.2	--
Brushvale	BS 29	9/23	30	17.8	35.6	27.4	28.5	28.4	28.1	33.8
Brushvale	BS 50	9/25	27	18.3	34.5	16.5	31.7	17.2	21.8	--
NDSU	Ashtabula	9/15	27	19.9	32.6	11.6	27.5	18.3	19.1	27.0
NDSU	ProSoy	9/27	29	18.5	34.7	25.0	30.5	26.3	27.3	31.8
NDSU	Sheyenne	9/23	31	18.1	35.1	30.0	37.0	22.8	29.9	30.5
NorthStar	NS 0377 NLL	9/18	29	19.0	34.4	37.0	33.2	30.1	33.4	--
NorthStar	NS 1076 NLL	9/18	31	17.5	35.4	41.4	31.2	28.7	33.8	--
NuTech	2088L	9/27	30	18.0	34.4	52.1	41.2	46.8	46.7	--
NuTech	3102L	9/29	35	18.7	33.6	35.6	43.7	32.4	37.2	--
Peterson	L08-11	9/25	25	16.7	32.3	39.9	32.0	24.0	32.0	--
Peterson	L10-11N LL	9/28	33	18.4	32.5	36.6	39.0	35.3	37.0	--
Pioneer	91M10	9/28	29	17.0	37.0	40.0	34.2	29.4	34.5	37.7
Proseed	91-12 LL	9/28	31	18.0	35.7	36.3	42.2	36.9	38.5	41.0
SDSU	Deuel	9/30	29	18.5	33.0	33.4	30.8	19.9	28.0	31.7
SDSU	Surge	9/27	30	18.5	34.3	17.3	34.7	20.1	24.0	32.7
SK Foods	SK 095	9/20	30	19.1	32.6	14.5	28.5	15.5	19.4	22.0
SK Foods	SK 9801	9/21	30	18.0	35.7	21.9	36.2	31.6	29.9	33.5
Thunder	4910LL	9/27	34	18.0	34.3	33.4	37.6	30.0	33.6	36.6
Thunder	5910LL	9/27	31	18.8	32.6	40.8	35.1	25.9	33.9	--
Mean		9/24	30.0	18.2	34.3	30.9	34.0	27.3	30.7	32.6
CV %		5.8	11.3	7.1	7.5	11.2	7.3	11.4	5.7	--
LSD 0.05		4	5	2.1	4.1	25.2	14.0	27.9	22.0	--

[1]Maturity is date of 95 percent brown or tan pods.

Table 11. 2011 NDSU Fargo Soybean Saturated-soil Roundup Ready Experiment - Author, T. Helms.

Company/Brand	Variety	Maturity[1]	Seed Yield		
			Dry[2]	Wet[3]	Average
		(date)	----------(bu/a)----------		
Asgrow	AG0730	9/23	34.3	35.8	35.1
Asgrow	AG0732	9/24	38.5	29.3	33.9
Channel	0205R2	9/22	36.4	35.0	35.7
Channel	0501R2	9/16	29.5	23.0	26.3
Croplan	R2T0091	9/24	34.7	23.4	29.1
Croplan	R2T0730	9/26	32.7	25.7	29.2
Dairyland	DSR-0200/R2Y	9/27	31.2	24.0	27.6
Dairyland	DSR-0603/R2Y	9/23	33.5	24.3	28.9
Dyna-Gro	34RY03	9/19	34.2	25.2	29.7
Dyna-Gro	37RY06	9/19	36.3	30.2	33.3
Gold Cntry	0840	9/22	32.3	32.5	32.4
Integra	20800 RR2Y	9/24	38.0	28.7	33.4
Integra	20810	9/24	36.7	27.7	32.2
Integra	78070 R	9/27	32.2	27.2	29.7
Kruger	K2-0503	9/24	34.9	24.1	29.5
Kruger	K2-0601	9/27	38.2	36.2	37.2
Kruger	K2-0701	9/25	35.8	28.0	31.9
Mycogen	5B024R2	9/17	37.7	27.5	32.6
Mycogen	5B034RR	9/21	33.5	27.8	30.7
NorthStar	NS 0626R2	9/27	29.8	33.0	31.4
NorthStar	NS 0925R2	9/24	34.3	29.2	31.8
Peterson	12R06	9/23	33.6	29.7	31.7
Peterson	11R08	9/22	35.8	32.7	34.3
Pioneer	90Y21	9/23	23.7	18.8	21.3
Pioneer	90Y41	9/28	26.7	24.6	25.7
Pioneer	90Y50	9/21	33.8	27.2	30.5
Proseed	P2 10-80	9/26	33.3	27.7	30.5
Proseed	P2 11-60	9/23	30.6	27.8	29.2
Proseed	P2 11-90	9/25	35.7	28.0	31.9
REA	62G22	9/22	35.1	27.3	31.2
REA	63G31	9/22	31.8	22.0	26.9
Seeds 2000	2051RR2Y	9/23	42.8	31.1	37.0
Seeds 2000	2082RR2Y	9/25	32.5	29.2	30.9
Syng NK	S02-B4	9/22	33.4	22.1	27.8
Syng NK	S08-A2	9/23	27.5	22.9	25.2
Thunder	3105R2Y	9/25	34.2	27.5	30.9
Thunder	3106R2Y	9/25	21.8	21.9	21.9
Thunder	3205R2Y	9/28	35.9	28.5	32.2
Wensman	W 3060R2	9/27	33.9	32.8	33.4
Wensman	W 3076R2	9/27	34.5	31.2	32.9
Mean		9/23	33.5	27.8	30.7
CV		8.3	14.9	20.5	18.2
LSD 0.05		7	8.0	6.4	5.0

[1]Maturity is date of 95 percent brown or tan pods.

[2]Dry yield is rainfed without supplemental irrigation.

[3]Wet yield is irrigated to simulate a wetter than average year.

Table 12. 2011 Soybean - Dryland, Roundup Ready - Carrington - Authors, B. Schatz, T. Indergaard and B. Smith (Page 1 of 2).

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Ht	Plant Lodge[2]	Seeds/ Pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 3-yr. Avg.
			(date)	(cm)	(inch)	(0-9)	(seeds)	(%)	(%)	(lb/bu)	-----(bu/a)-----	
AgVenture	009K9	00.9	9/13	7	27	1.5	3,095	20.1	33.0	56.7	62.2	--
AgVenture	03K3	0.3	9/15	7	27	1.3	2,431	19.8	34.4	54.6	61.8	--
Asgrow	AG0430	0.4	9/16	6	25	0.8	3,087	19.1	32.6	56.9	62.7	--
Asgrow	AG0532	0.5	9/17	7	30	0.8	3,104	19.0	32.1	56.8	60.8	--
Asgrow	AG0732	0.7	--	8	29	1.0	3,057	19.2	33.0	56.4	60.4	--
Dairyland	DSR-0603/R2Y	0.6	--	11	35	1.8	3,898	18.1	34.0	57.2	59.4	--
Dairyland	DSR-0747/R2Y	0.7	--	9	29	1.3	3,381	18.5	33.5	57.0	60.3	--
Dyna-Gro	31RY08	0.8	--	10	32	1.8	3,142	18.9	33.2	55.9	62.7	--
Dyna-Gro	34RY03	0.3	9/14	9	31	1.3	2,484	19.2	33.0	57.3	63.8	--
Dyna-Gro	35RY01	0.1	9/12	7	30	1.5	2,913	20.1	32.0	57.0	61.1	--
Dyna-Gro	37RY06	0.6	--	10	32	1.5	3,186	18.6	33.4	56.4	61.5	--
Gold Cntry	0140	0.1	9/13	8	29	1.5	2,732	19.5	32.1	57.0	59.1	--
Gold Cntry	0241	0.2	9/12	8	34	1.3	2,367	19.4	33.0	57.4	60.2	--
Gold Cntry	0641	0.6	--	10	33	1.8	3,191	19.2	32.0	56.3	60.8	--
Hyland	HS 04RY03	0.4	9/15	9	29	1.0	2,646	18.7	33.3	56.9	58.4	--
Integra	20400 RR2Y	0.4	9/16	9	30	1.0	2,692	19.3	32.7	57.0	62	--
Integra	20530 RR2Y	0.5	--	9	29	1.3	3,080	18.8	33.7	56.5	58.6	--
Integra	20600 RR2Y	0.6	--	10	35	1.5	3,179	19.1	32.1	56.2	61.4	--
Integra	20820 RR2Y	0.8	--	8	30	1.0	3,180	18.9	33.2	56.3	57.7	--
Integra	78070 R	0.7	--	8	28	1.8	3,688	18.3	33.6	56.3	58.6	--
Integra	79020 R	0.2	9/17	9	31	1.3	3,323	18.8	33.4	57.8	61.1	51.7
Kruger	K-072+RR	0.5	--	10	29	1.0	3,691	18.4	33.6	56.4	59.2	--
Kruger	K2-0091	00.9	9/13	9	29	1.3	2,555	19.4	32.1	57.1	56.2	--
Kruger	K2-0101	0.1	9/13	10	30	1.3	2,371	19.3	33.0	57.3	60.1	--
Kruger	K2-0401	0.4	--	9	28	1.3	3,042	18.8	34.0	56.6	59.9	--
Kruger	K2-0502	0.5	--	10	33	1.8	3,678	18.7	33.0	55.4	48.5	--
Kruger	K2-0601	0.6	--	10	32	1.5	3,185	19.0	32.5	56.5	63.2	--
Kruger	K2-0701	0.7	--	10	30	1.5	3,108	18.7	33.0	56.5	54.3	--
Kruger	K2-0801	0.8	--	10	33	1.5	3,241	18.7	32.8	56.8	60.3	--
Kruger	K2-1001	1.0	--	11	35	1.8	3,549	18.0	33.8	56.5	59.0	--
Kruger	KX-0721R	0.4	--	9	28	1.8	3,576	18.2	34.1	56.4	59.5	--
Legend	003R21	0.3	9/15	8	28	1.0	2,723	19.1	32.6	56.8	55.9	--
Legend	06R21	0.6	--	10	33	1.3	3,149	19.2	32.3	56.4	63.6	--
Legend	08R21N	0.8	--	9	32	1.5	3,291	18.3	34.2	56.7	57.4	--
Mustang	01212	0.1	9/17	6	25	0.5	2,927	19.7	33.0	56.3	56.6	--
Mustang	04401	0.4	9/16	8	30	1.3	2,694	19.0	33.0	56.9	63.2	--
Mycogen	5B024R2	0.2	9/13	8	32	1.0	2,456	19.2	33.0	57.4	61.0	--
NuTech	0686RR	0.6	--	9	30	1.3	2,956	19.2	32.8	56.7	60.0	--
NuTech	6118	1.1	--	10	33	1.0	3,257	18.5	33.1	56.0	55.0	--
NuTech	G2-6025	0.2	9/15	8	27	0.3	2,489	19.6	33.9	56.3	61.9	--
NuTech	G2-6052	0.5	9/16	9	32	1.3	2,877	20.1	32.4	57.2	62.8	--
NuTech	G2-6070	0.7	--	9	34	1.8	3,179	19.4	32.9	56.3	59.4	--
NuTech	G2-6088	0.8	--	10	28	1.5	3,717	18.4	33.5	56.3	59.9	53.4
NuTech	G2-6092	0.9	--	10	36	1.5	3,469	18.6	34.0	57.9	59.1	--
NuTech	G2-6098	0.9	--	11	35	1.5	3,160	18.7	31.7	56.5	64.1	52.5
Peterson	1002 RR	0.2	9/15	7	25	1.0	2,211	20.1	32.0	55.8	59.0	55.5
Peterson	12R05	0.5	--	10	31	1.5	3,174	19.1	32.1	56.5	58.0	--
Peterson	12R06	0.6	--	9	30	1.3	3,287	18.6	33.2	56.6	59.3	--
Mean			9/14	9	31	1.3	3,106	19.0	32.9	56.6	59.1	53.2
CV %			1.3	16.2	9.0	38.7	3.7	1.6	1.5	0.8	6.5	--
LSD 0.05			2.2	2.0	3.8	0.7	160	0.4	0.7	0.7	5.3	--

Table 12. 2011 Soybean - Dryland, Roundup Ready - Carrington - Authors, B. Schatz, T. Indergaard and B. Smith (Page 2 of 2).

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Ht	Plant Lodge[2]	Seeds Pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield Avg.
			(date)	(cm)	(inch)	(0-9)	(seeds)	(%)	(%)	(lb/bu)	-----(bu/a)-----	
Pioneer	90Y20	0.2	9/15	9	32	1.3	3,094	19.6	33.0	56.9	61.6	--
Pioneer	90Y21	0.2	9/15	8	26	1.0	2,652	20.4	33.3	56.7	60.1	--
Pioneer	90Y42	0.4	9/17	8	31	1.0	3,035	20.0	32.1	56.0	59.0	51.2
Pioneer	90Y50	0.5	--	9	34	1.3	3,184	19.5	32.7	56.5	65.2	55.1
Pioneer	90Y70	0.7	--	8	30	1.5	2,935	19.9	32.4	56.4	58.2	--
Prairie	PB-0240R2	0.2	9/13	9	33	1.3	2,384	19.2	32.7	57.4	55.4	--
Prairie	PB-0510R2	0.6	--	9	32	1.5	3,247	18.3	33.6	56.6	61.4	--
Prairie	PB-0612X	0.5	--	10	31	1.0	3,061	19.1	32.4	56.3	59.9	--
Prairie	PB-0650R2	0.6	--	10	36	1.8	3,545	18.8	32.8	55.9	53.3	--
Prairie	PB-0880R2	0.8	--	10	32	2.3	3,596	18.2	33.6	57.1	60.1	--
Prairie	PB-0912X	0.9	--	9	28	1.5	3,376	18.6	33.7	56.5	57.6	--
Prairie	PB-0913X	0.9	--	9	29	1.3	3,061	18.8	32.5	56.3	59.3	--
Prairie	PB-0920R2	0.9	--	11	31	1.3	3,503	18.2	33.8	56.7	55.2	--
Prairie	PB-1080R2	1.0	--	12	38	1.8	3,319	18.8	32.8	56.7	55.9	--
Proseed	P2 10-20	0.2	9/11	8	29	1.0	2,486	19.8	31.8	56.8	54.7	--
Proseed	P2 11-10	0.1	9/13	6	27	1.0	2,914	19.9	32.4	56.2	52.0	--
Proseed	P2 11-30	0.3	9/15	7	28	0.8	2,647	19.2	32.9	56.5	59.8	--
Proseed	P2 11-50	0.5	--	10	30	1.8	3,199	18.9	32.3	56.3	59.2	--
Proseed	P2 11-60	0.6	9/17	10	33	1.5	3,369	19.1	32.4	57.0	58.4	--
REA	63G31	0.3	9/16	8	30	1.8	3,152	19.6	31.3	57.2	64.3	--
REA	65G22	0.5	--	10	32	1.5	3,060	19.1	32.4	56.1	63.9	--
REA	65G51	0.6	--	8	33	1.5	3,725	18.5	33.1	55.6	46.4	--
REA	66G22	0.6	--	10	31	1.5	3,295	18.3	33.2	56.2	63.9	--
REA	6764RR	0.6	--	9	29	2.0	3,361	19.0	32.7	57.0	60.1	--
REA	67G61	0.7	--	9	33	1.3	3,273	18.5	32.9	56.8	60.2	--
Renk	RS050RR	0.5	--	9	30	1.0	3,277	19.9	32.3	56.0	59.4	--
Renk	RS052NR2	0.5	--	8	27	1.3	3,078	18.7	34.1	56.6	55.3	--
Seeds 2000	2051RR2Y	0.5	--	10	33	1.3	3,221	19.0	32.2	56.1	59.6	--
Stine	01RA06	0.2	9/15	8	28	0.5	2,738	19.1	32.9	56.8	54.7	--
Syng NK	S02-B4	0.2	9/11	8	34	2.0	2,969	19.9	32.0	56.9	60.9	--
Syng NK	S06-W2	0.6	--	9	32	1.0	3,297	18.6	33.0	56.6	55.7	52.9
Syng NK	S08-A2	0.8	--	9	31	0.8	3,272	19.2	32.0	57.5	58.4	--
Thunder	3103R2Y	0.3	9/15	7	27	0.5	2,646	19.0	33.1	56.5	54.7	--
Thunder	3106R2Y	0.6	--	8	33	1.8	3,607	18.8	32.8	55.4	47.3	--
Thunder	3202R2Y	0.2	--	9	30	1.8	3,671	18.3	34.0	56.5	56.5	--
Thunder	3205R2Y	0.5	--	9	29	1.5	3,158	18.9	32.3	56.3	62.3	--
Wensman	W 3030R2	0.3	9/14	8	31	1.0	2,405	19.5	32.5	57.5	61	--
Wensman	W 3058R2	0.5	--	9	30	1.5	3,182	18.8	33.0	56.6	63.9	--
Wensman	W 3076R2	0.7	--	8	28	1.3	3,211	18.9	32.8	56.2	59.7	--
Wensman	W 3096R2	0.9	--	10	31	1.0	3,463	18.4	33.6	57.0	58.5	--
Wensman	W 3099R2	0.9	--	10	32	1.5	3,501	18.1	34.0	56.6	53.7	--
Wolf River	21008 RR/STS	00.8	9/14	9	30	1.0	3,219	19.6	33.1	56.6	61.7	--
Wolf River	2103 RR/STS	0.3	9/17	10	32	1.5	3,415	18.9	33.5	57.8	61.1	--
Mean			9/14	9	31	1.3	3,106	19.0	32.9	56.6	59.1	53.2
CV %			1.3	16.2	9.0	38.7	3.7	1.6	1.5	0.8	6.5	--
LSD 0.05			2.2	2.0	3.8	0.7	160	0.4	0.7	0.7	5.3	--

Planted: May 19. Harvested: Oct. 3. Previous crop: flax.

[1]Maturity is date of 95 percent brown or tan pods (--) indicates cultivar had not reached maturity at time of first frost on Sept. 14 and 15.

[2]Lodging is from 0 to 9; 0 is erect, 9 is flat.

Table 13. 2011 Soybean - Irrigated, Roundup Ready - Carrington - Authors, B. Schatz, P. Hendrickson and S. Schaubert (Page 1 of 2).

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Ht	Plant Lodge[2]	Seeds/ Pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 3-yr. Avg.
			(date)	(cm)	(inch)	(0-9)	(seeds)	(%)	(%)	(lb/bu)	------ (bu/a) ------	
AgVenture	009K9	00.9	9/9	7	31	2.8	3,180	20.5	32.6	56.6	58.3	--
AgVenture	03K3	0.3	9/9	8	29	1.3	2,590	20.1	33.2	56.5	62.9	--
AgVenture	05C5	0.5	--	9	31	1.3	2,791	19.3	31.8	56.3	62.4	--
Asgrow	AG0430	0.4	9/12	9	31	1.5	3,022	19.7	31.4	57.2	65.9	--
Asgrow	AG0532	0.5	9/12	9	31	1.8	2,955	19.3	31.1	57.5	63.5	--
Asgrow	AG0732	0.7	--	9	33	1.5	3,201	19.6	31.7	56.8	60.7	--
Dairyland	DSR-0603/R2Y	0.6	--	10	36	1.5	3,796	18.6	33.0	57.6	57.9	--
Dairyland	DSR-0747/R2Y	0.7	--	10	34	1.5	3,400	18.9	32.2	57.5	57.4	--
Dyna-Gro	31RY08	0.8	--	10	32	1.5	3,072	19.2	32.7	56.5	65.0	--
Dyna-Gro	34RY03	0.3	9/11	9	33	2.5	2,468	19.5	32.3	57.6	62.2	--
Dyna-Gro	35RY01	0.1	9/9	7	35	3.0	2,872	20.3	31.0	57.0	61.7	--
Dyna-Gro	37RY06	0.6	--	10	33	1.0	3,304	18.7	32.7	56.8	65.4	--
Hyland	HS 04RY03	0.4	9/13	10	31	2.5	2,631	19.3	32.5	57.2	65.1	--
Kruger	K-072+RR	0.5	--	9	30	1.0	3,765	18.5	33.0	56.1	60.4	--
Kruger	K2-0091	00.9	9/9	8	34	2.8	2,416	19.9	30.8	57.1	57.3	--
Kruger	K2-0101	0.1	9/10	9	34	3.0	2,329	19.6	32.3	57.5	61.6	--
Kruger	K2-0401	0.4	9/16	9	32	1.8	2,954	19.4	33.1	56.9	63.7	--
Kruger	K2-0502	0.5	9/16	9	34	3.3	3,625	19.9	31.1	56.7	58.3	--
Kruger	K2-0601	0.6	--	11	34	2.3	3,320	19.5	30.9	56.7	63.7	--
Kruger	K2-0701	0.7	--	10	36	2.0	3,093	19.5	31.3	56.7	62.1	--
Kruger	K2-0801	0.8	--	9	32	1.3	3,325	19.0	32.1	57.1	65.6	--
Kruger	K2-1001	1.0	--	12	38	2.3	3,633	18.5	32.5	56.8	60.1	--
Kruger	KX-0721R	0.4	--	9	32	1.0	3,688	18.7	33.1	56.2	60.6	--
NorthStar	NS 0626R2	0.6	--	8	33	1.5	3,278	19.0	31.7	57.2	60.8	--
NorthStar	NS 0717R2	0.7	--	9	35	1.8	3,806	18.7	31.9	57.5	54.9	--
NorthStar	NS 0853RR	0.8	--	10	29	1.5	3,844	18.5	33.1	56.3	58.2	--
NorthStar	NS 1257R2	1.2	--	12	35	1.5	3,406	17.9	33.9	56.8	54.3	--
NuTech	6118	1.1	--	11	35	2.0	3,677	18.7	32.1	57.2	53.0	--
NuTech	G2-6030	0.3	9/16	8	32	1.0	2,668	19.2	31.7	56.9	63.7	--
NuTech	G2-6050	0.5	9/13	8	30	2.0	3,328	19.8	30.9	57.1	65.1	--
NuTech	G2-6070	0.7	--	10	33	1.5	3,255	19.4	32.3	56.9	61.2	--
NuTech	G2-6088	0.8	--	9	29	1.3	3,901	18.5	33.1	56.5	58.3	57.2
NuTech	G2-6090	0.9	--	9	35	1.5	2,803	19.2	33.2	56.4	57.6	--
NuTech	G2-6092	0.9	--	10	33	1.5	3,643	19.2	32.5	57.9	58.8	--
NuTech	G2-6098	0.9	--	11	34	1.3	3,113	19.6	30.8	56.9	65.9	60.1
Peterson	11R02	0.2	9/9	9	33	3.3	2,437	20.2	31.0	57.3	58.6	--
Peterson	12R06	0.6	--	11	33	1.3	3,263	18.9	32.6	57.2	64.2	--
Pioneer	90Y20	0.2	9/11	8	33	1.8	3,148	19.9	32.3	57.2	61.4	--
Pioneer	90Y21	0.2	9/12	9	29	1.0	2,577	20.6	31.8	57.2	61.1	--
Pioneer	90Y42	0.4	9/14	10	32	1.0	3,008	20.3	31.3	56.6	66.3	--
Pioneer	90Y50	0.5	--	11	33	1.5	3,272	20.1	31.2	57.0	66.8	--
Pioneer	90Y70	0.7	--	9	33	1.0	2,881	20.1	31.8	57.1	66.4	--
REA	65G22	0.5	--	10	34	2.3	3,205	19.5	30.9	56.7	64.0	--
REA	66G22	0.6	--	10	34	1.8	3,290	18.6	32.6	57.1	65.6	--
REA	67G61	0.7	--	10	33	1.0	3,316	18.9	32.2	57.0	61.8	--
Renk	RS050RR	0.5	--	10	33	2.0	3,344	20.1	31.4	56.6	63.6	--
Renk	RS052NR2	0.5	--	9	31	1.3	3,070	19.2	33.0	57.0	60.1	--
Seeds 2000	2051RR2Y	0.5	--	9	35	1.8	3,226	19.3	31.2	57.0	59.6	--
Mean			9/11	9	34	2.8	3,183	19.3	32.1	56.9	61.1	58.7
CV %			0.7	13.9	6.5	35	2.6	1.1	0.9	0.4	4.9	--
LSD 0.05			1.2	1.8	2.9	0.8	115	0.3	0.4	0.3	4.2	--

Table 13. 2011 Soybean - Irrigated, Roundup Ready - Carrington - Authors, B. Schatz, P. Hendrickson and S. Schaubert (Page 2 of 2).

Company/		Mat.		Pod	Plant	Plant	Seeds	Seed	Seed	Test	Seed Yield	
Brand	Variety	Group	Maturity[1]	Ht	Ht	Lodge2	Pound	Oil	Protein	Weight	2011	Avg.
			(date)	(cm)	(inch)	(0-9)	(seeds)	(%)	(%)	(lb/bu)	------ (bu/a) ------	
Thunder	3103R2Y	0.3	9/12	7	31	2.0	2,698	19.7	31.9	57.2	54.1	--
Thunder	3106R2Y	0.6	--	8	34	3.3	3,676	19.8	31.2	56.9	57.8	--
Thunder	3202R2Y	0.2	--	10	31	1.3	3,808	18.7	33.1	56.7	58.3	--
Thunder	3205R2Y	0.5	--	10	32	2.3	3,212	19.6	31.0	56.9	61.5	--
Wensman	W 3030R2	0.3	9/9	8	34	2.3	2,312	19.6	32.2	57.5	57.2	--
Wensman	W 3058R2	0.5	--	10	34	1.5	3,262	19.0	32.5	56.9	66.4	--
Wensman	W 3076R2	0.7	--	10	34	1.3	3,210	19.0	32.4	56.5	58.8	--
Wensman	W 3096R2	0.9	--	11	34	1.3	3,422	18.8	33.0	57.0	58.7	--
Wensman	W 3099R2	0.9	--	10	33	1.5	3,575	18.6	33.1	56.5	55.9	--
Mean			9/11	9	34	2.8	3,183	19.3	32.1	56.9	61.1	58.7
CV %			0.7	13.9	6.5	35	2.6	1.1	0.9	0.4	4.9	--
LSD 0.05			1.2	1.8	2.9	0.8	115	0.3	0.4	0.3	4.2	--

Planted: May 19. Harvested: Oct. 4. Previous crop: hard red spring wheat.

[1]Maturity is date of 95 percent brown or tan pods. (--) indicates cultivar had not reached maturity at time of first frost on Sept. 14 and 15.

[2]Lodging is from 0 to 9; 0 is erect, 9 is flat.

Table 14. 2011 Soybean - Dryland, Conventional and Liberty Link - Carrington - Authors, B. Schatz, T. Indergaard and B. Smith.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Ht	Seeds/ Pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 3-yr. Avg.
			(date)	(cm)	(inch)	(seeds)	(%)	(%)	(lb/bu)	---(bu/a)---	
Meridian	MSS-09-001	00.9	9/10	9	23	2,872	18.0	37.9	58.1	27.0	--
Meridian	MSS-10-005	0.1	--	9	22	3,294	16.9	39.8	57.7	24.5	--
NDSU	Ashtabula	0.4	--	9	22	3,690	20.1	32.0	57.2	40.3	50.9
NDSU	Cavalier	00.7	9/10	9	19	3,497	19.2	32.9	57.0	29.3	44.2
NDSU	ND 1005T	0.5	9/13	9	21	3,110	17.8	38.2	57.5	24.3	--
NDSU	ProSoy	0.8	--	11	23	3,460	17.5	37.4	57.0	25.3	42.2
NDSU	Sheyenne	0.8	--	9	20	3,700	19.2	33.0	57.5	26.6	48.7
NDSU	Traill	0.0	9/12	9	21	3,245	18.6	35.2	57.3	28.0	42.7
Peterson	L03-12	0.3	--	9	23	3,800	19.5	33.5	57.7	31.3	--
Peterson	L05-11N	0.5	--	11	24	3,459	19.6	33.3	57.1	35.5	--
Proseed	LL 11-30	0.3	--	7	23	3,845	19.2	34.0	58.2	42.1	--
Proseed	LL 80-61	0.6	--	9	21	3,810	19.2	33.6	56.8	27.0	--
Richland	MK0205	0.2	--	7	17	5,520	18.0	35.8	57.4	20.9	--
Richland	MK0508	0.5	--	9	19	6,989	17.2	33.9	58.1	19.0	--
Richland	MK831	0.8	--	8	17	4,547	18.0	34.7	58.3	21.7	--
SK Food	SK 0034	0.0	9/14	9	17	5,657	17.2	34.0	57.8	19.2	--
SK Food	SK 0786	0.7	--	11	23	3,511	17.8	36.5	56.7	30.9	--
SK Food	SK 095	0.9	--	10	23	6,932	17.7	34.7	57.6	25.0	--
SK Food	SK 918	0.5	--	11	22	3,964	19.4	33.3	57.2	24.6	--
SK Food	SK 972	0.3	9/14	13	26	3,028	19.4	34.5	57.6	26.2	--
Stine	06LC26	0.6	--	10	22	3,507	19.4	33.1	57.5	33.2	--
Mean			9/11	9	21	4,068	18.5	34.8	57.5	27.7	45.7
CV %			0.8	26.3	11.9	7.7	1.3	1.5	0.6	17.3	--
LSD 0.05			1.6	NS	4.2	524	0.4	0.7	0.6	8.0	--

Planted: May 23. Harvested: Sept. 30. Previous crop: hard red spring wheat. No lodging was observed.

[1]Maturity is date of 95 percent brown or tan pods. (--) indicates cultivar had not reached maturity at time of first frost on Sept. 14 and 15.

Table 15. 2011 Soybean - Irrigated, Conventional - Carrington - Authors, B. Schatz, P. Hendrickson and S. Schaubert.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Ht	Seeds/ Pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 2-Yr Avg.
			(date)	cm	(inch)	(seeds)	(%)	(%)	(lb/bu)	---(bu/a)---	
NDSU	Ashtabula	0.4	9/14	14	32	3,388	20.8	30.3	57.4	57.3	63.1
NDSU	Cavalier	00.7	9/9	11	27	2,989	19.8	32.1	57.1	41.7	54.7
NDSU	ND 1005T	0.5	9/12	12	31	2,947	18.5	36.8	57.9	43.6	51.2
NDSU	ProSoy	0.8	--	16	34	3,398	18.2	35.9	57.1	49.6	49.8
NDSU	Sheyenne	0.8	--	17	35	3,409	19.8	30.2	57.9	61.3	65.6
NDSU	Traill	0.0	9/9	11	31	3,302	19.0	34.0	57.6	43.7	53.2
SunOpta	Bravado	00.9	9/11	17	33	3,326	19.5	32.1	57.2	58.0	61.5
SunOpta	Excalibur	0.5	9/11	12	31	3,034	18.4	36.7	57.6	42.1	--
SunOpta	SO-0070	0.5	9/14	11	32	2,744	18.9	35.8	57.5	43.6	52.0
SunOpta	Valor	00.9	9/11	13	35	3,205	18.9	33.3	57.6	49.3	56.8
Mean			9/11	13	32	3,174	19.2	33.7	57.5	49.0	56.4
CV %			0.9	15.5	6.0	3	1	0.9	0.5	4.3	--
LSD 0.05			1.5	3.1	2.8	137	0.3	0.4	0.4	3.1	--

Planted: May 19. Harvested: Oct. 3. Previous crop: spring wheat. This trial was impacted by a hail storm on July 24, damage appeared uniform, subsequent yield loss was determined minimal.

[1]Maturity is date of 95 percent brown or tan pods. (--) indicates cultivar had not reached maturity at time of first frost on Sept. 14 and 15.

Table 16. 2011 Soybean - Dryland, Roundup Ready - Dazey (Carrington REC) - Authors, B. Schatz, T. Indergaard and P. Hendrickson (Page 1 of 2).

Company/ Brand	Variety	Mat. Group	Pod Ht	Plant Ht	Plant Lodge[1]	Seeds/ Pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 2-yr. Avg.	Seed Yield 3-yr. Avg.
			(cm)	(inch)	(0-9)	(seeds)	(%)	(%)	(lb/bu)	-------- (bu/a) --------		
Dairyland	DSR-0603/R2Y	0.6	8	42	5.8	3,779	18.2	34.4	57.4	54.1	--	--
Dairyland	DSR-0747/R2Y	0.7	8	40	5.5	3,228	18.5	33.4	56.9	62.6	63.1	--
Dyna-Gro	31RY08	0.8	9	38	3.3	2,764	19.1	33.5	56.0	64.4	--	--
Dyna-Gro	32RY08	1.0	8	41	5.3	3,293	18.3	33.3	56.7	62.5	--	--
Dyna-Gro	37RY06	0.6	9	34	4.0	3,118	18.8	33.6	57.0	61.0	--	--
Dyna-Gro	37RY10	1.3	11	39	3.3	3,108	18.4	34.0	56.8	62.4	--	--
Gold Cntry	0641	0.6	8	39	5.3	2,962	19.0	32.7	56.3	65.4	--	--
Gold Cntry	0840	0.8	10	39	4.3	2,903	18.8	33.1	57.0	66.8	63.2	--
Gold Cntry	0941	0.9	12	47	6.3	3,090	19.0	32.3	57.5	54.0	--	--
Integra	20810	0.8	9	39	3.8	3,151	18.4	33.4	57.7	66.5	--	--
Integra	78070 R	0.9	8	38	5.0	3,540	18.6	33.7	55.6	63.9	64.3	57.4
Kruger	K-072+RR	0.5	8	36	4.3	3,550	18.6	33.6	56.0	59.0	--	--
Kruger	K2-0091[2]	00.9	8	38	5.3	2,571	19.1	33.0	56.9	59.8	--	--
Kruger	K2-0101[2]	0.1	8	41	5.8	2,504	19.1	33.6	57.1	66.3	--	--
Kruger	K2-0401	0.4	8	36	3.0	2,898	19.1	34.4	56.6	63.1	61.8	--
Kruger	K2-0502	0.5	7	41	7.3	3,665	19.6	32.4	56.4	57.3	58.7	--
Kruger	K2-0601	0.6	10	39	4.3	2,992	19.3	32.5	56.4	63.7	--	--
Kruger	K2-0701	0.7	10	42	6.5	3,260	19.1	32.2	57.0	56.6	--	--
Kruger	K2-0801	0.8	11	37	3.3	2,958	18.8	33.2	56.9	65.1	60.9	--
Kruger	K2-1001	1.0	9	39	5.8	3,336	18.7	33.2	57.0	58.5	62.2	--
Kruger	KX-0721R	0.4	8	36	4.0	3,598	18.8	33.3	55.7	61.8	--	--
Legend	06R21	0.6	8	40	5.8	3,111	18.8	32.8	56.8	64.6	--	--
Legend	07R20	0.7	7	37	4.0	2,879	18.7	33.4	56.9	63.6	--	--
Legend	08R21N	0.8	10	36	4.8	3,000	19.2	33.3	56.3	57.8	--	--
Mustang	06942	0.6	10	38	6.0	3,041	19.1	32.5	56.6	60.0	--	--
Mycogen	5B065 R2[2]	0.6	8	35	5.3	2,975	18.5	34.2	57.0	66.1	--	--
Mycogen	5B080 R2[2]	0.5	10	35	3.5	3,159	19.1	33.2	56.6	57.6	--	--
NorthStar	NS 0626R2	0.6	7	36	3.3	3,024	18.7	33.2	56.5	61.9	61.2	--
NorthStar	NS 0717R2	0.7	10	38	5.0	3,553	18.4	33.1	57.0	55.3	--	--
NorthStar	NS 0853RR	0.8	8	34	4.3	3,573	18.6	33.5	55.9	60.3	64.7	57.3
NorthStar	NS 1257R2	1.2	10	39	5.5	3,028	17.6	34.2	56.2	56.9	--	--
NuTech	0686 RR	0.6	9	38	4.5	3,104	19.1	33.3	57.0	62.1	--	--
NuTech	6118	1.1	8	43	6.3	3,590	18.5	33.2	57.0	53.7	--	--
NuTech	G2-6050	0.5	7	38	4.5	3,214	18.9	33.4	56.9	64.5	61.5	--
NuTech	G2-6052	0.5	9	41	6.0	2,815	19.8	33.5	56.7	59.5	--	--
NuTech	G2-6070	0.7	8	36	4.3	3,024	19.1	33.7	56.5	64.4	61.8	--
NuTech	G2-6088	0.8	9	34	4.0	3,647	18.6	33.7	56.0	60.1	62.6	55.2
NuTech	G2-6092	0.9	9	38	4.8	3,245	18.7	33.7	57.3	60.3	--	--
NuTech	G2-6093	0.9	6	41	4.0	2,748	19.4	31.3	57.1	62.7	--	--
Mean			9	38	4.8	3,155	18.9	33.2	56.7	60.7	60.7	53.5
CV %			24.1	7.3	32.1	3.4	1.4	1.3	0.6	6.8	--	--
LSD 0.05			2.9	3.9	2.1	147	0.4	0.6	0.5	5.7	--	--

Planted: May 25. Harvested: Oct. 6. Previous crop: wheat.

[1]Lodging is from 0 to 9; 0 is erect, 9 is flat.

[2]These soybean cultivars were the only cultivars that reached physiological maturity by the frost of Sept.15.

Table 16. 2011 Soybean - Dryland, Roundup Ready - Dazey (Carrington REC) - Authors, B. Schatz, T. Indergaard and P. Hendrickson (Page 2 of 2).

Company/ Brand	Variety	Mat. Group	Pod Ht	Plant Ht	Plant Lodge[1]	Seeds/ Pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 2-yr. Avg.	Seed Yield 3-yr. Avg.
			(cm)	(inch)	(0-9)	(seeds)	(%)	(%)	(lb/bu)	--------- (bu/a) ---------		
NuTech	G2-6098	0.9	11	41	4.0	3,108	19.3	31.8	56.6	62.9	61.3	52.1
Peterson	11R08	0.8	9	36	4.0	2,879	18.6	33.7	56.9	65.2	--	--
Peterson	12R06	0.6	9	35	3.8	3,220	18.7	33.8	56.7	63.6	--	--
Peterson	12R07	0.7	10	41	5.5	3,474	18.6	32.9	57.3	53.1	--	--
Pioneer	90M80	0.8	10	41	8.5	3,456	19.9	30.8	57.2	55.9	--	--
Pioneer	90M92	0.9	8	37	4.5	3,000	19.4	33.6	56.3	67.5	65.1	--
Pioneer	90Y70	0.7	8	39	5.0	2,791	19.7	33.0	57.0	63.7	60.2	--
Pioneer	90Y80	0.8	10	40	5.0	2,905	19.7	32.7	56.4	63.3	62.0	--
Pioneer	90Y90	0.9	11	36	2.5	2,569	18.2	34.2	56.8	59.4	--	--
Prairie	PB-0510R2	0.6	9	35	4.5	3,196	18.5	34.1	56.9	62.7	--	--
Prairie	PB-0650R2	0.6	9	43	7.5	3,629	19.6	32.3	56.9	59.5	60.6	--
Prairie	PB-0721R2	0.7	10	37	4.3	2,962	18.6	33.4	56.8	65.1	60.1	--
Prairie	PB-0880R2	0.8	8	37	6.5	3,510	18.4	32.7	57.0	57.8	--	--
Prairie	PB-0913X	0.9	8	38	7.3	2,935	19.4	32.1	56.6	60.0	--	--
Prairie	PB-0920R2	0.9	12	39	4.0	3,276	18.4	33.9	56.3	58.0	--	--
Prairie	PB-1080R2	1.0	9	49	5.8	2,994	18.7	33.0	57.1	57.6	--	--
Prairie	PB-1120R2	1.1	9	44	5.3	2,997	17.9	33.7	56.7	51.0	54.1	--
Proseed	80-80	0.8	8	39	5.0	3,831	18.8	31.6	57.6	55.0	55.2	--
Proseed	P2 10-80	0.8	8	37	3.8	3,108	18.8	32.9	57.0	58.4	--	--
Proseed	P2 11-50	0.5	10	39	5.3	3,092	19.2	32.9	56.4	57.4	--	--
Proseed	P2 11-60	0.6	10	39	4.5	3,197	19.1	32.9	56.7	59.3	--	--
Proseed	P2 11-90	0.9	9	38	4.0	2,877	19.1	33.6	56.4	61.2	--	--
Renk	RS050RR	0.5	9	36	4.5	3,505	20.0	32.0	56.4	53.8	56.1	50.7
Renk	RS052NR2	0.5	8	35	2.5	3,045	19.2	34.0	57.1	56.1	--	--
Renk	RS082R2	0.8	8	35	3.5	3,038	18.7	33.3	56.7	63.6	--	--
Seeds 2000	2051RR2Y	0.5	10	38	4.8	3,149	19.3	32.2	56.6	60.4	--	--
Syng NK	S06-W2	0.6	8	39	6.3	3,332	18.6	33.4	56.7	57.8	56.5	50.3
Syng NK	S08-A2	0.8	8	38	2.8	3,203	19.6	32.0	57.1	58.5	57.8	48.9
Syng NK	S09-N6	0.9	8	35	5.3	2,898	18.8	32.7	56.5	65.2	64.1	56.0
Thunder	3106R2Y	0.6	7	38	4.8	3,913	19.5	31.9	56.8	50.4	57.8	--
Thunder	3202R2Y	0.2	9	36	6.0	3,477	18.8	33.9	56.6	57.8	--	--
Thunder	3205R2Y	0.5	8	37	5.5	3,123	19.3	32.3	56.7	60.0	--	--
Wensman	W 3058R2	0.5	8	36	4.3	3,027	18.4	33.9	56.9	70.5	--	--
Wensman	W 3076R2	0.7	9	38	4.0	2,788	18.9	33.2	56.2	66.7	--	--
Wensman	W 3096R2	0.9	12	39	3.8	2,949	18.7	34.0	56.9	60.4	61.7	--
Wensman	W 3099R2	0.9	12	39	4.3	3,205	18.4	34.1	56.3	64.5	--	--
Mean			9	38	4.8	3,155	18.9	33.2	56.7	60.7	60.7	53.5
CV %			24.1	7.3	32.1	3.4	1.4	1.3	0.6	6.8	--	--
LSD 0.05			2.9	3.9	2.1	147	0.4	0.6	0.5	5.7	--	--

Planted: May 25. Harvested: Oct. 6. Previous crop: wheat.

[1]Lodging is from 0 to 9; 0 is erect, 9 is flat.

[2] These soybean cultivars were the only cultivars that reached physiological maturity by the frost of Sept.15.

Table 17. 2011 Soybean - Dryland, Conventional and Liberty Link - Dazey (Carrington REC) - - Authors, B. Schatz, T. Indergaard and P. Hendrickson.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Plant Lodge	Pod Ht	Plant Ht	Seeds/ Pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 3-yr. Avg.
			(date)	(0-9)	(cm)	(inch)	(seeds)	(%)	(%)	(lb/bu)	------ (bu/a) ------	
NDSU	Ashtabula	0.4	9/15	4.0	8	40	3,374	19.7	31.9	57.3	62.0	50.4
NDSU	Cavalier	00.7	9/11	3.3	8	36	2,814	18.6	33.2	57.2	56.3	42.2
NDSU	ND 1005T	0.5	9/14	3.3	8	39	2,747	17.6	36.7	57.4	56.5	45.0
NDSU	ProSoy	0.8	--	6.8	10	40	3,207	17.6	36.5	57.0	50.1	46.1
NDSU	Sheyenne	0.8	--	3.3	8	42	3,392	19.2	31.4	57.6	62.7	50.3
NDSU	Traill	0.0	9/11	3.8	9	37	2,964	18.1	35.0	57.9	54.0	44.0
Proseed	LL 80-61	0.6	--	3.8	8	37	3,267	19.2	32.9	56.9	60.2	--
Richland	MK 0205	0.2	9/15	9.3	7	40	5,465	17.8	35.6	57.7	53.7	--
Richland	MK 0508	0.5	--	9.0	10	40	6,095	17.4	33.5	57.8	50.1	--
Richland	MK1016	1	--	8.3	8	45	6,175	17.3	34.4	58.4	50.6	--
Richland	MK831	0.8	--	6.0	9	36	4,130	17.9	34.2	57.8	55.6	--
Mean			9/13	5.5	9	39	3,966	18.2	34.1	57.5	55.6	46.3
CV %			0.6	16.9	18.5	4.7	3.1	1.4	1.1	0.8	6.3	--
LSD 0.05			1.1	1.3	NS	2.6	177	0.4	0.5	0.6	5.1	--

Planted: May 25. Harvested: Oct. 5. Previous crop: spring wheat.

[1]Maturity is date of 95 percent brown or tan pods. (--) indicates cultivar had not reached maturity at time of first frost on Sept. 14 and 15.

Table 18. 2011 Soybean - Dryland, Roundup Ready - LaMoure (Carrington REC) - Authors, B. Schatz and T. Helms (Page 1 of 2).

Company/Brand	Variety	Maturity Group	Maturity[1]	Seed Oil	Seed Protein	Seed Yield		
						2011	2-yr. Avg.	3-yr. Avg.
			(date)	(%)	(%)	(bu/a)		
AgVenture	05C5	0.5	9/21	16.2	36.6	25.3	--	--
AgVenture	08A2	0.8	9/25	17.1	35.8	28.0	--	--
AgVenture	09A9	0.9	9/27	15.9	37.2	30.6	--	--
Asgrow	AG0732	0.7	9/25	17.8	34.2	25.5	--	--
Asgrow	AG0832	0.8	9/30	18.1	35.3	27.0	--	--
Asgrow	AG1131	1.1	10/2	--	--	36.7	--	--
Dyna-Gro	31RY08	0.8	9/27	17.3	35.3	26.8	--	--
Dyna-Gro	32RY08	1.0	9/30	16.7	35.8	26.4	37.6	--
Dyna-Gro	37RY06	0.6	9/20	17.4	35.1	25.6	--	--
Dyna-Gro	37RY10	1.3	9/29	17.2	35.4	28.3	38.4	--
Gold Cntry	0840	0.8	9/24	18.3	35.8	22.9	--	--
Gold Cntry	0941	0.9	9/30	18.2	34.4	30.6	--	--
Integra	20820 RR2Y	0.8	9/25	16.6	35.9	24.0	--	--
Integra	78080 R	0.9	9/30	18.5	36.0	30.6	39.1	44.1
Kruger	K2-0101	0.1	9/20	17.7	34.8	27.3	--	--
Kruger	K2-0401	0.4	9/21	18.5	32.8	26.9	--	--
Kruger	K2-0402	0.4	10/1	16.5	36.5	27.7	--	--
Kruger	K2-0502	0.5	9/26	17.8	34.4	21.4	33.8	--
Kruger	K2-0503	0.5	9/29	18.2	35.3	32.2	--	--
Kruger	K2-0601	0.6	9/21	17.5	36.2	30.7	--	--
Kruger	K2-0701	0.7	10/1	16.5	37.0	33.1	--	--
Kruger	K2-0801	0.8	9/22	16.9	35.8	25.6	35.0	--
Kruger	K2-1001	1.0	10/1	16.1	37.6	28.1	38.5	--
Kruger	K2-1102	1.1	10/2	17.4	35.1	27.2	--	--
Legend	06R21	0.6	9/23	18.2	33.1	30.0	--	--
Legend	07R20	0.7	9/24	17.7	35.7	24.3	--	--
Mustang	09882	0.9	9/29	17.4	36.6	28.4	--	--
Mustang	11302	1.1	10/1	18.1	34.4	28.9	--	--
Mycogen	5B080R2	0.8	9/20	17.5	34.5	26.3	--	--
Mycogen	5B103R2	1.0	9/27	16.6	36.7	28.5	--	--
Mycogen	5N090R2	0.9	9/29	17.4	33.8	26.6	--	--
NuTech	0686 RR	0.6	9/29	16.8	37.1	33.2	--	--
NuTech	6095	0.9	9/26	19.1	36.4	25.4	--	--
NuTech	6118	1.1	10/1	18.7	33.5	31.5	40.5	--
NuTech	G2-6070	0.7	9/26	17.6	33.9	26.0	--	--
NuTech	G2-6088	0.8	9/30	18.4	34.4	32.8	40.4	41.5
NuTech	G2-6092	0.9	9/30	17.1	35.5	30.9	--	--
NuTech	G2-6093	0.9	9/27	17.5	35.9	23.8	--	--
NuTech	G2-6098	0.9	9/27	17.7	34.8	32.1	38.4	44.7
Peterson	11R08	0.8	9/22	19.6	32.4	21.6	--	--
Peterson	11R10	1.0	9/30	17.9	34.8	28.7	--	--
Peterson	12R10	1.0	9/27	18.5	34.5	28.1	--	--
Peterson	12R12	1.2	9/27	18.1	35.3	21.0	--	--
Pioneer	90M80	0.8	9/25	16.6	36.0	26.2	--	--
Pioneer	90M92	0.9	9/25	17.9	33.6	26.3	--	--
Pioneer	90Y70	0.7	9/26	12.0	33.0	33.0	--	--
Pioneer	90Y80	0.8	9/26	16.9	36.3	31.9	37.0	40.5
Pioneer	91Y41	1.4	10/1	17.5	34.6	29.5	--	--
Pioneer	91Y61	0.6	10/2	16.9	35.4	29.6	--	--
Mean			9/27	17.4	35.2	27.1	36.3	41.4
CV %			3.8	--	--	11.0	--	--
LSD 0.05			3.4	--	--	4.8	--	--

Table 18. 2011 Soybean - Dryland, Roundup Ready - LaMoure (Carrington REC) - Authors, B. Schatz and T. Helms (Page 2 of 2).

Company/Brand	Variety	Maturity Group	Maturity[1]	Seed Oil	Seed Protein	Seed Yield 2011	Seed Yield 2-yr. Avg.	Seed Yield 3-yr. Avg.
			(date)	(%)	(%)	(bu/a)	(bu/a)	(bu/a)
Pioneer	91Y70	0.7	10/1	18.2	37.9	19.7	--	--
Proseed	80-80	0.8	9/30	--	--	22.2	33.7	39.5
Proseed	P2 10-80	0.8	9/21	16.9	34.6	19.2	30.9	--
Proseed	P2 11-50	0.5	9/20	18.4	33.4	27.1	--	--
Proseed	P2 11-60	0.6	9/23	18.3	33.8	28.6	--	--
Proseed	P2 11-90	0.9	9/24	--	--	23.3	--	--
REA	65G51	0.6	9/26	17.0	35.6	21.7	--	--
REA	66G22	0.6	9/21	17.3	35.3	26.4	--	--
REA	67G61	0.7	9/20	17.8	34.2	23.9	33.7	--
REA	69G22	0.9	9/30	16.7	36.5	29.4	--	--
REA	71G20	1.1	10/1	18.7	35.2	30.3	--	--
Renk	RS052NR2	0.5	9/22	18.2	33.8	23.0	--	--
Renk	RS082R2	0.8	9/21	18.4	34.5	19.3	--	--
Renk	RS122R2	1.2	10/2	17.4	35.4	26.6	--	--
Seeds 2000	2082RR2Y	0.8	9/29	17.2	35.6	27.1	--	--
Seeds 2000	2091RR2YN	0.9	9/30	17.6	34.4	23.1	--	--
Seeds 2000	2121RR2Y	1.2	9/29	18.7	34.5	26.1	--	--
Syng NK	S08-A2	0.8	9/30	17.7	33.5	26.7	33.3	38.4
Syng NK	S09-N6	0.9	9/25	16.5	36.6	26.8	37.6	41.2
Syng NK	S10-G7	1.0	9/27	18.6	32.6	31.6	--	--
Thunder	3108R2Y	0.8	9/24	17.8	35.7	21.8	33.2	--
Thunder	3209R2YN	0.9	9/30	16.5	36.8	25.0	--	--
Thunder	3211R2Y	1.1	9/25	18.2	34.4	24.4	--	--
Wensman	W 3058R2	0.5	9/21	17.6	35.4	30.6	--	--
Wensman	W 3076R2	0.7	9/29	17.7	36.7	26.6	--	--
Wensman	W 3099R2	0.9	9/29	18.1	33.4	30.8	--	--
Wensman	W 3108R2	1.0	9/25	15.9	37.1	27.7	--	--
Mean			9/27	17.4	35.2	27.1	36.3	41.4
CV %			3.8	--	--	11.0	--	--
LSD 0.05			3.4	--	--	4.8	--	--

Planted: May 25.

Table 19. 2011 Soybean - Dryland, Conventional and Liberty Link - LaMoure (Carrington REC) - Authors, B. Schatz and T. Helms.

Company/Brand	Variety	Maturity Group	Maturity[1]	Seed Oil	Seed Protein	Seed Yield 2011	Seed Yield 3-yr.Avg.
			(date)	(%)	(%)		
NDSU	Ashtabula	0.4	9/17	16.6	37.4	23.1	31.6
NDSU	ProSoy	0.8	9/29	18.2	34.5	19.9	33.5
NDSU	Sheyenne	0.8	9/23	16.6	34.2	20.6	33.7
Peterson	L10-11N LL	1.0	10/1	18.1	33.8	30.9	--
Peterson	L08-10 LL	0.8	9/29	16.8	35.4	25.0	--
Pioneer	91M10	1.1	9/29	17.7	34.9	27.9	--
Proseed	LL 80-61	0.6	9/24	18.2	35.2	22.2	--
Proseed	91-12LL	1.1	10/1	18.6	33.7	24.0	--
Richland	MK 0508	0.5	9/20	--	--	13.4	--
Richland	MK1016	1.0	9/22	19.1	32.5	16.6	--
Richland	MK831	0.8	9/21	17.4	34.9	20.5	--
Richland	MK9101	1.0	9/26	17.9	36.1	19.7	--
Mean			9/25	17.7	34.8	22.0	32.9
CV%			3.4	--	--	14.8	--
LSD .05			3.1	--	--	5.5	--

Planted: May 25.
This trial experienced a moderate degree of damage from a hail storm.
[1]Maturity is date of 95 percent brown or tan pods.

Table 20. 2011 Soybean - Irrigated, Roundup Ready - Oakes (Carrington REC) - Authors, B. Schatz, W. Albus and L. Besemann (Page 1 of 2).

Company/ Brand	Variety	Maturity[1]	Plant Ht	Plant Lodge[2]	Seeds/ Pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 2-yr. Avg.
		(date)	(inch)	(0-9)	(seeds)	(%)	(%)	(lb/bu)	-------(bu/a)-------	
AgVenture	05C5	9/24	31	3	2,497	18.1	33.4	54.0	62.1	--
AgVenture	08A2	9/25	30	3	2,592	18.4	32.3	55.2	66.3	--
AgVenture	09A9	9/25	35	1	3,051	18.2	33.9	54.3	68.8	--
AgVenture	14K4	9/26	29	2	3,000	18.5	32.7	54.9	63.7	--
Asgrow	AG0732	9/23	33	2	2,572	18.5	33.5	55.6	68.9	--
Asgrow	AG0832	9/25	32	4	2,543	18.4	34.3	54.5	71.2	--
Asgrow	AG1131	9/27	40	2	2,724	16.9	34.6	55.6	72.6	--
Dairyland	DSR-0747/R2Y	9/26	30	4	2,858	17.5	33.8	55.1	61.8	64.4
Dairyland	DSR-1215/R2Y	9/28	37	3	2,868	17.1	33.8	54.4	70.0	66.9
Dairyland	DSR-1370/R2Y	9/28	38	2	2,818	17.3	33.7	54.3	67.9	69.5
Integra	21102	9/25	30	4	2,696	17.1	35.1	54.7	62.6	--
Integra	78070 R	9/25	35	1	3,088	18.0	34.1	54.7	73.9	70.5
Kruger	K-072+RR	9/25	34	1	3,060	18.1	33.9	54.3	68.6	--
Kruger	K2-0101	9/20	29	6	2,251	17.9	34.0	55.7	63.1	--
Kruger	K2-0401	9/19	33	1	2,625	17.9	35.1	55.3	65.5	63.6
Kruger	K2-0502	9/27	30	6	3,098	18.0	33.5	55.7	63.2	--
Kruger	K2-0601	9/22	27	5	2,692	18.4	32.6	54.8	69.0	--
Kruger	K2-0701	9/27	30	5	2,733	18.0	33.0	54.8	65.5	--
Kruger	K2-0801	9/25	34	3	2,697	17.8	33.9	55.1	70.2	66.7
Kruger	K2-1001	9/25	32	3	2,755	17.6	34.0	55.1	67.5	64.6
Kruger	K2-1102	9/27	34	2	2,691	17.2	35.1	55.0	61.2	--
Kruger	KX-O721R	9/24	35	1	3,071	18.2	33.9	55.7	71.8	--
Mustang	8331	9/24	33	3	2,625	17.7	34.0	55.3	69.1	67.4
Mustang	11302	9/25	31	3	2,637	17.1	35.2	55.1	63.9	--
NorthStar	NS 0626R2	9/25	33	2	2,713	18.0	33.5	55.4	71.7	--
NorthStar	NS 0717R2	9/25	34	4	2,927	17.4	33.5	55.8	68.0	--
NorthStar	NS 0853RR	9/25	34	1	3,086	18.2	33.7	54.5	66.9	67.4
NorthStar	NS 1257R2	9/25	30	4	2,677	17.3	34.8	54.3	64.4	--
NuTech	6118	9/26	34	2	2,814	17.9	33.7	54.6	69.7	67.9
NuTech	6145	9/26	37	2	2,793	18.1	33.1	54.3	68.3	--
NuTech	G2-6088	9/25	35	1	3,076	18.1	33.8	54.6	74.1	71.3
NuTech	G2-6092	9/25	30	4	2,737	18.3	34.1	55.6	70.8	--
NuTech	G2-6098	9/25	32	1	2,582	18.5	32.3	54.9	66.6	68.1
NuTech	G2-6142	9/25	36	2	2,401	18.1	34.1	54.8	63.6	--
NuTech	G2-7110	9/25	38	2	2,261	18.2	33.5	54.8	66.0	64.6
Peterson	12R10	9/25	30	2	2,796	17.9	34.8	54.9	68.1	--
Peterson	12R12	9/25	32	5	2,690	17.1	35.0	54.3	58.6	--
Pioneer	90M80	9/25	28	6	2,923	19.4	30.4	55.8	62.5	--
Pioneer	90M92	9/23	34	2	2,780	18.6	33.9	55.3	65.6	--
Pioneer	90Y70	9/24	30	4	2,490	19.0	33.0	55.6	63.6	--
Pioneer	90Y80	9/23	34	4	2,443	19.2	33.1	54.4	75.1	68.5
Pioneer	91Y41	9/25	38	2	2,713	18.2	32.8	56.3	70.2	--
Pioneer	91Y61	9/26	40	2	2,437	18.3	34.1	42.6	72.9	--
Mean		9/25	33	3	2,716	18.0	33.8	54.8	67.4	66.6
CV %		--	6.7	45.1	2.2	0.9	0.7	6.0	6.9	--
LSD 0.05		1	3	2	84.7	0.2	0.3	NS	6.5	--

Table 20. 2011 Soybean - Irrigated, Roundup Ready - Oakes (Carrington REC) - Authors, B. Schatz, W. Albus and L. Besemann (Page 2 of 2).

Company/ Brand	Variety	Maturity[1]	Plant Ht	Plant Lodge[2]	Seeds/ Pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 2-yr. Avg.
		(date)	(inch)	(0-9)	(seeds)	(%)	(%)	(lb/bu)	-------(bu/a)-------	
Pioneer	91Y70	9/27	40	3	2,815	18.6	33.4	54.6	63.2	60.8
Proseed	P2 10-80	9/24	34	3	2,653	17.9	33.5	54.9	70.4	65.9
Proseed	P2 11-90	9/24	34	1	2,661	17.0	35.2	54.9	71.5	--
Proseed	P2 11-11	9/25	31	3	2,563	18.0	34.2	55.1	64.3	--
Seeds 2000	2082RR2Y	9/25	36	2	2,570	18.1	34.1	55.1	66.9	--
Seeds 2000	2091RR2YN	9/26	32	3	2,751	18.1	33.4	54.7	64.0	--
Seeds 2000	2121RR2Y	9/25	34	4	2,653	17.1	35.1	54.7	67.2	--
Syng NK	S08-A2	9/25	37	2	2,854	18.5	31.6	56.0	65.2	64.5
Syng NK	S09-N6	9/24	34	3	2,597	18.3	33.1	55.6	72.5	68.0
Syng NK	S10-G7	9/25	31	5	2,417	18.1	32.9	54.2	74.4	--
Thunder	3108R2Y	9/24	33	3	2,660	17.8	33.7	55.9	67.1	64.7
Thunder	3209R2YN	9/25	33	3	2,694	18.6	33.4	55.3	67.5	--
Thunder	3211R2Y	9/25	31	3	2,665	17.3	35.0	54.5	63.7	--
Wensman	W 3096 R2	9/25	36	2	2,731	18.0	34.2	54.9	71.8	67.0
Wensman	W 3099 R2	9/25	35	1	2,762	18.0	34.5	53.6	70.0	--
Wensman	W 3108 R2	9/25	33	4	2,626	17.3	34.9	54.8	63.7	--
Wensman	W 3120 R2	9/27	33	3	2,705	17.3	34.9	55.1	66.4	--
Mean		9/25	33	3	2,716	18.0	33.8	54.8	67.4	66.6
CV %		--	6.7	45.1	2.2	0.9	0.7	6.0	6.9	--
LSD 0.05		1	3	2	84.7	0.2	0.3	NS	6.5	--

Planted: May 24. Harvested: Oct. 7. Previous crop: potato.

[1]Maturity is date of 95 percent brown or tan pods.

[2]Lodging is from 0 to 9; 0 is erect, 9 is flat.

Table 21. 2011 Soybean - Irrigated, Conventional - Oakes (Carrington REC) - Authors, B. Schatz, W. Albus and L. Besemann.

Company/Brand	Variety	Mat. Group	Maturity[1]	Plant Ht	Seeds/ pound	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield Avg.
				(inch)	(seeds)	(%)	(%)	(lb/bu)	(bu/a)	
Richland	MK0508	0.5	9/25	22	5,159	16.5	33.5	57.0	32.7	47.6
Richland	MK1016	1.0	9/26	24	4,840	15.9	36.2	57.6	57.6	46.9
Richland	MK831	0.8	9/25	27	3,426	17.2	34.6	57.0	52.4	46.7
Richland	MK9101	1.0	9/25	30	2,117	19.0	36.2	55.0	54.1	53.3
Mean			9/25	25	3,886	17.1	35.1	56.6	49.2	48.6
CV %			--	7.9	--	2.4	1.0	0.9	8.3	--
LSD 0.05			0.4	3.2	--	0.7	0.6	0.9	6.5	--

Planted: May 24. Harvested: Oct. 7. Previous crop: potato.

These varieties had reduced stands due to a hard washing rain that increased planted depth and formed a hard soil crust.

[1]Maturity is date of 95 percent brown or tan pods.

Table 22. 2011 Soybean - Roundup Ready - Langdon - Authors, B. Hanson and R. Wilhelmi (Page 1 of 2).

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Plant Lodge[2]	Seed Oil	Seed Protein	Test Weight	Seed Yield	
									2011	2-yr. Avg.
			(date)	(inch)	(0-9)	(%)	(%)	(lb/bu)	----(bu/a)----	
Asgrow	AG00632	00.6	9/12	45	3.6	19.1	33.1	55.7	62.3	--
Asgrow	AG00931	00.9	9/14	40	6.8	19.4	33.6	57.2	62.7	51.6
Asgrow	AG00932	00.9	9/12	44	1.0	18.6	33.8	56.7	66.5	--
Croplan	R2T0085	00.8	9/14	45	4.2	19.0	32.9	56.8	67.1	--
Croplan	R2T0091	00.9	9/14	44	4.8	19.9	32.0	57.4	69.3	--
Croplan	RT0090	00.9	9/14	41	5.3	19.8	32.0	58.3	59.9	--
Croplan	RT0093	00.9	9/11	44	1.5	19.4	34.6	56.4	61.6	--
Dyna-Gro	30RY04	00.4	9/12	41	1.6	20.1	33.5	56.4	64.5	--
Dyna-Gro	30RY07	00.7	9/14	43	3.2	19.6	33.9	55.7	64.8	--
Dyna-Gro	30RY09	00.9	9/14	44	4.8	19.1	32.6	55.2	67.4	62.4
Dyna-Gro	35RY01	0.1	9/14	44	4.5	19.9	32.2	57.3	66.9	57.3
Gold Cntry	0071	00.7	9/15	45	4.3	19.1	32.0	56.3	66.2	--
Gold Cntry	0140	0.1	9/13	45	3.4	18.9	33.0	56.5	67.2	--
Hefty	H 007Y12	00.7	9/12	43	2.3	19.7	34.8	56.8	58.2	--
Hefty	H 004Y12	00.4	9/10	41	0.8	20.0	33.1	57.0	56.3	--
Hefty	H 00Y12	0.0	9/14	37	0.3	19.5	34.5	56.9	61.9	--
Hefty	H 01Y11	0.1	9/15	46	2.4	19.3	32.9	57.1	57.9	--
Hyland	HS 009RY01	00.9	9/14	45	4.1	18.9	32.9	57.4	61.9	59.4
Hyland	HS 01RY02	0.1	9/16	46	4.1	19.1	32.5	56.5	60.2	54.8
Integra	20052 RR2Y	00.5	9/11	40	2.9	19.8	33.0	56.9	58.0	--
Integra	20073 RR2Y	00.7	9/12	42	2.6	19.9	33.8	57.0	62.6	--
Integra	20090 RR2Y	00.9	9/14	45	4.4	19.1	32.2	56.6	68.7	61.9
Integra	97001 R	00.3	9/5	37	0.3	20.3	32.6	55.7	60.2	--
Integra	97009 R	00.9	9/11	43	1.5	20.2	32.5	57.2	67.8	--
Legend	003R21	00.3	9/12	41	1.4	19.8	33.9	56.5	66.7	--
Legend	004R21	00.4	9/12	44	1.8	19.8	34.6	56.9	66.8	--
Legend	007R20	00.7	9/14	44	4.3	18.6	32.7	56.8	67.1	--
Mustang	00913	00.9	9/13	41	3.3	18.9	34.0	56.6	67.1	--
Mustang	00971	00.9	9/14	44	4.4	19.1	32.5	56.5	70.7	65.5
Mustang	01212	0.1	9/15	37	0.1	19.4	34.1	57.0	61.9	--
Mycogen	5B005R2	00.5	9/12	42	1.3	20.3	33.3	56.5	65.0	--
Mycogen	5B007R2	00.7	9/13	42	1.9	19.9	33.4	56.6	66.2	--
NorthStar	NS 0057R2	00.4	9/10	41	2.0	19.6	33.6	57.4	56.3	--
NorthStar	NS 0077R2	00.7	9/13	43	2.4	19.8	33.8	57.2	58.6	--
NuTech	6003	00.5	9/15	43	4.5	19.5	32.3	56.7	56.2	--
NuTech	6011	0.1	9/16	41	2.7	19.3	32.6	57.5	56.7	51.2
NuTech	G2-0090RR	00.9	9/13	43	1.6	19.8	35.0	55.1	64.8	56.5
NuTech	G2-6005	00.4	9/8	37	0.3	20.1	33.8	56.8	58.2	53.4
NuTech	G2-6009	0.1	9/13	41	2.9	20.3	32.8	56.3	67.2	--
NuTech	G2-6012	0.1	9/12	43	2.8	20.3	31.2	56.1	61.6	--
NuTech	G2-6025	0.2	9/16	42	6.2	19.9	33.1	56.5	64.5	--
Peterson	11R01	0.1	9/18	44	5.5	20.0	31.7	57.0	66.1	59.9
Peterson	12R005	00.5	9/13	44	2.3	19.6	34.0	55.9	61.4	--
Peterson	12R007	00.7	9/13	42	3.5	19.8	33.1	56.7	61.8	--
Pioneer	900Y71	00.7	9/7	38	0.0	18.9	35.1	55.2	57.6	52.4
Pioneer	900Y81	00.8	9/15	46	2.3	19.1	32.2	58.4	59.2	--
Proseed	P2 10-08	00.8	9/14	45	3.1	19.0	32.4	57.0	66.8	64.5
Proseed	P2 11-05	00.5	9/9	40	1.0	20.4	32.2	57.0	59.3	--
Proseed	P2 11-07	00.7	9/12	43	1.4	20.2	33.1	56.9	62.3	--
REA	53G32	00.3	9/9	36	1.7	20.1	32.3	56.8	59.2	--
Mean			9/13	42	2.9	19.6	33.1	56.8	63.4	58.5
CV %			1.1	4.1	50.6	1.5	1.6	2.0	6.2	--
LSD 0.05			1.8	2.4	1.9	0.6	1.1	1.6	5.4	--

Table 22. 2011 Soybean - Roundup Ready - Langdon - Authors, B. Hanson and R. Wilhelmi (Page 2 of 2).

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Plant Lodge[2]	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 2-yr. Avg.
			(date)[1]	(inch)	(0-9)	(%)	(%)	(lb/bu)	----(bu/a)----	
REA	55G22	00.5	9/12	42	1.5	20.2	32.6	56.5	64.6	--
REA	58G82	00.8	9/16	44	3.4	19.5	30.8	57.5	64.7	--
REA	59G51	00.9	9/13	43	3.2	19.4	32.2	57.3	63.8	61.3
Seeds 2000	0091RR2Y	00.9	9/14	46	4.7	18.9	32.1	57.2	70.8	--
Syng NK	S00-J9	00.9	9/12	43	1.4	19.7	34.9	57.7	67.8	--
Syng NK	S02-B4	0.2	9/14	44	5.3	20.1	31.8	57.4	67.3	--
Thunder	30005RR	00.5	9/14	44	4.6	19.1	32.6	58.2	62.4	57.4
Thunder	32005R2Y	00.5	9/10	40	2.7	19.6	33.3	56.9	58.3	--
Thunder	31009R2Y	00.9	9/13	44	4.0	18.6	32.9	56.3	66.1	62.0
Thunder	3201R2Y	0.1	9/14	44	2.5	19.2	34.1	57.2	62.5	--
Thunder	3102R2Y	0.2	9/14	36	0.4	19.4	33.8	56.4	60.3	--
Wensman	W 30042R2	00.4	9/12	40	2.2	19.7	33.9	55.5	62.2	--
Wensman	W 30066R2	00.6	9/12	43	2.8	19.9	33.5	56.9	63.3	--
Wensman	W 30084R2	00.8	9/13	45	3.8	18.9	32.4	56.8	69.1	64.0
Wensman	W 30091R2	00.9	9/14	44	5.0	19.6	32.3	57.4	67.0	59.6
Mean			9/13	42	2.9	19.6	33.1	56.8	63.4	58.5
CV %			1.1	4.1	50.6	1.5	1.6	2.0	6.2	--
LSD 0.05			1.8	2.4	1.9	0.6	1.1	1.6	5.4	--

Planted: May 20. Harvested: Sept. 29.

[1]Days to physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color). Frost between 29 and 32 degrees F occurred on Sept. 14-15 in the region. Limited damage on the trial appeared in the upper portions of the plant. Plants continued to mature and no green seed damage was visible.

[2]Lodging is from 0 to 9; 0 is erect, 9 is flat.

Table 23. 2011 Soybean - Conventional and Liberty Link - Langdon - Authors, B. Hanson and R. Wilhelmi.

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 2-yr. Avg.
			(date)	(inch)	(%)	(%)	(lb/bu)	----(bu/a)----	
Gowan	GS 1001	000.4	8/28	27	18.2	34.4	57.8	37.6	--
Gowan	GS 3514	000.7	8/31	29	18.1	35.4	58.0	39.9	--
Hefty	H 0212LL[2]	0.2	9/12	31	19.8	32.1	58.7	44.4	--
Meridian	MSS-09-001	00.9	9/9	35	18.5	36.3	57.8	42.3	--
Meridian	MSS-10-005	0.1	9/13	31	17.5	37.9	57.7	33.5	--
NDSU	Cavalier	00.7	9/4	31	18.7	33.5	55.0	39.0	42.4
NDSU	Traill	0.0	9/8	32	19.3	33.1	56.9	41.5	44.4
Richland	MK 0205	0.2	9/14	35	18.7	33.4	54.0	36.1	--
SunOpta	Bravado	00.9	9/7	31	19.8	30.4	55.2	48.7	--
Mean			9/8	31	18.7	34.1	56.8	40.3	43.4
CV %			1.0	3.8	1.7	2.0	2.0	4.6	--
LSD 0.05			1.9	2.1	0.7	1.5	1.9	3.1	--

Planted: May 19. Harvested: Sept. 29.

[1]Days to physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color).

[2]Liberty Link.

Table 24. 2011 Soybean - Roundup Ready - Cavalier (Langdon REC) - Authors, B. Hanson and R. Wilhelmi (Page 1 of 2).

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Test Weight	Seed Yield	
								2011	2-yr. Avg.
			(date)	(inch)	(%)	(%)	(lb/bu)	----(bu/a)----	
Asgrow	AG00632	00.6	9/10	34	20.5	31.4	56.8	48.2	--
Asgrow	AG00931	00.9	9/15	37	20.5	31.8	56.9	51.3	54.6
Asgrow	AG00932	00.9	9/16	37	20.0	31.7	57.0	50.1	--
Asgrow	AG0131	0.1	9/14	38	20.0	33.1	56.7	47.1	58.4
Dyna-Gro	30RY04	00.4	9/11	32	20.9	32.6	55.1	49.1	--
Dyna-Gro	30RY07	00.7	9/14	33	20.9	32.8	55.7	52.0	--
Dyna-Gro	30RY09	00.9	9/19	37	20.2	31.5	57.1	53.7	60.6
Dyna-Gro	35RY01	0.1	9/15	39	20.8	31.4	56.2	53.8	59.7
Gold Cntry	0071	00.7	9/18	37	20.7	30.5	55.9	48.9	--
Gold Cntry	0140	0.1	9/15	38	20.6	31.0	56.3	53.0	61.1
Hefty	H 004Y12	00.4	9/13	31	21.2	31.7	54.9	45.0	--
Hefty	H 007Y12	00.7	9/11	33	21.1	33.2	55.9	48.6	--
Hefty	H 00Y12	0.0	9/21	26	21.1	31.7	56.7	44.4	--
Hefty	H 01Y11	0.1	9/16	33	20.1	32.1	56.8	41.7	--
Hyland	HS 009RY01	00.9	9/17	39	20.3	31.4	56.1	48.1	58.5
Hyland	HS 01RY02	0.1	9/20	38	20.2	31.9	56.5	49.5	57.2
Legend	003R21	00.3	9/12	34	21.0	32.3	55.6	48.4	--
Legend	004R21	00.4	9/12	37	21.0	33.0	56.0	51.8	--
Legend	007R20	00.7	9/18	38	20.4	31.5	56.3	48.5	--
NorthStar	NS 0057R2	00.4	9/10	33	20.8	32.3	55.1	45.4	--
NorthStar	NS 0077R2	00.7	9/11	32	20.6	33.5	56.1	45.4	--
NuTech	6003	00.5	9/18	35	21.2	30.0	56.8	49.8	--
NuTech	6011	00.6	9/19	33	20.7	30.5	56.0	44.8	50.4
NuTech	G2-0090RR	00.9	9/16	35	21.3	33.1	57.1	50.2	--
NuTech	G2-6005	00.4	9/14	30	21.5	32.1	56.4	47.9	--
NuTech	G2-6009	00.9	9/15	36	21.2	32.1	56.6	43.9	--
NuTech	G2-6012	0.1	9/15	33	21.1	30.6	57.3	48.7	--
NuTech	G2-6025	0.2	9/20	36	20.8	32.3	55.8	48.5	--
Peterson	11R01	0.1	9/18	38	21.0	31.7	56.4	52.4	58.2
Peterson	11R02	0.2	9/16	38	20.2	31.5	56.2	52.7	--
Peterson	12R005	00.5	9/13	32	21.1	32.6	55.8	47.1	--
Peterson	12R007	00.7	9/13	33	20.8	33.2	56.9	43.7	--
Peterson	12R02	0.2	9/23	34	20.0	32.2	56.3	44.6	--
Pioneer	900Y71	00.7	9/13	30	20.4	33.2	56.2	43.3	49.6
Pioneer	900Y81	00.8	9/20	38	19.6	32.3	57.0	50.1	--
Prairie	PB-00560R2	00.5	9/11	32	20.7	32.7	54.9	50.6	--
Prairie	PB-00870R2	00.7	9/12	35	21.8	30.6	55.5	55.7	--
Prairie	PB-00950R2	00.9	9/16	37	20.3	31.9	56.5	56.0	62.8
Prairie	PB-0111X[2]	0.1	9/20	29	20.6	31.5	55.7	42.1	--
Prairie	PB-0240R2	0.2	9/17	38	20.1	32.2	57.5	55.7	--
Proseed	P2 11-05	00.5	9/13	32	20.9	31.6	55.7	40.6	--
Proseed	P2 11-07	00.7	9/11	33	21.1	32.6	55.8	46.6	--
Mean			9/15	34	20.7	31.9	56.2	48.0	57.1
CV %			2.4	8.2	1.5	2.5	2.0	8.9	--
LSD 0.05			3.4	3.9	0.6	1.6	NS	6.0	--

Table 24. 2011 Soybean - Roundup Ready - Cavalier (Langdon REC) - Authors, B. Hanson and R. Wilhelmi (Page 2 of 2).

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011	Seed Yield 3-yr. Avg.
			(date)	(inch)	(%)	(%)	(lb/bu)	----(bu/a)----	
Proseed	P2 10-08	00.8	9/19	36	20.3	31.7	56.7	45.6	54.7
REA	53G32	00.3	9/9	29	21.1	31.9	55.3	43.9	--
REA	55G22	00.5	9/11	32	21.1	31.8	56.6	46.1	--
REA	58G82	00.8	9/16	35	20.5	31.5	57.4	46.3	--
REA	59G51	00.9	9/18	40	20.3	31.3	56.4	52.1	58.7
REA	61G21	0.1	9/15	34	20.6	31.9	56.8	42.2	56.5
Seeds 2000	0091RR2Y	00.9	9/18	38	20.5	31.0	56.4	54.3	--
Stine	01RC62	0.0	9/16	33	20.7	32.1	55.7	49.2	--
Stine	01RA06	0.1	9/22	35	20.1	31.6	56.1	40.3	--
Syng NK	S00-J9	00.9	9/11	34	20.1	34.2	56.9	50.7	--
Syng NK	S02-B4	0.2	9/18	39	20.6	31.6	56.7	58.6	--
Thunder	30005RR	00.5	9/15	31	20.7	32.0	57.1	41.6	55.7
Thunder	32005R2Y	00.5	9/10	34	20.4	32.4	55.6	48.7	--
Thunder	31009R2Y	00.9	9/18	38	20.5	31.0	55.7	50.3	57.1
Thunder	3201R2Y	0.1	9/20	29	20.9	31.9	56.1	42.4	--
Thunder	3102R2Y	0.2	9/18	37	20.1	33.0	55.2	45.1	--
Wensman	W 30042R2	00.4	9/12	30	21.3	32.4	55.2	43.2	--
Wensman	W 30066R2	00.6	9/14	30	20.9	32.8	56.7	39.7	--
Wensman	W 30084R2	00.8	9/14	34	20.7	31.4	56.5	49.2	56.3
Wensman	W 30091R2	00.9	9/14	36	21.3	30.5	56.6	50.8	59.4
Mean			9/15	34	20.7	31.9	56.2	48.0	57.1
CV %			2.4	8.2	1.5	2.5	2.0	8.9	--
LSD 0.05			3.4	3.9	0.6	1.6	NS	6.0	--

Planted: June 3. Harvested: Sept. 30.

[1]Days to physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color).

Frost between 25 and 32 degrees F occurred on Sept. 14-15 in the region. Some damage on the trial appeared in the upper portions of the plant. Plants continued to mature and no green seed damage was visible.

Table 25. 2011 Soybean - Conventional and Liberty Link - Voss (Langdon REC) - Authors, B. Hanson and R. Wilhelmi.

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Plant Lodge[2]	Test Weight	Yield 2011
			(date)	(inch)	(%)	(%)	(0-9)	(lb/bu)	(bu/a)
Hefty	H 0212LL[3]	0.2	9/12	28	20.6	32.2	0.5	57.0	46.2
NDSU	Cavalier	00.7	9/6	25	20.3	32.1	0.0	56.5	44.8
NDSU	Traill	0.0	9/10	29	19.4	34.0	1.3	57.4	46.7
Peterson	L03-12N[3]	0.3	9/14	29	20.4	32.2	0.5	57.1	49.3
Peterson	L05-11N[3]	0.4	9/16	33	20.1	32.3	0.8	56.7	49.4
Richland	MK 0205	0.2	9/14	32	19.0	34.5	6.0	55.4	37.0
SunOpta	Bravado	00.9	9/8	28	20.0	31.0	1.3	56.5	49.6
Mean			9/11	29	20.0	32.6	1.5	56.7	46.1
CV %			1.6	6.0	1.2	0.7	94.6	3.0	6.9
LSD 0.05			2.3	2.5	0.5	0.5	1.3	NS	4.5

Planted: June 1. Harvested: Sept. 28.

[1]Days to physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color).

[2]Lodging is from 0 to 9; 0 is erect, 9 is flat.

[3]Liberty Link

Table 26. 2011 Soybean - Roundup Ready - Voss (Langdon REC) - Authors, B. Hanson and R. Wilhelmi (Page 1 of 2).

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011
			(date)	(inch)	(%)	(%)	(lb/bu)	(bu/a)
Asgrow	AG00632	00.6	9/5	31	20.6	31.9	56.0	49.7
Asgrow	AG00931	00.9	9/7	30	21.0	30.8	56.5	50.0
Asgrow	AG00932	00.9	9/6	32	20.3	31.6	55.8	50.4
Asgrow	AG0131	0.1	9/8	32	20.4	32.2	54.7	49.6
Asgrow	AG0231	0.2	9/9	32	20.3	31.6	56.9	53.6
Dyna-Gro	30RY04	00.4	9/7	31	21.0	31.3	55.7	49.9
Dyna-Gro	30RY07	00.7	9/6	30	21.5	31.0	54.9	50.1
Dyna-Gro	30RY09	00.9	9/10	31	20.8	30.8	56.9	51.3
Dyna-Gro	35RY01	0.1	9/7	32	20.9	30.1	55.5	50.2
Gold Cntry	0071	00.7	9/9	32	20.7	30.8	56.7	52.3
Gold Cntry	0140	0.1	9/9	31	20.9	30.7	56.2	50.4
Gold Cntry	0241	0.2	9/9	33	20.4	32.1	56.2	53.7
Hefty	H 004Y12	00.4	9/5	25	20.9	31.2	56.9	40.3
Hefty	H 007Y12	00.7	9/5	29	21.3	32.3	55.8	48.0
Hefty	H 00Y12	0.0	9/10	25	21.0	32.0	55.9	49.2
Hefty	H 01Y11	0.1	9/10	31	20.6	31.0	54.6	46.3
Hyland	HS 009RY01	00.9	9/8	31	20.5	31.8	57.2	49.4
Hyland	HS 01RY02	0.1	9/9	32	20.7	31.0	57.6	47.9
Integra	20073 RR2Y	00.8	9/5	31	20.9	32.3	54.5	47.0
Integra	20090 RR2Y	00.9	9/8	30	20.5	31.1	57.1	50.0
Integra	20100 RR2Y	0.1	9/12	25	20.8	32.2	55.6	50.6
Integra	79020 R	0.2	9/14	30	20.1	32.5	58.3	45.2
Integra	97014 R	0.0	9/8	29	21.5	32.1	54.9	50.8
Legend	007R20	00.7	9/10	30	20.7	30.9	55.7	48.6
Legend	009R20	00.9	9/7	32	21.0	30.3	54.9	50.6
Mustang	00913	00.9	9/8	31	20.1	32.1	55.0	50.9
Mustang	00971	00.9	9/8	30	20.5	31.3	57.4	51.8
Mustang	01212	0.1	9/11	26	20.8	32.1	55.9	52.3
Mycogen	5B005R2	00.5	9/5	29	21.1	32.2	55.1	47.8
Mycogen	5B007R2	00.7	9/6	31	21.4	31.3	55.4	50.6
Mycogen	5B009R2	00.9	9/8	31	20.7	30.4	55.9	49.7
Mycogen	5B024R2	0.2	9/9	34	20.5	31.8	55.8	55.2
NorthStar	NS 0077R2	00.7	9/5	27	21.0	32.0	57.0	48.0
NorthStar	NS 0096R2	00.9	9/7	32	20.9	30.4	55.8	48.6
NuTech	6011	0.1	9/13	29	20.7	31.6	56.8	48.5
NuTech	G2-0090RR	00.9	9/8	31	21.4	32.2	55.7	51.6
NuTech	G2-6009	00.9	9/8	30	21.6	31.0	55.6	49.6
NuTech	G2-6012	0.1	9/9	29	21.1	30.9	55.8	46.0
NuTech	G2-6025	0.2	9/11	27	21.2	32.4	53.9	47.6
NuTech	G2-6030	0.3	9/15	28	20.1	31.5	55.9	48.1
Peterson	11R01	0.1	9/7	31	21.0	29.9	55.8	51.6
Peterson	11R02	0.2	9/9	31	20.6	31.2	55.8	51.5
Peterson	12R005	00.5	9/5	29	20.8	32.2	56.8	48.4
Peterson	12R007	00.7	9/6	28	21.4	32.0	53.1	45.1
Peterson	12R02	0.2	9/17	28	20.8	31.6	55.0	46.7
Mean			9/8	30	20.8	31.4	55.8	49.5
CV %			1.1	4.7	1.0	1.0	3.0	5.3
LSD 0.05			1.5	2.0	0.4	0.6	2.4	3.6

Table 26. 2011 Soybean - Roundup Ready - Voss (Langdon REC) - Authors, B. Hanson and R. Wilhelmi (Page 2 of 2).

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Test Weight	Seed Yield 2011
			(date)	(inch)	(%)	(%)	(lb/bu)	(bu/a)
Pioneer	900Y71	00.7	9/6	27	20.4	31.9	55.6	44.7
Pioneer	900Y81	00.8	9/9	31	20.5	30.5	55.8	50.2
Prairie	PB-00560R2	00.5	9/5	29	21.1	31.7	54.5	49.6
Prairie	PB-00950R2	00.9	9/8	32	20.7	31.8	57.1	53.9
Prairie	PB-00870R2	00.7	9/6	29	21.2	31.3	54.7	50.0
Prairie	PB-0111X	0.41	9/12	25	21.1	31.8	56.7	48.7
Prairie	PB-0240R2	0.2	9/8	33	20.9	31.8	55.2	54.0
Proseed	P2 11-10	0.1	9/12	25	20.8	32.0	56.4	49.5
Proseed	P2 10-20	0.2	9/9	31	20.6	31.2	55.4	48.4
Proseed	P2 11-30	0.3	9/14	30	20.1	31.6	56.6	47.4
REA	55G22	00.5	9/6	29	21.1	31.9	53.7	49.3
REA	58G82	00.8	9/9	32	20.8	31.1	56.4	52.4
REA	59G51	00.9	9/9	31	20.3	31.2	56.0	49.3
REA	61G21	0.1	9/7	31	20.8	30.0	55.0	48.8
REA	62G22	0.2	9/9	36	20.3	32.0	56.5	56.8
Seeds 2000	0091 RR2Y	00.9	9/9	30	20.7	31.3	56.0	48.4
Syng NK	S00-J9	00.9	9/7	30	20.9	33.1	54.9	50.8
Syng NK	S02-B4	0.2	9/7	33	21.0	30.3	56.4	50.8
Thunder	30005RR	00.5	9/6	26	20.9	31.6	54.6	42.7
Thunder	31009R2Y	00.9	9/8	32	20.5	31.2	55.3	50.0
Thunder	3102R2Y	0.2	9/12	25	20.7	31.6	56.9	48.9
Thunder	32005R2Y	00.5	9/5	26	21.0	31.6	55.2	43.9
Thunder	3201R2Y	0.1	9/9	33	21.0	31.8	57.3	47.7
Wensman	W 30042R2	00.4	9/6	28	21.2	31.9	53.7	47.7
Wensman	W 30066R2	00.6	9/6	30	21.2	31.1	55.4	50.1
Wensman	W 30084R2	00.8	9/8	33	20.5	31.1	56.4	52.8
Wensman	W 30091R2	00.9	9/7	32	21.0	30.2	55.7	50.6
Mean			9/8	30	20.8	31.4	55.8	49.5
CV %			1.1	4.7	1.0	1.0	3.0	5.3
LSD 0.05			1.5	2.0	0.4	0.6	2.4	3.6

Planted: June 1. Harvested: Sept. 28.

[1]Days to physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color).

Table 27. 2011 Soybean - Roundup Ready - Lakota (Langdon REC) - Authors, B. Hanson and R. Wilhelmi (Page 1 of 2).

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Plant Lodge[2]	Seed Oil	Seed Protein	Test Weight	Seed Yield	
									2011	2-yr. Avg.
			(date)	(inch)	(0-9)	(%)	(%)	(lb/bu)	-------(bu/a)-------	
Asgrow	AG00931	00.9	9/15	40	3	19.3	32.3	56.3	50.8	--
Asgrow	AG00932	00.9	9/16	40	1	18.8	32.7	56.2	45.3	--
Asgrow	AG0131	0.1	9/16	40	0	19.1	32.8	56.1	47.3	--
Asgrow	AG0231	0.2	9/17	41	1	18.8	31.5	58.9	51.0	--
Asgrow	AG0430	0.4	9/22	42	0	18.7	32.0	55.3	43.4	--
Dyna-Gro	30RY04	00.4	9/14	39	0	19.9	32.3	55.3	45.7	--
Dyna-Gro	30RY07	00.7	9/16	40	1	19.6	31.3	56.6	46.9	--
Dyna-Gro	30RY09	00.9	9/16	40	2	18.7	32.2	56.0	45.5	53.8
Dyna-Gro	35RY01	0.1	9/18	41	2	19.3	31.0	57.2	43.4	52.2
Gold Cntry	0140	0.1	9/16	40	2	19.1	31.6	57.5	50.4	56.1
Gold Cntry	0241	0.2	9/21	42	1	18.5	32.1	57.3	44.5	--
Hefty	H 00Y12	0.0	9/21	42	0	19.2	33.0	55.0	43.1	--
Hefty	H 01Y11	0.1	9/16	40	2	19.6	30.7	57.1	41.3	--
Hefty	H 03Y12	0.3	9/22	42	0	18.9	31.8	55.9	41.2	--
Hefty	H 04Y12	0.4	9/22	42	0	18.0	33.5	56.5	40.3	--
Integra	20052 RR2Y	00.5	9/12	39	1	19.8	31.8	55.2	43.4	--
Integra	20073 RR2Y	00.8	9/12	39	1	19.9	32.8	57.0	46.5	--
Integra	20090 RR2Y	00.9	9/16	40	1	19.2	31.4	57.4	46.5	--
Integra	20100 RR2Y	0.1	9/20	42	0	19.4	32.9	56.1	44.4	--
Integra	97001 R	00.3	9/12	39	1	20.6	31.0	57.4	44.8	50.3
Legend	007R20	00.7	9/18	41	3	19.4	30.9	57.2	44.4	--
Legend	009R20	00.9	9/17	40	1	20.0	29.7	56.7	46.6	--
Mycogen	5B009R2	00.9	9/17	41	3	19.2	31.7	57.1	46.9	--
Mycogen	5B024R2	0.2	9/19	41	2	19.0	31.5	56.5	45.9	--
Northstar	NS 0096R2	00.9	9/17	40	1	19.6	30.3	56.9	43.6	52.2
Northstar	NS 0216R2	0.2	9/22	43	0	18.3	32.4	56.9	42.2	48.4
NuTech	6011	0.1	9/21	42	0	19.2	31.0	56.2	44.0	50.4
NuTech	G2-0090RR	00.9	9/16	40	2	20.0	32.2	57.1	43.8	49.5
NuTech	G2-6009	00.9	9/17	41	1	20.3	31.4	56.0	42.5	--
NuTech	G2-6012	0.1	9/16	40	0	20.1	30.2	57.9	41.6	--
NuTech	G2-6025	0.2	9/21	42	1	19.7	32.1	57.2	43.1	--
NuTech	G2-6030	0.3	9/22	43	0	18.8	31.1	56.9	40.0	45.9
Peterson	11R01	0.1	9/17	41	2	20.0	29.5	57.7	44.4	--
Peterson	11R02	0.2	9/17	41	2	19.2	30.8	57.3	46.6	54.2
Peterson	12R005	00.5	9/14	39	0	19.9	32.1	57.1	46.1	--
Peterson	12R007	00.7	9/16	40	1	20.2	30.9	56.7	41.9	--
Peterson	12R02	0.2	9/24	43	0	18.5	31.5	57.1	38.5	53.8
Pioneer	900Y71	00.7	9/14	40	0	19.2	33.0	58.2	41.2	44.8
Pioneer	900Y81	00.8	9/18	41	0	18.8	31.4	58.8	44.9	--
Proseed	P2 10-20	0.2	9/17	40	1	19.1	31.2	54.7	43.7	53.5
Proseed	P2 11-10	0.1	9/21	42	0	19.4	32.9	57.4	43.0	--
Mean			9/18	41	1	19.3	31.7	56.7	44.6	51.3
CV %			1.5	1.5	101.7	1.9	1.8	2.5	6.2	--
LSD 0.05			2.1	0.8	1.4	0.7	1.1	2.0	3.9	--

Table 27. 2011 Soybean - Roundup Ready - Lakota (Langdon REC) - Authors, B. Hanson and R. Wilhelmi (Page 2 of 2).

Company/ Brand	Variety	Maturity Group	Maturity (date)[1]	Plant Height (inch)	Plant Lodge[2] (0-9)	Seed Oil (%)	Seed Protein (%)	Test Weight (lb/bu)	Seed Yield 2011 (bu/a)	Seed Yield 2-yr. Avg. (bu/a)
Proseed	P2 11-30	0.3	9/23	43	0	18.8	31.8	56.1	40.4	--
Proseed	P2 11-50	0.4	9/22	42	0	18.3	32.1	55.2	44.4	--
REA	58G82	00.8	9/18	41	1	19.1	30.8	56.1	47.3	--
REA	59G51	00.9	9/17	41	3	18.9	32.0	56.1	45.3	53.1
REA	61G21	0.1	9/17	41	2	20.1	30.4	58.3	45.7	54.4
REA	62G22	0.2	9/21	42	1	18.4	32.2	56.2	44.9	--
REA	63G31	0.3	9/19	41	0	18.7	30.8	56.5	43.5	--
Seeds 2000	0091RR2Y	00.9	9/16	40	3	19.3	31.3	57.2	51.3	--
Syng NK	S00-J9	00.9	9/15	40	1	19.6	32.9	57.8	48.7	--
Syng NK	S02-B4	0.2	9/16	40	2	19.8	30.8	56.3	47.0	--
Thunder	30005RR	00.5	9/21	42	1	19.9	30.9	57.3	39.1	47.2
Thunder	32005R2Y	00.5	9/12	39	1	19.7	32.5	56.9	44.0	--
Thunder	31009R2Y	00.9	9/17	40	2	19.0	31.8	55.6	44.1	52.4
Thunder	3201R2Y	0.1	9/18	41	1	18.7	32.5	56.3	42.6	--
Thunder	3102R2Y	0.2	9/21	42	0	19.5	32.3	56.8	43.9	--
Wensman	W 30042R2	00.4	9/13	39	0	19.8	31.8	56.5	48.5	--
Wensman	W 30066R2	00.6	9/14	40	1	19.5	32.5	56.5	47.9	--
Wensman	W 30084R2	00.8	9/15	40	2	19.5	31.0	55.5	45.1	53.8
Wensman	W 30091R2	00.9	9/17	41	2	19.8	30.2	57.9	45.3	53.4
Mean			9/18	41	1	19.3	31.7	56.7	44.6	51.3
CV %			1.5	1.5	101.7	1.9	1.8	2.5	6.2	--
LSD 0.05			2.1	0.8	1.4	0.7	1.1	2.0	3.9	--

Planted: June 6. Harvested: Oct. 3.

[1]Date of physiological maturity at R7 stage (one pod on the main stem obtains mature brown or tan color).

Frost between 29 and 32 degrees F occurred on Sept. 14-15 in the region. Limited damage on the trial appeared in the upper portions of the plant. Plants continued to mature and no green seed damage was visible.

[2]Lodging is from 0 to 9; 0 is erect, 9 is flat.

Table 28. 2011 Soybean - Roundup Ready - Minot (North Central REC) - Authors, M. Halvorson, A. Sebelius and J. Tarasenko.

Company/ Brand	Variety	Maturity Group	Plant Height	100 Seed Weight	Test Weight	Seed Oil	Seed Protein	Seed Yield[1] 2010
			(inch)	(gram)	(lb/bu)	(%)	(%)	(bu/a)
AgVenture	009K9	00.9	18	103	57.4	23.4	23.2	--
AgVenture	03K3	0.3	18	132	57.6	23.1	25.1	--
AgVenture	05C5	0.4	19	124	57.8	21.6	24.8	--
Asgrow	AG00632	00.6	23	158	57.8	22.2	26.0	--
Asgrow	AG00931	00.9	20	120	58.3	22.6	23.1	38.8
Asgrow	AG00932	00.9	24	138	58.4	21.9	25.2	--
Asgrow	AG0131	00.1	23	137	58.2	22.1	25.6	31.2
Asgrow	AG0231	0.2	20	130	58.3	22.7	22.4	40.0
Dyna-Gro	30RY04	00.4	18	138	57.6	23.5	23.8	--
Dyna-Gro	30RY07	00.7	18	131	57.5	23.3	22.9	--
Dyna-Gro	35RY01	0.1	22	119	58.4	22.6	22.2	39.5
Gold Cntry	0071	00.7	22	145	58.5	22.0	23.0	--
Gold Cntry	0140	0.1	27	149	58.6	21.2	25.9	35.4
Integra	20052 RR2Y	00.5	19	132	57.5	22.7	24.8	--
Integra	20090 RR2Y	00.9	22	136	58.4	21.8	23.9	33.8
Integra	20100 RR2Y	0.1	18	131	57.8	21.9	26.0	--
Integra	79020 R	0.2	22	113	58.6	20.6	27.4	40.9
NuTech	6006	00.6	23	120	58.7	20.4	28.6	39.6
NuTech	6011	0.1	19	110	57.5	22.1	22.4	--
NuTech	G2-0090 RR	00.9	16	103	57.5	23.8	21.4	34.8
NuTech	G2-6009	00.9	18	141	56.8	23.9	24.4	--
NuTech	G2-6012	0.1	17	120	57.3	24.2	20.0	--
NuTech	G2-6025	0.2	19	136	57.7	23.0	25.8	--
Peterson	11R01	0.1	21	119	58.3	22.3	23.1	--
Peterson	12R007	00.7	22	141	57.8	21.6	27.7	--
Proseed	P2 10-20	00.2	20	122	57.7	21.1	23.1	27.0
Proseed	P2 11-00	00.0	19	96	57.3	21.4	23.2	--
Proseed	P2 11-05	00.5	19	127	57.4	23.0	23.5	--
Proseed	P2 11-07	00.7	19	136	58.0	22.8	25.1	--
Proseed	P2 11-10	00.1	19	136	57.7	21.7	26.7	--
Proseed	P2 10-08	00.8	20	130	58.3	22.5	22.9	39.2
Seeds 2000	0091 RR2Y	00.9	24	146	58.7	21.2	25.7	--
Mean			20	129	57.9	22.3	24.3	36.4
CV %			24.0	8.7	0.5	4.2	13.6	20.0
LSD 0.05			NS	15.7	0.4	1.3	NS	NS

Planted: May 25 with a seeding rate of 200,000 pure live seed. Harvested: Oct. 6.

[1]Due to the high CV% value for seed yield in 2011, no data is available. Additional data sites should be used for making decisions.

Table 29. 2011 Soybean - Roundup Ready - McLean County (North Central REC) - Authors, M. Halvorson, A. Sebelius and J. Tarasenko.

Company/ Brand	Variety	Maturity Group	100 Seed Weight	Test Weight	Seed Oil	Seed Protein	Seed Yield 2011
			(gram)	(lb/bu)	(%)	(%)	(bu/a)
Integra	20100 RR2Y	0.1	121	57.8	22.7	25.2	18.4
Integra	79020 R	0.2	99	58.4	21.9	24.2	14.3
NuTech	G2-6012	0.1	107	58.0	23.8	20.1	15.5
NuTech	G2-6025	0.2	118	57.7	23.7	22.6	15.7
Proseed	P2 10-20	00.2	96	--	21.5	22.0	6.1
Proseed	P2 11-10	00.1	117	57.3	23.0	23.1	17.1
Proseed	P2 10-08	00.8	123	58.1	22.5	21.7	16.3
Seeds 2000	0091RR2Y	00.9	123	58.1	22.4	20.9	17.4
Mean			113	57.9	22.7	22.5	15.1
CV %			2.4	0.6	1.3	3.7	9.4
LSD 0.05			4.1	0.5	0.4	1.2	2.1

Planted: June 6 with a seeding rate of 200,000 pure live seed. Harvested: Sept. 27.

Table 30. 2011 Soybean - Roundup Ready - Sheridan County (North Central REC) - Authors, M. Halvorson, A. Sebelius and J. Tarasenko.

Company/ Brand	Variety	Maturity Group	Plant Height	100 Seed Weight	Test Weight	Seed Oil	Seed Protein	Seed Yield 2011
			(inch)	(gram)	(lb/bu)	(%)	(%)	(bu/a)
Gold Cntry	0071	00.7	36	151	58.9	19.4	24.0	49.8
Gold Cntry	0140	0.1	38	157	58.9	19.2	22.0	52.0
Integra	20100 RR2Y	0.1	33	137	58.5	19.4	23.6	46.3
Integra	79020 R	0.2	38	121	59.7	18.3	23.6	46.3
NuTech	G2-6025	0.2	34	134	58.7	19.0	24.5	42.0
NuTech	G2-6050	0.4	38	102	59.3	18.1	22.6	43.9
Proseed	P2 10-20	00.2	35	116	58.6	18.1	23.1	41.1
Proseed	P2 11-00	00.0	34	111	58.8	17.6	21.8	40.9
Proseed	P2 11-10	00.1	35	138	58.7	19.5	24.2	49.8
Proseed	P2 10-08	00.8	36	152	59.2	19.4	23.7	50.5
Seeds 2000	0091RR2Y	00.9	38	158	59.2	19.2	24.4	53.2
Mean			36	134	58.9	18.8	23.4	46.9
CV %			5.5	4.4	0.5	1.2	6.3	6.0
LSD 0.05			3	8.5	0.4	0.3	NS	4.0

Planted: May 26 with a seeding rate of 200,000 pure live seed. Harvested: Oct. 4.

Table 31. 2011 Soybean - Roundup Ready - Hettinger - Authors, E. Eriksmoen and R. Olson.

Company/ Brand	Variety	Maturity Group	Plant Height	Test Weight	Seed Oil	Seed Protein	Seed Yield
			(inch)	(lb/bu)	(%)	(%)	(bu/a)
Integra	20100 RR2Y	0.1	26	52.7	22.3	33.0	36.2
Integra	79020 R	0.2	27	43.5	21.2	33.8	36.7
Proseed	P2 11-10	0.4	26	51.8	22.2	33.1	38.9
Proseed	P2 11-50	0.5	28	53.9	21.4	32.7	43.5
Seeds 2000	2051RR2Y	0.5	24	53.5	21.7	32.0	41.1
Seeds 2000	2082RR2Y	0.8	27	54.7	20.9	33.8	32.3
Syng NK	S06-W2	0.6	29	53.5	21.1	33.4	36.7
Syng NK	S08-A2	0.8	27	53.9	21.8	32.0	38.0
Syng NK	S10-G7	1.0	26	54.3	20.5	34.4	34.0
Mean			27	52.4	21.5	33.1	37.5
CV %			4.7	0.9	2.0	2.6	3.4
LSD 0.05			2	0.7	0.6	1.2	1.8

Planted: May 17. Harvested: Sept. 26. Previous crop: oat.

Table 32. 2011 Soybean - Conventional - Hettinger - Authors, E. Eriksmoen and R. Olson.

Company/ Brand	Variety	Maturity Group	Plant Height	Test Weight	Seed Oil	Seed Protein	Seed 2011	Yield 3-Yr. Avg.
			(inch)	(lb/bu)	(%)	(%)	----------(bu/a)----------	
NDSU	Ashtabula	0.4	23	52.2	22.1	32.6	37.8	29.7
NDSU	Cavalier	00.7	26	54.4	21.6	32.8	37.5	28.7
NDSU	ProSoy	0.8	26	55.0	20.1	36.4	34.3	26.4
NDSU	Sheyenne	0.8	26	54.1	21.7	32.4	43.9	35.0
NDSU	Traill	00.0	24	55.7	21.7	34.2	37.8	28.6
Mean			25	54.3	21.4	33.7	38.3	29.7
CV %			4.7	0.9	2.0	2.6	3.4	--
LSD 0.05			2.0	0.7	0.6	1.2	1.8	--

Planted: May 17. Harvested: Sept. 26. Previous crop: oat.

Table 33. 2011 Soybean - Dryland, Roundup Ready - Williston - Authors, G. Bradbury and S. Loomer.

Company/		Days to	Plant	Test	Seed Yield	
Brand	Variety	Flower	Height	Weight	2011	2-yr Avg.
		(DAP)[1]	(inch)	(lb/bu)	-------(bu/a)-------	
Asgrow	AG0231	35.0	20.5	57.3	14.8	--
Asgrow	AG0430	35.3	20.1	57.0	15.4	18.6
Asgrow	AG0532	34.5	19.8	56.5	14.2	--
Peterson	11R02	33.3	17.8	56.4	13.6	--
Peterson	12R06	41.3	16.3	56.2	15.4	--
Mean		35.9	18.9	56.7	14.7	18.6
CV %		1.2	7.9	0.8	18.3	--
LSD 0.05		0.7	2.3	NS	NS	--

Planted: May 25 into durum stubble. Harvested: Oct. 5.

[1]DAP = Days after planting.

Table 34. 2011 Soybean - Irrigated, Roundup Ready - Williston - Authors, T. Tjelde and C. Wahlstrom.

Company/		Days to	Canopy	Test	Seed Yield	
Brand	Variety	Flower	Height	Weight	2011	2-yr. Avg.
		(DAP)[1]	inches	(lb/bu)	-------(bu/a)-------	
Asgrow	AG0231	53	29.8	57.9	72.1	--
Asgrow	AG0430	53	29.2	57.9	66.4	69.5
Asgrow	AG0532	53	29.8	58.0	70.4	--
Peterson	11R02	53	29.3	57.3	68.7	--
Peterson	12R06	60	29.2	57.3	67.7	--
Mean		54	29.5	57.7	69.1	69.5
LSD 0.05		NS	NS	0.7	8.9	--

Planted: May 19. Harvested: Oct. 5. Previous crop: barley.

[1]DAP = Days after planting.

Table 35. 2011 Soybean - Dryland, Conventional - Williston - Authors, G. Bradbury and S. Loomer.

Company/ Brand	Variety	Days to Flower	Plant Height	Test Weight	Seed yield	
					2011	3-yr Avg.
		(DAP)[1]	(inch)	(lb/bu)	-----(bu/a)-----	
Asgrow	AG0231[2]	51.0	18.1	56.6	22.0	--
NDSU	Ashtabula	53.5	18.9	56.1	17.1	17.5
NDSU	Cavalier	47.0	17.1	57.2	17.3	16.5
NDSU	ND05-17835	55.5	16.9	56.6	18.4	--
NDSU	ND1005T	50.5	20.3	57.2	18.3	--
NDSU	ProSoy	53.5	20.2	56.8	20.4	18.7
NDSU	Sheyenne	51.5	17.7	56.7	19.6	19.2
NDSU	Traill	49.8	19.6	57.0	19.6	17.9
Mean		51.5	18.6	56.7	19.1	18.0
CV %		0.8	6.4	0.3	10.4	--
LSD 0.05		0.6	1.8	0.4	2.9	--

Planted: May 25 directly into durum stubble residue from 2010. Harvested: Oct. 5.

[1]DAP = Days after planting.

[2]Roundup Ready check.

Table 36. 2011 Soybean - Irrigated, Conventional - Williston - Authors, T. Tjelde and C. Wahlstrom.

Company/ Brand	Variety	Days to Flower	Plant Height	Test Weight	Seed yield	
					2011	2-yr Avg.
		(DAP)[1]	(inch)	(lb/bu)	-----(bu/a)-----	
Asgrow	AG0231[2]	55	20.7	57.8	61.6	--
NDSU	Ashtabula	55	21.9	56.7	48.6	55.1
NDSU	Cavalier	53	17.8	57.6	41.0	51.0
NDSU	ND05-17835	60	22.1	58.0	55.8	--
NDSU	ND1005T	53	22.3	57.5	48.5	50.4
NDSU	ProSoy	60	25.8	57.7	39.8	47.7
NDSU	Sheyenne	55	23.6	57.7	51.8	57.6
NDSU	Traill	57	19.3	57.9	47.1	51.9
SK Food	SK 972	53	21.4	57.9	44.0	50.9
SK Food	SK0034	60	22.3	57.4	41.5	--
SK Food	SK0092-Exp	54	15.6	57.8	17.7	--
SK Food	SK918	55	24.3	57.7	50.8	--
Mean		56	21.4	57.6	45.7	52.1
CV %		2	10.8	0.4	14.7	--
LSD 0.05		2	3.3	0.5	9.7	--

Planted: May 19. Harvested: Oct. 5. Previous crop: barley.

[1]DAP = Days after planting.

[2]Roundup Ready check.

For more information on this and other topics, see: www.ag.ndsu.edu

1.6-12-11