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North Dakota Soybean

Variety Trial Results for 2018 and Selection Guide

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Soybean Variety Selection

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Selection

Soybean variety selection should be based on maturity, yield, seed quality, lodging, iron-deficiency chlorosis tolerance and disease reactions. In most years, 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 varieties 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 and percent of oil 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.

Physiological maturity has been reached when 95 percent of the pods have reached the mature color. Varieties may have different mature pod color. 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 is grown in the northern Red River Valley and the north-central area of North Dakota. Maturity group 0 is adapted to Traill, Cass and Richland counties and other counties with similar latitudes. Maturity group 1 primarily is 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 how a variety might perform across different weather conditions. Selecting a variety that has performed well in dry and normal rainfall conditions is the best way to identify a variety that does relatively well, regardless of weather fluctuations.

Phytophthora

Phytophthora root rot is one of the most important disease problems 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 for disease development. Management tools available to reduce Phytophthora root rot include selection of a resistant variety, use of a fungicide seed treatment, tile drainage and crop rotation.

Most varieties have Phytophthora root rot-resistance genes, and each gene 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.

Phytophthora is a variable pathogen, and many races of the pathogen exist in North Dakota. No gene guarantees control of the pathogen. Consequently, monitoring your fields for Phytophthora root rot every year is important. If the disease is widespread, the pathogen likely has overcome the gene being used, and the gene should not be used in future plantings.

Similarly, continually rotating effective genes is very important. Lack of gene or crop rotation can speed the development of new races. In some North Dakota fields, the pathogen already has become resistant to multiple genes. Fungicide seed treatments with activity against Phytophthora may help prevent early infection. However, seed treatments do not provide season-long control and should be used in combination with resistance. Crop rotation may help reduce inoculum of Phytophthora but will not eradicate it from soil.

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 history of causing problems. The same pathogen causing white mold in soybeans causes white mold in other crops (dry bean, sunflower, pea, canola, etc.). Consequently, recent white mold problems in **any crop** in that field should be noted, and crop rotation with nonhosts, such as wheat, barley or corn, is preferred for white mold management.

Fungicides are labeled for management/suppression of white mold, but applications must be made on a preventive basis. Efficacy may be inconsistent (particularly in high disease-pressure environments) and economics in low disease-risk environments are often not favorable.

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 late vegetative, flowering and pod-filling stages. However, IDC during the early vegetative stages can reduce yield potential 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. For varieties tested in 2018, IDC scores are provided in Tables 3 and 4.

Soybean Cyst Nematode

Soybean cyst nematode (SCN), *Heterodera glycines*, is a small parasitic roundworm that attacks the roots of soybeans. Nematodes often are undetected because above-ground symptoms are uncommon until a 15 to 30 percent yield loss has occurred.

Soybean cyst nematode has been confirmed in 19 counties in North Dakota. Growers are strongly urged to test their soils for SCN. If a positive sample for SCN is found, growers should begin managing SCN actively.

Crop rotation and resistance are the most important management tools against this disease. Two sources of resistance to SCN - PI88788 and Peking - can be found in North Dakota. These sources are effective in the vast majority of the soybean fields in the state. However, the level of resistance in each variety is variable, so selecting the most resistant variety possible and monitoring the field for SCN is important.

For SCN management a rotation out of soybean for two to three years is beneficial. Dry edible beans are susceptible to SCN and should not be used as a rotation crop for managing SCN. Nematicide seed treatments also are available and may help manage SCN; however, they are not a substitute for resistance and rotation.

General Information About 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 0.10 or 0.05 value, it means that with 90 or 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, and oil and protein information are adjusted to 13 percent moisture content in the seed. Maturity date indicates physiological maturity, which is the date when 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 2 provides the full company name, abbreviated company name used in the tables and a website for the company.

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, appropriate footnotes are given, the order of the data is not rearranged and NDSU is credited for the data.

Table 1. Agronomic Characteristics of Public Soybean Varieties Suitable for North Dakota Production.

Variety	Maturity	Fargo Relative	Height	Hilum Color	Remarks ¹
	Group	Maturity			
ND17009GT	00.9	Early	Med.	Black	2, 7
ND Henson	0.0	Early	Med.	Black	1, 2
ND Benson	0.4	Med.	Med.	Buff	1, 2, 6, 8
ND1406HP	0.6	Med.	Med.	Yellow	4, 5
Prosoy	0.8	Med. Late	Tall	Yellow	4, 5
ND Bison	0.7	Med. Late	Med.	Yellow	1, 2
ND Stutsman	0.7	Med. Late	Med.	Yellow	1, 3, 8

¹ Remarks: 1 = Good iron chlorosis resistance; 2 = Resistant to races 1-4 of Phytophthora root rot; 3 = Resistant to races 1 - 3 of Phytophthora root rot; 4 = Susceptible to Phytophthora root rot; 5 = Tofu bean; 6 = resistant to Soybean Cyst Nematode (SCN); 7 = Glyphosate resistant; 8 = Tolerant to metribuzin herbicide.

Table 2. Full Company Name, Abbreviated Name Used in Tables and Website.

Company	Abbreviated	Website
Allegiant	Allegiant	www.chsinc.com/allegiant
Asgrow	Asgrow	www.asgrowanddekalb.com
Brushvale Seed Inc.	Brushvale	www.brushvaleseed.com
Channel	Channel	www.channel.com
Dahlman Seed Co.	Dahlman	www.dahlmanseed.com
Dairyland Seed Co. Inc.	Dairyland	www.dairylandseed.com
DuPont Pioneer	Pioneer	www.pioneer.com
Dyna-Gro Seed	Dyna-Gro	www.dynagroseed.com
Golden Harvest	Golden H.	www.goldenharvestseeds.com/soybeans
Hefty Seed Co.	Hefty	www.heftyseed.com
Integra Fortified Seed	Integra	www.integraseed.com
Legacy Seeds Inc.	Legacy	www.legacyseeds.com
Legend Seeds Inc.	Legend	www.legendseeds.net
LG Seeds	LG Seeds	www.lgseeds.com
Midwest Seed Genetics	Midwest	www.midwestseed.com
N.D. Foundation Seed	NDSU	www.ag.ndsu.edu/fss/
NorthStar Genetics	NorthStar	www.NorthStargenetics.com
NuTech Seed	NuTech	www.NuTechseed.com
Peterson Farms Seed (PFS)	Peterson	www.petersonfarmsseed.com
Prairie Seed	Prairie	--
Proseed Inc.	Proseed	www.proseed.net
REA	REA	www.rea-hybrids.com
Richland IFC	Richland	www.richlandifc.com
Syngenta NK Brand	Syng NK	www.syngenta-us.com/seed
Thunder Seed Inc.	Thunder	www.thunderseeds.com
WinField Croplan	Croplan	www.winfieldunited.com/

Table 3. 2018 NDSU Roundup Ready and Xtend Soybean Iron-deficiency Chlorosis Trial - Author, T. Helms (Page 1 of 3).

Company	Variety	2-site Mean IDC ¹	Company	Variety	2-site Mean IDC ¹
REA	RX0228	1.6	Legend	007X956N	2.2
Dairyland	DSR-0509R	1.7	LG Seeds	S00899RX	2.2
Dahlman	6903XN	1.7	Dairyland	DSR-0305/R2Y	2.2
Integra	20468	1.7	LG Seeds	S0400RX	2.2
Integra	50309N R2X	1.8	NorthStar	0064R2	2.2
Legacy	LS-0239NRR2X	1.8	REA	R00727	2.2
Syng NK	NK S03-G9	1.8	REA	RX00619	2.2
Thunder	SB8903N	1.8	REA	RX0327	2.2
Dyna-Gro	S03XT29	1.8	Thunder	39005R2Y	2.2
Golden H.	GH0086	1.8	Dyna-Gro	S09XT39	2.2
Legend	01X850	1.8	Dairyland	DSR-0397/R2Y	2.2
Channel	0218R2X	1.8	Dyna-Gro	S007XT59	2.2
Dairyland	DSR-0200/R2Y	1.8	LG Seeds	C100RX	2.2
Dairyland	DSR-0405R	1.8	Midwest	MW0841	2.2
Peterson	19X03N	1.8	Pioneer	00A49X	2.2
Proseed	XT80-20	1.8	Legend	12X862N	2.3
Thunder	SB89006N	1.8	NuTech	6097R2	2.3
Legend	03X852N	1.8	Hefty	H02R3	2.3
LG Seeds	S0335RX	1.8	Legend	009X852N	2.3
Hefty	H02X9	1.9	NuTech	6136X	2.3
Midwest	MWX0341	1.9	Allegiant	009X08	2.3
Syng NK	NKS12-R3	1.9	Dairyland	DSR-C709R	2.3
REA	RX00749	1.9	Legacy	LS-0937RR2X	2.3
Golden H.	GH0391	2.0	Legacy	LS-0334RR2	2.3
Thunder	3503R2Y	2.0	Midwest	MW0441	2.3
Dahlman	68008XN	2.0	Pioneer	006A37X	2.3
LG Seeds	S00909R2	2.0	Proseed	XT60-40	2.3
NorthStar	60264NXR2	2.0	REA	RX0719	2.3
Pioneer	007A90R	2.0	Dahlman	5601RR2Y	2.3
Allegiant	007X14N	2.1	Dyna-Gro	S04XT77	2.3
Allegiant	008X30N	2.1	Dyna-Gro	S14XT98	2.3
Dyna-Gro	S009XT49	2.1	Integra	50098	2.3
Legend	02R21	2.1	Thunder	Astro	2.3
REA	RX0628	2.1	Thunder	SB88007N	2.3
Channel	0518R2X	2.1	Integra	20775N	2.4
Dahlman	6909XN	2.1	Integra	51449N	2.4
Legacy	LS-00937RR2X	2.1	NorthStar	60092XR2	2.4
Proseed	XT60-09	2.1	Peterson	17X04N	2.4
Thunder	SB87009	2.1	Peterson	19X10N	2.4
Dairyland	DSR-0418/R2Y	2.1	Proseed	XT70-09	2.4
Dyna-Gro	S009XT68	2.1	Dairyland	DSR-0988/R2Y	2.4
Hefty	H009X7	2.2	Channel	00717R2X	2.4
Legacy	LS-0337NRR2X	2.2	Dairyland	DSR-0807/R2Y	2.4
Mean		2.4	Mean		2.4
LSD 0.05		0.3	LSD 0.05		0.3
LSD 0.10		0.28	LSD 0.10		0.28
CV		14.1	CV		14.1

Table 3. 2018 NDSU Roundup Ready and Xtend Soybean Iron-deficiency Chlorosis Trial - Author, T. Helms (Page 2 of 3).

Company	Variety	2-site	Company	Variety	2-site
		Mean			Mean
		IDC ¹			IDC ¹
Dyna-Gro	S005XT38	2.4	Legend	14X862N	2.6
LG Seeds	S0111RX	2.4	LG Seeds	S0550RX	2.6
NorthStar	60513 NXR2	2.4	NorthStar	60053XR2	2.6
NuTech	6008R2	2.4	Dairyland	DSR-0225/R2Y	2.6
Dyna-Gro	S05XT88	2.4	Allegiant	005X17	2.6
Dyna-Gro	S11XT78	2.4	Dairyland	DSR-0404/R2Y	2.6
Golden H.	GH0339X	2.4	Dairyland	DSR-0309R	2.7
Integra	20300	2.4	Dahlman	6811XN	2.7
Integra	20915N	2.4	Golden H.	GH0992X	2.7
Integra	50069	2.4	Legend	005X853	2.7
Legacy	LS-00737NRR2X	2.4	Legend	06X950N	2.7
NorthStar	60442NXR2	2.4	Midwest	MWX0741	2.7
Hefty	H008X8	2.5	Proseed	XT71-40	2.7
Legend	007R22	2.5	Thunder	3601R2Y	2.7
Peterson	18X008N	2.5	Thunder	SB8909N	2.7
Prairie	PB-1257R2	2.5	Dahlman	6806XN	2.7
Proseed	XT70-60	2.5	Golden H.	GH0749X	2.7
Golden H.	GH0145X	2.5	Legacy	LS-0237RR2X	2.7
Integra	20126 R2Y	2.5	Legend	09X960N	2.7
Legacy	LS-1138N	2.5	NorthStar	60743NXR2	2.7
LG Seeds	S0962RX	2.5	Peterson	18X07N	2.7
Syng NK	NK S01-C4X	2.5	Proseed	20-30	2.7
Proseed	30-20	2.5	Proseed	50-08	2.7
Channel	0819R2X	2.5	Hefty	H06X8	2.7
Hefty	03X8	2.5	Dyna-Gro	S06XT59	2.7
LG Seeds	S1575RX	2.5	Dairyland	DSR-1313/R2Y	2.7
Syng NK	NK S009-J1	2.5	Dyna-Gro	X05XT88	2.7
Peterson	16R01	2.5	Legacy	LS-0638NRR2X	2.7
Hefty	H02X7	2.5	LG Seeds	S0886RX	2.7
Integra	20097	2.6	NorthStar	0081NR2	2.7
Integra	20215	2.6	Peterson	18X11N	2.7
Legacy	LS-135RR2	2.6	Thunder	3907R2Y	2.7
Legacy	LS-0438RR2X	2.6	Proseed	XT80-80	2.7
LG Seeds	S00663RX	2.6	Hefty	06X8	2.8
LG Seeds	S0224R2	2.6	Hefty	H04X8	2.8
NDSU	ND18008GT	2.6	Integra	50989N	2.8
Prairie	PB-00856R2	2.6	Legacy	LS-0835NRR2	2.8
Proseed	XT70-70	2.6	LG Seeds	S00885R2	2.8
REA	RX0929	2.6	LG Seeds	S0774RX	2.8
Allegiant	02X03	2.6	NorthStar	0111R2	2.8
Dairyland	DSR-1509R	2.6	Allegiant	01R80	2.8
Dyna-Gro	S007XT27	2.6	Dairyland	DSR-0777/R2Y	2.8
Integra	20087	2.6			
Mean		2.4	Mean		2.4
LSD 0.05		0.3	LSD 0.05		0.3
LSD 0.10		0.28	LSD 0.10		0.28
CV		14.1	CV		14.1

Table 3. 2018 NDSU Roundup Ready and Xtend Soybean Iron-deficiency Chlorosis Trial - Author, T. Helms (Page 3 of 3).

Company	Variety	2-site			
		Mean	Mean		
Company	Variety	2-site	2-site		
		Mean	Mean		
Channel	1017R2X	2.8	Syng NK	NKS07-Q4X	2.9
Channel	1318R2X	2.8	Peterson	18X08N	2.9
Legend	07X852N	2.8	Dairyland	DSR-0711/R2Y	3.0
Channel	0619R2X	2.8	LG Seeds	C1337RX	3.0
Hefty	H008R6	2.8	Legacy	LS-0378NRR2X	3.0
Integra	51229N	2.8	Dyna-Gro	S12XT07	3.0
REA	RX1027	2.8	Golden H.	GH0674X	3.0
Dyna-Gro	S07XT28	2.9	Legacy	LS-0935N	3.0
Golden H.	GH1024X	2.9	REA	RX1439	3.1
Legacy	LS-0738N	2.9	NDSU	ND17009GT	3.1
Dairyland	DSR-C999/R2Y	2.9	REA	RX0516	3.1
Peterson	18X06N	2.9	Dairyland	DSR-1120/R2Y	3.1
Channel	1219R2X	2.9	Channel	1117R2X	3.2
Dahlman	56009NRR2Y	2.9	Syng NK	NKS06-K4X	3.2
Mean		2.4	Mean		2.4
LSD 0.05		0.3	LSD 0.05		0.3
LSD 0.10		0.28	LSD 0.10		0.28
CV		14.1	CV		14.1

¹IDC score was 1-5, with 1-green, 3-yellow, 5-dead tissue.

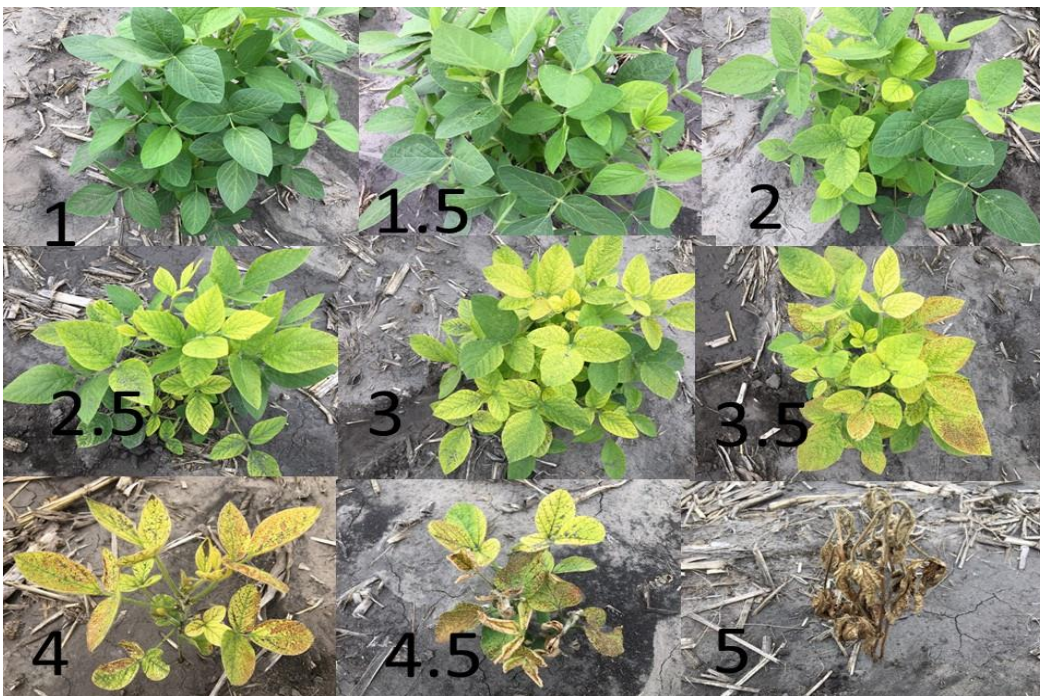


Soybean plants with IDC scores; 1 is green and 5 is dead tissue.

Table 4. 2018 NDSU Conventional and Liberty Link Soybean Iron-deficiency Chlorosis Trial - Author, T. Helms.

Company	Variety	4-site Mean IDC ¹	Company	Variety	4-site Mean IDC ¹
Check variety	A11 (early maturing)	1.4	Peterson	11-18N	2.5
Dyna-Gro	S04LL37	1.2	Brushvale	BS0858	2.8
Integra	30808N	2.0	Richland	MK1016	2.8
Richland	MK0508	2.0	Proseed	XT71-10	2.8
Dyna-Gro	S07LL57	2.0	Integra	31228N	2.8
Golden H.	GH0670L	2.1	Peterson	L12-16N	2.8
Syng NK	NK S03-J7L	2.1	Proseed	30-80	2.9
NorthStar	NS0095LL	2.3	Richland	MK9101	2.9
Thunder	5401LL	2.3	NDSU	ND Henson	2.9
Richland	MK0249	2.3	Richland	MK808CN	3.1
Allegiant	008L05	2.3	Brushvale	BS1146	3.1
NDSU	ND Stutsman	2.4	Richland	MK42	3.1
Dyna-Gro	S11LL48	2.4	Brushvale	BS1247	3.1
NDSU	ND Benson	2.4	Richland	MK41	3.1
Thunder	5803LL	2.4	Richland	MK146	3.3
Allegiant	03L02	2.4	Brushvale	BS1512	3.3
Legend	LS-0084LL	2.4	NDSU Check	Sargent	3.4
Richland	MK0603	2.5			
Mean		2.6	Mean		2.6
LSD 0.05		0.31	LSD 0.05		0.31
LSD 0.10		0.26	LSD 0.10		0.26
CV		12.5	CV		12.5

¹IDC score was 1-5, with 1-green, 3-yellow, 5-dead tissue.



Soybean plants with IDC scores; 1 is green and 5 is dead tissue.

Table 5. 2018 NDSU Roundup Ready and Xtend Soybean Cyst Nematode Yield Trial - Author, T. Helms.

Company	Variety	Maturity ¹ (date)	Lodging ² (1-5)	Seed Yield				4-site Avg.
				Absaraka	Wyndmere	Prosper	Galesburg	
Asgrow	AG 06X8	9/17	2.6	66.1	70.4	44.5	72.4	63.3
Dahlman	6806XN	9/19	2.1	42.7	71.0	42.4	70.3	56.6
Dahlman	6811XN	9/27	2.4	50.7	66.4	47.9	70.5	58.9
Dahlman	6903XN	9/15	1.9	56.0	68.5	39.7	58.2	55.6
Dahlman	6909XN	9/24	2.3	58.5	70.9	45.2	65.3	60.0
Dairyland	DSR-0418/R2Y	9/18	1.6	56.3	73.6	43.2	65.3	59.6
Dairyland	DSR-0777/R2Y	9/25	2.4	63.4	76.5	45.9	68.3	63.5
Dairyland	DSR-0988/R2Y	9/25	2.5	59.7	74.4	47.2	68.9	62.5
Dyna-Gro	S06XT59	9/18	3.1	59.9	72.0	43.7	74.1	62.4
Dyna-Gro	S11XT78	9/26	2.9	73.6	76.9	50.0	73.3	68.4
Dyna-Gro	X07XT28	9/20	2.0	55.9	71.6	43.6	74.5	61.4
Golden H.	0749X	9/22	2.3	46.0	82.7	50.0	57.2	59.0
Golden H.	0992X	9/19	2.3	56.0	76.1	51.3	74.8	64.5
Golden H.	1024X	9/26	2.5	51.8	75.5	47.9	60.6	59.0
Integra	20775N	9/23	2.8	52.2	76.8	51.0	71.0	62.8
Integra	50989N	9/22	2.8	55.3	71.3	37.5	73.1	59.3
Legend	06X950N	9/20	2.1	39.8	65.5	37.8	65.3	52.1
Legend	07X852N	9/18	2.1	66.7	75.4	40.7	65.7	62.1
Legend	09X960N	9/20	2.3	58.9	71.4	41.6	73.0	61.2
Legend	12X862N	9/24	2.4	62.1	78.9	46.8	69.3	64.3
LG Seed	0355RX	9/17	2.4	49.4	71.4	44.3	62.8	57.0
LG Seed	0774RX	9/19	2.4	54.8	76.5	46.2	70.9	62.1
LG Seed	0886RX	9/23	2.6	53.4	77.5	42.4	69.2	60.6
NK	07-Q4X	9/22	1.9	53.1	79.7	49.4	73.4	63.9
NK	S06-K4X	9/18	1.3	50.0	66.6	23.1	55.2	48.7
NK	S12-R3	9/28	2.9	61.6	77.8	41.4	71.8	63.1
Prairie	1257R2	9/29	3.9	70.1	76.7	52.7	77.9	69.3
Mean		9/22	2.4	57.2	73.7	44.6	68.5	60.8
CV %		6.7	27	19.1	6.8	18.0	12.8	13.8
LSD 0.05		2.4	0.9	15.1	7.0	11.0	12.2	5.8
LSD 0.10		2.0	0.8	12.8	6.0	9.4	10.4	4.9

Footnotes listed under Table 7.

Table 6. 2018 NDSU Liberty Link and Conventional Soybean Cyst Nematode Yield Trial - Author, T. Helms.

Company	Variety	Maturity ¹ (date)	Lodging ² (0-5)	Seed Yield				4-site Avg.
				Absaraka	Wyndmere	Prosper	Galesburg	
Golden H.	GH0670L	9/18	1.8	50.0	68.5	20.1	56.5	48.7
Integra	Integra 30808N	9/19	2.1	30.0	67.2	28.3	56.4	45.5
Integra	Integra 31228N	10/3	4.1	55.7	76.3	35.8	67.0	58.7
NDSU	ND Benson	9/14	2.1	52.2	62.7	44.0	54.7	53.4
NDSU	Susceptible check	9/18	2.3	38.0	70.3	21.9	57.9	47.0
Richland	MK146	9/30	1.8	61.2	68.4	45.3	57.0	57.9
Richland	MK41	9/17	3.0	64.2	67.4	48.9	64.7	61.3
Richland	MK808CN	9/21	2.3	45.7	66.3	49.2	65.8	56.8
RR check ³	SCN resistant	9/18	2.7	63.6	70.8	52.0	77.6	66.0
RR check (late) ³	SCN resistant	9/22	2.5	59.0	69.4	50.0	72.3	62.6
Mean		9/21	2.5	52.0	68.7	39.6	63.0	55.7
CV %		5.8	30	8.2	6.2	22.8	15.4	14.5
LSD 0.05		2.1	1.0	11.4	6.3	13.2	14.6	5.6
LSD 0.10		2.0	0.9	9.7	5.4	11.2	12.4	4.8

Absaraka - Planted: May 16. Wyndmere, Prosper and Galesburg - Planted: May 14.

¹Maturity is date of 95 percent brown or tan pods.²Lodging: 1- upright, 3 - leaning 45 degrees, 5 - flat on ground.³Roundup Ready check cultivar for comparison.

Table 7. 2018 NDSU Combined Central Roundup Ready and Xtend Soybean Locations in North Dakota - Author, T. Helms.

Company/ Brand	Variety	Maturity ¹ (date)	Plant Height (inch)	Seed Protein (%)	Seed Oil (%)	Seed Yield			
						Arthur	Grandin	2-site Avg. (bu/a)	2-yr. Avg.
Channel	0218R2X	9/5	40	32.7	18.6	50.1	59.2	54.6	52.5
Channel	0518R2X	9/8	34	33.9	17.5	53.3	63.3	58.3	54.6
Channel	0619R2X	9/10	35	33.0	18.0	53.8	62.5	58.1	--
Dairyland	DSR-0305/R2Y	9/8	34	32.7	18.9	55.7	65.6	60.6	53.5
Dairyland	DSR-0397/R2Y	9/11	34	33.1	18.0	51.7	57.7	54.7	50.2
Dairyland	DSR-0404/R2Y	9/11	34	33.1	17.5	56.8	71.5	64.2	57.7
Dairyland	DSR-0418/R2Y	9/13	34	33.0	17.6	62.3	68.1	65.2	59.6
Dairyland	DSR-0450R	9/8	36	34.3	18.2	45.4	62.1	53.8	--
Dairyland	DSR-0509R	9/16	32	33.1	18.2	56.4	61.1	58.7	--
Dairyland	DSR-0711/R2Y	9/15	34	32.3	18.4	59.7	69.8	64.7	59.2
Dairyland	DSR-0777/R2Y	9/17	37	32.2	17.9	68.4	73.8	71.1	60.8
Dyna-Gro	S04XT77	9/8	33	32.2	18.7	56.9	64.5	60.7	56.0
Dyna-Gro	S05XT88	9/10	35	33.5	18.2	53.6	70.5	62.1	54.6
Dyna-Gro	S06XT59	9/11	37	31.1	17.6	62.2	69.2	65.7	--
Dyna-Gro	S07XT28	9/14	35	32.5	17.8	59.6	72.4	66.0	58.3
Golden H.	GH0339X	9/7	36	31.5	18.4	50.9	61.7	56.3	--
Golden H.	GH0391	9/7	30	33.2	18.2	54.4	63.7	59.0	56.4
Golden H.	GH0674X	9/10	31	31.9	18.2	58.4	62.6	60.5	55.0
Golden H.	GH0749X	9/14	34	33.0	17.7	59.8	64.7	62.3	--
Integra	20468	9/10	35	33.0	18.0	59.6	63.3	61.5	--
Integra	20775N	9/15	35	31.8	18.5	59.7	80.4	70.1	59.5
Integra	50989N	9/15	35	32.6	17.6	62.5	66.6	64.5	--
Legacy	LS-0337NRR2X	9/8	34	33.0	18.2	47.7	65.0	56.4	--
Legacy	LS-0438RR2X	9/10	34	33.8	18.3	51.5	67.9	59.7	54.2
Legacy	LS-0638RR2X	9/10	35	31.2	18.2	59.9	64.0	61.9	57.2
Legacy	LS-0738NRR2X	9/15	35	32.1	17.5	56.1	67.2	61.7	54.8
Legend	01X850	9/3	38	32.8	17.8	50.3	63.5	56.9	48.5
Legend	03X852N	9/9	36	31.7	18.0	54.3	66.3	60.3	--
Legend	05X865N	9/10	34	33.9	18.2	62.0	66.9	64.5	--
Legend	06X950N	9/12	37	33.0	18.0	58.6	68.5	63.6	--
LG Seeds	LGS0335RX	9/8	34	32.1	17.8	49.6	65.2	57.4	--
LG Seeds	LGS0550RX	9/9	33	33.7	18.0	55.2	69.6	62.4	--
LG Seeds	LGS0774RX	9/13	35	31.2	17.4	61.5	68.1	64.8	--
Midwest	MW0441	9/10	32	32.9	18.3	57.8	60.6	59.2	--
Midwest	MW0841	9/15	36	32.0	18.2	59.2	71.1	65.2	--
Midwest	MWX0341	9/8	35	32.0	18.1	51.1	67.5	59.3	--
Midwest	MWX0741	9/11	35	32.0	18.1	52.8	66.6	59.7	--
NK	S06-K4X	9/10	31	33.3	18.1	56.7	66.7	61.7	--
NK	S07-Q4X	9/11	34	33.6	17.4	59.5	68.4	63.9	--
Peterson	17X04N	9/9	33	33.1	18.4	54.0	63.2	58.6	55.6
Peterson	18X06N	9/13	33	34.1	17.7	63.2	68.7	65.9	56.8
Proseed	30-80	9/16	35	33.0	17.9	64.4	77.5	70.9	59.6
Proseed	XT70-60	9/11	35	31.1	18.0	68.0	67.2	67.6	58.1
Proseed	XT70-70	9/13	33	33.0	17.5	52.4	67.0	59.7	--
Proseed	XT80-80	9/14	36	32.6	17.7	54.4	69.4	61.9	--
REA	RX0228	9/4	39	32.8	18.5	43.6	60.4	52.0	52.0
REA	RX0516	9/9	32	32.9	17.9	59.1	64.0	61.5	57.7
REA	RX0628	9/11	35	32.9	18.0	53.7	68.2	61.0	53.6
REA	RX0719	9/13	32	32.9	17.9	60.1	66.7	63.4	--
Mean		9/11	35	32.7	18.0	56.5	66.5	61.5	55.8
CV %		4.8	4.2	1.7	2.1	11.8	6.0	8.9	--
LSD 0.05		2.3	2.2	1.1	0.8	10.6	6.4	6.2	--
LSD 0.10		1.9	1.9	1.0	0.7	9.0	5.5	5.3	--

Planted: Arthur, May 11; Grandin, May 11.

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

Table 8. 2018 NDSU Combined Central Conventional and Liberty Link Soybean Locations in North Dakota - Author, T. Helms.

Company/ Brand	Variety	Maturity ¹ (date)	Plant Height (inch)	Seed Protein (%)	Seed Oil (%)	Seed Yield			2-yr. Avg.
						Arthur	Grandin	2018 2-site Avg. (bu/a)	
Dyna-Gro	S04LL37	9/13	33	33.2	18.2	49.6	59.8	54.7	48.8
Dyna-Gro	S07LL57	9/16	35	31.8	17.2	53.8	66.8	60.3	53.2
Golden H.	GH0670L	9/18	35	31.7	17.1	51.6	63.7	57.7	--
Integra	30808N	9/18	35	31.5	17.0	59.9	69.4	64.7	--
NDSU	ND Benson	9/9	36	33.1	18.2	45.2	58.3	51.7	47.3
NDSU	ND Henson	8/31	28	32.7	18.5	31.9	53.4	42.7	41.1
NDSU	ND Stutsman	9/13	37	31.5	18.5	47.6	66.9	57.3	51.1
Richland	MK0249	9/6	29	31.1	18.3	35.7	54.6	45.2	41.9
Richland	MK0603	9/13	36	32.1	16.5	43.7	57.7	50.7	42.7
Richland	MK42	9/12	36	34.7	17.0	51.1	51.5	51.3	--
--	RR2 check	9/1	33	32.6	19.0	41.9	57.7	49.8	--
--	RR2 late check	9/17	36	33.0	17.9	54.5	68.4	61.4	--
Mean		9/11	34	32.4	17.8	47.2	60.7	54.0	46.6
CV %		6.2	6.8	2.1	3.1	11.4	11.3	11.4	--
LSD 0.05		3.2	3.8	1.5	1.2	8.7	11.1	7.0	--
LSD 0.10		2.7	3.2	1.3	1.0	7.4	9.4	6.0	--

Planted: Arthur, May 11; Grandin, May 11.

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

Table 9. 2018 NDSU Combined Southern Roundup Ready and Xtend Soybean Locations in North Dakota - Author, T. Helms.

Company/ Brand	Variety	Maturity ¹ (date)	Plant Lodge ² (0-9)	Plant Height (inch)	Seed Protein (%)	Seed Oil (%)	Seed Yield				
							Fairmount	Milnor	Walcott	3-site Avg.	2-yr. Avg.
Channel	0819R2X	9/17	1.2	32	34.4	17.7	66.7	73.8	68.8	69.8	--
Channel	1219R2X	9/21	1.2	32	32.2	17.7	63.6	70.8	67.1	67.2	--
Channel	1318R2X	9/22	1.2	30	33.8	17.0	64.0	72.6	76.3	71.0	62.8
Dahlman	6811XN	9/20	1.0	32	33.3	18.0	66.8	64.6	72.9	68.1	--
Dahlman	6909XN	9/18	1.3	31	34.2	17.5	57.8	67.6	67.2	64.2	--
Dairyland	DSR-0450R	9/9	1.0	30	34.7	18.7	52.5	53.2	62.5	56.1	--
Dairyland	DSR-0509R	9/14	1.0	29	33.3	18.4	59.8	68.8	62.3	63.6	--
Dairyland	DSR-0777/R2Y	9/17	1.5	32	32.8	17.8	66.3	71.9	75.2	71.1	64.0
Dairyland	DSR-0807/R2Y	9/18	1.3	32	33.2	17.7	63.3	73.3	66.2	67.6	58.1
Dairyland	DSR-0988/R2Y	9/17	1.1	32	33.3	17.7	66.8	70.1	70.7	69.2	62.4
Dairyland	DSR-1120/R2Y	9/21	1.0	31	32.4	19.4	62.2	66.4	62.1	63.5	58.7
Dairyland	DSR-1313/R2Y	9/23	1.0	31	32.1	19.2	64.1	69.4	71.4	68.3	61.7
Dyna-Gro	S07XT28	9/16	1.0	30	33.3	17.5	54.3	69.5	69.5	64.4	--
Dyna-Gro	S09XT39	9/17	1.0	31	34.1	17.3	63.6	74.5	65.0	67.7	--
Dyna-Gro	S11XT78	9/20	1.4	32	33.4	18.0	66.3	70.3	66.2	67.6	58.1
Dyna-Gro	S12XT07	9/23	1.4	33	33.1	17.5	67.0	73.1	67.4	69.2	61.3
Golden H.	GH0749X	9/17	1.3	29	33.8	18.1	60.2	64.8	62.4	62.5	--
Golden H.	GH0992X	9/18	1.2	29	33.5	17.3	59.2	70.3	72.6	67.4	--
Golden H.	GH1024X	9/21	1.3	30	34.6	17.1	62.6	78.3	68.6	69.8	60.8
Integra	50989N	9/18	1.0	31	32.7	17.0	56.7	66.9	69.3	64.3	--
Integra	51449N	9/21	1.9	33	32.8	18.1	56.8	77.8	65.6	66.7	--
Legacy	LS-0738N	9/16	1.3	31	33.1	17.9	56.9	65.2	69.0	63.7	--
Legacy	LS-0935N	9/18	1.3	31	32.2	18.7	68.0	57.2	67.8	64.4	59.9
Legacy	LS-1138NRR2X	9/21	1.0	33	33.2	17.5	64.2	78.0	66.8	69.7	--
Legend	07X852N	9/17	1.2	31	32.3	18.1	60.5	59.8	66.8	62.3	58.2
Legend	09X960N	9/17	1.2	31	33.4	17.4	56.7	78.3	68.6	67.9	--
Legend	12X862N	9/21	1.0	32	33.5	17.9	70.5	62.0	64.9	65.8	60.1
Legend	14X862N	9/22	1.8	30	33.5	18.0	66.0	66.9	77.4	70.1	--
LG Seeds	0886RX	9/18	1.7	32	33.9	16.9	64.8	70.7	67.4	67.6	--
LG Seeds	0962RX	9/17	1.0	28	33.6	18.0	56.0	72.6	67.1	65.2	--
LG Seeds	1018RX	9/17	1.5	31	33.9	17.7	56.6	71.5	60.3	62.8	--
LG Seeds	1337RX	9/20	1.3	34	33.1	17.2	64.6	72.9	68.2	68.6	--
NK	S07-Q4X	9/16	1.0	28	34.0	17.5	63.3	66.0	67.9	65.7	--
NK	S12-R3	9/20	1.0	32	34.5	17.8	63.7	67.7	66.8	66.1	61.9
NuTech	6097R2	9/20	1.4	27	31.6	19.7	61.8	61.4	75.5	66.2	55.3
Peterson	18X11N	9/20	1.0	30	33.8	18.2	65.7	67.3	63.4	65.5	61.9
Peterson	19X10N	9/18	1.0	30	33.9	18.0	58.3	63.6	66.8	62.9	--
Peterson	18X08N	9/16	1.3	30	32.3	17.4	55.4	64.1	63.1	60.9	57.6
Prairie	1257R2	9/21	1.5	34	31.7	17.6	69.3	63.9	71.8	68.3	63.8
Proseed	XT71-10	9/21	1.0	31	33.7	18.1	62.0	69.1	74.1	68.4	--
Proseed	XT71-40	9/22	1.3	29	33.3	18.1	64.7	67.6	69.3	67.2	--
Proseed	XT80-80	9/17	1.2	31	33.2	17.7	58.6	66.4	67.8	64.3	--
REA	RX0929	9/18	1.8	30	34.5	17.3	60.4	78.3	73.0	70.6	--
REA	RX1027	9/19	1.2	31	33.4	17.9	58.8	70.4	69.6	66.3	62.8
Mean		9/19	1.2	31	33	18	62.0	68.8	68.2	66.4	60.5
CV %		3.6	40	4.2	2.5	3.0	8.9	12.9	6.3	9.8	--
LSD 0.05		1.7	0.6	2.2	1.3	0.9	8.7	14.1	6.8	6.0	--
LSD 0.10		1.4	0.5	1.9	1.1	0.7	7.4	12.0	5.8	5.1	--

Planted: Fairmount, May 13; Milnor, May 12; Walcott, May 12.

¹Maturity is date of 95 percent brown or tan pods.²Lodging: 0-none, 9-lying flat on the ground.

Table 10. 2018 NDSU Combined Southern Conventional and Liberty Link Soybean Locations in North Dakota - Author, T. Helms.

Company/ Brand	Variety	Maturity ¹ (date)	Plant Height (inch)	Plant Lodge ² (0-9)	Seed Yield				
					Fairmount	Milnor	Walcott	2018 3-site Avg. 2-yr. Avg.	
					------(bu/a)-----				
Brushvale	BS0858	9/12	30	1.2	58.0	60.1	60.1	59.4	51.8
Brushvale	BS1146	9/20	32	1.2	68.7	65.6	61.8	65.4	57.7
Brushvale	BS1247	9/21	33	1.0	70.2	67.1	66.7	68.0	59.6
Brushvale	BS1512	9/21	31	1.3	73.8	67.3	61.5	67.6	58.8
Dyna-Gro	S07LL57	9/15	32	1.0	66.6	63.6	61.3	63.9	54.1
Dyna-Gro	S11LL48	9/21	33	1.3	77.3	71.1	65.4	71.3	61.7
Integra	31228N	9/19	36	1.9	77.9	64.7	57.5	66.7	58.5
NDSU	ND Benson	9/12	28	1.0	55.3	62.9	42.6	53.6	47.4
NDSU	ND Henson	9/7	25	1.6	59.3	55.6	52.4	55.8	--
NDSU	ND Stutsman	9/16	33	1.4	64.3	69.0	60.5	64.6	58.9
Peterson	11-18N	9/20	32	1.5	79.3	69.6	67.2	72.0	60.8
Peterson	L12-16N	9/22	36	1.8	78.0	74.1	74.5	75.5	58.1
Richland	MK1016	9/15	33	1.5	54.9	58.2	43.1	52.1	45.0
Richland	MK146	9/20	31	1.4	72.4	63.5	60.3	65.4	--
Richland	MK41	9/12	32	1.9	69.9	64.6	62.5	65.7	--
Richland	MK808CN	9/16	31	1.7	64.7	64.8	60.5	63.3	56.1
--	RR2 check	9/16	35	1.2	71.2	69.5	60.7	67.1	--
--	RR2 late check	9/18	35	1.9	75.3	68.6	69.4	71.1	--
Mean		9/17	32	1.4	68.7	65.6	60.4	64.9	56.0
CV %		5.4	4.2	39	7.1	6.3	9.6	7.7	--
LSD 0.05		2.8	2.2	0.9	7.7	6.6	9.3	4.6	--
LSD 0.10		2.4	1.9	0.7	6.6	5.6	7.9	3.9	--

Planted: Fairmount, May 13; Milnor, May 12; Walcott, May 12.

¹Maturity is date of 95 percent brown or tan pods.²Lodging: 0-none, 9-lying flat on the ground.

Table 11. 2018 Soybean - Dryland, RR and Xtend - Carrington - Authors, M. Ostlie, B. Schatz and G. Endres (Page 1 of 2).

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Ht (inch)	Plant ² Lodge (0-9)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seeds/ pound (seeds)	Seed yield	
											2018	2-yr. Avg. ----(bu/a)----
Channel	0218R2X	0.2	9/5	4	32	1.8	57.9	17.9	36.9	3,698	31.3	44.2
Channel	0518R2X	0.5	9/8	7	28	0.8	58.2	17.0	38.5	3,743	32.2	44.9
Channel	0619R2X	0.6	9/8	4	26	0.8	58.0	16.8	39.1	4,161	29.2	--
Dairyland	DSR-0225/R2Y	0.2	8/31	5	34	0.8	58.1	18.5	36.3	4,258	30.8	44.6
Dairyland	DSR-0305/R2Y	0.3	9/6	4	26	0.8	57.8	17.4	38.0	3,942	31.8	--
Dairyland	DSR-0418/R2Y	0.4	9/7	7	33	0.8	58.6	16.6	39.3	3,795	28.7	43.6
Dairyland	DSR-0450R	0.4	9/3	4	30	1.0	58.2	17.1	38.7	3,721	27.5	--
Dairyland	DSR-0509R	0.5	9/8	6	29	0.8	58.5	17.6	37.0	3,518	35.7	--
Dairyland	DSR-0711/R2Y	0.7	9/9	5	30	0.5	58.6	16.7	37.7	4,249	26.7	--
Dairyland	DSR-0777/R2Y	0.7	9/10	5	30	2.8	58.0	17.3	37.8	3,886	24.4	--
Dairyland	DSR-0988/R2Y	0.9	9/11	7	29	2.3	57.7	17.0	37.6	3,977	24.3	--
Dairyland	DSR-C999/R2Y	00.9	9/4	4	28	1.0	57.9	17.8	37.1	3,694	34.2	--
Dyna-Gro	S03XT29	0.3	9/5	5	33	2.0	58.4	16.5	38.0	4,280	33.9	--
Dyna-Gro	S04XT77	0.4	9/8	4	27	2.0	58.0	17.4	38.3	3,932	32.7	47.5
Dyna-Gro	S05XT88	0.5	9/9	4	28	1.8	58.0	17.2	38.7	4,105	27.6	42.0
Dyna-Gro	S06XT59	0.6	9/11	5	29	1.5	57.5	17.2	36.9	3,728	26.0	39.2
Hefty	02X7	0.2	9/5	5	37	1.3	58.2	18.2	36.9	3,941	29.4	--
Hefty	02X9	0.5	9/5	4	29	0.8	58.2	16.7	37.7	4,278	27.6	--
Hefty	03X7	0.3	9/8	4	30	0.8	58.2	17.1	38.1	3,456	25.3	41.5
Hefty	04X8	0.4	9/8	3	27	1.5	58.0	16.9	39.5	4,042	29.7	--
Hefty	06X8	0.6	9/10	4	29	1.5	57.6	16.9	37.3	3,716	26.8	--
Integra	20215	0.2	9/4	4	29	0.5	57.6	17.5	38.0	3,882	44.3	51.5
Integra	20300	0.3	9/8	4	27	1.5	57.7	17.5	37.6	3,722	31.1	42.7
Integra	50309N	0.3	9/4	4	31	1.5	58.1	16.9	37.3	4,145	36.7	--
Integra	50539N	0.5	9/8	5	26	1.0	57.9	17.3	38.5	4,178	27.5	--
Legacy	LS-0334 RR2	0.3	9/9	7	29	1.8	57.8	17.1	38.5	3,887	32.8	45.5
Legacy	LS-0337N RR2X	0.3	9/7	3	27	1.3	58.1	17.4	38.3	4,037	27.6	45.2
Legacy	LS-0438 RR2X	0.4	9/8	4	30	2.5	57.9	17.1	38.9	4,122	33.8	46.9
Legacy	LS-0638N RR2X	0.6	9/11	4	30	1.0	57.8	16.8	37.5	3,867	28.1	42.7
Legacy	LS-0738N RR2X	0.7	9/10	5	29	1.8	58.6	16.6	38.3	4,322	26.7	41.2
Legend	LS 03X852N	0.3	9/4	3	29	1.8	58.5	16.8	37.7	4,313	29.2	--
Legend	LS 05X865N	0.5	9/6	4	28	1.8	58.1	17.1	38.9	4,456	35.7	--
Legend	LS 06X950N	0.6	9/8	5	32	0.3	57.9	17.4	37.2	3,812	30.9	--
Legend	LS01X850	0.1	9/4	4	33	1.0	58.7	17.1	37.1	4,303	34.7	46.1
LG Seeds	LGS0111RX	0.1	9/2	4	32	1.0	58.0	17.0	38.4	3,935	30.7	--
LG Seeds	LGS0355RX	0.3	9/5	4	28	1.0	58.5	16.7	37.9	4,244	31.1	--
LG Seeds	LGS0400RX	0.4	9/7	4	29	2.3	58.3	17.0	37.9	3,852	29.8	--
LG Seeds	LGS0550RX	0.5	9/6	4	29	2.8	58.2	17.0	39.1	4,215	30.5	--
NDSU	ND17009GT	00.9	9/2	5	32	1.0	59.5	16.5	39.8	3,979	31.3	40.2
NDSU	ND18008GT	00.8	8/31	3	30	0.5	58.6	17.8	37.1	4,190	28.7	36.6
Northstar	NS 60264NXR2	0.2	9/4	4	31	0.5	58.7	16.7	37.7	4,242	27.3	--
Northstar	NS 60442NXR2	0.3	9/5	3	28	1.3	58.3	17.5	38.2	4,234	30.8	42.8
Northstar	NS 60513 NXR2	0.5	9/8	3	29	2.5	58.3	17.1	39.1	4,235	24.2	43.5
Northstar	NS 60743NXR2	0.7	9/10	5	28	1.8	57.8	16.8	37.3	3,829	22.8	--
Northstar	NS 60823NXR2	0.8	9/9	6	27	2.5	58.1	16.7	38.5	4,115	30.6	--
Mean			9/6	4	29	1.4	58.1	17.2	37.9	3,977	30.4	44.3
CV %			1.6	34	10.0	78	0.6	1.9	1.3	5.9	24.5	--
LSD 0.05			2.4	2.1	4.1	1.4	0.5	0.5	0.7	9.4	10.3	--
LSD 0.10			2.1	1.7	3.4	1.2	0.4	0.4	0.6	7.9	8.7	--

Table 11. 2018 Soybean - Dryland, RR and Xtend - Carrington - Authors, M. Ostlie, B. Schatz and G. Endres (Page 2 of 2).

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Ht (inch)	Plant ² Lodge (0-9)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seeds/ pound (seeds)	Seed yield	
											2018	2-yr. Avg.
Nutech	6026	0.2	9/9	5	26	2.3	58.0	17.4	37.6	3,352	30.3	--
Nutech	6097R2	0.9	9/6	4	29	1.5	58.0	18.2	36.3	3,886	27.4	48.2
Peterson	17X04N	0.4	9/6	4	29	0.8	57.9	17.7	37.9	3,911	29.4	43.3
Peterson	18X06N	0.6	9/6	4	28	1.3	58.0	17.4	37.8	4,115	31.1	43.5
Peterson	19X03N	0.3	9/5	3	32	1.3	58.5	17.0	37.6	4,134	38.1	--
Prairie	PB-0578R2	0.5	9/6	6	30	1.8	59.1	16.4	39.1	4,039	22.6	38.9
Proseed	30-20		9/4	5	29	0.3	57.3	17.7	38.4	3,579	37.2	--
Proseed	80-20	0.2	9/4	5	28	0.8	58.3	16.9	37.8	4,231	32.6	--
Proseed	XT60-40	0.4	9/7	5	28	1.8	58.0	17.3	38.4	4,066	42.8	--
Proseed	XT7060		8/31	6	30	1.8	57.9	16.7	37.4	3,965	26.6	--
REA	RX0228	0.2	9/3	4	33	1.3	58.1	17.6	37.1	3,920	26.8	41.1
REA	RX0516	0.5	9/7	5	30	2.8	57.9	17.2	38.4	3,768	42.3	--
REA	RX0628	0.6	9/9	4	28	1.3	57.5	17.2	37.5	4,106	32.4	41.9
REA	RX0719	0.7	9/9	4	27	1.8	58.0	17.6	37.8	3,768	34.0	--
Thunder	3907 R2Y	0.7	9/9	4	26	3.3	58.0	17.0	39.3	3,570	28.4	--
Thunder	SB8903N	0.3	9/5	4	30	0.5	57.9	17.2	37.2	3,915	34.5	--
Thunder	SB8906N	0.6	9/9	5	31	0.8	57.9	17.5	36.9	3,938	29.9	--
Mean			9/6	4	29	1.4	58.1	17.2	37.9	3,977	30.4	44.3
CV %			1.6	34	10.0	78	0.6	1.9	1.3	5.9	24.5	--
LSD 0.05			2.4	2.1	4.1	1.4	0.5	0.5	0.7	9.4	10.3	--
LSD 0.10			2.1	1.7	3.4	1.2	0.4	0.4	0.6	7.9	8.7	--

Planted: May 22. Harvested: Sept 18. Previous crop: spring wheat.

¹Maturity is date of 95 percent brown or tan pods²Lodging: 0-none, 9-lying flat on the ground.**Table 12. 2018 Soybean - Irrigated, Conventional - Carrington - Authors, M. Ostlie, B. Schatz, K. Bjerke and C. VandeHoven.**

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Ht (inch)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
											2018	3-yr. Avg.
Conventional											-----(bu/a)----	
NDSU	Ashtabula	0.4	9/10	3	31	0.5	3,079	57.3	19.6	34.5	54.4	49.6
NDSU	ND Benson	0.4	9/16	4	30	0.5	3,073	57.4	18.4	37.2	51.9	50.1
NDSU	ND Bison	0.7	9/16	4	29	0.0	2,739	57.6	18.4	35.1	54.8	50.5
NDSU	ND Henson	0.0	9/4	3	29	1.0	3,117	58.0	19.4	35.1	53.8	49.1
NDSU	ND Stutsman	0.7	9/15	4	35	0.8	2,962	57.6	18.9	34.1	58.8	55.0
NDSU	Sheyenne	0.7	9/17	4	36	1.0	2,876	57.8	18.7	34.7	57.0	51.9
Mean			9/12	4	32	0.7	2,964	57.6	18.7	35.4	53.3	51.0
CV %			0.3	30	6.9	70	2.7	0.4	1.1	1.1	7.2	--
LSD 0.05			2.0	NS	3.1	1.2	112	0.4	0.3	0.5	5.5	--
LSD 0.10			1.7	NS	2.6	1.0	93	0.3	0.2	0.4	4.6	--

Planted: May 23. Harvested: Oct. 23. Previous crop: field pea.

¹Maturity is date of 95 percent brown or tan pods.²Lodging score: 1-upright, 9-flat on ground.

Table 13. 2018 Soybean - Irrigated, RR and Xtend - Carrington - Authors, M. Ostlie, B. Schatz, K. Bjerke and C. VandeHoven.

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Ht (inch)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield 2018 ----- (bu/a) -----	2-yr. Avg.
Dairyland	DSR-0305/R2Y	0.3	9/19	3	39	3.5	2,719	56.9	18.1	35.7	79.0	--
Dairyland	DSR-0418/R2Y	0.4	9/21	4	40	3.0	2,343	58.3	17.1	37.4	72.8	66.9
Dairyland	DSR-0418/R2Y	0.5	9/20	4	38	2.3	2,381	58.2	17.2	37.1	71.8	--
Dairyland	DSR-0450R	0.4	9/17	2	40	2.0	2,555	57.6	17.8	36.8	65.8	--
Dairyland	DSR-0509R	0.2	9/21	4	38	2.0	2,140	57.6	18.1	35.9	66.8	--
Dairyland	DSR-0509R	0.5	9/22	4	38	2.5	2,138	57.4	18.0	35.7	72.0	--
Dairyland	DSR-0711/R2Y	0.7	9/23	4	40	2.0	2,559	57.0	18.2	35.0	75.8	--
Dairyland	DSR-0777/R2Y	0.7	9/27	3	41	3.8	2,633	57.6	17.5	36.1	76.9	--
Dairyland	DSR-0988/R2Y	0.9	9/28	5	42	4.0	2,922	57.5	17.4	35.6	71.6	--
Dyna-Gro	S03XT29	0.3	9/19	3	39	3.0	3,033	57.5	17.6	35.3	76.7	--
Dyna-Gro	S04XT77	0.4	9/17	3	38	1.3	2,574	56.9	17.4	37.4	70.9	67.3
Dyna-Gro	S05XT88	0.5	9/18	3	39	3.0	2,571	56.5	17.9	36.9	81.7	72.4
Dyna-Gro	S06XT59	0.6	9/27	2	40	3.0	2,899	57.3	17.0	35.9	71.3	--
Integra	50309N	0.3	9/16	3	38	3.5	2,977	57.2	17.7	35.3	79.0	--
Integra	50539N	0.5	9/21	4	38	2.3	2,644	56.4	18.0	36.5	80.9	--
Legacy	LS-0334 RR2	0.3	9/26	3	38	2.0	2,806	57.2	17.8	36.4	77.6	72.2
Legacy	LS-0337N RR2X	0.3	9/16	3	38	2.0	2,628	56.9	17.6	37.2	79.2	71.3
Legacy	LS-0438 RR2X	0.4	9/19	3	37	2.0	2,646	56.5	18.1	36.2	78.9	72.3
Legacy	LS-0638N RR2X	0.6	9/25	3	40	3.3	2,919	56.8	17.3	35.2	72.0	66.0
Legtacy	LS-0738N RR2X	0.7	9/26	4	41	2.5	2,612	56.7	16.9	36.9	75.9	70.3
LG Seeds	LGS0355RX	0.3	9/18	3	38	3.0	3,007	57.3	17.6	35.4	67.1	--
LG Seeds	LGS0550RX	0.5	9/20	3	36	2.3	2,614	56.7	17.8	36.7	77.3	--
LG Seeds	LGS0774RX	0.7	9/27	4	39	3.3	2,916	57.4	17.2	35.4	69.4	--
LG Seeds	LGS0886RX	0.8	9/27	4	41	2.8	2,748	57.2	16.7	37.6	72.7	--
NDSU	ND17009GT	0.9	9/10	2	39	2.5	2,679	59.0	18.3	37.3	64.2	--
NDSU	ND18008GT	0.8	9/9	3	39	1.5	2,869	57.5	18.4	36.8	65.5	--
NuTech	6097R2	0.9	9/23	3	38	2.8	2,490	56.8	19.6	33.2	85.8	77.8
Peterson	17X04N	0.4	9/15	3	38	1.3	2,631	56.8	17.5	36.9	77.8	70.6
Peterson	18X06N	0.6	9/24	3	40	3.3	2,741	57.0	17.3	37.6	70.7	67.3
Peterson	19X03N	0.3	9/18	3	38	2.5	3,044	57.3	17.8	35.2	73.2	--
Proseed	30-20	0.2	9/14	4	41	2.0	2,494	56.6	18.0	36.2	74.9	--
Proseed	80-20	0.2	9/17	3	39	3.5	3,000	57.3	17.7	35.3	78.7	--
Proseed	XT60-40	0.4	9/17	3	37	2.3	2,562	56.5	17.5	37.0	75.7	--
REA	RX0228	0.2	9/15	3	42	2.3	2,593	57.7	18.3	35.5	66.6	62.7
REA	RX0516	0.5	9/21	3	36	3.3	2,729	57.5	16.7	37.3	76.7	--
REA	RX0628	0.6	9/23	3	41	2.8	2,735	56.3	17.7	36.5	69.8	66.3
REA	RX0719	0.7	9/23	4	39	2.5	2,677	56.9	17.6	37.0	77.4	--
REA	RX0929	0.9	9/28	4	40	3.5	2,485	57.2	16.5	38.4	79.3	--
Thunder	3907 R2Y	0.7	9/25	4	38	3.3	2,599	57.3	17.3	37.1	85.9	--
Thunder	SB8903N	0.3	9/17	2	40	3.3	2,969	57.2	17.7	35.3	77.7	--
Thunder	SB8906N	0.6	9/23	3	42	3.8	2,550	56.5	17.6	36.1	77.3	--
Mean			9/20	3	39	2.7	2,679	57.2	17.6	36.3	74.6	69.5
CV %			2.1	31	5.0	35	3	0.4	1.4	1.2	7.9	--
LSD 0.05			3.5	1.4	2.7	1.3	92	0.3	0.3	0.6	8.1	--
LSD 0.10			3.0	1.2	2.3	1.1	77	0.3	0.3	0.5	6.8	--

Planted: May 23. Harvested: Oct. 23. Previous crop: Faba bean.

¹Maturity is date of 95 percent brown or tan pods.²Lodging: 0-none, 9-lying flat on the ground.

Table 14. 2018 Soybean - Dryland, Conventional - Carrington - Authors, M. Ostlie, B. Schatz and G. Endres.

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Ht (inch)	Plant Lodge (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
											2018 ²	3-yr. Avg.
											---(bu/a)---	
NDSU	Ashtabula	0.4	8/30	4	33	1.0	4,620	58.6	17.8	36.9	25.4	45.4
NDSU	ND Benson	0.4	9/6	4	28	0.8	4,243	58.6	17.4	39.1	21.3	41.5
NDSU	ND Bison	0.7	9/5	3	26	0.5	4,262	58.7	17.4	36.9	21.3	--
NDSU	ND Henson	0.0	8/29	3	29	1.0	4,463	58.9	17.3	37.6	22.6	38.7
NDSU	ND Stutsman	0.7	9/3	4	32	0.3	4,446	58.9	17.3	37.5	24.8	51.1
NDSU	Sheyenne	0.7	9/5	5	32	0.5	4,011	58.7	17.1	38.0	27.6	49.4
Richland	MK0249	0.2	9/6	5	26	0	5,622	58.8	15.9	38.4	20.1	40.5
Richland	MK0508	0.8	9/9	5	26	0.5	5,308	59.2	15.8	38.5	10.5	35.2
Richland	MK0603	0.6	9/8	4	31	0.8	5,600	58.3	15.0	38.7	14.8	36.6
Richland	MK42	00.7	9/5	5	29	0.8	3,247	58.3	16.3	40.4	18.4	--
Richland	MK808CN	0.8	9/7	3	30	0.3	4,356	58.7	17.6	37.2	15.3	43.0
Thunder	5605 LLN	0.5	9/6	5	25	1.0	4,132	58.5	17.5	38.8	16.8	--
Thunder	5707 LLN	0.7	9/6	3	25	1.0	3,540	58.8	16.0	38.0	16.2	--
Thunder	5803 LL	0.3	9/6	5	27	1.3	3,826	57.9	17.7	38.4	21.5	--
--	RR Check 1	00.9	8/29	4	32	0.8	3,716	58.6	17.9	36.2	25.4	--
--	RR Check 2	00.6	8/29	3	30	1.0	3,345	58.0	18.0	36.4	22.6	--
--	RR Check 3	00.8	9/27	3	28	2.8	3,895	58.2	17.5	37.5	25.1	--
--	RR Check 4	0.9	9/8	4	32	1.5	3,249	57.4	17.6	37.9	19.6	--
Mean			9/5	4	29	0.9	4,216	58.5	17.1	37.9	20.5	42.4
CV %				37	11.4	64	4.6	0.6	2.1	1.6	26.6	--
LSD 0.05				NS	4.6	0.8	276	0.5	0.5	0.9	7.5	--
LSD 0.10				NS	3.9	0.7	231	0.4	0.4	0.7	6.2	--

Planted: May 23. Harvested: Sept. 17. Previous crop: spring wheat.

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

²High CV % for yield. Use data with caution.

Table 15. 2018 Soybean - Dryland, RR and Xtend - Dazey (Carrington REC) - Authors, M. Ostlie, B. Schatz and T. Indergaard.

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Ht (inch)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
											2018	2-yr. Avg.	3-yr. Avg.
Channel	0619R2X	0.6	9/8	2	35	2.7	2,932	56.2	18.5	35.5	70.7	--	--
Channel	0819R2X	0.8	9/9	3	36	1.7	2,674	56.4	17.8	36.0	72.8	--	--
Channel	1017R2X	1.0	9/10	3	36	2.3	2,533	56.7	18.2	35.3	71.9	64.4	--
Dairyland	DSR-0509R	0.5	9/9	2	35	3.0	2,681	56.8	19.3	34.3	66.6	--	--
Dairyland	DSR-0418/R2Y	0.5	9/9	3	37	2.7	2,771	57.7	18.3	35.4	69.4	--	--
Dairyland	DSR-0711/R2Y	0.7	9/9	3	36	3.7	2,882	56.7	19.2	33.8	71.2	--	--
Dairyland	DSR-0777/R2Y	0.7	9/10	3	37	2.7	2,876	56.8	18.5	35.2	73.4	--	--
Dairyland	DSR-0988/R2Y	0.9	9/12	3	38	3.2	2,690	57.0	18.1	35.2	73.4	67.2	68.2
Dairyland	DSR-0988/R2Y	0.9	9/12	3	37	2.7	2,771	57.1	18.1	35.2	71.0	--	--
Dairyland	DSR-1120/R2Y	1.1	9/13	4	38	4.0	2,608	56.0	19.5	34.5	71.4	--	--
Dairyland	DSR-1313/R2Y	1.3	9/14	3	37	3.7	2,789	57.1	18.5	35.8	73.9	--	--
Dyna-Gro	S06XT59	0.6	9/8	3	36	3.0	2,680	56.7	18.7	33.2	69.2	--	--
Dyna-Gro	S07XT28	0.7	9/9	3	37	2.3	2,826	56.9	18.7	33.9	66.0	63.6	--
Dyna-Gro	S09XT39	0.9	9/12	4	37	2.7	2,785	57.2	18.2	36.1	69.9	--	--
Integra	20468	0.4	9/7	3	36	3.0	2,388	56.4	18.7	34.7	70.8	--	--
Integra	20775N	0.7	9/9	3	37	2.3	2,584	56.7	18.6	34.9	67.1	64.9	67.3
Legacy	LS-0638N RR2X	0.6	9/8	3	37	2.7	2,995	56.5	18.6	33.5	70.2	65.4	--
Legacy	LS-0738N RR2X	0.7	9/10	3	36	2.3	2,648	56.3	18.5	35.0	71.8	66.4	--
Legacy	LS-0935N RR2	0.9	9/12	3	38	2.7	2,906	56.6	18.5	34.8	75.4	68.3	69.3
Legacy	LS-1138N RR2X	1.1	9/13	3	35	3.3	2,942	56.9	18.6	35.6	75.8	68.2	--
LG Seeds	LGS0550RX	0.5	9/9	2	33	2.0	2,763	55.8	18.8	35.9	70.2	--	--
LG Seeds	LGS0774RX	0.7	9/10	3	36	3.0	2,586	56.4	18.2	34.2	71.1	--	--
LG Seeds	LGS0886RX	0.8	9/11	3	36	2.7	2,658	56.6	17.8	36.1	67.0	--	--
NDSU	ND18008GT	00.8	8/26	2	33	2.3	2,683	57.4	18.8	36.0	47.0	--	--
NDSU	ND17009GT	00.9	8/31	3	37	2.7	2,561	58.2	18.4	37.4	50.3	51.7	--
NuTech	6097R2	0.9	9/8	3	35	1.7	2,600	56.2	20.3	32.4	73.4	66.9	65.3
Peterson	18X06N	0.6	9/10	2	36	3.0	2,248	56.9	18.5	35.7	67.2	62.8	--
Peterson	18X07N	0.7	9/9	3	37	3.3	2,525	56.6	18.4	33.9	65.9	60.8	--
Peterson	18X08N	0.8	9/10	2	37	3.0	2,668	56.5	18.3	35.7	74.7	68.9	--
Proseed	XT70-70	0.7	9/10	3	36	2.7	2,798	56.5	18.6	34.5	68.1	--	--
Proseed	XT 80-80	0.8	9/10	3	36	2.0	3,832	56.9	18.6	35.0	71.1	--	--
Proseed	30-80	0.8	9/10	3	37	2.0	3,011	56.7	18.3	35.5	67.6	64.0	65.4
Thunder	SB8906N	0.6	9/9	3	38	2.3	3,299	55.8	18.8	34.8	71.7	--	--
Thunder	3907 R2Y	0.7	9/11	3	35	2.0	3,841	57.2	18.4	35.9	72.0	--	--
Thunder	SB8909N	0.9	9/10	2	35	2.3	3,146	56.9	18.6	35.0	75.4	--	--
Mean			9/9	3	36	2.7	2,805	56.7	18.6	35.0	69.6	64.5	67.1
CV %			1.5	24	5.7	41	3.4	0.7	1.2	1.4	6.4	--	--
LSD 0.05			2.3	NS	2.9	NS	154	0.6	0.4	0.8	7.1	--	--
LSD 0.10			1.9	0.8	2.4	NS	128	0.5	0.3	0.7	6.0	--	--

Planted: May 21. Harvested: Oct. 22. Previous crop: spring wheat.

¹Maturity is date of 95 percent brown or tan pods.²Lodging: 0-none, 9-lying flat on the ground.

Table 16. 2018 Soybean - Irrigated, Conventional and Liberty Link - Oakes (Carrington REC) - Authors, K. Cooper, H. Eslinger and S. Nelson.

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
									2018	2-yr. ---(bu/a)---
Conventional										
NDSU	Ashtabula	0.4	9/8	6.0	2,730	55.4	19.6	33.0	63.3	64.3
NDSU	ND Benson	0.4	9/10	1.3	2,805	56.0	18.2	35.7	64.2	63.0
NDSU	ND Bison	0.7	9/12	2.5	2,480	56.9	18.2	34.2	76.7	74.6
NDSU	ND Stutsman	0.7	9/12	4.0	2,596	57.0	18.4	33.7	84.0	85.4
NDSU	Sheyenne	0.7	9/12	5.0	2,553	56.9	18.1	34.4	74.7	76.6
Richland	MK0508	0.8	9/13	7.3	5,264	57.7	17.0	33.7	48.8	47.7
Richland	MK0603	0.6	9/13	7.0	4,788	56.4	16.3	35.9	59.1	57.3
Richland	MK1016	1.0	9/13	5.0	4,988	57.7	16.2	36.5	60.4	56.2
Richland	MK146	1.1	9/15	4.8	2,454	56.8	17.8	37.0	80.2	--
Richland	MK41	1.1	9/9	6.8	2,232	56.4	17.3	36.9	76.7	75.8
Richland	MK42	0.7	9/12	7.5	2,207	56.7	17.4	37.1	65.2	--
Richland	MK808CN	0.8	9/13	6.8	2,959	57.0	19.1	33.1	60.6	60.7
Richland	MK9101	1.0	9/14	4.5	2,004	56.3	19.5	34.3	68.9	67.9
Liberty Link										
Integra	31228NLL	1.2	9/21	5.5	2,040	56.3	17.7	36.5	88.4	--
Mean			9/12	5.3	3,007	56.7	17.9	35.1	69.4	66.3
CV %			1.1	17.3	3.1	0.9	1.5	1.1	8.0	--
LSD 0.05			1.7	1.3	137	0.8	0.4	0.5	7.6	--
LSD 0.10			1.4	1.1	114	0.6	0.3	0.4	6.3	--

Planted: May 25. Harvested: Oct. 22 and 23. Previous crop: field corn.

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

²Lodging: 0-none, 9-lying flat on the ground.

Table 17. 2018 Soybean - Conventional and Liberty Link - Dazey (Carrington REC) - Authors, M. Ostlie, B. Schatz and T. Indergaard.

Company/ Brand	Variety	Type	Mat. Group	Maturity ¹ (date)	Plant Lodge ² (0-9)	Plant Height (inch)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield 2018 3-yr. ---(bu/a)---	
Integra	30808N	LL	0.8	9/10	1.0	36	2,648	56.7	17.7	34.2	72.7	--
NDSU	Ashtabula	Conv	0.4	9/2	1.3	39	3,556	56.5	19.0	34.8	59.4	57.3
NDSU	ND Benson	Conv	0.4	9/6	1.3	36	3,267	56.3	18.8	36.1	63.6	59.6
NDSU	ND Bison	Conv	0.7	9/6	0.8	33	2,848	56.4	19.0	33.7	73.4	67.4
NDSU	ND Henson	Conv	0	8/30	0.8	32	3,716	57.6	18.5	36.1	57.8	57.0
NDSU	ND Stutsman	Conv	0.7	9/7	1.8	41	3,353	56.9	19.1	33.3	62.1	65.0
NDSU	Sheyenne	Conv	0.7	9/5	1.8	44	3,123	56.6	18.5	34.8	67.3	62.2
Richland	MK0249	Conv	0.2	9/5	1.5	36	4,590	56.0	17.7	34.9	54.1	53.9
Richland	MK0508	Conv	0.8	9/11	3.0	37	4,355	57.0	17.0	36.4	58.3	52.5
Richland	MK0603	Conv	0.6	9/12	1.8	36	4,574	55.2	16.7	36.7	54.5	50.9
Richland	MK1016	Conv	1	9/9	2.5	40	4,786	56.7	17.0	36.6	58.4	52.9
Richland	MK146	Conv	1.1	9/12	0.8	35	2,586	55.3	17.6	37.9	70.3	--
Richland	MK41	Conv	1.1	9/7	2.0	35	2,802	56.4	17.1	36.8	64.3	62.9
Richland	MK42	Conv	00.7	9/6	1.8	34	2,468	56.7	17.5	37.7	63.1	--
Richland	MK808CN	Conv	0.8	9/9	2.8	42	3,116	56.5	19.0	34.4	72.2	64.0
Richland	MK9101	Conv	1	9/11	1.5	39	2,194	56.3	--	--	64.6	56.5
Thunder	5605 LLN	LL	0.5	9/8	1.3	33	2,576	55.8	19.3	35.5	72.1	--
Thunder	5707 LLN	LL	0.7	9/10	1.0	37	2,447	56.9	17.6	34.6	72.5	--
--	RR Check 1	RR ³	00.6	8/27	1.8	40	2,973	56.1	18.8	34.9	56.9	55.5
--	RR Check 2	RR ³	00.8	8/27	0.5	33	3,463	56.4	18.5	35.2	58.1	--
--	RR Check 3	RR ³	00.9	8/27	1.0	36	3,134	56.6	18.9	34.3	60.2	57.2
--	RR Check 4	RR ³	0.9	9/10	1.3	39	2,423	55.2	18.8	35.6	73.2	69.8
Mean				9/6	1.5	37	3,227	56.4	18.2	35.4	64.1	59.0
CV %				1.4	75	7.9	4.6	1.1	1.8	1.7	8.1	--
LSD 0.05				2.1	NS	4.1	209	0.8	0.5	0.8	7.3	--
LSD 0.10				1.8	NS	3.4	175	0.7	0.4	0.7	6.1	--

Planted: May 21. Harvested: Sept. 25. Previous crop: spring wheat.

¹Maturity is date of 95 percent brown or tan pods.²Lodging score: 0-upright, 9-flat on ground.³Roundup Ready check variety.

Table 18. 2018 Soybean - Dryland, RR and Xtend - LaMoure (Carrington REC) - Authors, T. Helms and B. Schatz.

Company/ Brand	Variety	Maturity		Plant Lodge ²	Seed Yield		
		Group	Maturity ¹ (date)		2018	2-yr. Avg.	3-yr. Avg.
Dairyland	DSR-0711/R2Y	0.7	9/14	1.0	55.3	--	--
Dairyland	DSR-0777/R2Y	0.7	9/11	1.0	51.3	--	--
Dairyland	DSR-0988/R2Y	0.9	9/12	1.0	52.5	56.5	63.2
Dairyland	DSR-1120/R2Y	1.1	9/18	1.3	52.2	53.6	59.8
Dairyland	DSR-1313/R2Y	1.3	9/17	1.0	56.6	60.7	--
Dairyland	DSR-1509R	1.4	9/17	1.0	52.7	--	--
Dyna-Gro	S07XT28	0.7	9/9	1.0	49.5	50.7	--
Dyna-Gro	S09XT39	0.9	9/12	1.0	46.4	--	--
Dyna-Gro	S11XT78	1.1	9/13	1.0	51.9	56.6	--
Integra	50989N	0.9	9/11	1.0	46.3	--	--
Legacy	LS-0738N RR2X	0.7	9/13	1.3	50.3	--	--
Legacy	LS-0935N RR2	0.9	9/10	1.0	50.8	53.1	61.5
Legacy	LS-1138N RR2X	1.1	9/15	1.0	49.9	55.7	--
Legend	LS 07X852N	0.7	9/10	1.0	47.5	--	--
Legend	LS 09X960N	0.9	9/12	1.0	48.1	--	--
Legend	LS 12X862N	1.2	9/14	1.0	50.8	--	--
Legend	LS 14X862N	1.4	9/15	1.0	49.4	--	--
LG Seeds	LGS0550RX	0.5	9/8	1.0	45.3	--	--
LG Seeds	LGS0886RX	0.8	9/13	1.0	52.6	--	--
LG Seeds	LGS0962RX	0.9	9/12	1.3	49.0	--	--
LG Seeds	C1000RX	1.0	9/16	1.0	53.7	--	--
NuTech	6097R2	0.9	9/10	1.0	52.4	54.0	63.7
NuTech	6136X	1.3	9/13	1.0	48.5	--	--
Peterson	18X08N	0.8	9/9	1.3	43.6	47.9	--
Peterson	19X10N	1.0	9/12	1.0	44.9	--	--
Prairie	PB-1257R2	1.2	9/15	1.7	54.1	--	--
Proseed	XT 80-80	0.8	9/11	1.0	46.0	--	--
Proseed	30-80	0.8	9/11	1.7	52.4	57.1	--
Proseed	XT 71-10	1.1	9/13	1.0	52.3	--	--
Mean			9/13	1.1	50.2	54.6	62.1
CV %			4.3	23.2	7.2	--	--
LSD 0.05			3.0	0.4	5.8	--	--
LSD 0.10			2.5	0.4	4.9	--	--

Planted: May 19. Previous crop: Oct. 19.

¹Maturity is date of 95 percent brown or tan pods.²Lodging: 0-none, 9-lying flat on the ground.

Table 19. 2018 Soybean - Dryland, Conventional - LaMoure (Carrington REC) - Authors, T. Helms and B. Schatz.

Company/ Brand	Variety	Maturity Group	Maturity ¹ (date)	Plant Lodge ² (0-9)	Seed Yield	
					2018	3-yr. Avg.
NDSU	ND Benson	0.4	9/9	1.7	48.4	53.6
NDSU	ND Stustman	0.7	9/15	2.7	59.9	65.2
Richland	MK0508	0.8	9/12	4.0	36.6	45.7
Richland	MK0603	0.6	9/14	3.8	48.5	54.6
Richland	MK1016	1.0	9/10	3.3	39.2	46.2
Richland	MK146	1.1	9/20	1.8	54.5	--
Richland	MK41	1.1	9/11	3.5	48.6	58.9
Richland	MK42	0.7	9/13	2.2	44.9	53.8
Richland	MK808CN	0.8	9/14	3.5	53.2	57.1
Richland	MK9101	1.0	9/15	3.0	35.5	48.4
Mean			9/15	2.7	48.8	53.7
CV %			8.8	22.8	11.0	--
LSD 0.05			6.4	1.0	8.7	--
LSD 0.10			5.4	0.9	7.4	--

Planted: May 10. Previous crop: Oct. 19.

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

²Lodging: 0-none, 9-lying flat on the ground.

Table 20. 2018 Soybean - Dryland, Organic - Carrington - Authors, S. Zwinger and S. Schaubert.

Company/ Brand	Variety	Mat. Group	Seeds/ Pound (seeds)	Plant Height (inch)	Seed Oil %	Seed Protein %	Test Weight (lb/bu)	Seed Yield	
								2018	3-yr. Avg.
NDSU	Ashtabula	0.4	4,729	36	17.9	36.9	55.8	25.0	30.7
NDSU	ND Benson	0.4	4,597	30	17.0	40.0	56.2	20.8	31.8
NDSU	ND Bison	0.7	4,331	28	17.3	37.5	55.8	20.8	33.1
NDSU	ND Henson	0.0	4,450	30	17.4	37.7	56.3	27.1	31.2
NDSU	ND Stutsman	0.7	4,471	35	17.6	37.1	56.2	25.4	34.5
NDSU	ND1406HP	0.6	3,706	34	16.2	40.1	55.9	28.0	31.6
NDSU	Prosoy	0.8	3,651	36	16.2	40.5	55.3	23.1	35.2
NDSU	Sheyenne	0.6	4,451	34	17.1	38.2	56.1	22.8	30.3
NDSU	Traill	0.0	3,911	33	18.5	36.6	56.2	31.2	27.8
Mean			4,255	33	17.2	38.3	56.0	24.9	31.8
CV %			6.1	6.3	2.9	1.5	0.7	16.8	--
LSD 0.05			378	3	0.7	0.8	0.6	6.1	--
LSD 0.10			314	2.5	0.6	0.7	0.5	5.0	--

Planted: May 22. Harvested: Sept. 18. Previous crop: oat.

Table 21. 2018 Soybean - Dryland, RR and Xtend - Wishek (Carrington REC) - Authors, M. Ostlie, B. Schatz and T. Indergaard.

Company/ Brand	Variety	Maturity		Pod Ht	Plant Ht	Plant Lodge ²	Seeds/ Pound	Test Weight	Seed Oil	Seed Protein	Seed Yield	
		Group	Maturity ¹ (date)								2018	3-yr. Avg.
Channel	0819R2X	0.8	9/8	4	27	1.0	3,097	57.5	16.9	38.4	40.3	--
Channel	1117R2X	1.1	9/10	3	27	1.0	2,845	57.1	18.0	37.1	40.9	--
Channel	1219R2X	1.2	9/7	3	29	1.5	3,571	57.5	17.9	36.9	42.7	--
Dairyland	DSR-1509R	1.4	9/12	5	25	1.5	3,067	57.5	16.6	39.4	30.7	--
Legacy	LS-0738N RR2X	0.7	9/7	4	28	1.0	3,123	57.6	17.5	38.0	39.2	--
Legacy	LS-0935N RR2	0.9	9/9	5	28	1.0	2,885	56.8	17.7	37.2	48.5	51.6
Legacy	LS-1138N RR2X	1.1	9/10	5	27	1.3	2,783	57.2	17.7	38.4	44.2	--
LG Seeds	LGS0774RX	0.7	9/9	2	27	2.3	2,956	57.2	17.0	37.7	39.3	--
LG Seeds	LGS0886RX	0.8	9/8	5	27	1.0	3,043	57.7	17.0	38.8	38.2	--
LG Seeds	C1000RX	1.0	9/11	5	24	1.5	2,671	57.3	17.4	38.8	36.1	--
LG Seeds	C1337RX	1.3	9/11	4	29	1.3	2,901	57.2	17.6	37.5	40.4	--
LG Seeds	LGS1575RX	1.5	9/12	4	29	1.3	2,899	56.6	16.9	38.1	44.9	--
NDSU	ND17009GT	00.9	8/26	5	29	1.0	3,561	59.1	16.6	40.4	33.4	--
NuTech	6097R2	0.9	9/6	3	27	1.3	3,058	57.3	19.1	35.8	40.8	47.9
NuTech	6136X	1.3	9/10	5	26	1.3	2,461	56.9	17.9	37.7	34.7	--
Peterson	18X08N	0.8	9/7	4	27	1.0	2,905	57.7	17.5	38.1	40.7	--
Proseed	XT70-60	0.7	9/6	4	30	1.0	3,167	57.1	17.8	36.1	41.1	--
Proseed	XT 80-80	0.8	9/8	5	30	1.0	2,897	57.7	17.3	38.6	45.1	--
Proseed	30-80	0.8	9/9	5	30	1.8	2,890	57.1	17.5	37.8	40.8	--
REA	RX0516	0.5	9/2	4	27	0.8	3,129	57.6	17.4	38.0	37.7	--
REA	RX0628	0.6	9/5	4	26	0.8	3,090	56.8	17.5	38.3	38.1	--
REA	RX0719	0.7	9/4	5	25	1.3	3,004	57.1	18.1	37.4	38.4	--
REA	RX0929	0.9	9/8	4	30	1.0	2,919	57.2	16.9	38.4	49.0	--
REA	RX1027	1.0	9/9	4	29	1.0	2,868	57.5	17.2	37.8	43.2	--
Mean			9/7	4	28	1.2	2,991	57.3	17.4	37.9	40.4	49.8
CV %			1.3	31	10.4	69	4.2	0.8	2.0	1.8	15.1	--
LSD 0.05			1.9	NS	NS	NS	179	0.6	0.5	1.0	8.5	--
LSD 0.10			1.6	NS	3.4	NS	150	0.5	0.4	0.8	7.1	--

Planted: May 25. Harvested: Oct. 16. Previous crop: spring wheat.

¹Maturity is date of 95 percent brown or tan pods.²Lodging score: 1-upright, 9-flat on ground.

Table 22. 2018 Soybean - Dryland, Conventional - Wishek (Carrington REC) - Authors, M. Ostlie, B. Schatz and T. Indergaard.

Company/ Brand	Variety	Maturity		Pod	Plant	Plant	Seeds/	Test	Seed	Seed	Seed Yield	
		Group	Maturity ¹ (date)	Ht (inch)	Ht (inch)	Lodge ² (0-9)	Pound (seeds)	Weight (lb/bu)	Oil (%)	Protein (%)	2018 -----	3-yr. Avg. (bu/a)-----
NDSU	Ashtabula	0.4	9/1	4	28	1.0	4,026	56.4	17.1	38.6	33.5	42.5
NDSU	ND Benson	0.4	9/2	5	27	1.0	3,884	55.9	16.9	39.6	35.0	41.7
NDSU	ND Bison	0.7	9/4	5	26	0	3,625	56.6	17.0	37.7	38.6	45.9
NDSU	ND Henson	0.0	8/27	5	29	1.8	4,527	58.3	16.1	39.4	34.8	44.1
NDSU	ND Stutsman	0.7	8/31	5	29	2.0	4,479	57.1	16.8	38.2	39.3	50.8
NDSU	Sheyenne	0.7	9/2	6	34	0.8	4,072	55.5	16.3	39.0	41.6	43.7
Richland	MK0508	0.8	9/11	6	31	0.5	4,322	55.6	15.4	39.9	34.4	41.4
Richland	MK0603	0.6	9/6	4	26	1.3	4,108	55.7	15.5	40.2	35.6	41.3
Richland	MK1016	1.0	9/6	4	28	0.5	5,476	55.6	15.6	39.4	36.1	40.4
Richland	MK146	1.1	9/10	3	25	2.3	2,785	55.3	16.3	40.7	42.5	--
Richland	MK41	1.1	8/31	4	31	1.3	3,678	57.0	14.6	41.5	34.1	44.7
Richland	MK42	00.7	9/2	4	31	0.5	3,096	56.9	15.4	41.6	35.9	45.7
Richland	MK808CN	0.8	9/4	4	33	0.8	3,525	55.2	17.5	37.6	40.9	48.7
Richland	MK9101	1.0	9/11	6	32	1.8	2,515	55.9	--	--	37.3	42.5
Mean			9/3	4	29	1.1	3,866	56.2	16.2	39.5	37.1	44.1
CV %			2.7	33	11.9	67	9.2	1.4	4.1	2.9	17.9	--
LSD 0.05			3.9	NS	4.8	1.1	519	1.1	0.9	1.6	NS	--
LSD 0.10			3.2	NS	4	0.9	434	0.9	0.8	1.4	7.4	--

Planted: May 25. Harvested: Sept. 26. Previous crop: spring wheat.

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

²Lodging score: 1-upright, 9-flat on ground.

Table 23. 2018 Soybean - Irrigated, RR and Xtend - Oakes (Carrington REC) - Authors, K. Cooper, L. Besemann and H. Eslinger.

Company/ Brand	Variety	Maturity Group	Maturity ¹ (date)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
									2018	2-yr. Avg. (bu/a)	3-yr. Avg.
Dairyland	DSR-0711/R2Y	0.7	9/14	5	2,308	55.6	18.5	34.5	78.2	--	63.8
Dairyland	DSR-0777/R2Y	0.7	9/13	4	2,602	56.3	18.2	34.5	79.3	--	--
Dairyland	DSR-0988/R2Y	0.9	9/14	4	2,744	55.9	17.9	33.9	80.3	78.1	68.4
Dairyland	DSR-1120/R2Y	1.1	9/16	5	2,203	57.2	19.0	34.2	88.3	77.9	68.1
Dairyland	DSR-1313/R2Y	1.3	9/17	4	2,530	56.8	18.2	34.7	87.8	79.0	72.6
Dairyland	DSR-1509R	1.4	9/22	2	2,631	56.2	17.1	37.3	81.3	--	--
Dyna-Gro	S09XT39	0.9	9/13	2	2,684	56.7	17.5	36.3	79.3	--	--
Dyna-Gro	S11XT78	1.1	9/16	4	2,355	56.3	17.8	35.6	61.9	63.3	--
Dyna-Gro	S12XT07	1.2	9/20	7	2,524	56.4	18.0	35.0	78.6	--	--
Dyna-Gro	S14XT98	1.4	9/19	2	2,582	56.0	18.1	35.1	82.8	--	--
Integra	51229N	1.2		2	2,642	49.4	18.8	34.7	72.5	--	--
Legacy	LS-0738N RR2X	0.7	9/15	5	2,640	55.5	17.7	35.4	80.5	--	--
Legacy	LS-0935N RR2	0.9	9/13	4	2,496	56.2	18.4	34.0	81.7	77.7	70.5
Legacy	LS-1138N RR2X	1.1	9/15	3	2,445	56.5	18.0	35.6	82.1	77.4	--
LG Seeds	C1000RX	1.0	9/16	4	2,408	56.3	17.8	35.7	84.2	--	--
LG Seeds	C1337RX	1.3	9/17	6	2,521	56.3	18.0	35.0	81.6	--	--
LG Seeds	LGS0886RX	0.8	9/14	3	2,725	56.2	17.1	36.6	56.0	--	--
LG Seeds	LGS0962RX	0.9	9/12	3	2,486	56.0	18.0	35.4	83.3	--	--
LG Seeds	LGS1575RX	1.5	9/19	4	2,786	55.9	17.8	34.6	87.7	--	--
NuTech	6097R2	0.9	9/16	5	2,271	56.4	19.6	32.4	83.7	80.1	70.9
NuTech	6136X	1.3	9/21	5	2,328	56.2	18.6	34.1	83.6	--	--
Peterson	18X11N	1.1	9/17	4	2,391	56.2	17.8	35.9	83.0	77.2	--
Prairie	PB-0987R2	0.9	9/14	3	2,787	56.2	18.0	33.9	85.2	77.7	69.4
Prairie	PB-1257R2	1.2	9/18	7	2,872	56.1	18.3	33.8	84.2	78.0	71.1
Proseed	XT 71-10	1.1	9/16	4	2,447	56.4	17.7	35.7	80.7	--	--
Proseed	XT 71-40	1.4	9/17	4	2,507	56.2	18.2	35.0	79.5	--	--
REA	RX0929	0.9	9/15	4	2,459	57.5	17.2	36.1	84.0	--	--
REA	RX1027	1.0	9/14	2	2,508	55.4	17.8	35.0	79.0	76.3	--
REA	RX1439	1.4	9/17	5	2,439	56.0	18.3	35.5	88.9	--	--
Mean			9/16	4	2,528	56.0	18.0	35.0	80.7	76.6	69.3
CV %			2.0	28	3.3	2.1	1.0	0.9	14.7	--	--
LSD 0.05			3.2	1.5	118	1.7	0.3	0.4	16.6	--	--
LSD 0.10			2.7	1.2	99	1.381	0.2	0.4	13.8	--	--

Planted: May 25. Harvested: Oct. 23. Previous crop: field corn.

¹Maturity is date of 95 percent brown or tan pods.²Lodging score: 1-upright, 9-flat on ground.

Table 24. 2018 Soybean - RR and Xtend - Langdon - Authors, B. Hanson, T. Hakanson and L. Henry (Page 1 of 2).

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	Maturity ² (date)	Plant Height (inch)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
								2018	2-yr. Avg.	2-site avg. ³
								------(bu/a)-----		
Allegiant	005X17	RR2XT	00.5	8/24	32	16.4	31.9	48.3	49.4	49.0
Allegiant	007X32N	RR2XT	00.7	8/25	27	16.6	32.1	48.2	--	51.5
Allegiant	008X30N	RR2XT	00.8	8/26	29	16.8	31.5	49.0	43.3	53.2
Allegiant	009X08	RR2XT	00.9	8/27	30	15.9	33.0	50.2	50.6	54.7
Allegiant	01R80	RR2Y	0.1	8/28	31	17.1	32.5	50.0	52.9	51.8
Allegiant	02X03	RR2XT	0.2	8/29	36	16.1	33.9	48.9	--	54.4
Channel	00717R2X	RR2XT	00.7	8/30	27	16.2	32.7	44.8	51.1	--
Channel	0218R2X	RR2XT	0.2	8/31	35	15.7	33.4	48.9	52.2	--
Dairyland	DSR-0200/R2Y	RR2Y	0.2	9/1	35	16.3	33.2	52.6	--	53.2
Dairyland	DSR-0225/R2Y	RR2Y	0.2	9/2	32	17.1	33.0	54.3	55.4	56.4
Dairyland	DSR-0509R	RR1	0.5	9/3	30	15.8	33.3	42.6	--	48.0
Dairyland	DSR-C709R	RR1	00.7	9/4	22	16.9	32.9	40.8	48.4	43.5
Dairyland	DSR-C999/R2Y	RR2Y	00.9	9/5	28	16.1	32.9	51.1	53.5	54.3
Dahlman	56009NRRR2Y	RR2Y	00.9	9/6	30	15.5	34.8	45.3	48.6	51.5
Dahlman	5601RR2Y	RR2Y	0.1	9/7	31	17.0	32.8	48.1	54.0	52.7
Dahlman	68008XN	RR2XT	00.8	9/8	32	16.7	32.0	50.1	51.8	50.9
Dyna-Gro	S005XT38	RR2XT	00.5	9/9	31	16.3	31.8	48.8	52.5	50.1
Dyna-Gro	S007XT27	RR2XT	00.7	9/10	28	16.0	32.5	49.4	56.7	51.5
Dyna-Gro	S007XT59	RR2XT	00.7	9/11	29	16.4	32.5	50.7	--	50.6
Dyna-Gro	S009XT49	RR2XT	00.9	9/12	33	15.9	32.8	49.2	--	55.9
Dyna-Gro	S009XT68	RR2XT	00.9	9/13	30	15.8	32.8	49.1	53.9	51.4
Golden H.	GH00866	RR2Y	00.8	9/14	31	17.0	32.5	48.3	54.5	51.1
Golden H.	GH0145X	RR2XT	0.1	9/15	30	15.9	32.5	48.4	--	53.9
Hefty	H008R6	RR2Y	00.8	9/16	31	15.9	33.4	39.1	45.9	45.1
Hefty	H008X8	RR2XT	00.8	9/17	31	17.0	31.9	49.4	--	52.4
Hefty	H009X7	RR2XT	00.9	9/18	32	15.8	32.9	46.3	48.4	52.0
Hefty	H02R3	RR2Y	0.2	9/19	28	15.3	34.4	42.4	--	41.2
Hefty	H02X9	RR2XT	0.2	9/20	29	15.7	32.9	48.6	--	52.2
Integra	20087	RR2Y	00.8	9/21	27	15.5	34.3	48.5	55.1	52.2
Integra	20097	RR2Y	00.9	9/22	32	16.8	33.1	50.7	57.5	52.0
Integra	50069	RR2XT	00.6	9/23	27	16.6	31.5	46.9	51.8	50.4
Integra	50098	RR2XT	00.9	9/24	27	16.5	32.3	41.1	50.5	45.0
Legacy	LS-00737N RR2X	RR2XT	00.7	9/25	28	16.3	32.7	45.2	53.2	48.1
Legacy	LS-00937 RR2X	RR2XT	00.9	9/26	31	15.6	33.2	48.9	54.2	51.8
Legacy	LS-0135 RR2	RR2Y	00.9	9/27	35	16.6	32.8	50.3	57.6	52.9
Legacy	LS-0237 RR2X	RR2XT	0.2	9/28	32	16.2	33.3	46.4	52.4	51.7
Legacy	LS-0239 RR2X	RR2XT	0.2	9/29	31	15.5	33.1	50.0	--	52.5
Legend	LS 007R22	RR2Y	00.7	9/30	28	15.8	33.6	48.2	--	--
Legend	LS 007X956N	RR2XT	00.7	10/1	27	16.4	32.6	48.8	--	--
Legend	LS 009X852N	RR2XT	00.9	8/26	30	16.7	31.5	47.8	55.2	--
Legend	LS 01X850	RR2XT	0.1	9/1	31	15.9	33.0	49.0	--	--
LG Seeds	LGS00663RX	RR2XT	00.6	8/25	26	16.3	32.8	42.2	--	47.8
LG Seeds	LGS00885R2	RR2Y	00.8	9/2	30	15.7	34.1	47.3	--	50.0
LG Seeds	LGS00899RX	RR2XT	00.8	8/27	28	16.6	32.5	45.9	--	--
LG Seeds	LGS00909R2	RR2Y	00.9	8/31	30	16.4	32.2	48.8	--	--
LG Seeds	LGS0111RX	RR2XT	0.1	8/31	32	15.9	33.8	48.6	--	52.6
NDSU	ND17009GT	GT	00.9	8/28	31	15.9	35.3	43.4	48.0	46.7
NDSU	ND18008GT	GT	00.8	8/23	27	16.7	33.6	38.6	--	41.1
NorthStar	NS 0064R2	RR2Y	00.6	8/23	26	16.8	33.0	46.2	--	54.1
NorthStar	NS 0111R2	RR2Y	0.1	8/30	33	17.2	32.1	50.4	--	--
NorthStar	NS 60053XR2	RR2XT	00.5	8/22	30	16.7	31.4	46.9	52.1	49.4
Mean				8/27	30	16.3	32.8	47.8	52.3	50.9
CV %				1.7	8.2	2.1	1.8	6.8	--	--
LSD 0.05				2.4	3.4	0.7	1.2	4.5	--	--
LSD 0.10				2.0	2.8	0.6	1.0	3.9	--	--

Table 24. 2018 Soybean - RR and Xtend - Langdon - Authors, B. Hanson, T. Hakanson and L. Henry (Page 2 of 2).

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	Maturity ² (date)	Plant Height (inch)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
								2018	2-yr. Avg.	2-site avg. ³ (bu/a)
NuTech	6008R2	RR2Y	00.8	8/27	30	17.0	31.6	45.8	52.0	48.1
Peterson	16R01	RR2Y	0.1	8/29	34	17.2	32.1	51.3	53.8	54.7
Peterson	18X008N	RR2XT	00.8	8/24	31	16.3	32.3	49.5	54.4	51.4
Pioneer	P006A37X	RR2XT	00.6	8/20	26	16.8	32.1	43.8	--	--
Pioneer	P007A90R	RR1	00.7	8/20	27	16.4	32.7	49.4	54.3	--
Pioneer	P00A49X	RR2XT	0.0	8/29	28	16.9	32.4	46.1	--	--
Prairie	PB-00856R2	RR2Y	00.9	9/2	30	15.4	34.4	46.9	46.8	49.2
Proseed	50-08	RR2Y	00.8	9/2	29	16.0	33.8	45.3	53.1	51.7
Proseed	XT 60-09	RR2XT	00.9	8/31	29	15.7	33.2	47.6	52.1	51.2
Proseed	XT 70-09	RR2XT	00.4	8/28	31	17.2	31.9	48.5	--	50.7
Proseed	XT 80-20	RR2XT	0.2	8/31	30	15.6	32.9	48.6	--	51.8
REA	RX00619	RR2XT	00.6	8/17	26	16.9	32.0	47.2	--	50.7
REA	RX0228	RR2XT	0.2	8/30	32	16.4	32.6	47.0	50.8	52.5
REA	RX00749	RR2XT	00.7	8/20	29	16.1	32.6	46.2	--	48.9
REA	R00727	RR2Y	00.7	8/25	31	15.9	33.0	47.8	55.0	49.0
Syng NK	S007-Y4	RR2Y	00.5	8/18	25	16.8	32.4	50.4	--	--
Syng NK	S009-J1	RR2Y	00.9	8/25	25	16.6	33.6	48.7	55.1	51.3
Syng NK	S01-C4X	RR2XT	0.1	8/31	30	16.5	31.6	50.3	--	52.7
Thunder	3601 R2Y	RR2Y	0.1	8/29	32	17.3	32.5	50.9	--	51.0
Thunder	39005 R2Y	RR2Y	00.5	8/22	27	16.5	33.3	48.7	--	52.8
Thunder	Astro	RR2Y	00.8	8/30	32	15.6	33.2	50.8	52.5	55.2
Thunder	SB87009	RR2XT	00.9	8/31	32	15.5	33.7	49.5	51.5	54.0
Thunder	SB88007N	RR2XT	00.7	8/25	31	17.2	31.5	49.8	53.3	52.0
Thunder	SB89006N	RR2XT	00.6	8/21	27	16.2	32.2	48.3	--	48.3
Mean				8/27	30	16.3	32.8	47.7	52.3	50.9
CV %				1.7	8.2	2.1	1.8	6.8	--	--
LSD 0.05				2.4	3.4	0.7	1.2	4.5	--	--
LSD 0.10				2.0	2.8	0.6	1.0	3.9	--	--

Planted: May 15. Harvested: Oct. 2.

¹Herbicide trait: RR = Roundup Ready, RRXT = RR2Xtend, GT = Glyphosate Tolerant.²Maturity is date of 95 percent brown or tan pods.³2-site average of our northern region. Langdon REC and Pembina County (Cavalier).**Table 25. 2018 Soybean - Conventional and Liberty Link - Langdon - Authors, B. Hanson, T. Hakanson and L. Henry.**

Company/ Brand	Variety	Maturity Group	Maturity ¹ (date)	Plant Height (inch)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
							2018	2-yr. Avg. (bu/a)
Conventional								
NDSU	ND Henson	0.0	8/29	30	16.8	33.6	50.1	51.2
Richland	MK0249	0.2	9/1	30	15.2	34.4	42.0	43.6
Liberty Link								
Allegiant	008L05	00.8	8/28	29	16.3	34.0	54.7	--
Legend	LS 0084LL	00.8	8/25	27	16.5	33.9	47.6	--
NorthStar	NS 0095LL	00.9	8/29	28	16.8	34.0	50.8	--
Roundup Ready Check								
--	RR2Y	00.6	8/28	32	16.3	32.6	49.6	50.4
--	RR2XT	00.7	9/30	33	16.5	32.7	55.2	--
--	RR2Y	00.8	8/26	30	16.3	32.4	51.0	--
--	RR2Y	00.9	8/29	34	16.3	32.3	52.7	53.1
Mean			8/30	30	16.3	33.3	50.4	49.6
CV %			1.8	6.8	1.7	1.7	8.4	--
LSD 0.05			2.7	3.0	0.6	1.2	6.1	--
LSD 0.10			2.3	2.5	0.5	1.0	5.1	--

Planted: May 15. Harvested: Oct. 2.

¹Date of physiological maturity at R7 stage (one pod on the main stem is mature brown or tan color).²Lodging score: 1-upright, 9-flat on ground.

Table 26. 2018 Soybean - RR and Xtend - Park River (Langdon REC) - Authors, B. Hanson, T. Hakanson and L. Henry (1 of 2).

Company/ Brand	Variety	Herbicide Trait ¹	Maturity		Plant Height (inch)	Plant Lodge ³ (0-9)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
			Group	Maturity ² (date)					2018	2-yr. Avg. ³	2-site avg. ⁴
									------(bu/a)-----		
Allegiant	005X17	RR2XT	00.5	9/1	43	1	15.1	35.8	52.0	46.5	47.3
Allegiant	008X30N	RR2XT	00.8	9/2	43	2	15.0	35.8	52.7	46.8	51.0
Allegiant	009X08	RR2XT	00.9	9/5	45	2	16.1	33.8	59.8	58.3	56.7
Allegiant	01R80	RR2Y	0.1	9/6	48	3	15.1	35.7	53.7	50.6	52.4
Allegiant	02X03	RR2XT	0.2	9/7	48	3	16.7	34.9	61.2	54.9	55.2
Allegiant	03X21N	RR2XT	00.7	9/6	43	3	16.1	35.5	63.8	--	58.7
Channel	00717R2X	RR2XT	00.7	9/2	40	1	15.4	34.7	58.8	55.8	53.3
Channel	0218R2X	RR2XT	0.2	9/5	48	2	15.2	35.4	50.4	53.9	48.1
Dairyland	DSR-0200/R2Y	RR2Y	0.2	9/3	46	1	16.1	34.0	51.5	--	48.7
Dairyland	DSR-0225/R2Y	RR2Y	0.2	9/4	43	2	16.9	34.8	59.2	58.1	56.3
Dairyland	DSR-0305/R2Y	RR2Y	0.3	9/7	42	1	15.7	35.8	55.3	54.1	55.6
Dairyland	DSR-0397/R2Y	RR2Y	0.3	9/6	43	1	14.8	37.0	55.3	56.1	55.1
Dairyland	DSR-0404/R2Y	RR2Y	0.4	9/7	43	0	15.4	36.5	56.9	57.9	54.7
Dairyland	DSR-0418/R2Y	RR2Y	0.4	9/8	42	1	14.3	37.5	56.1	56.6	54.6
Dairyland	DSR-C999/R2Y	RR2Y	00.9	9/5	39	1	16.0	34.8	60.6	--	56.8
Dairyland	DSR-0509R	RR1	0.5	9/9	39	0	15.8	35.5	54.4	--	51.1
Dairyland	DSR-C709R	RR1	00.7	9/1	39	0	15.6	35.7	62.2	54.4	--
Dyna-Gro	S009XT68	RR2XT	00.9	9/4	46	1	14.6	36.5	51.8	--	52.2
Dyna-Gro	S03XT29	RR2XT	0.3	9/5	42	2	15.2	35.5	51.9	--	51.6
Dyna-Gro	S04XT77	RR2XT	0.4	9/6	41	1	15.6	36.4	58.3	60.4	55.8
Golden H.	GH0339X	RR2XT	0.3	9/6	43	3	15.5	34.4	54.1	--	55.2
Golden H.	GH0391	RR2Y	0.3	9/8	38	4	15.4	36.1	58.0	56.5	53.7
Hefty	H02R3	RR2Y	0.2	9/12	35	2	15.0	36.3	36.6	46.5	40.8
Hefty	H03X8	RR2XT	0.3	9/8	45	0	15.0	36.5	58.5	53.5	52.6
Hefty	H04X8	RR2XT	0.4	9/12	38	1	15.0	36.9	53.5	--	52.4
Integra	20097	RR2Y	00.9	9/5	46	3	17.3	33.7	58.5	55.8	54.9
Integra	20126	RR2Y	0.1	9/6	47	1	15.4	37.0	60.2	--	55.1
Integra	20468	RR2Y	0.2	9/7	42	2	14.8	36.6	56.1	58.4	54.3
Integra	50098	RR2XT	00.9	9/1	41	0	15.0	35.1	52.4	53.8	47.7
Integra	50309N	RR2XT	0.3	9/6	41	4	14.8	35.7	57.2	--	56.2
Legacy	LS-0135 RR2	RR2Y	00.9	9/6	45	3	17.0	33.9	63.4	59.7	56.8
Legacy	LS-0237 RR2X	RR2XT	0.2	9/7	47	3	15.6	36.2	56.9	56.1	54.6
Legacy	LS-0239 RR2X	RR2XT	0.2	9/6	42	3	15.3	35.1	56.0	--	54.3
Legacy	LS-0334 RR2	RR2	0.3	9/9	42	0	14.9	37.3	53.9	57.6	55.7
Legacy	LS-0337N RR2X	RR2XT	0.3	9/6	40	1	15.5	37.1	54.9	58.0	55.5
Legacy	LS-0438N RR2X	RR2XT	0.4	9/8	40	1	15.1	37.7	55.0	58.2	54.3
LG Seeds	LGS00663RX	RR2XT	00.6	9/3	39	1	16.0	33.9	61.3	--	51.9
LG Seeds	LGS00899RX	RR2XT	00.8	9/4	42	2	16.1	34.6	60.2	--	54.4
LG Seeds	LGS00909R2	RR2Y	00.9	9/4	42	2	16.4	34.1	53.2	--	--
LG Seeds	LGS0111RX	RR2XT	0.1	9/6	43	2	15.3	36.1	54.7	--	52.5
LG Seeds	LGS0355RX	RR2XT	0.3	9/5	40	2	14.3	36.4	47.0	--	48.7
LG Seeds	LGS0400RX	RR2XT	0.4	9/7	44	1	15.2	35.6	53.2	--	54.2
NDSU	ND17009GT	GT	00.9	9/6	47	4	15.8	37.8	55.0	51.4	50.1
NDSU	ND18008GT	GT	00.8	9/3	39	1	15.7	35.8	49.4	--	42.6
NorthStar	NS 0111R2	RR2Y	0.1	9/5	47	2	16.7	34.6	60.4	57.1	--
NorthStar	NS 60264NXR2	RR2XT	0.2	9/6	46	3	15.0	35.8	58.3	--	56.4
NorthStar	NS 60442NXR2	RR2XT	0.3	9/7	39	0	15.3	36.6	60.2	--	57.2
Mean				9/5	43	2	15.6	35.5	55.8	54.9	53.1
CV %				1.9	5.9	70	2.6	2.0	13.1	--	--
LSD 0.05				2.7	3.5	1.5	0.8	1.4	10.2	--	--
LSD 0.10				2.3	2.9	1.3	0.7	1.2	8.5	--	--

Table 26. 2018 Soybean - RR and Xtend - Park River (Langdon REC) - Authors, B. Hanson, T. Hakanson and L. Henry (2 of 2).

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	Maturity ² (date)	Plant Height (inch)	Plant Lodge ³ (0-9)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
									2018	2-yr. Avg. ³	2-site avg. ⁴
NuTech	6008R2	RR2Y	00.8	9/3	44	2	16.7	33.0	52.4	52.2	--
Peterson	16R01	RR2Y	0.1	9/2	45	2	16.8	34.6	52.7	51.2	52.4
Peterson	18X008N	RR2XT	00.8	9/1	41	2	16.1	33.9	51.4	51.8	--
Prairie	PB-00928R2	RR2Y	0.1	9/4	39	1	15.4	36.2	62.7	61.0	59.1
Prairie	PB-0146R2	RR2Y	0.1	9/4	47	3	16.9	34.6	60.0	55.3	55.9
Proseed	50-08	RR2Y	00.8	9/6	41	1	15.5	36.3	53.0	55.2	49.5
Proseed	XT 60-09	RR2XT	00.9	9/5	44	1	14.9	35.9	54.3	54.0	52.6
Proseed	XT 70-09	RR2XT	00.4	9/3	42	2	16.6	33.9	56.5	--	51.7
Proseed	XT 80-20	RR2XT	0.2	9/6	43	3	15.7	33.9	54.1	--	52.4
REA	RX0228	RR2XT	0.2	9/6	47	1	15.8	34.9	56.9	56.1	49.9
Syng NK	S009-J1	RR2Y	00.9	9/1	38	0	15.3	35.7	49.2	--	--
Syng NK	S01-C4X	RR2XT	0.1	9/6	43	3	16.2	34.1	61.7	--	--
Syng NK	S03-G9	RR2Y	0.3	9/8	40	5	15.8	36.3	57.8	--	--
Thunder	3503 R2Y	RR2Y	0.3	9/8	42	1	14.8	38.0	54.0	54.3	53.1
Thunder	3601 R2Y	RR2Y	0.1	9/2	45	1	16.9	34.7	54.7	54.7	53.0
Thunder	SB87009	RR2XT	00.9	9/3	45	1	14.7	35.8	50.2	52.5	52.9
Thunder	SB8903N	RR2XT	0.3	9/8	41	3	14.7	35.7	55.8	--	55.5
Mean				9/5	43	2	15.6	35.5	55.8	54.9	53.1
CV %				1.9	5.9	70	2.6	2.0	13.1	--	--
LSD 0.05				2.7	3.5	1.5	0.8	1.4	10.2	--	--
LSD 0.10				2.3	2.9	1.3	0.7	1.2	8.5	--	--

Planted: May 23. Harvested: Oct. 23.

¹Herbicide trait: RR = Roundup Ready, RRXT = RR2Xtend, GT = Glyphosate Tolerant.²Maturity is date of 95 percent brown or tan pods.³Lodging score: 1-upright, 9-flat on ground.⁴2-site average of our southern region, Walsh County (Park River) and Nelson County (Pekin).

Table 27. 2018 Soybean - RR and Xtend - Cavalier (Langdon REC) - Authors, B. Hanson, T. Hakanson and L. Henry (1 of 2).

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	Maturity ² (date)	Plant Height (inches)	Plant Lodge ³ (0-9)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
									2018	2-yr. Avg. ------(bu/a)-----	2-site Avg. ⁴
Allegiant	005X17	RR2XT	00.5	9/2	39	0	16.4	32.3	49.6	47.2	49.0
Allegiant	007X32N	RR2XT	00.7	9/3	38	0	16.6	32.8	54.8	--	51.5
Allegiant	008X30N	RR2XT	00.8	9/3	39	0.4	17.4	30.9	57.3	48.9	53.2
Allegiant	009X08	RR2XT	00.9	9/7	41	0.7	15.8	33.3	59.2	54.7	54.7
Allegiant	01R80	RR2Y	0.1	9/8	40	0.8	17.2	32.7	53.5	49.1	51.8
Allegiant	02X03	RR2XT	0.2	9/9	44	1.9	16.4	33.2	59.8	--	54.4
Dairyland	DSR-0200/R2Y	RR2Y	0.2	9/6	43	1.3	16.4	32.7	53.7	--	53.2
Dairyland	DSR-0225/R2Y	RR2Y	0.2	9/8	40	1.4	17.6	32.6	58.4	51.1	56.4
Dairyland	DSR-0509R	RR1	0.5	9/13	36	0.2	16.5	32.1	53.4	--	48.0
Dairyland	DSR-C709R	RR1	00.7	9/5	34	0	16.6	32.9	46.2	50.3	43.5
Dairyland	DSR-C999/R2Y	RR2Y	00.9	9/7	37	0.3	16.4	33.2	57.4	57.6	54.3
Dahlman	56009NRR2Y	RR2Y	00.9	9/9	39	2.2	16.3	33.7	57.6	54.1	51.5
Dahlman	5601RR2Y	RR2Y	0.1	9/8	40	2.2	17.4	32.1	57.2	50.2	52.7
Dahlman	68008XN	RR2XT	00.8	9/5	39	1.1	17.2	30.7	51.6	46.5	50.9
Dyna-Gro	S005XT38	RR2XT	00.5	9/3	40	0.4	16.4	32.0	51.3	52.1	50.1
Dyna-Gro	S007XT27	RR2XT	00.7	9/3	36	0.1	16.7	32.4	53.6	55.2	51.5
Dyna-Gro	S007XT59	RR2XT	00.7	9/3	35	0.1	16.4	33.2	50.5	--	50.6
Dyna-Gro	S009XT49	RR2XT	00.9	9/6	41	1.0	15.6	33.7	62.6	--	55.9
Dyna-Gro	S009XT68	RR2XT	00.9	9/6	41	1.1	16.2	32.7	53.7	55.8	51.4
Golden H.	GH00866	RR2Y	00.8	9/4	41	0	17.3	32.8	53.9	57.2	51.1
Golden H.	GH0145X	RR2XT	0.1	9/9	40	1.4	16.4	31.2	59.3	--	53.9
Hefty	H008R6	RR2Y	00.8	9/9	38	3.6	16.1	33.6	51.1	50.8	45.1
Hefty	H008X8	RR2XT	00.8	9/5	37	0.5	17.4	31.3	55.3	--	52.4
Hefty	H009X7	RR2XT	00.9	9/8	40	2.2	15.7	33.1	57.6	50.6	52.0
Hefty	H02R3	RR2Y	0.2	9/14	35	1.2	15.6	33.5	40.0	--	41.2
Hefty	H02X9	RR2XT	0.2	9/7	39	1.4	15.4	33.1	55.7	--	52.2
Integra	20087	RR2Y	00.8	9/8	34	1.1	15.7	34.6	55.8	57.7	52.2
Integra	20097	RR2Y	00.9	9/6	40	1.1	17.4	32.3	53.2	53.3	52.0
Integra	50069	RR2XT	00.6	9/5	37	0.6	16.4	32.2	53.8	51.5	50.4
Integra	50098	RR2XT	00.9	9/4	35	0.5	16.5	32.6	48.8	--	45.0
Legacy	LS-00737N RR2X	RR2Y	00.7	9/6	36	0	16.2	32.6	50.9	52.7	48.1
Legacy	LS-00937 RR2X	RR2XT	00.9	9/7	38	1.9	15.8	32.3	54.6	53.5	51.8
Legacy	LS-0135 RR2	RR2Y	00.9	9/9	42	2.1	17.2	33.0	55.5	53.2	52.9
Legacy	LS-0237 RR2X	RR2XT	0.2	9/10	45	1.7	16.6	32.9	56.9	53.6	51.7
Legacy	LS-0239 RR2X	RR2XT	0.2	9/6	39	0.9	15.9	32.4	55.0	--	52.5
LG Seeds	LGS00663RX	RR2XT	00.6	9/5	35	0	16.4	32.6	53.3	--	47.8
LG Seeds	LGS00885R2	RR2Y	00.8	9/8	41	0.3	15.8	34.3	52.7	--	50.0
LG Seeds	LGS0111RX	RR2XT	0.1	9/10	42	1.0	16.0	33.4	56.5	--	52.6
NDSU	ND17009GT	GT	00.9	9/5	39	0.3	15.9	35.7	50.0	50.2	46.7
NDSU	ND18008GT	GT	00.8	9/4	37	0	16.8	33.8	43.5	--	41.1
NorthStar	NS 0064R2	RR2Y	00.6	9/4	37	0.8	17.0	33.2	62.0	--	54.1
NorthStar	NS 60053XR2	RR2XT	00.5	9/3	39	0.2	16.5	32.1	51.8	51.4	49.4
NorthStar	NS 60092XR2	RR2XT	00.9	9/5	37	0.3	16.1	32.8	50.0	--	--
NuTech	6008R2	RR2Y	00.8	9/5	39	1.4	17.5	30.9	50.3	53.7	48.1
Peterson	16R01	RR2Y	0.1	9/8	41	2.0	17.3	32.3	58.0	51.1	54.7
Peterson	18X008N	RR2XT	00.8	9/5	39	0.4	16.9	31.6	53.2	46.6	51.4
Prairie	PB-00856R2	RR2Y	00.9	9/9	37	1.7	16.1	33.7	51.5	49.1	49.2
Mean				9/6	39	0.9	16.5	32.7	54.0	52.8	50.9
CV %				1.1	5.3	84	1.7	1.5	7.0	--	--
LSD 0.05				1.9	3.3	1.3	0.6	1.0	6.1	--	--
LSD 0.10				1.6	2.8	0.9	0.6	0.8	5.1	--	--

Table 27. 2018 Soybean - RR and Xtend - Cavalier (Langdon REC) - Authors, B. Hanson, T. Hakanson and L. Henry (2 of 2).

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	Maturity ² (date)	Height	Lodge ³	Seed		Seed Yield		
							Oil (%)	Protein (%)	2018	2-yr. Avg.	2-yr. site Avg. ⁴
Proseed	50-08	RR2Y	00.8	9/9	38	2.3	16.0	33.8	58.1	57.9	51.7
Proseed	XT 60-09	RR2XT	00.9	9/7	41	1.1	16.0	33.0	54.7	54.5	51.2
Proseed	XT 70-09	RR2XT	00.4	9/4	38	0.7	17.3	31.3	52.8	--	50.7
Proseed	XT 80-20	RR2XT	0.2	9/9	38	1.0	15.5	32.6	54.9	--	51.8
REA	R00727	RR2Y	00.7	9/5	38	0.4	16.4	32.2	50.2	54.1	49.0
REA	RX00619	RR2XT	00.6	9/1	36	0	17.0	32.0	54.2	--	50.7
REA	RX00749	RR2XT	00.7	9/3	37	0.1	16.6	32.8	51.5	--	48.9
REA	RX0228	RR2XT	0.2	9/9	42	0.9	16.2	32.5	58.0	55.3	52.5
Syng NK	S009-J1	RR2Y	00.9	9/5	36	0.9	16.6	33.9	53.9	60.5	51.3
Syng NK	S01-C4X	RR2XT	0.1	9/8	41	1.0	16.6	31.4	55.1	--	52.7
Thunder	3601 R2Y	RR2Y	0.1	9/8	41	1.5	17.6	32.1	51.1	51.2	51.0
Thunder	39005 R2Y	RR2Y	00.5	9/3	35	0.4	16.1	33.9	56.9	--	52.8
Thunder	Astro	RR2Y	00.8	9/9	40	1.2	15.9	32.8	59.6	--	55.2
Thunder	SB87009	RR2XT	00.9	9/9	39	0.7	16.0	33.0	58.5	54.5	54.0
Thunder	SB88007N	RR2XT	00.7	9/7	37	2.0	17.0	32.2	54.2	56.2	52.0
Thunder	SB89006N	RR2XT	00.6	9/3	36	0.3	16.5	32.2	48.3	--	48.3
Mean				9/6	39	0.9	16.5	32.7	54.0	52.8	50.9
CV %				1.1	5.3	84	1.7	1.5	7.0	--	--
LSD 0.05				1.9	3.3	1.3	0.6	1.0	6.1	--	--
LSD 0.10				1.6	2.8	0.9	0.6	0.8	5.1	--	--

Planted: May 23. Harvested: Oct. 18.

¹ Herbicide trait: RR = Roundup Ready, RRXT = RR2Xtend, GT = Glyphosate Tolerant.² Maturity is date of 95 percent brown or tan pods.³ Lodging score: 1-upright, 9-flat on ground.⁴ 2-site average of our northern region. Langdon REC and Pembina County (Cavalier).

Table 28. 2018 Soybean - RR and Xtend - Pekin (Langdon REC) - Authors, B. Hanson, T. Hakanson and L. Henry (1 of 2).

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	Maturity ² (date)	Plant Height (inch)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
								2018	2-yr. Avg. ------(bu/a)-----	2-site Avg. ³
Allegiant	005X17	RR2XT	00.5	8/28	30	16.8	32.6	42.6	--	47.3
Allegiant	008X30N	RR2XT	00.8	9/2	29	16.0	32.1	49.3	--	51.0
Allegiant	009X08	RR2XT	00.9	9/3	33	17.3	31.5	53.6	--	56.7
Allegiant	01R80	RR2Y	0.1	9/3	34	16.0	33.3	51.0	60.6	52.4
Allegiant	02X03	RR2XT	0.2	9/4	36	17.5	32.9	49.1	--	55.2
Allegiant	03X21N	RR2XT	0.3	9/6	33	16.5	33.6	53.6	--	58.7
Channel	00717R2X	RR2XT	00.7	9/1	28	16.7	32.1	47.8	59.2	53.3
Channel	0218R2X	RR2XT	0.2	9/4	32	16.4	32.5	45.8	54.9	48.1
Dairyland	DSR-0200/R2Y	RR2Y	0.2	9/1	33	16.4	33.2	45.8	--	48.7
Dairyland	DSR-0225/R2Y	RR2Y	0.2	9/2	34	17.6	32.6	53.3	61.8	56.3
Dairyland	DSR-0305/R2Y	RR2Y	0.3	9/6	32	16.7	33.1	55.8	63.0	55.6
Dairyland	DSR-0397/R2Y	RR2Y	0.3	9/7	34	15.5	34.4	54.9	61.7	55.1
Dairyland	DSR-0404/R2Y	RR2Y	0.4	9/9	31	16.1	33.4	52.4	61.6	54.7
Dairyland	DSR-0418/R2Y	RR2Y	0.4	9/9	32	16.0	33.6	53.0	59.9	54.6
Dairyland	DSR-C999/R2Y	RR2Y	00.9	9/5	30	16.8	32.7	53.0	--	56.8
Dairyland	DSR-0450R	RR1	0.4	9/5	32	16.1	34.4	47.5	55.9	--
Dairyland	DSR-0509R	RR1	0.5	9/11	31	16.6	33.2	47.7	--	51.1
Dyna-Gro	S009XT68	RR2XT	00.9	9/3	33	16.0	32.7	52.5	--	52.2
Dyna-Gro	S03XT29	RR2XT	0.3	9/5	31	15.7	33.3	51.2	--	51.6
Dyna-Gro	S04XT77	RR2XT	0.4	9/7	30	16.5	33.6	53.3	61.6	55.8
Golden H.	GH0339X	RR2XT	0.3	9/4	32	16.3	32.8	56.3	--	55.2
Golden H.	GH0391	RR2Y	0.3	9/3	29	16.1	33.8	49.4	59.9	53.7
Hefty	H02R3	RR2Y	0.2	9/14	31	15.4	33.7	44.9	58.9	40.8
Hefty	H03X8	RR2XT	0.3	9/8	32	15.8	33.0	46.6	56.9	52.6
Hefty	H04X8	RR2XT	0.4	9/12	29	16.3	34.3	51.2	--	52.4
Integra	20097	RR2Y	00.9	9/2	32	17.4	33.2	51.2	61.4	54.9
Integra	20126	RR2Y	0.1	9/3	31	16.7	34.0	49.9	60.6	55.1
Integra	20468	RR2Y	0.2	9/8	34	15.9	33.9	52.4	--	54.3
Integra	50098	RR2XT	00.9	8/30	26	16.3	32.9	43.0	--	47.7
Integra	50309N	RR2XT	0.3	9/6	32	15.7	32.9	55.2	--	56.2
Legacy	LS-0135 RR2	RR2Y	00.9	9/3	33	17.5	32.3	50.1	61.6	56.8
Legacy	LS-0237 RR2X	RR2XT	0.2	9/4	36	17.1	32.8	52.2	62.0	54.6
Legacy	LS-0239 RR2X	RR2XT	0.2	9/6	30	15.9	32.2	52.5	--	54.3
Legacy	LS-0334 RR2	RR2	0.3	9/10	31	15.8	34.4	57.4	63.6	55.7
Legacy	LS-0337N RR2X	RR2XT	0.3	9/7	31	16.0	33.9	56.0	64.4	55.5
Legacy	LS-0438N RR2X	RR2XT	0.4	9/9	30	16.3	34.4	53.6	61.9	54.3
Legend	LS 009X852N	RR2XT	00.9	9/2	30	17.3	31.7	47.2	--	--
Legend	LS 01X850	RR2XT	0.1	9/3	33	16.0	33.2	50.5	--	--
Legend	LS 02R21	RR2Y	0.2	9/2	34	16.5	33.5	51.2	--	--
LG Seeds	LGS00663RX	RR2XT	00.6	9/2	27	16.2	32.5	42.5	--	51.9
LG Seeds	LGS00899RX	RR2XT	00.8	9/3	31	17.2	31.5	48.5	--	54.4
LG Seeds	LGS0111RX	RR2XT	0.1	9/6	32	16.4	33.3	50.2	--	52.5
LG Seeds	LGS0355RX	RR2XT	0.3	9/8	32	15.7	32.5	50.3	--	48.7
LG Seeds	LGS0400RX	RR2XT	0.4	9/8	32	16.1	32.7	55.1	--	54.2
NDSU	ND17009GT	GT	00.9	9/2	33	16.2	35.7	45.2	52.7	50.1
NDSU	ND18008GT	GT	00.8	8/28	28	17.2	33.4	35.7	--	42.6
NorthStar	NS 60092XR2	RR2XT	00.9	8/31	29	16.7	32.3	45.0	58.3	--
Mean				9/4	31	16.4	33.1	50.4	60.3	53.1
CV %				1.4	6.5	1.7	1.4	9.3	--	--
LSD 0.05				2.1	2.9	0.6	0.9	6.6	--	--
LSD 0.10				1.8	2.4	0.5	0.8	5.5	--	--

Table 28. 2018 Soybean - RR and Xtend - Pekin (Langdon REC) - Authors, B. Hanson, T. Hakanson and L. Henry (2 of 2).

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	Maturity ² (date)	Plant Height (inch)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
								2018	2-yr. Avg.	2-site Avg. ³
								------(bu/a)-----		
NorthStar	NS 60264NXR2	RR2XT	0.2	9/6	32.5	16.0	32.3	54.4	--	56.4
NorthStar	NS 60442NXR2	RR2XT	0.3	9/6	30	16.3	33.8	54.1	60.8	57.2
Peterson	16R01	RR2Y	0.1	9/3	33.5	17.4	33	52.0	62.7	52.4
Peterson	17X04N	RR2XT	0.4	9/6	29	16.2	34.0	54.5	61.8	--
Prairie	PB-00928R2	RR2Y	0.1	9/5	30	16.8	32.5	55.4	62.6	59.1
Prairie	PB-0146R2	RR2Y	0.1	9/1	32	17.2	32.7	51.8	61.0	55.9
Proseed	50-08	RR2Y	0.8	9/7	32	15.8	34.6	46.0	--	49.5
Proseed	XT 60-09	RR2XT	0.9	9/3	33	16.2	33.0	50.9	--	52.6
Proseed	XT 70-09	RR2XT	0.4	9/1	31	17.0	31.7	46.8	--	51.7
Proseed	XT 80-20	RR2XT	0.2	9/6	31	15.9	32.7	50.6	--	52.4
REA	RX0228	RR2XT	0.2	9/4	34	16.5	32.9	42.9	54.8	49.9
Thunder	3503 R2Y	RR2Y	0.3	9/7	29	15.3	35.7	52.1	60.8	53.1
Thunder	3601 R2Y	RR2Y	0.1	9/3	34	17.7	32.6	51.2	61.1	53.0
Thunder	SB87009	RR2XT	0.9	9/3	35	15.6	33.7	55.6	60.4	52.9
Thunder	SB8903N	RR2XT	0.3	9/6	31	16.1	32.2	55.2	--	55.5
Mean				9/4	31	16.4	33.1	50.4	60.3	53.1
CV %				1.4	6.5	1.7	1.4	9.3	--	--
LSD 0.05				2.1	2.9	0.6	0.9	6.6	--	--
LSD 0.10				1.8	2.4	0.5	0.8	5.5	--	--

Planted: May 22. Harvested: Oct 22.

¹Herbicide trait: RR = Roundup Ready, RRXT = RR2Xtend, GT = Glyphosate Tolerant.²Maturity is date of 95 percent brown or tan pods.³2-site average of our southern region, Walsh County (Park River) and Nelson County (Pekin).

Table 29. 2018 Soybean - RR and Xtend - Minot (North Central REC) - Authors, E. Eriksmoen and J. Effertz (Pg. 1 of 2).

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	IDC Rating ²	Maturity (date)	Plant Height (inches)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield ----- (bu/a) ----- 2018 3-yr. Avg.	
Dairyland	DSR-0200/R2Y	RR	0.2	1.8	8/28	30	54.9	17.2	32.0	32.1	--
Dairyland	DSR-0225/R2Y	RR	0.2	2.3	8/28	30	54.4	18.1	31.7	33.8	41.2
Dairyland	DSR-0305/R2Y	RR	0.3	2.2	9/04	24	54.8	17.7	29.3	28.1	--
Dairyland	DSR-0309R	RR	0.3	2.7	9/06	26	54.3	17.3	32.5	42.4	--
Dairyland	DSR-0397/R2Y	RR	0.3	2.2	9/04	26	54.8	18.0	29.0	27.9	--
Dairyland	DSR-C999/R2Y	RR	00.9	2.6	9/01	25	54.5	17.6	30.3	30.4	--
Dyna-Gro	S009XT49	XT	00.9	2.1	9/01	21	55.2	16.8	32.4	25.0	--
Dyna-Gro	S009XT68	XT	00.9	2.1	8/31	24	55.1	17.5	32.5	32.8	--
Dyna-Gro	S03XT29	XT	0.3	1.8	8/31	25	54.5	17.0	30.6	30.6	--
Golden H.	GH00866	RR	00.8	1.8	8/21	22	54.4	18.1	30.3	22.1	--
Golden H.	GH0145X	XT	0.1	2.5	9/01	27	54.8	17.3	31.5	35.3	--
Golden H.	GH0391	RR	0.3	2.0	8/31	17	55.3	17.5	30.4	29.8	--
Hefty	009X7	XT	00.9	2.2	8/31	28	54.8	16.2	33.3	36.6	38.9
Hefty	H008X8	XT	00.8	2.5	8/28	24	54.6	17.6	31.2	29.3	--
Hefty	H02X7	XT	0.2	2.5	9/03	26	54.7	17.9	30.7	28.1	--
Hefty	H02X9	XT	0.2	1.9	8/29	22	54.8	16.3	32.1	27.3	--
Hefty	H03X7	XT	0.3	--	9/04	21	54.5	17.0	32.6	32.8	38.0
Hefty	H03X8	XT	0.3	2.5	9/01	22	55.0	18.2	30.0	21.0	--
Integra	20097	RR	00.9	2.6	8/30	26	54.5	17.3	32.6	32.9	37.7
Integra	20126	RR	0.1	2.5	9/03	26	54.1	17.6	31.3	29.5	37.8
Integra	20215	RR	0.2	2.6	9/03	28	54.5	17.0	32.9	43.8	40.5
Integra	20300	RR	0.3	2.4	9/05	23	54.6	16.7	31.7	30.3	--
Integra	50309N	XT	0.3	1.8	8/28	22	54.6	16.9	33.4	28.2	--
Legacy	LS-00737N RR2X	XT	00.7	2.4	8/23	22	55.1	17.2	31.3	34.9	--
Legacy	LS-00835N RR2	RR	00.8	2.8	8/28	25	54.6	16.3	32.8	33.3	--
Legacy	LS-00937 RR2X	XT	00.9	2.1	8/27	23	55.1	17.2	33.2	26.0	--
Legacy	LS-0135 RR2	RR	00.9	2.6	9/01	28	54.7	17.5	33.1	38.6	--
Legend	LS 009X852N	XT	00.9	2.3	8/22	23	55.0	17.9	31.4	25.6	--
Legend	LS 01X850	XT	0.1	1.8	8/28	23	55.1	17.2	31.5	28.6	--
Legend	LS 03X852N	XT	0.3	1.8	8/27	22	54.8	16.7	32.0	28.6	--
LG Seeds	LGS00663RX	XT	00.6	2.6	8/26	23	55.1	17.3	31.6	29.5	--
LG Seeds	LGS00885R2	RR	00.8	2.8	8/29	22	54.8	17.2	30.8	21.9	--
LG Seeds	LGS0111RX	XT	0.1	2.4	9/03	26	54.2	16.7	33.2	43.1	--
LG Seeds	LGS0224R2	RR	0.2	2.6	8/29	21	54.3	17.5	31.8	26.6	--
NDSU	ND17009GT	GT	00.9	3.1	8/27	27	56.3	16.7	34.7	36.1	35.4
NDSU	ND18008GT	GT	00.8	2.6	8/24	25	55.0	17.1	32.3	32.8	33.0
NorthStar	NS 0064R2	RR	00.6	2.2	8/24	25	54.7	16.8	32.9	35.3	--
NorthStar	NS 0081NR2	RR	00.8	2.7	9/03	28	54.0	17.0	32.5	38.0	42.5
NorthStar	NS 0111R2	RR	0.1	2.8	8/29	27	54.8	17.8	31.7	36.1	38.3
NorthStar	NS 60092XR2	XT	00.9	2.4	8/24	23	55.2	16.9	32.8	32.0	--
NorthStar	NS 60264NXR2	XT	0.2	2.0	9/01	29	55.0	16.9	33.4	32.5	--
Peterson	16R01	RR	0.1	2.5	8/28	26	54.4	17.7	32.1	27.5	40.3
Peterson	18X008N	XT	00.8	2.5	8/25	23	54.8	17.7	31.3	32.3	--
Prairie	PB-00856R2	RR	00.9	2.6	9/03	28	53.7	16.5	32.9	35.9	--
Proseed	10-08	RR	00.8	1.9	8/27	26	55.0	17.3	31.7	27.5	36.2
Proseed	20-30	RR	0.3	2.7	9/03	20	54.3	18.4	27.1	25.3	36.7
Proseed	30-20	RR	0.2	2.5	9/03	26	54.0	16.5	33.9	41.7	42.1
Proseed	XT 60-09	XT	00.9	2.1	8/27	25	55.1	17.0	31.4	30.7	38.5
Proseed	XT 70-09	XT	00.9	2.4	8/27	24	54.6	17.9	30.7	31.6	--
Proseed	XT 80-20	XT	0.2	1.8	8/30	24	54.9	16.2	33.0	36.5	--
REA	R00727	RR	00.7	2.2	8/27	23	54.4	17.6	32.2	27.8	38.3
Mean				2.4	8/29	24	54.7	17.3	31.7	30.8	38.5
CV %				14	6.2	7.7	0.6	3.9	4.6	12.1	--
LSD 0.05				0.3	3.0	3.0	0.5	1.1	2.3	5.9	--
LSD 0.10				0.3	2.0	3.0	0.4	0.9	2.0	5.0	--

Table 29. 2018 Soybean - RR and Xtend - Minot (North Central REC) - Authors, E. Eriksmoen and J. Effertz (Pg. 2 of 2).

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	IDC Rating ²	Maturity (date)	Plant Height (inches)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
										2018	3-yr. Avg.
				(1-5)						----- (bu/a) -----	
REA	RX00619	XT	00.6	2.2	8/15	23	54.2	17.1	32.2	31.9	--
REA	RX00749	XT	00.7	1.9	8/21	25	54.4	17.8	30.2	26.4	--
REA	RX0228	XT	0.2	1.6	9/02	26	54.6	17.2	31.3	26.6	--
REA	RX0327	XT	0.3	2.2	9/03	22	54.6	17.4	31.6	29.5	--
Thunder	3503 R2Y	RR	0.3	2.0	9/04	22	55.0	16.1	33.9	31.8	--
Thunder	3601 R2Y	RR	0.1	2.7	8/29	27	54.7	18.0	31.3	29.1	--
Thunder	39005 R2Y	RR	00.5	2.2	8/24	25	54.2	17.2	33.1	28.0	--
Thunder	ASTRO	RR	00.8	2.3	8/26	20	54.9	17.9	29.1	22.2	--
Thunder	SB88007N	XT	00.7	2.3	8/22	22	54.9	18.3	28.9	23.1	--
Thunder	SB89006N	XT	00.6	1.8	8/21	24	54.1	17.7	30.6	25.7	--
Mean				2.4	8/29	24	54.7	17.3	31.7	30.8	38.5
CV %				14	6.2	7.7	0.6	3.9	4.6	12.1	--
LSD 0.05				0.3	3.0	3.0	0.5	1.1	2.3	5.9	--
LSD 0.10				0.3	2.0	3.0	0.4	0.9	2.0	5.0	--

Planted: May 21. Harvested: Sept. 18. Previous crop: corn.

¹Herbicide trait: GT= Glyphosate Tolerant, RR = Roundup Ready, XT = Xtend.²Iron deficiency chlorosis rating: 1-green, 3-yellow, 5-dead tissue.**Table 30. 2018 Soybean - Conventional - Minot (North Central REC) - Authors, E. Eriksmoen and J. Effertz.**

Company/ Brand	Variety	Maturity Group	IDC Rating ¹	Maturity ² (date)	Plant Height (inches)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
									2018	3-yr. Avg.
				(1-5)					----- (bu/a) -----	
NDSU	ND Benson	0.4	2.4	9/06	20	58.7	18.0	28.1	19.5	31.6
NDSU	ND Bison	0.7	1.8	9/07	18	59.0	16.9	29.6	18.9	31.6
NDSU	ND Henson	0.0	2.9	8/28	21	59.5	17.7	27.6	23.1	31.3
NDSU	ND Stutsman	0.7	2.4	9/04	23	59.2	17.8	27.0	24.1	34.9
--	RR check	00.9	--	8/25	22	58.9	17.1	29.1	16.9	29.2
--	RR check	00.6	--	8/26	22	59.1	17.0	29.1	19.9	27.7
--	RR check	00.8	--	8/30	17	58.7	16.4	30.4	17.7	--
--	XT check	0.3	1.8	9/01	21	59.4	17.0	28.2	20.5	--
Mean			2.6	9/02	21	59.1	17.4	28.8	22.0	31.1
CV %			13	3.7	6.6	0.5	2.5	6.2	17.1	--
LSD 0.05			0.3	2	2.0	0.5	0.7	NS	6.3	--
LSD 0.10			0.3	2	2.0	0.4	0.6	NS	5.2	--

Planted: May 21. Harvested: Oct. 2. Previous crop: corn.

¹Iron deficiency chlorosis rating: 1-green, 3-yellow, 5-dead tissue.²Maturity is date of 95 percent brown or tan pods.

Table 31. 2018 Soybean - RR and Xtend - Mohall (North Central REC) - Authors, E. Eriksmoen and J. Effertz.

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	IDC Rating ²	Plant Height	Test Weight	Seed Oil	Seed Protein	Seed Yield	
									2018	2-yr. Avg.
									----- (bu/a) -----	
Dairyland	DSR-0200/R2Y	RR	0.2	1.8	29	59.4	15.0	35.1	24.3	--
Dairyland	DSR-0225/R2Y	RR	0.1	2.3	28	58.7	15.5	35.3	27.0	33.3
Dairyland	DSR-C999/R2Y	RR	00.9	2.6	22	58.3	14.7	35.9	25.1	34.9
Dyna-Gro	S005XT38	XT	00.5	2.4	26	58.9	14.9	34.3	29.3	34.5
Dyna-Gro	S007XT27	XT	00.7	2.6	25	59.1	14.9	34.4	29.7	--
Dyna-Gro	S007XT59	XT	00.7	2.2	25	59.3	14.6	35.4	26.1	--
Dyna-Gro	S009XT49	XT	00.9	2.1	25	59.2	14.4	35.5	28.5	--
Golden H	GH00866	RR	00.8	1.8	27	58.0	15.5	35.7	26.4	--
Golden H	GH0145X	XT	0.1	2.5	26	58.8	15.0	35.2	26.7	--
Golden H	GH0391	RR	0.3	2.0	23	57.9	13.5	37.8	28.0	--
Hefty	009X7	XT	00.9	2.2	26	59.0	14.6	34.9	25.6	34.0
Hefty	H008X8	XT	00.8	2.5	26	58.8	15.4	34.5	23.2	--
Hefty	H02X7	XT	0.2	2.5	30	58.3	15.0	35.4	28.3	--
Hefty	H02X9	XT	0.2	1.9	26	59.1	13.6	36.4	28.4	--
Hefty	H03X7	XT	0.3	--	23	58.3	14.2	37.0	33.1	43.6
Hefty	H03X8	XT	0.3	2.5	26	57.8	13.8	36.1	21.6	--
Integra	20097	RR	00.9	2.6	27	58.9	15.3	35.5	28.7	34.2
Integra	20215	RR	0.2	2.6	25	58.4	14.4	36.7	27.7	32.2
Integra	50098	XT	00.9	2.3	24	59.3	14.7	34.7	25.6	33.4
Integra	50309N	XT	0.3	1.8	25	59.1	13.8	35.9	34.1	--
Legacy	LS-00737N RR2X	XT	00.7	2.4	25	58.9	14.8	34.5	29.1	35.6
Legacy	LS-00835N RR2	RR	00.8	2.8	27	58.1	13.9	36.9	28.4	40.7
Legacy	LS-00937 RR2X	XT	00.9	2.1	28	59.3	14.5	35.7	26.2	32.9
Legacy	LS-0135 RR2	RR	00.9	2.6	29	58.9	15.5	35.7	26.4	35.8
Legend	LS 005X853	XT	00.5	2.7	25	58.9	14.5	34.9	26.9	31.6
LG Seeds	LGS00663RX	XT	00.6	2.6	25	59.5	14.3	35.3	26.3	--
LG Seeds	LGS00885R2	RR	00.8	2.8	23	58.4	13.9	37.2	23.2	--
LG Seeds	LGS00909R2	RR	00.9	2.0	24	58.8	15.2	34.1	26.5	--
LG Seeds	LGS0111RX	XT	0.1	2.4	27	58.3	14.6	36.1	31.4	--
LG Seeds	LGS0224R2	RR	0.2	2.6	23	58.5	14.7	36.3	28.7	--
NDSU	ND17009GT	GT	00.9	3.1	27	59.5	14.7	37.8	25.8	32.5
NDSU	ND18008GT	GT	00.8	2.6	27	59.0	15.1	36.1	25.3	27.3
NorthStar	NS 0064R2	RR	00.6	2.2	24	58.9	14.2	37.0	30.8	--
NorthStar	NS 0081NR2	RR	00.8	2.7	24	58.5	14.5	36.3	25.2	31.4
NorthStar	NS 0111R2	RR	0.1	2.8	29	58.8	15.6	35.2	31.4	--
Prairie	PB-00856R2	RR	00.9	2.6	25	58.3	14.2	37.1	26.4	33.4
REA	R00727	RR	00.7	2.2	26	58.6	14.9	35.5	25.3	31.4
REA	RX00619	XT	00.6	2.2	25	58.6	15.7	33.5	27.4	--
REA	RX00749	XT	00.7	1.9	26	58.9	14.7	35.1	22.9	--
REA	RX0228	XT	0.2	1.6	29	58.6	14.6	35.2	27.3	34.3
Thunder	39005 R2Y	RR	00.5	2.2	26	58.9	14.4	37.1	31.6	--
Thunder	ASTRO	RR	00.8	2.3	25	58.9	14.7	35.6	35.9	37.8
Thunder	SB88007N	XT	00.7	2.3	29	58.9	15.5	33.7	28.6	35.5
Thunder	SB89006N	XT	00.6	1.8	28	59.1	14.6	35.4	29.3	--
Mean				2.4	26	58.8	14.7	35.6	27.5	34.3
CV %				14.1	6.6	0.6	2.9	2.0	11.4	--
LSD 0.05				0.3	2.0	0.5	0.6	1.0	4.4	--
LSD 0.10				0.3	2.0	0.4	0.5	0.9	3.7	--

Planted: May 23. Harvested: Sept. 29. Previous crop: durum.

¹Herbicide trait: GT= Glyphosate Tolerant. RR = Roundup Ready. XT = Extend.²Iron deficiency chlorosis rating: 1-green, 3-yellow, 5-dead tissue.

Table 32. 2018 Soybean - RR and Xtend - Garrison (North Central REC) - Authors, E. Eriksmoen and J. Effertz.

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	IDC Rating ²	Plant Height	Test Weight	Seed Oil	Seed Protein	Seed Yield	
									2018	2-yr. Avg.
				(1-5)	(inch)	(lb/bu)	(%)	(%)	----- (bu/a) -----	
Dairyland	DSR-0200/R2Y	RR	0.2	1.8	28	58.0	15.8	34.1	32.2	--
Dairyland	DSR-0225/R2Y	RR	0.1	2.3	28	57.2	16.4	34.6	31.7	--
Dairyland	DSR-0309R	RR	0.3	2.7	24	57.3	16.2	34.5	41.0	--
Dairyland	DSR-0397/R2Y	RR	0.3	2.2	29	57.4	15.9	34.1	44.7	--
Dyna-Gro	S03XT29	XT	0.3	1.8	24	57.5	15.2	34.1	40.6	--
Dyna-Gro	S04XT77	XT	0.4	2.3	21	57.4	15.7	34.9	37.5	--
Dyna-Gro	S05XT88	XT	0.5	2.4	23	57.0	15.7	35.2	38.9	--
Integra	20126	RR	0.1	2.5	25	56.4	15.8	35.5	37.5	35.6
Integra	20215	RR	0.2	2.6	27	57.6	15.7	34.2	37.0	36.3
Integra	50309N	XT	0.3	1.8	25	57.4	15.0	34.6	36.6	--
Legacy	LS-0135 RR2	RR	0.9	2.6	29	57.2	16.8	34.1	36.8	37.0
Legacy	LS-0237 RR2X	XT	0.2	2.7	29	57.4	16.5	33.7	31.6	--
Legacy	LS-0239N RR2X	XT	0.2	1.8	26	57.5	15.7	33.1	37.9	--
Legacy	LS-0334 RR2	RR	0.3	2.3	24	57.1	15.7	35.0	42.1	41.6
Legacy	LS-0337N RR2X	XT	0.3	2.2	22	57.1	16.0	34.3	40.2	37.4
Legacy	LS-0438 RR2X	XT	0.4	2.6	24	57.3	15.5	35.4	36.4	--
LG Seeds	LGS00909R2	RR	0.9	2.0	26	57.5	16.1	33.1	38.1	--
LG Seeds	LGS0111RX	XT	0.1	2.4	25	57.2	16.1	34.4	36.3	--
LG Seeds	LGS0224R2	RR	0.2	2.6	23	57.4	15.6	34.6	35.8	--
LG Seeds	LGS0355RX	XT	0.3	1.8	26	57.4	15.6	32.7	45.8	--
NDSU	ND17009GT	GT	0.9	3.1	27	58.6	15.5	36.7	33.6	--
NDSU	ND18008GT	GT	0.8	2.6	25	57.3	16.4	34.4	30.0	--
Peterson	16R01	RR	0.1	2.5	30	57.2	16.5	34.5	37.3	35.1
Peterson	17X04N	XT	0.4	2.4	22	57.1	16.2	34.3	39.4	37.7
Proseed	10-08	RR	0.8	1.9	26	57.4	16.1	33.5	36.6	36.4
Proseed	20-30	RR	0.3	2.7	24	56.9	15.3	34.8	45.4	--
Proseed	30-20	RR	0.2	2.5	26	56.9	15.9	34.7	41.7	39.9
REA	RX0327	XT	0.3	2.2	21	56.7	15.8	34.5	34.2	--
REA	RX0516	XT	0.5	2.5	22	57.6	15.1	35.3	33.8	--
Mean				2.4	25	57.3	15.8	34.5	37.2	37.4
CV %				14.1	6.6	0.6	2.5	2.0	8.8	--
LSD 0.05				0.3	2.0	0.4	0.6	1.0	4.6	--
LSD 0.10				0.3	2.0	0.4	0.5	0.8	3.9	--

Planted: May 22. Harvested: Sept. 28. Previous crop: spring wheat.

¹Herbicide trait: GT= Glyphosate Tolerant, RR = Roundup Ready, XT = Extend.²Iron deficiency chlorosis rating: 1-green, 3-yellow, 5-dead tissue.

Table 33. 2018 Soybean - RR and Xtend - Rugby (North Central REC) - Authors, E. Eriksmoen and J. Effertz.

Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	IDC Rating ² (1-5)	Plant Height (inch)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield (bu/a)
Hefty	009X7	XT	00.9	2.2	27	56.3	16.4	30.8	54.4
Hefty	H008X8	XT	00.8	2.5	25	56.6	17.4	30.3	51.8
Hefty	H02X7	XT	0.2	2.5	31	55.6	17.2	29.8	61.1
Hefty	H02X9	XT	0.2	1.9	28	55.2	16.2	29.4	65.2
Hefty	H03X8	XT	0.3	2.5	28	54.9	16.7	29.7	63.7
Integra	20126	RR	0.1	2.5	27	55.8	17.2	31.4	63.7
Integra	20215	RR	0.2	2.6	25	56.3	16.9	31.2	54.8
Integra	50309N	XT	0.3	1.8	27	56.2	16.3	29.9	66.3
Legacy	LS-00937 RR2X	XT	00.9	2.1	25	57.0	16.7	30.4	57.2
Legacy	LS-0135 RR2	RR	00.9	2.6	26	56.4	18.0	30.9	58.6
Legacy	LS-0237 RR2X	XT	0.2	2.7	30	55.8	17.0	29.9	68.4
Legacy	LS-0239N RR2X	XT	0.2	1.8	26	56.1	16.6	29.7	53.8
Legacy	LS-0337N RR2X	XT	0.3	2.2	22	55.8	16.8	31.4	57.2
NDSU	ND17009GT	GT	00.9	3.1	28	58.0	17.3	33.3	57.4
NDSU	ND18008GT	GT	00.8	2.6	21	56.7	17.4	31.8	56.2
NorthStar	NS 0111R2	RR	0.1	2.8	27	56.0	18.0	30.9	61.4
NorthStar	NS 60092XR2	XT	00.9	2.4	22	57.1	16.9	30.8	65.8
NorthStar	NS 60264NXR2	XT	0.2	2.0	29	56.0	16.6	29.9	57.3
REA	R00727	RR	00.7	2.2	21	55.9	16.9	31.0	53.6
REA	RX00749	XT	00.7	1.9	21	56.5	17.4	31.0	55.9
REA	RX0228	XT	0.2	1.6	27	56.3	17.1	30.9	60.1
Thunder	39005 R2Y	RR	00.5	2.2	24	56.3	17.5	31.8	59.8
Thunder	ASTRO	RR	00.8	2.3	26	56.6	16.8	31.0	61.1
Thunder	SB88007N	XT	00.7	2.3	25	56.3	17.5	30.3	67.9
Thunder	SB89006N	XT	00.6	1.8	26	56.3	16.9	31.9	53.7
Mean				2.4	25	56.3	17.0	30.8	58.6
CV %				14.1	6.7	1.1	1.4	1.8	6.4
LSD 0.05				0.3	2.0	0.9	0.3	0.8	5.2
LSD 0.10				0.3	2.0	0.7	0.3	0.7	4.4

Planted: May 23. Harvested: Sept. 29. Previous crop: barley.

¹Herbicide trait: GT= Glyphosate Tolerant, RR = Roundup Ready, XT = Extend.

²Iron deficiency chlorosis rating: 1-green, 3-yellow, 5-dead tissue.

Table 34. 2018 Soybean - RR and Xtend - Wilton (North Central REC) - Authors, E. Eriksmoen and J. Effertz.									
Company/ Brand	Variety	Herbicide Trait ¹	Maturity Group	IDC Rating ²	Test Weight	Seed Oil	Seed Protein	Seed Yield	
								2018	2-yr. Avg.
								-----(bu/a)----	
Dyna-Gro	S009XT68	XT	00.9	2.1	54.8	16.4	30.9	32.0	--
Dyna-Gro	S03XT29	XT	0.3	1.8	54.6	15.9	30.4	34.0	--
Dyna-Gro	S04XT77	XT	0.4	2.3	54.1	16.5	31.4	32.7	--
Dyna-Gro	S05XT88	XT	0.5	2.4	54.1	16.5	32.2	33.7	39.6
Dyna-Gro	S06XT59	XT	0.6	2.7	54.3	15.8	30.6	37.1	--
Hefty	009x7	XT	00.9	2.2	54.8	16.4	30.7	31.9	41.1
Hefty	H02X7	XT	0.2	2.5	54.6	16.9	30.8	32.0	--
Hefty	H02X9	XT	0.2	1.9	54.6	16.2	30.3	33.0	--
Hefty	H03X7	XT	0.3	--	54.2	16.3	31.9	33.5	41.5
Hefty	H03X7	XT	0.3	2.5	54.4	16.3	31.1	32.3	--
Integra	20300	RR	0.3	2.4	54.6	16.1	32.0	30.8	39.2
Integra	50309N	XT	0.3	1.8	54.7	16.1	30.0	33.6	--
Legacy	LS-0334 RR2	RR	0.3	2.3	54.3	16.1	32.6	36.2	44.8
Legacy	LS-0337N RR2X	XT	0.3	2.2	54.1	16.6	31.8	33.9	41.4
Legacy	LS-0438 RR2X	XT	0.4	2.6	54.2	16.6	31.7	35.7	41.8
Legacy	LS-0638N RR2X	XT	0.6	2.7	54.2	15.8	30.9	36.1	--
LG Seeds	LGS0111RX	XT	0.1	2.4	54.3	16.4	32.1	32.6	--
LG Seeds	LGS0224R2	RR	0.2	2.6	54.5	16.7	30.6	31.5	--
LG Seeds	LGS0355RX	XT	0.3	1.8	54.7	16.1	30.0	33.1	--
NDSU	ND17009GT	GT	00.9	3.1	56.1	17.1	32.5	24.7	33.1
NDSU	ND18008GT	GT	00.8	2.6	54.9	17.0	31.6	27.9	30.1
REA	RX0327	XT	0.3	2.2	54.0	16.6	30.8	35.8	42.4
REA	RX0516	XT	0.5	3.1	54.4	15.3	33.0	33.0	40.9
Thunder	3503 R2Y	RR	0.3	2.0	54.8	16.0	32.8	34.5	--
Thunder	SB8903N	XT	0.3	1.8	54.7	16.1	30.6	31.2	--
Mean				2.4	54.5	16.3	31.3	32.9	39.6
CV %				14.1	0.5	2.4	3.0	8.5	--
LSD 0.05				0.3	0.4	0.6	1.3	3.8	--
LSD 0.10				0.3	0.3	0.5	1.1	3.2	--

Planted: May 22. Harvested: Oct. 7. Previous crop: soybean.

¹Herbicide trait: GT= Glyphosate Tolerant, RR = Roundup Ready, XT = Extend.

²Iron deficiency chlorosis rating: 1-green, 3-yellow, 5-dead tissue.

Table 35. 2018 Soybean - Roundup Ready and Xtend - Hettinger (REC) - Author, J. Rickertsen.

Company/ Brand	Variety	Maturity		Plant Height (inch)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
		Group	Maturity ¹ (date)					2018	2-yr. Avg. (bu/a)
Legacy	LS-0334 RR2	0.3	9/28	22	53.5	15.4	34.0	30.1	--
Legacy	LS-0438 RR2X	0.4	9/28	21	53.3	15.7	34.1	28.9	--
Legacy	LS-0738N RR2X	0.7	10/2	21	53.7	15.2	34.5	30.6	--
Legend	LS 03X852N	0.3	9/27	22	54.3	15.1	33	28.9	--
Legend	LS 05X865N	0.5	9/29	21	52.8	15.7	34.3	29.2	--
Legend	LS 09R23N	0.9	10/3	21	54.3	15.3	33.7	31.7	--
Legend	LS 09X960N	0.9	10/4	20	53.8	14.9	35.4	30.3	--
NDSU	17009GT	00.9	9/17	23	55.1	15.6	34.6	26.2	--
Proseed	30-20	0.2	9/20	23	52.8	16.2	33.8	31.0	28.7
REA	RX0516	0.5	9/29	23	53.9	15.2	33.3	30.5	--
REA	RX0628	0.6	10/2	20	53.4	15.5	33.5	29.0	26.2
REA	RX0719	0.7	10/2	20	53.6	15.5	34.1	29.8	--
REA	RX0929	0.9	10/3	21	53.4	14.7	35.3	31.0	--
Mean			9/29	21	53.7	15.4	34.1	29.8	27.4
CV %			1.2	8.5	1.1	2.0	1.4	11.0	--
LSD 0.05			2.2	2.6	0.8	0.4	0.7	4.7	--
LSD 0.10			1.8	2.2	0.7	0.4	0.6	3.9	--

Planted: May 23. Harvested: Oct. 15. Previous crop: barley.

¹Maturity is date of 95 percent brown or tan pods.**Table 36. 2018 Soybean - Conventional - Hettinger (REC) - Author, J. Rickertsen.**

Company/ Brand	Variety	Maturity		Plant Height (inch)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
		Group	Maturity ¹ (date)					2018	2-yr. Avg. ² (bu/a)
NDSU	ND Benson	0.4	9/30	24	13.2	15.4	35.4	30.3	28.0
NDSU	ND Bison	0.7	10/5	24	13.1	15.7	33.5	33.9	30.6
NDSU	ND Stutsman	0.7	9/27	27	12.3	15.6	33.6	36.8	32.4
--	RR Check	0.8	10/6	26	13.4	15.8	33.0	36.6	--
Mean			10/2	25	13.0	15.6	33.9	34.0	30.3
CV %			0.3	5.4	0.7	3.0	3.4	12.2	--
LSD 0.05			0.7	2.2	0.6	0.7	1.9	6.7	--
LSD 0.10			0.5	1.8	0.5	0.6	1.5	5.5	--

Planted: May 23. Harvested: Oct. 16. Previous crop: spring wheat.

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

Table 37. 2018 Soybean - Dryland, RR and Xtend - Williston - Authors, J. Bergman and G. Pradhan.

Company/		Maturity		Plant	Seed	Seed	Seed Yield	
Brand	Variety	Group	Maturity ¹	Height	Oil	Protein	2018	2-Yr. Avg.
			(date)	(inch)	(%)	(%)	------(bu/a)-----	
Integra	20126 R2Y	0.1	8/10	16	14.4	37.5	12.8	21.4
Integra	20300 R2Y	0.3	8/20	19	14.0	37.5	13.9	--
Integra	50309N R2X	0.3	8/21	16	13.9	36.5	13.6	--
NDSU	ND17009GT	00.9	8/2	18	14.4	37.9	13.3	21.8
REA	R00727	00.7	8/26	16	14.4	36.5	13.1	--
REA	RX00619	00.6	8/23	18	14.9	34.7	10.9	--
REA	RX0327	0.3	8/30	13	14.1	37.5	13.9	22.4
REA	RX0516	0.5	8/17	15	13.7	38.3	12.0	21.5
REA	RX0628	0.6	8/29	17	13.5	38.1	10.0	20.2
Mean			8/20	17	14.1	37.2	12.6	21.5
CV %			1.6	5.2	1.6	1.2	12.8	--
LSD 0.05			2.0	1.2	0.3	0.6	2.4	--
LSD 0.10			1.7	1.0	0.3	0.5	2.0	--
--	RR Check 1	00.6	8/26	17	14.1	36.1	11.4	15.2
--	RR Check 2	00.8	8/29	17	14.7	35.4	12.4	--
--	RR Check 3	00.9	9/3	19	14.4	35.5	15.3	20.5
--	RR Check 4	0.8	9/18	17	13.7	38.5	14.5	--
NDSU	ND17009GT	00.9	8/31	16	13.6	37.8	13.4	--
Mean			9/2	16	14.0	36.6	12.5	17.9
CV%			2.7	5.1	1.2	1.2	14.3	--
LSD 0.05			4.0	1.2	0.2	0.7	2.6	--
LSD 0.10			3.3	1.0	0.2	0.5	2.2	--

Planted: May 25. Harvested: Aug. 29. Previous crop: durum. Trial received hail on June 28 and first hard fall freeze Sept.28.

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

Table 38. 2018 Soybean - Dryland, Conventional - Williston - Authors, J. Bergman and G. Pradhan.

Company/		Maturity		Plant	Test	Seed	Seed	Seed Yield	
Brand	Variety	Group	Maturity ¹	Height	Weight	Oil	Protein	2018	2-Yr. Avg.
			(date)	(inch)	(lb/bu)	(%)	(%)	------(bu/a)-----	
NDSU	ND Benson	0.4	9/13	18	52.8	13.7	38.6	9.7	--
NDSU	ND Bison	0.7	9/8	15	53.3	13.7	36.7	10.1	17.0
NDSU	ND Henson	0.0	8/30	18	53.1	14.1	36.6	11.7	19.3
NDSU	ND Stutsman	0.7	9/8	17	53.4	14.2	36.0	13.8	--
--	RR Check 1	00.6	8/26	19	51.1	14.1	35.9	13.5	16.3
--	RR Check 2	00.8	8/31	16	52.5	14.8	35.3	12.3	--
--	RR Check 3	00.9	9/1	19	52.6	14.1	35.9	12.5	19.1
--	RR Check 4	0.8	9/20	17	52.9	13.6	38.5	12.1	--
--	Xtend Check	--	9/4	17	52.7	13.7	37.0	11.6	--
Mean			9/5	17	52.7	14.0	36.8	11.7	17.7
CV %			1.3	5.7	0.8	1.4	1.3	15.6	--
LSD 0.05			2.0	1.4	0.6	0.3	0.7	2.6	--
LSD 0.10			1.6	1.1	0.5	0.2	0.6	2.2	--

Planted: May 25. Harvested: Aug. 28. Previous crop: durum. Trial received hail on June 28 and a hard fall frost on Sept. 28.

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

Table 39. 2018 Soybean - Irrigated, RR and Xtend - Nesson Valley (Williston REC) - Authors, J. Jacobs and T. Tjelde.

Company/ Brand	Variety	Maturity		Plant Height	Plant Lodge ²	Test Weight	Seed Oil	Seed Protein	Seed Yield	
		Group	Maturity ¹ (date)						2018	2-Yr. Avg.
Hefty	H005X8	00.5	9/6	27	1.0	57.9	13.5	35.1	58.7	--
Hefty	H007X7	00.7	9/12	26	1.0	58.8	13.6	36.1	52.2	--
Hefty	H008X8	00.8	9/15	27	1.5	57.6	13.4	35.8	58.1	--
Hefty	H009X7	00.9	9/14	30	1.0	58.1	13.7	36.9	61.7	--
Hefty	H02X7	0.2	9/15	29	1.0	58.1	13.4	35.8	60.3	--
Hefty	H03X7	0.3	9/19	22	1.5	57.2	13.9	36.3	63.0	--
Hefty	H03X8	0.3	9/20	31	1.0	58.1	13.7	34.8	67.1	--
Integra	20300 R2Y	0.3	9/18	26	1.0	57.8	13.8	36.1	71.7	76.1
NDSU	ND17009GT	00.9	9/6	28	1.5	59.3	13.4	38.4	57.0	62.3
NDSU	ND18008GT	00.8	9/3	23	1.0	57.9	13.8	37.4	49.3	55.4
REA	R00727	00.7	9/11	24	1.0	57.0	13.7	35.9	56.8	68.6
REA	RX00619	00.6	9/2	24	1.0	58.1	13.7	35.6	52.6	--
REA	RX00749	00.7	9/6	27	1.5	57.5	13.5	35.6	51.2	--
REA	RX0327	0.3	9/15	22	1.3	57.5	13.6	36.7	61.5	69.9
REA	RX0628	0.6	9/23	26	1.5	56.8	13.6	35.9	65.2	72.5
Mean			9/12	26	1.2	58.0	13.6	36.2	58.9	67.5
CV %			--	--	--	1.2	--	--	9.2	--
LSD 0.05			--	--	--	1.0	--	--	7.8	--
LSD 0.10			--	--	--	0.8	--	--	6.5	--

Planted: May 23. Harvested: Oct. 17. Previous crop: barley.

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

²Lodging score: 1-upright, 9-flat on ground.

Table 40. 2018 Soybean - Irrigated, Conventional - Nesson Valley (Williston REC) - Authors, J. Jacobs and T. Tjelde.

Company/ Brand	Variety	Maturity		Plant Height	Plant Lodge ²	Test Weight	Seed Oil	Seed Protein	Seed Yield	
		Group	Maturity ¹ (date)						2018	2-Yr. Avg.
NDSU	ND Benson	0.4	9/24	31	2.8	572.0	13.4	36.4	72.2	59.4
NDSU	ND Bison	0.7	9/25	31	2.0	57.0	13.6	33.6	77.6	59.8
NDSU	ND Henson	0.0	9/11	29	2.0	58.6	14.5	35.2	68.2	56.5
NDSU	ND Stutsman	0.7	9/23	33	4.0	58.0	14.1	32.5	81.6	78.1
Mean			9/21	31	2.7	57.7	13.9	34.4	74.9	63.4
CV %			--	--	--	1.0	0.8	1.2	10.7	--
LSD 0.05			--	--	--	0.9	0.2	0.6	12.8	--
LSD 0.10			--	--	--	0.7	0.2	0.5	10.4	--

Planted: May 23. Harvested: Oct. 17. Previous crop: barley.

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

²Lodging score: 1-upright, 9-flat on ground.

Table 41. 2018 Soybean - RR and Xtend - Ransom and Sargent Counties. Authors, B. Zimprich, M. Seykora, H. Kandel and C. Deplazes.

Company/ Variety		Mt. Group	Ransom 2018				Sargent 2018				Combined 2018			
			Test Weight	-----Seed----- Protein (%)	Oil (%)	Yield (bu/a)	Test Weight	-----Seed----- Protein (%)	Oil (%)	Yield (bu/a)	Test Weight	-----Seed----- Protein (%)	Oil (%)	Yield (bu/a)
Hefty	H06X8	0.6	55.5	33.8	18.4	51.2	56.9	33.9	18.3	61.4	56.2	33.8	18.3	56.3
Hefty	H08X8	0.8	56.5	35.0	18.0	53.0	56.6	34.6	18.2	62.3	56.6	34.8	18.1	57.7
Hefty	H11X8	1.1	56.3	35.1	18.7	54.0	57.8	34.5	18.5	68.4	57.0	34.8	18.6	61.2
Hefty	H13X8	1.3	56.7	34.1	18.4	52.4	56.8	33.8	18.1	60.4	56.8	33.9	18.2	56.4
Integra	50989N	0.9	55.6	35.3	18.2	52.6	56.5	34.5	17.5	54.2	56.1	34.9	17.8	53.4
Integra	20915N	0.9	56.1	34.4	18.3	56.1	56.5	34.1	18.1	56.6	56.3	34.3	18.2	56.3
Integra	51229N	1.2	56.5	33.8	18.2	55.3	56.4	33.9	18.2	61.0	56.5	33.8	18.2	58.1
Legacy	LS-0738N RR2X	0.7	55.8	35.1	18.1	54.9	56.4	34.1	17.8	65.3	56.1	34.6	18.0	60.1
Legacy	LS-0935N RR2	0.9	55.9	34.3	18.6	53.3	56.5	33.8	17.5	58.6	56.2	34.1	18.1	56.0
Legacy	LS-1138N RR2X	1.1	56.8	35.3	18.3	47.0	57.0	33.5	17.7	57.4	56.9	34.4	18.0	52.2
Peterson	18X08N	0.8	55.8	35.3	17.8	55.5	55.8	34.1	18.4	61.6	55.8	34.7	18.1	58.5
Peterson	19X10N	1.0	57.3	35.5	18.0	46.2	56.5	34.5	18.5	58.1	56.9	35.0	18.2	52.2
Peterson	18X11N	1.1	56.9	35.0	18.6	56.3	55.9	34.3	18.1	55.4	56.4	34.7	18.3	55.9
Proseed	XT 60-40	0.4	54.9	34.6	18.9	54.0	56.5	33.3	17.9	60.3	55.7	33.9	18.4	57.2
Proseed	XT 80-60	0.6	55.4	34.5	18.7	52.3	57.2	33.7	18.4	59.1	56.3	34.1	18.5	55.7
Proseed	XT 80-80	0.8	56.4	35.6	17.9	51.7	56.1	33.6	17.7	59.6	56.3	34.6	17.8	55.7
REA	RX0719	0.7	55.1	35.1	19.0	52.8	56.8	34.3	18.0	57.6	55.9	34.7	18.5	55.2
REA	RX0929	0.9	55.5	35.0	18.3	54.1	57.1	33.7	17.8	62.1	56.3	34.4	18.1	58.1
REA	RX1027	1.0	55.7	34.7	18.4	53.1	56.2	34.2	18.1	62.1	56.0	34.5	18.3	57.6
REA	RX1226	1.2	56.6	35.0	17.7	55.3	56.3	34.6	18.4	59.9	56.4	34.8	18.1	57.6
Mean			56.1	34.8	18.3	53.1	56.6	34.0	18.1	60.1	56.3	34.4	18.2	56.6
CV %			1.2	1.4	1.6	4.7	1.3	2.4	2.6	8.9	1.4	1.9	2.4	7.6
LSD 0.05			1.1	0.8	0.5	4.1	1.3	NS	0.8	8.9	0.9	0.8	0.5	4.9
LSD 0.10			0.9	0.7	0.4	3.4	1.0	1.1	0.6	7.4	0.7	0.6	0.4	4.1

Planted: May 11. Harvested: Oct. 2. Previous crop: soybean.

Table 42. 2018 Soybean - RR and Xtend - Steele County - Authors, A. Johnson, H. Kandel and C. Deplazes.						
Company/ Brand	Variety	Maturity Group	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	2018 Seed Yield (bu/a)
Asgrow	05X9	0.5	58.2	18.0	35.0	39.1
Asgrow	06X8	0.6	59.5	17.5	34.5	38.4
Asgrow	07X9	0.7	58.3	18.3	33.8	43.0
Channel	0218R2X	0.2	57.6	18.5	34.1	39.0
Channel	0518R2X	0.5	58.9	17.7	35.2	39.2
Croplan	RX0436	0.4	58.4	18.4	34.5	41.8
Croplan	RX0500	0.5	58.0	18.4	34.3	42.2
Croplan	RX0700	0.7	58.6	17.6	32.6	40.9
Integra	50309N R2X	0.3	58.0	18.0	32.9	38.9
Integra	20468	0.4	58.1	17.6	34.1	41.1
Integra	50539 N	0.5	57.6	17.9	34.5	39.7
Integra	20775N	0.7	58.5	18.2	32.6	41.9
Legacy	LS 0337N RR2X	0.3	58.3	18.4	33.9	42.6
Legacy	LS-0438RR2X	0.4	57.8	18.1	34.5	39.9
Legacy	LS 0638N RR2X	0.6	58.6	17.1	32.4	37.8
Legacy	LS 0738N RR2X	0.7	58.2	17.7	33.0	42.9
NorthStar	60264NXR2	0.2	58.3	17.5	33.3	35.4
NorthStar	60442NXR2	0.4	58.2	17.7	34.1	38.8
NorthStar	60513 NXR2	0.5	57.5	17.9	34.5	41.0
NorthStar	60823NXR2	0.8	58.0	18.0	33.4	46.5
Syng NK	S03-56X	0.3	58.0	17.9	33.5	38.2
Syng NK	S06-K4X	0.6	58.3	18.2	33.4	40.3
Syng NK	S07-Q4X	0.7	59.3	17.4	34.3	43.0
Thunder	8703	0.3	57.9	18.0	33.9	37.7
Thunder	8805N	0.5	57.5	18.0	34.5	35.3
Thunder	8807N	0.7	58.9	17.7	34.0	36.9
Mean			58.3	17.9	33.9	40.1
CV %			1.3	2.6	2.1	10.1
LSD 0.05			1.2	0.8	1.2	6.6
LSD 0.10			1.0	0.6	1.0	5.5

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