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North Dakota Soybean

Variety Trial Results for 2021 and Selection Guide

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Variety trial data from all NDSU Research Extension Centers for all crops can be found at *www.ag.ndsu.edu/varietytrials*. Several herbicide traits are represented in the tables: RR = Roundup Ready, RRXT = RR2Xtend, F = Flex, X or XT = Xtend, GT = glyphosate tolerant, LL = Liberty Link and GT27 = Liberty Link GT27.

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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 riskier 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% 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 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. Note that some of the trial locations in 2021 had drought conditions, which reduced the yield, and data should be used with caution.

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 specific 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 over time, the pathogen can become resistant to them. Consequently, fungicide seed treatments and resistance genes should be rotated. The most effective strategy would include the use of fungicide seed treatments, planting varieties with genetic resistance, water management (surface and subsurface drainage) and crop rotation.

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 by NDSU during the 2021 season, 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 soybean plants. Nematodes often are undetected because above-ground symptoms are uncommon until a 15% to 30% yield loss has occurred.

Soybean cyst nematode has been confirmed in many soybean-growing 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 - are effective in the majority of the soybean fields in the state. However, the nematode is adapting to the genetic resistance, so varieties with PI88788 and Peking should be rotated. Importantly, the level of resistance in varieties is variable, even if they contain the same source of resistance, 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. More information of soybean cyst nematode can be found at *www.thescncoalition.com*.

General information about the Tables

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% probability, the higher-yielding variety has a significant yield advantage. If the difference between two varieties is less than the LSD value, then the soybean 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. **Due to drought conditions, some locations have high CVs for yield. Data from those locations should be used with caution (see footnotes).**

In the tables, the mean indicates the average of the observations in the column. Soybean yield, oil and protein information are adjusted to 13% moisture content in the seed. **The oil and protein content data are specific for the test location and are not intended to be compared between locations.** Maturity date indicates physiological maturity, which is the date when 95% 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.

Acknowledgments

We thank all producer cooperators for contributing their time, labor, land and other material to the 2021 soybean yield trial program in the central and southern Red River Valley and other off-station sites.

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

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

Variety	Maturity Group	Fargo Relative Maturity	Height	Hilum Color	Remarks[1]
ND21008GT20	00.8	Early	Med.	Gray	1,2,7
ND18008GT	00.8	Early	Med.	Black	1,2,7,9
ND17009GT	00.9	Early	Med.	Black	7
ND Rolette	00.9	Early	Med.	Buff	1,2,8
ND Benson	0.4	Med.	Med.	Buff	1,2,6,8
ND Dickey	0.7	Med. Late	Med,	Gray	1,3
ND Stutsman	0.7	Med. Late	Med.	Yellow	1,3,8
ND2108GT73	0.8	Late	Tall	Yellow	4,7

[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; 9 = tolerance to soybean aphid.

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

Company	Abbreviated	Website
AgriGold	AgriGold	Agrigold.com/soybeans
BASF	BASF	agriculture.basf.us/crop-protection/products/seeds/credenz.html
BioGene	BioGene	www.biogeneseeds.com
Brushvale Seed Inc.	Brushvale	www.brushvaleseed.com
Champion	Chmpion	www.plantchampion.com/
Channel	Channel	www.channel.com/en-us/products.html
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
Impact	IMPACT	legendseeds.net/products/impact-corn-soybeans
Innvictis Seed Solutions	Innvictis	www.innvictisseed.com/products/soybeans/107
Integra Fortified Seed	Integra	www.wilburellisagribusiness.com/integra-seed/
Legacy Seeds Inc.	Legacy	www.legacyseeds.com
Legend Seeds Inc.	Legend	www.legendseeds.net
LG Seeds	LG Seeds	www.lgseeds.com
MS Technologies	MS Tech.	www.mstechseed.com/
N.D. Foundation Seed	NDSU	www.ag.ndsu.edu/fss/
P3 Genetics	P3 Genetics	www.petersonfarmsseed.com/p3-soybeans/
Peterson Farms Seed	Peterson	www.petersonfarmsseed.com
Prograin	Prograin	www.prograin.ca/ca/en/seeds/
Proseed Inc.	Proseed	www.proseed.net
REA hybrids	REA	www.rea-hybrids.com
Richland IFC	Richland	www.richlandifc.com
Sevita International	Sevita	www.sevitagenetics.com
Stine Seed Company	Stine	www.stineseed.com/soybeans
Syngenta NK Brand	Syng NK	www.syngenta-us.com/seed
Thunder Seed Inc.	Thunder	www.thunderseeds.com
University of Minnesota	U of M	www.mncia.org/
WinField Croplan	Croplan	www.winfieldunited.com/
Zinesto	Zinesto	www.zinestoseed.com/

Table 3. 2021 NDSU Enlist, GT27, RR and Xtend Soybean Iron-deficiency Chlorosis Trial - Author, C. Miranda (Page 1 of 3).

Company	Variety	Trial Mean IDC[1]	Company	Variety	Trial Mean IDC[1]
AgriGold	G0801E3	2.5	Dyna-Gro	S12XF92	3.0
AgriGold	G1490XF	3.1	Dyna-Gro	SX21906XF	2.6
Asgrow	AG 0333	3.0	Dyna-Gro	SX21911XF	3.3
Asgrow	AG 0835	2.2	Golden H.	GH00629X	3.0
Asgrow	AG 09X9	2.8	Golden H.	GH00833E3	1.8
Asgrow	AG 1135	2.6	Golden H.	GH00982XF	3.1
Asgrow	AG0832	3.1	Golden H.	GH0145X	2.9
Champion	03X30N	1.8	Golden H.	GH0272XF	2.6
Champion	052X	2.6	Golden H.	GH0325E3	1.9
Champion	0631XL	2.8	Golden H.	GH0443X	1.5
Champion	0692XL	3.7	Golden H.	GH0452E3	1.6
Channel	00922R2X	3.2	Golden H.	GH0502XF	3.2
Channel	0122RFX	3.1	Golden H.	GH0543X	2.8
Channel	0320R2X	1.4	Golden H.	GH0593E3	2.5
Channel	0622RFX	3.2	Golden H.	GH0715E3	2.7
Channel	0721RFX	2.8	Golden H.	GH0749X	3.0
Channel	1022RFX	2.8	Golden H.	GH0822XF	3.3
Channel	1220RFX	2.6	Golden H.	GH0842E3	3.2
Channel	1421RFX	2.4	Golden H.	GH0936X	2.8
Channel	1422RFX	2.1	Golden H.	GH1012E3	2.8
Dahlman	1102E3N	3.4	Golden H.	GH1032XF	2.6
Dahlman	1111E3N	3.0	Golden H.	GH1362E3	2.9
Dahlman	1201E3N	2.7	Golden H.	GH1414X	2.7
Dahlman	1213E3N	3.0	Golden H.	GH1442XF	3.1
Dahlman	6010XN	2.8	Golden H.	GH1472E3	3.1
Dahlman	7203XF	2.3	Hefty	Z0601E	3.1
Dairyland	DSR-0119E	2.3	Hefty	Z0801E	3.8
Dairyland	DSR-0645E	2.2	Hefty	Z1001E	3.1
Dairyland	DSR-0660E	3.2	Hefty	Z1101E	2.6
Dairyland	DSR-0847E	3.3	IMPACT	002E265	2.2
Dairyland	DSR-0920E	2.9	IMPACT	03E000N	2.6
Dairyland	DSR-1010E	3.2	IMPACT	08E127N	3.7
Dairyland	DSR-1290E	3.1	IMPACT	08LGT065N	3.0
Dyna-Gro	S009XF52	3.0	IMPACT	12E157N	2.6
Dyna-Gro	S009XT68	2.8	IMPACT	13E245N	2.7
Dyna-Gro	S03XT29	1.2	Innvictis	A00918X	2.6
Dyna-Gro	S04XF32	2.2	Innvictis	A00979X	3.2
Dyna-Gro	S04XT91	2.6	Innvictis	A0338X	1.5
Dyna-Gro	S05EN82	2.2	Innvictis	B0330E	3.0
Dyna-Gro	S07EN61	2.6	Integra	40089N	2.0
Dyna-Gro	S09EN41	3.1	Integra	40201N	3.3
Dyna-Gro	S09XF62	3.0	Integra	40300N	2.3
Dyna-Gro	S12EN72	2.6	Integra	40602N	3.1
Mean		2.6	Mean		2.6
CV %		19.1	CV %		19.1
LSD 0.05		0.7	LSD 0.05		0.7
LSD 0.10		0.6	LSD 0.10		0.6

Table 3. 2021 NDSU Enlist, GT27, RR and Xtend Soybean Iron-deficiency Chlorosis Trial - Author, C. Miranda (Page 2 of 3).

Company	Variety	Trial Mean IDC[1]	Company	Variety	Trial Mean IDC[1]
Integra	40831N	2.6	NDSU	21ND08GT73	2.8
Integra	50081N	2.6	NDSU	Rolette	1.4
Integra	50309N	1.4	P3 Genetics	1911E	3.0
Integra	70082N XF	3.5	P3 Genetics	2002E	2.5
Integra	70212XF	2.5	P3 Genetics	2013E	2.5
Integra	70622N	2.4	P3 Genetics	2015E	2.8
Integra	70832N	2.9	P3 Genetics	2106E	2.5
Legacy	LS-00639 R2X	2.2	P3 Genetics	2108E	2.6
Legacy	LS-00930 R2X	2.6	P3 Genetics	2109E	3.5
Legacy	LS-012-20E	2.5	P3 Genetics	2110E	3.3
Legacy	LS-012-21E	2.3	P3 Genetics	2201E	2.5
Legacy	LS-0239 RR2X	1.1	P3 Genetics	2207E	3.3
Legacy	LS-0320N E	2.7	P3 Genetics	2212E	3.0
Legacy	LS-042-21E	2.1	P3 Genetics	2214E	2.9
Legacy	LS-0429E	1.8	Peterson	19EN008	2.5
Legacy	LS-044-21XF	1.6	Peterson	20X05	2.6
Legacy	LS-062-21E	2.4	Peterson	21XF07	2.7
Legacy	LS-072-21E	3.4	Peterson	22XF009	2.8
Legacy	LS-082-20E	3.7	Peterson	22XF03	3.0
Legacy	LS-0829E	3.6	Peterson	22XF06	2.7
Legacy	LS-094-20XF	2.4	Peterson	22XF10	2.6
Legacy	LS-102-20E	3.2	Peterson	22XF12	2.8
Legacy	LS-122-21E	2.7	Peterson	22XF14	2.8
Legacy	LS-1320NE	2.6	Proseed	EL20-73N	2.6
Legend	009E955N	1.4	Proseed	EL21-03N	2.8
Legend Mustang	00X828	1.9	Proseed	EL21-23N	2.9
Legend Mustang	04X427	2.1	Proseed	EL80-093N	2.5
Legend Mustang	08X028	2.8	Proseed	EL80-23	2.0
Legend Mustang	XF07722	3.0	Proseed	EL90-33N	2.8
Legend Mustang	XF10522	3.1	Proseed	XF10-32	2.9
LG Seeds	LGS00838XF	3.2	Proseed	XF10-72	2.6
LG Seeds	LGS0111RX	2.7	Proseed	XT20-07	3.1
LG Seeds	LGS0595RX	2.5	Proseed	XT20-40	2.3
LG Seeds	LGS0701XF	2.8	Proseed	XT60-40N	3.0
LG Seeds	LGS0822E3	2.4	Proseed	XT70-09N	2.5
LG Seeds	LGS1203E3	2.8	Proseed	XT80-20N	1.1
LG Seeds	LGS400RX	2.3	Proseed	XT90-50	2.7
NDSU	ND16-7108	2.7	REA	R0112XF	2.4
NDSU	ND17-19726	1.9	REA	R0632XF	2.5
NDSU	ND17-26003	3.0	REA	R1042XF	2.7
NDSU	ND17009GT	3.8	REA	R1350XF	2.6
NDSU	ND18008GT	2.7	REA	RX00912	3.1
NDSU	21ND008GT20	1.2	REA	RX0411	2.6
Mean		2.6	Mean		2.6
CV %		19.1	CV %		19.1
LSD 0.05		0.7	LSD 0.05		0.7
LSD 0.10		0.6	LSD 0.10		0.6

Table 3. 2021 NDSU Enlist, GT27, RR and Xtend Soybean Iron-deficiency Chlorosis Trial - Author, C. Miranda (Page 3 of 3).

Company	Variety	Trial Mean IDC[1]	Company	Variety	Trial Mean IDC[1]
Stine	06EC23	2.0	Syng NK	S05-N5X	2.8
Stine	07EA36	3.2	Thunder	SB8001	2.7
Syng NK	NK009-T1XF	2.8	Thunder	SB81006	2.7
Syng NK	NK02-M4XF	3.1	Thunder	SB8104N	2.2
Syng NK	NK04-G8E3	1.3	Thunder	SB88007N	2.2
Syng NK	NK05-W3XF	2.7	Thunder	SB8903N	1.1
Syng NK	NK08-B7XF	3.0	Thunder	TE7011N	2.9
Syng NK	NK10-W8XF	2.7	Thunder	TE71008N	1.9
Syng NK	NK14-C7XF	2.9	Thunder	TE7207	2.1
Syng NK	S006-R7X	3.0	Thunder	TX8109N	2.6
Syng NK	S008-E3	1.5	Thunder	TX82008N	3.7
Syng NK	S02-E3	2.6	Thunder	TX8206N	3.2
Syng NK	S02-F9X	3.2	Thunder	TX8207N	2.7
Syng NK	S04-Q7X	1.3	Thunder	TX8211N	3.2
Mean		2.6	Mean		2.6
CV %		19.1	CV %		19.1
LSD 0.05		0.7	LSD 0.05		0.7
LSD 0.10		0.6	LSD 0.10		0.6

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

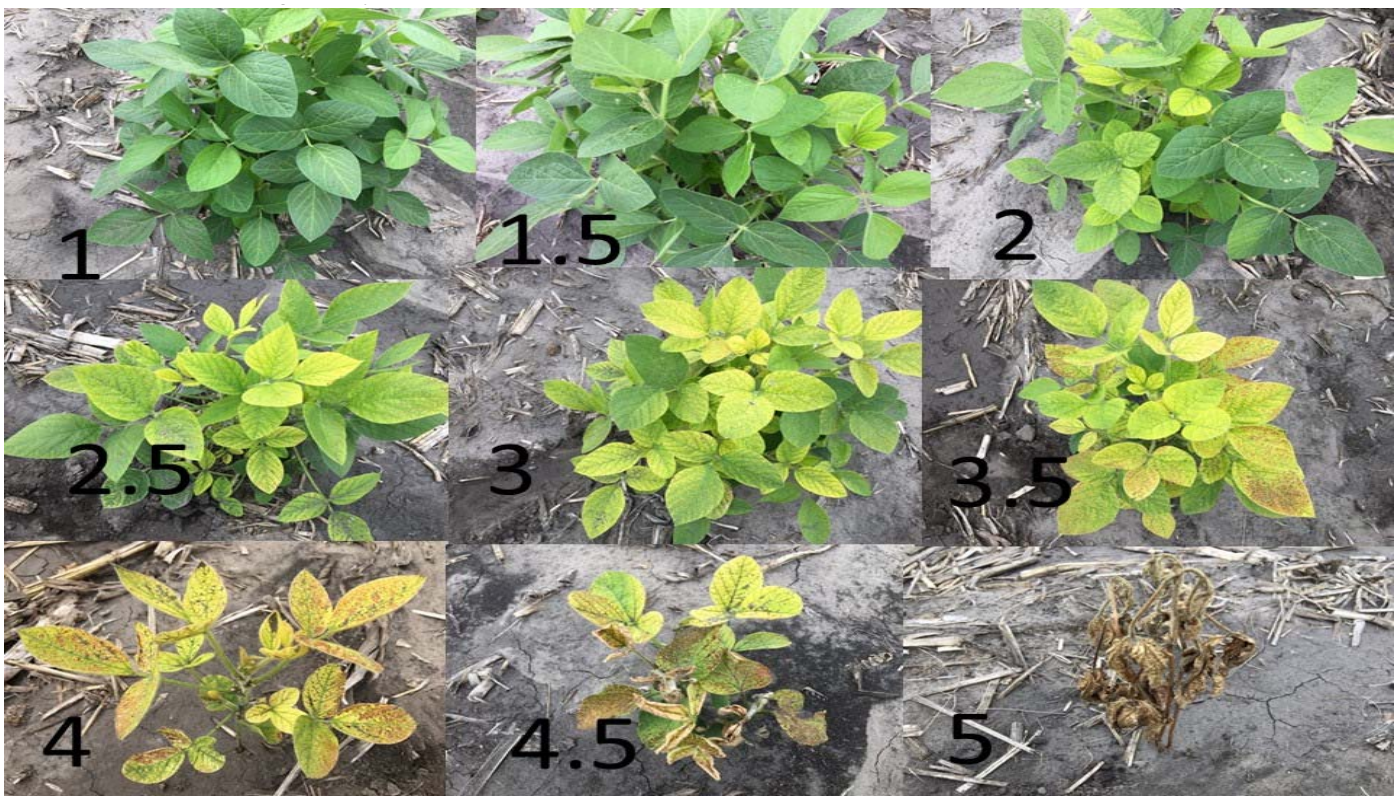
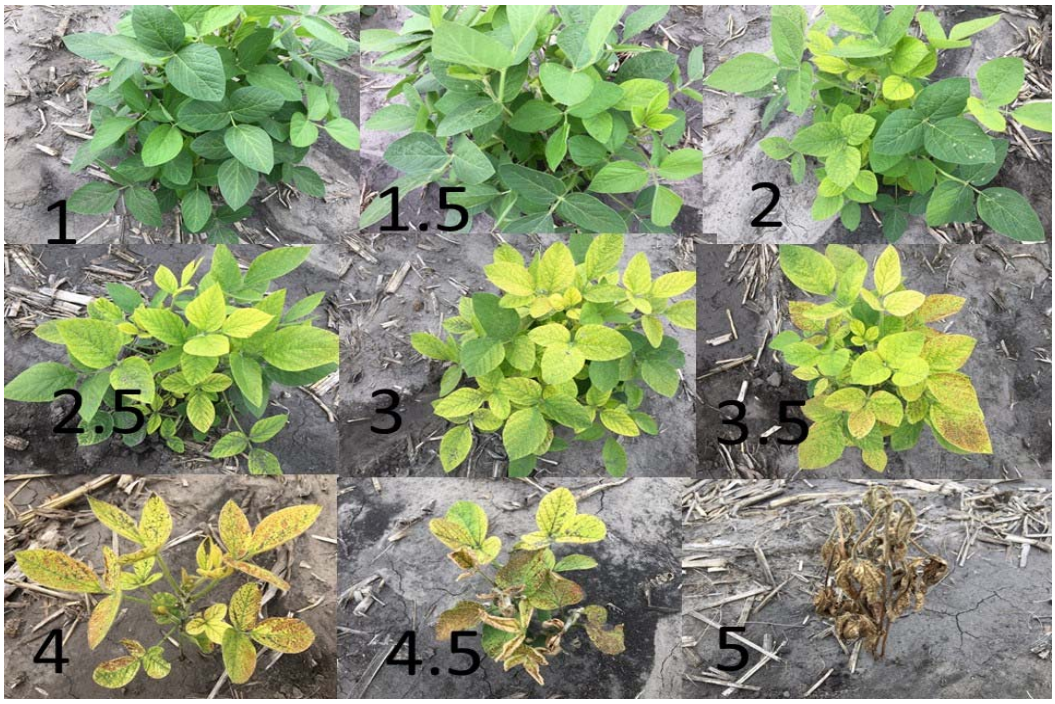


Table 4. 2021 NDSU Conventional Soybean Iron-deficiency Chlorosis Trial - Author, C. Miranda.

Company	Variety	Trial Mean IDC[1]	Company	Variety	Trial Mean IDC[1]
Asgrow	AG 0333 [2]	2.1	NDSU	ND Rolette	1.2
Asgrow	AG 05X9 [2]	2.0	NDSU	Stutsman	1.6
Asgrow	AG 0832 [2]	1.8	NDSU	ND1406HP	2.9
Asgrow	AG 0835 [2]	2.6	NDSU	ProSoy	2.9
Asgrow	AG 09X9 [2]	2.0	NDSU	Sargent	3.2
Asgrow	AG 1135 [2]	1.6	Pioneer	P.91M10	1.9
BASF	CZ 0419 GTLL	2.2	Prograin	Asana	3.1
Brushvale	BS1146	2.1	Prograin	Marula	2.3
Brushvale	BS1512	2.6	Richland	MK0249	2.1
Legacy	LS020-20	1.5	Richland	MK0508	1.6
Legacy	LS040-21	2.4	Richland	MK0603	1.7
MS Tech.	XO 0101E	1.8	Richland	MK1016	2.2
MS Tech.	XO 0311E	2.0	Richland	MK146	2.8
MS Tech.	XO 0521E	1.6	Richland	MK41	2.3
MS Tech.	XO 0731E	2.7	Richland	MK808CN	2.1
MS Tech.	XO 1041E	2.6	Richland	MK9101	2.0
NDSU	ND Benson	1.2	Sevita	Astor	3.3
NDSU	ND Dickey	1.8	Sevita	Panorama	2.5
NDSU	ND Henson	2.2	Sevita	Skyline	4.2
Mean		2.2	Mean		2.2
CV %		27.6	CV %		27.6
LSD 0.05		0.8	LSD 0.05		0.8
LSD 0.10		0.7	LSD 0.10		0.7

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

[2]Roundup Ready and Extend check varieties.



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

Table 5. 2021 NDSU Enlist, GT27, RR and Xtend Soybean Cyst Nematode Yield Trial - Author, C. Miranda.

Company	Variety	Mat. Group	Maturity[1]	Seed Oil	Seed Protein	Seed Yield			
						Colfax	Prosper	2-site Avg.	2-yr. Avg.
			(date)	(%)	(%)	----------(bu/a)----------			
Dahlman	1201E3N	0.1	9/10	19.5	37.5	24.5	43.4	34.0	--
Dahlman	1213E3N	1.3	9/1	19.7	37.0	41.7	52.7	47.2	--
Dahlman	7203XF	0.3	9/8	21.0	37.4	19.6	22.9	21.3	--
Dahlman	7210XF	1.0	9/28	20.3	36.6	45.8	58.0	51.9	--
Dahlman	7213XF	1.3	9/28	20.4	36.2	42.4	53.1	47.8	--
Golden H.	GH0502XF	0.5	9/14	19.2	37.3	42.3	46.8	44.5	--
Golden H.	GH0593E3	0.5	9/16	20.5	36.0	37.5	31.1	34.3	--
Golden H.	GH0749X	0.7	9/24	19.8	37.4	48.4	48.8	48.6	51.4
Golden H.	GH0822XF	0.8	9/22	20.0	35.8	27.0	51.4	39.2	--
Golden H.	GH0842E3	0.8	9/22	19.2	37.3	33.9	51.2	42.6	--
Golden H.	GH1032XF	1.0	9/24	18.7	38.1	63.5	47.5	55.5	--
Golden H.	GH1362E3	1.3	9/30	19.2	37.6	64.9	56.1	60.5	--
Golden H.	GH1442XF	1.4	9/30	20.3	36.4	55.5	54.4	55.0	--
Golden H.	GH1472E3	1.4	9/28	19.7	38.1	49.0	54.0	51.5	--
REA	R0632XF	0.6	9/14	19.1	37.3	31.6	49.5	40.5	--
REA	R1042XF	1.0	9/28	19.6	37.6	38.5	38.7	38.6	--
REA	R1350XF	1.3	9/28	20.7	35.6	38.5	36.4	37.5	--
REA	RX0411	0.4	9/12	19.6	37.2	35.2	33.6	34.4	38.8
REA	RX0721	0.7	9/20	--	--	31.6	49.8	40.7	46.1
Syng NK	NK08-B7XF	0.8	9/22	20.0	35.4	35.1	48.4	41.7	--
Syng NK	NK10-W8XF	1.0	9/18	18.6	37.3	37.1	48.2	42.7	--
Syng NK	NK14-C7XF	1.4	10/2	19.7	37.3	33.0	40.3	36.7	--
Syng NK	S14-U9X	1.4	9/30	19.8	36.4	47.0	46.3	46.6	--
Mean		0.9	9/22	19.8	36.9	40.2	46.2	43.2	45.5
CV %		--	17.1	--	--	41.1	18.8	30.5	--
LSD 0.05		--	4.5	--	--	19.5	10.3	12.7	--
LSD 0.10		--	3.5	--	--	15.1	7.9	10.6	--

Colfax Planted: May 11. Harvested: Oct 15 . Previous crop: Corn

Prosper Planted: May 17. Harvested: Oct 5 . Previous crop: Wheat

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

Table 6. 2021 NDSU Combined SCN-infested Soil Soybean non-GMO Variety Trial - Author, C. Miranda.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Seed Oil	Seed Protein	Seed Yield			
						Colfax	Prosper	2-site Avg.	2-yr. Avg.
			(date)	(%)	(%)	----------(bu/a)----------			
MS Tech.	XO 0311E	0.3	9/10	19.5	38.1	59.0	44.4	51.7	--
MS Tech.	XO 0521E	0.5	9/12	17.0	42.1	31.5	24.1	27.8	--
MS Tech.	XO 0731E	0.7	9/25	19.8	36.8	67.0	46.3	56.6	--
MS Tech.	XO 1041E	1.0	9/28	18.8	38.0	61.1	59.2	60.2	--
NDSU	ND Benson	0.4	9/11	19.0	39.4	58.9	42.8	50.9	49.0
NDSU	ND Dickey	0.7	9/15	17.7	41.1	36.6	20.0	28.3	37.3
Sevita	Skyline	1.0	9/31	19.2	38.6	49.6	43.4	46.5	46.4
Mean		0.6	9/12	18.7	39.2	52.0	40.0	46.0	44.2
CV %		--	1.6	--	--	15.1	19.6	17.1	--
LSD 0.05		--	2.7	--	--	9.6	9.6	6.6	--
LSD 0.10		--	2.2	--	--	7.4	7.4	5.1	--

Colfax Planted: May 11. Harvested: Oct 15 . Previous crop: Corn

Prosper Planted: May 17. Harvested: Oct 5 . Previous crop: Wheat

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

Table 7. 2021 NDSU Enlist, GT27, RR and Xtend Soybean - Central Locations in North Dakota - Author, C. Miranda.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Seed Oil	Seed Protein	Seed Yield			
						Arthur	Hatton	2-site Avg.	2-yr. Avg.
			(date)	(%)	(%)	----------(bu/a)----------			
Dairyland	DSR-0660E	0.6	9/23	20.2	35.3	35.0	66.7	50.8	--
Dyna-Gro	S04XF32	0.4	9/24	21.0	36.1	40.2	58.5	49.4	--
Dyna-Gro	S04XT91	0.4	9/20	20.7	36.1	29.9	73.3	51.6	58.5
Dyna-Gro	S05EN82	0.5	9/23	19.7	38.2	34.3	61.9	48.1	--
Dyna-Gro	S07EN61	0.7	9/27	19.7	37.5	35.9	71.0	53.5	56.7
Golden H.	GH0452E3	0.4	9/20	19.5	38.9	26.4	59.1	42.7	--
Golden H.	GH0502XF	0.5	9/21	19.7	37.9	34.7	69.3	52.0	--
Golden H.	GH0543X	0.5	9/21	19.7	37.4	26.4	69.3	47.9	--
Legacy	LS-0829E	0.7	9/23	20.1	37.5	29.8	64.2	47.0	--
Legacy	LS042-21E	0.4	9/19	21.9	34.6	33.5	57.3	45.4	--
Legacy	LS062-21E	0.6	9/24	19.8	37.7	27.9	65.4	46.6	--
Legacy	LS072-21E	0.7	9/23	18.4	38.4	29.9	64.2	47.0	--
LG Seeds	LGS0701XF	0.7	9/23	19.2	37.5	37.0	62.5	49.8	--
P3 Genetics	2106E	0.6	9/23	19.5	38.4	33.7	64.8	49.2	55.7
P3 Genetics	2108E	0.7	9/24	19.6	37.4	30.1	61.7	45.9	--
P3 Genetics	2207E	0.7	9/23	20.6	37.4	23.7	70.4	47.0	--
Peterson	21XF07	0.7	9/21	19.8	37.6	33.9	64.3	49.1	--
Peterson	22XF06	0.6	9/20	20.2	36.3	42.0	70.6	56.3	--
Proseed	EL20-73N	0.7	9/26	19.9	36.7	33.9	68.1	51.0	--
Proseed	XF10-72N	0.7	9/22	20.3	36.6	43.1	69.5	56.3	--
Proseed	XT20-40	0.4	9/21	21.3	35.5	40.4	56.2	48.3	57.2
Proseed	XT80-20N	0.2	9/19	19.9	36.3	30.2	61.7	46.0	--
REA	R0632XF	0.6	9/21	19.5	36.9	38.4	65.5	52.0	--
REA	RX0411	0.4	9/18	20.7	36.3	34.8	53.3	44.1	52.7
REA	RX0721	0.7	9/21	20.7	35.6	42.4	67.6	55.0	60.2
Syng NK	NK009-T1XF	0.9	9/15	21.1	36.0	27.2	55.7	41.4	--
Syng NK	NK02-M4XF	0.2	9/14	21.6	35.6	34.7	53.7	44.2	--
Syng NK	NK04-G8E3	0.4	9/19	19.3	39.7	18.9	49.5	34.2	--
Syng NK	NK05-W3XF	0.5	9/20	19.3	37.7	39.4	56.8	48.1	--
Syng NK	S04-Q7X	0.4	9/20	20.4	37.4	42.8	65.6	54.2	--
Mean		0.6	9/22	20.1	37.0	33.7	63.3	48.5	56.8
CV %		--	5.8	4.6	3.1	27.1	11.9	17.2	--
LSD 0.05		--	1.7	1.9	2.3	12.5	10.3	8.0	--
LSD 0.10		--	1.3	1.6	1.9	9.7	8.0	6.3	--

Arthur Planted: May 7. Harvested: Oct 1 . Previous crop: Corn

Hatton Planted: May 19. Harvested: Oct 5 . Previous crop: Turnip

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

Table 8. 2021 NDSU Conventional and Liberty Link Soybean, Central Locations in North Dakota - Author, C. Miranda.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Seed Oil	Seed Protein	Seed Yield			
						Arthur	Hatton	2-site Avg.	2-yr. Avg.
			(date)	(%)	(%)	----------(bu/a)----------			
BASF	CZ 0419GTLL	0.4	9/26	19.8	39.1	42.9	66.9	54.9	--
BASF	CZ 0611GTLL	0.6	9/28	21.0	36.0	41.3	67.9	54.6	--
Legacy	LS020-20	0.2	9/12	20.5	36.9	32.3	50.0	41.1	44.7
Legacy	LS040-21	0.4	9/18	20.2	37.9	39.2	45.2	42.2	--
MS Tech.	XO 0311E	0.3	9/17	20.3	35.6	39.1	64.7	51.9	--
MS Tech.	XO 0521E	0.5	9/24	19.5	37.1	48.9	66.2	57.5	--
MS Tech.	XO 0731E	0.7	9/28	20.0	36.8	43.2	62.5	52.8	--
NDSU	ND Benson	0.4	9/20	19.4	37.8	31.4	47.5	39.5	49.3
NDSU	ND Dickey	0.7	9/24	20.2	35.4	46.7	58.7	52.7	57.4
NDSU	ND Rolette	00.9	9/14	20.8	36.8	33.1	48.8	41.0	51.5
Prograin	Asana	0.6	9/24	20.4	37.8	32.2	54.0	43.1	--
Prograin	Marula	0.6	9/25	20.0	37.4	42.7	57.6	50.2	49.4
Richland	MK0249	0.2	9/18	19.2	36.4	32.7	45.4	39.1	43.4
Richland	MK0603	0.6	9/24	18.6	37.0	34.3	52.7	43.5	50.3
Sevita	Astor	0.3	9/19	21.8	38.4	26.5	44.9	35.7	38.6
Sevita	Panorama	0.3	9/21	20.0	37.6	35.5	60.9	48.2	53.3
Mean		0.5	9/22	20.1	37.1	37.6	55.9	46.7	48.7
CV %		--	5.6	3.6	2.6	22.2	12.4	16.6	--
LSD 0.05		--	1.7	1.5	2.0	12.4	11.7	9.3	--
LSD 0.10		--	1.3	1.3	1.7	9.6	9.8	7.8	--

Arthur Planted: May 7. Harvested: Oct 1 . Previous crop: Corn

Hatton Planted: May 19. Harvested: Oct 5 . Previous crop: Turnip

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

Table 9. 2021 NDSU Conventional and Liberty Link Soybean, Southern Locations in North Dakota - Author, C. Miranda.

Company/ Brand	Variety	Mat. Group	Seed Oil	Seed Protein	Seed Yield			
					Lisbon	Milnor	2-site Avg.	2-yr. Avg.
			(%)	(%)	----------(bu/a)----------			
BASF	CZ 1171GTLL	1.1	20.7	35.7	59.7	47.8	53.7	--
BASF	CZ 1331GTLL	1.3	20.4	37.1	33.8	49.2	41.5	--
Brushvale	BS1146	1.3	19.6	37.9	55.2	39.6	47.4	43.1
Brushvale	BS1282	1.1	21.0	39.1	52.1	42.9	47.5	47.1
Brushvale	BS1512	1.3	20.5	36.7	55.0	46.0	50.5	50.7
MS Tech.	XO 0731E	0.7	21.1	36.1	61.1	39.3	50.2	--
MS Tech.	XO 1041E	1.0	20.4	36.7	54.4	50.4	52.4	--
NDSU	ND Benson	0.4	20.4	38.0	39.7	46.3	43.0	45.8
NDSU	ND Dickey	0.7	20.3	36.2	46.8	41.8	44.3	46.8
NDSU	ND17009GT	00.9	21.1	38.9	43.1	39.2	41.2	--
Prograin	Atena	1.2	20.5	38.3	53.9	39.2	46.5	44.6
Richland	MK0508	0.8	18.9	36.8	44.4	47.7	46.0	--
Richland	MK0603	0.7	18.2	38.6	46.1	42.5	44.3	--
Richland	MK1016	1.0	19.1	36.5	48.5	40.6	44.5	42.1
Richland	MK146	1.1	19.8	37.5	53.9	43.9	48.9	51.3
Richland	MK41	1.1	19.1	38.7	44.4	46.5	45.5	47.8
Richland	MK808CN	0.8	21.6	35.1	46.6	40.2	43.4	46.4
Richland	MK9101	1.1	18.6	38.4	36.2	41.1	38.6	--
Sevita	Skyline	1.0	20.8	37.4	44.8	46.7	45.7	47.3
Mean		1.0	20.1	37.4	48.4	43.7	46.1	46.6
CV %		--	2.6	3.3	11.9	20.0	16.0	--
LSD 0.05		--	1.1	2.5	8.1	12.1	8.6	--
LSD 0.10		--	0.9	2.1	6.3	9.4	7.2	--

Lisbon Planted: May 13. Harvested: Oct 3. Previous crop: Corn. Milnor Planted: May 13. Harvested: Oct 2 . Previous crop: Fallow.

Table 10. 2021 NDSU Enlist, GT27, RR and Xtend Soybean, Southern Locations in North Dakota - Author, C. Miranda.

Company/ Brand	Variety	Mat. Group	Seed Oil	Seed Protein	Seed Yield			
					Lisbon	Milnor	2-site Avg.	2-yr. Avg.
			(%)	(%)	(bu/a)			
AgriGold	G0702XF	0.7	20.4	36.6	43.8	37.0	40.4	--
AgriGold	G0801E3	0.8	21.5	35.2	57.9	47.0	52.4	--
Dahlman	1213E3N	1.3	19.9	37.7	42.2	44.6	43.4	--
Dahlman	7210XF	1.0	21.0	36.0	44.3	41.6	43.0	--
Dahlman	7213XF	1.3	21.8	35.3	52.9	43.8	48.3	--
Dairyland	DSR-0847E	0.8	20.6	36.8	52.9	43.9	48.4	47.2
Dairyland	DSR-0920E	0.9	20.9	36.0	55.6	41.1	48.4	47.8
Dairyland	DSR-1010E	1.0	20.0	37.6	42.6	36.5	39.5	--
Dairyland	DSR-1290E	1.2	22.2	34.0	61.3	49.1	55.2	--
Dyna-Gro	S09EN41	0.9	19.7	36.9	54.7	28.1	41.4	44.6
Dyna-Gro	S09XF62	0.9	20.8	36.3	52.9	40.0	46.4	--
Dyna-Gro	S12EN72	1.2	20.8	36.4	65.1	37.3	51.2	--
Dyna-Gro	S12XF92	1.2	21.1	35.9	58.8	43.1	50.9	--
Golden H.	GH0822XF	0.8	20.5	36.7	60.8	42.9	51.8	--
Golden H.	GH0842E3	0.8	20.9	35.5	45.0	42.1	43.5	--
Golden H.	GH1032XF	1.0	20.8	36.2	45.2	42.1	43.7	--
Golden H.	GH1362E3	1.3	20.2	37.0	48.9	54.7	51.8	48.7
Legacy	LS-1320N	1.3	20.6	36.7	53.6	43.3	48.4	--
Legacy	LS082-20E	0.8	21.2	36.0	50.3	42.3	46.3	--
Legacy	LS102-20E	1.0	20.2	36.9	65.1	37.4	51.3	47.1
Legacy	LS120-21	--	19.7	37.1	54.9	36.3	45.6	--
Legacy	LS122-21E	1.2	21.5	35.4	68.1	41.6	54.9	--
LG Seeds	LGS0822E3	0.8	21.3	36.0	49.0	41.8	45.4	45.4
LG Seeds	LGS1203E3	1.2	20.7	36.6	55.0	41.9	48.5	--
P3 Genetics	2013E	1.3	20.3	36.5	41.9	42.2	42.1	45.0
P3 Genetics	2109E	0.9	21.2	36.6	51.9	47.2	49.6	--
P3 Genetics	2110E	1.0	19.9	37.5	50.6	44.2	47.4	41.6
P3 Genetics	2212E	1.2	21.0	35.9	57.5	49.4	53.5	--
Peterson	22XF10	1.0	21.1	35.7	46.0	38.8	42.4	--
Peterson	22XF12	1.2	21.8	34.6	58.6	44.4	51.5	--
Proseed	EL21-03N	1.0	20.2	36.7	60.2	44.2	52.2	45.0
Proseed	EL21-23N	1.2	22.2	34.5	50.7	47.8	49.2	49.7
REA	R1042XF	1.0	21.2	36.1	55.4	39.5	47.5	--
REA	R1350XF	1.3	21.2	35.6	68.4	43.0	55.7	--
Syng NK	NK08-B7XF	0.8	20.0	37.7	53.0	42.2	47.6	--
Syng NK	NK10-W8XF	1.0	20.2	36.7	56.5	31.5	44.0	--
Syng NK	NK14-C7XF	1.3	20.7	36.1	58.3	45.3	51.8	--
Syng NK	S14-U9X	1.3	20.9	36.0	48.1	52.7	50.4	--
Mean		1.1	20.8	36.2	53.6	42.4	48.0	46.2
CV %		--	2.5	2.0	25.0	15.5	22.0	--
LSD 0.05		--	1.1	1.5	18.2	8.9	12.1	--
LSD 0.10		--	0.9	1.2	14.2	6.9	10.2	--

Lisbon Planted: May 13. Harvested: Oct 3 . Previous crop: Corn

Milnor Planted: May 13. Harvested: Oct 2 . Previous crop: Fallow

Table 11. 2021 Soybean - Dryland, Enlist, GT27, RR and Xtend - Carrington - Authors, M. Ostlie, B. Schatz and G. Endres (1 of 2).

Company/			Pod	Plant	Plant	Seeds/	Test	Seed	Seed	Seed Yield		
Brand	Variety	Maturity[1]	Ht	Ht	Lodge[2]	Pound	Weight	Oil	Protein	2021	2-yr. Avg.	3-yr Avg.
		(date)	(inch)	(inch)	(0-9)		(lb/bu)	(%)	(%)	----------(bu/a)----------		
Champion	03X30N	9/19	2	20	2	2,940	57.4	18.5	34.2	22.6	--	--
Champion	052X	9/17	2	21	2	2,861	57.2	19.8	33.9	25.3	--	--
Champion	0631XL	9/14	2	21	1	3,377	57.4	20.0	32.7	30.0	--	--
Champion	0692XL	9/15	4	22	0	3,104	57.3	19.9	34.0	28.3	--	--
Dairyland	DSR-0645E	9/12	4	22	2	2,858	56.8	20.2	32.8	26.7	42.7	--
Dairyland	DSR-0660E	9/15	3	19	1	2,960	57.3	19.3	33.6	26.5	--	--
Dairyland	DSR-0847E	9/22	3	19	1	2,396	56.6	19.0	35.3	33.3	45.1	52.9
DynaGro	S04XF32	9/15	4	28	1	2,910	57.6	20.1	33.9	30.7	--	--
DynaGro	S04XT91	9/12	4	19	1	3,186	57.5	19.8	34.3	24.6	44.0	--
DynaGro	S05EN82	9/14	2	20	2	3,031	57.3	19.6	34.3	29.4	--	--
Integra	40201N	9/11	2	18	2	2,985	57.0	19.7	33.9	24.7	40.9	--
Integra	40300N	9/10	2	19	2	3,401	57.2	19.4	33.8	26.0	44.8	--
Integra	50309N	9/14	2	21	1	3,171	57.8	19.4	32.9	29.3	46.3	53.0
Integra	70212 XF	9/9	3	24	1	3,271	57.2	20.8	33.2	24.4	--	--
Integra	70622N	9/15	3	21	0	3,312	58.0	18.9	34.6	30.2	--	--
Legacy	LS-0320N	9/10	4	19	2	3,544	56.5	19.8	33.3	26.9	44.2	--
Legacy	LS042-21E	9/12	3	22	1	2,919	56.9	20.1	32.9	27.5	--	--
Legacy	LS-0429	9/11	3	22	0	3,613	57.5	19.8	34.3	26.7	44.1	--
Legacy	LS044-21 XF	9/13	4	28	1	2,908	57.5	20.1	33.5	30.2	--	--
Legacy	LS062-21E	9/15	3	17	1	2,997	57.2	19.4	34.9	26.9	--	--
Legacy	LS072-21E	9/15	4	20	1	2,834	57.8	18.7	34.8	27.9	--	--
LG Seeds	LGS0618XF	9/15	4	18	2	3,501	57.6	19.8	32.3	30.1	--	--
LG Seeds	LGS0701XF	9/13	3	22	1	3,379	57.5	19.7	33.6	29.0	--	--
NDSU	ND17009GT	9/8	2	19	1	3,447	58.6	19.9	34.5	20.4	37.0	43.4
NDSU	ND18008GT	8/28	1	18	1	4,054	57.9	20.6	33.3	18.5	38.9	42.6
NDSU	ND21008GT20	8/28	2	17	1	4,209	58.0	20.8	32.9	17.8	36.8	--
NDSU	ND2108GT73	9/17	3	18	0	3,365	57.9	20.7	32.0	24.3	42.4	46.6
P3 Genetics	2106E	9/15	3	19	1	3,001	57.2	19.6	34.7	28.8	44.3	--
P3 Genetics	2207E	9/14	3	19	2	2,856	57.7	18.6	35.3	25.2	--	--
Peterson	20X05	9/15	2	18	2	2,941	57.8	19.9	34.4	27.5	44.7	51.4
Peterson	21XF07	9/14	3	22	1	3,254	57.7	19.2	34.3	31.9	--	--
Peterson	22XF03	9/5	4	26	0	3,268	57.2	20.6	34.1	25.2	--	--
Peterson	22XF06	9/13	3	22	1	3,020	57.8	18.8	35.0	28.9	--	--
Proseed	EL80-23	9/8	3	19	1	4,183	56.9	19.2	34.2	24.0	--	--
Proseed	EL90-33N	9/9	4	18	1	3,410	56.9	19.6	33.4	18.3	--	--
Proseed	XF10-32	9/7	3	24	0	3,036	57.2	20.6	33.9	23.8	--	--
Proseed	XT20-40	9/13	3	22	1	3,219	57.4	20.0	33.5	23.8	--	--
Proseed	XT80-20N	9/17	2	22	1	3,191	57.6	19.4	32.6	27.7	44.0	49.8
REA	R0632XF	9/15	2	19	0	3,303	57.6	18.8	35.1	28.0	--	--
REA	RX0411	9/13	4	24	0	2,980	57.8	19.7	33.7	24.2	44.3	--
REA	RX0721	9/14	4	26	1	3,279	57.4	20.2	32.5	31.5	50.2	--
REA	R0112XF	9/8	3	24	1	3,226	57.2	20.5	33.8	21.6	--	--
Stine	03EB02	9/5	3	20	2	3,443	57.1	19.6	33.5	21.7	--	--
Stine	05EB23	9/13	3	22	2	2,843	56.9	19.9	33.6	25.4	--	--
Stine	06EC23	9/14	3	18	2	2,927	57.3	19.6	34.7	27.5	--	--
Stine	07EA36	9/15	4	20	1	2,838	56.5	19.6	34.1	28.4	--	--
Stine	01EA63	9/4	4	21	1	3,864	57.1	19.0	34.8	23.5	--	--
Syng NK	NK02-M4XF	9/12	2	25	0	3,495	55.5	20.8	32.2	21.9	--	--
Mean		9/12	3	21	1	3,177	57.4	19.6	33.9	26.4	43.8	50.0
CV %		1.6	39	12.7	64	4.8	0.6	2.2	2.6	14.8	--	--
LSD 0.05		2.7	1.6	3.7	0.8	209	0.5	0.6	1.2	5.4	--	--
LSD 0.10		2.2	1.4	3.1	0.7	178	0.4	0.5	1.0	4.5	--	--

Table 11. 2021 Soybean - Dryland, Enlist, GT27, RR and Xtend - Carrington - Authors, M. Ostlie, B. Schatz and G. Endres (2 of 2).

Company/ Brand	Variety	Maturity[1]	Pod Ht	Plant Ht	Plant Lodge[2]	Seeds/ Pound	Test Weight	Seed Oil	Seed Protein	Seed Yield		
										2021	2-yr. Avg.	3-yr Avg.
		(date)	(inch)	(inch)	(0-9)		(lb/bu)	(%)	(%)	----------(bu/a)----------		
Syng NK	NK04-G8E3	9/11	3	21	1	2,894	57.3	18.7	35.8	23.8	--	--
Syng NK	NK05-W3XF	9/12	4	23	2	3,273	57.8	19.6	33.4	29.6	--	--
Syng NK	S04-Q7X	9/14	3	22	1	2,882	57.9	19.5	34.9	29.3	47.1	--
Syng NK	S05-N5X	9/14	4	20	0	3,042	57.5	20.2	32.6	30.2	51.7	60.0
Thunder	SB8104N	9/13	4	20	1	3,107	57.4	20.0	33.9	24.7	44.0	--
Thunder	TE7207	9/19	4	20	1	3,027	57.6	19.1	33.4	28.8	--	--
Thunder	TX8206N	9/13	2	17	1	2,905	57.5	18.9	34.7	27.2	--	--
Thunder	TX8207N	9/13	4	22	1	3,330	57.8	18.7	35.0	27.5	--	--
Thunder	SB8903N	9/13	2	22	2	3,273	57.8	19.5	32.8	27.9	43.1	50.3
U of M	MCH13R-117054	9/23	5	22	1	2,444	56.4	18.0	36.0	25.1	--	--
Mean		9/12	3	21	1	3,177	57.4	19.6	33.9	26.4	43.8	50.0
CV %		1.6	39	12.7	64	4.8	0.6	2.2	2.6	14.8	--	--
LSD 0.05		2.7	1.6	3.7	0.8	209	0.5	0.6	1.2	5.4	--	--
LSD 0.10		2.2	1.4	3.1	0.7	178	0.4	0.5	1.0	4.5	--	--

Planted: May 14. Harvested: Sept. 27. Previous crop: barley.

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

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

Table 12. 2021 Soybean - Irrigated, Conventional - Carrington - Authors, M. Ostlie, B. Schatz, H. Burgard and M. Hafner.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Ht	Plant Lodge[2]	Seeds/ Pound	Test Weight	Seed Oil	Seed Protein	Seed Yield		
											2021	2-yr. Avg.	3-yr Avg.
			(date)	(inch)	(inch)	(0-9)	(seeds)	(lb/bu)	(%)	(%)	----------(bu/a)----------		
NDSU	ND Rolette	00.9	9/11	4	31	1	3,692	58.0	20.0	34.7	61.1	61.3	--
NDSU	ND Benson	0.4	9/18	5	31	1	3,342	58.0	19.5	36.0	60.5	60.6	58.5
NDSU	ND Dickey	0.7	9/20	5	31	2	2,749	57.9	19.4	34.2	72.0	67.4	66.2
NDSU	ND Stutsman	0.8	9/21	4	35	2	2,987	58.1	19.7	33.5	72.7	66.7	64.9
Sevita	Panorama	0.3	9/16	3	32	3	2,843	58.1	18.9	36.3	56.1	58.4	58.0
Mean			9/17	4	32	2	3,123	58.0	19.5	34.9	64.5	62.9	61.9
CV %			0.8	21	7.8	36	4.9	0.8	1.4	1.2	8.8	--	--
LSD 0.05			1.5	1.4	3.7	1.0	231	0.7	0.4	0.6	8.6	--	--
LSD 0.10			1.2	1.1	3.1	0.8	190	0.6	0.3	0.5	7.1	--	--

Planted: May 17. Harvested: Sept. 29. Previous crop: field pea.

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

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

Table 13. 2021 Soybean - Irrigated, Enlist, GT27, RR and Xtend - Carrington - Authors, M. Ostlie, B. Schatz, H. Burgard and M. Hafner.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Ht	Plant Lodge[2]	Seeds/ Pound	Test Weight	Seed Oil	Seed Protein	Seed Yield	
											2021	2-yr. Avg.
			(date)	(inch)	(inch)	(0-9)	(seeds)	(lb/bu)	(%)	(%)	--------(bu/a)--------	
Dairyland	DSR-0660E	0.6	9/18	6	39	2	2,808	57.2	18.8	33.9	58.8	--
Dairyland	DSR-0847E	0.8	9/20	7	38	2	2,701	57.0	19.4	34.1	59.5	57.5
DynaGro	S04XF32	0.4	9/21	5	50	6	2,699	56.9	19.9	33.8	57.3	--
DynaGro	S04XT91	0.4	9/14	7	40	2	2,678	57.0	20.1	33.1	58.4	63.1
DynaGro	S05EN82	0.5	9/16	6	36	1	2,856	55.8	19.1	35.2	52.6	--
Legacy	LS-0320N	0.3	9/12	7	39	3	3,220	55.5	19.2	33.9	57.2	60.9
Legacy	LS042-21E	0.4	9/14	6	39	4	2,794	55.4	19.9	33.4	55.9	--
Legacy	LS-0429	0.4	9/18	4	42	4	2,841	55.9	19.2	36.0	53.4	56.7
Legacy	LS044-21 XF	0.4	9/20	6	49	5	2,721	57.0	19.8	33.8	59.0	--
Legacy	LS062-21E	0.6	9/15	6	34	2	2,839	55.2	19.0	35.4	56.2	--
Legacy	LS072-21E	0.7	9/19	7	40	2	2,697	57.3	18.9	34.1	58.0	--
LG Seeds	LGS0618XF	0.6	9/19	5	37	2	2,857	57.1	19.2	36.0	54.5	--
LG Seeds	LGS0701XF	0.7	9/20	6	42	4	2,681	56.9	19.0	34.0	65.0	--
NDSU	ND17009GT	00.9	9/12	4	40	5	2,922	58.9	19.0	37.0	50.8	55.2
NDSU	ND18008GT	00.8	9/5	3	36	2	3,461	57.0	19.0	36.1	42.7	50.9
NDSU	ND21008GT20	00.8	9/5	3	38	5	3,371	56.9	18.7	35.7	51.1	--
NDSU	ND2108GT73	0.8	9/25	6	44	4	3,009	57.4	19.4	34.2	56.2	--
Proseed	EL80-23	0.2	9/9	5	39	3	3,412	55.7	18.4	35.4	48.4	--
Proseed	EL90-33N	0.3	9/11	5	38	3	3,316	55.7	19.2	34.1	55.9	--
Proseed	XF10-30	0.3	9/13	4	44	4	2,731	56.5	20.2	34.1	59.1	--
Proseed	XT20-40	0.4	9/13	5	41	3	2,688	56.9	20.0	33.9	54.8	--
Proseed	XT80-20N	0.2	9/14	4	42	4	3,189	56.7	19.5	33.0	60.2	59.9
REA	R0112XF	0.1	9/15	4	47	4	2,702	56.5	19.9	34.2	50.7	--
REA	R0632XF	0.6	9/16	6	37	1	3,245	57.2	19.1	34.2	54.3	--
REA	RX0411	0.4	9/18	5	49	3	2,734	56.9	20.2	32.5	54.8	56.6
REA	RX0721	0.7	9/18	5	43	2	2,869	57.0	19.7	33.5	62.9	64.6
Mean			9/16	5	41	3	2,925	56.7	19.4	34.4	55.7	58.4
CV %			1.7	23	7.5	44.3	3.7	0.6	1.5	1.3	10.3	--
LSD 0.05			2.9	1.7	4.4	1.9	152	0.5	0.4	0.6	8.1	--
LSD 0.10			2.4	1.4	3.6	1.6	127	0.4	0.3	0.5	6.8	--

Planted: May 17. Harvested: Oct. 4. Previous crop: field pea.

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

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

Table 14. 2021 Soybean - Dryland, Conventional - Carrington - Authors, M. Ostlie, B. Schatz and E. Aberle.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Ht	Plant Lodge	Seeds/ Pound	Test Weight	Seed Oil	Seed Protein	Seed Yield 2021	Seed Yield 3-yr. Avg.
			(date)	(inch)	(inch)	(0-9)		(lb/bu)	(%)	(%)	-----(bu/a)-----	
NDSU	ND Benson	0.4	9/6	3	16	0	2,880	57.0	17.7	38.8	16.2	39.5
NDSU	ND Dickey	0.7	9/21	3	17	2	2,500	56.4	18.4	37.3	22.2	43.4
NDSU	ND Rolette	00.9	9/4	3	17	0	4,533	56.7	18.9	35.9	14.5	36.7
NDSU	ND Stutsman	0.8	9/15	4	21	1	3,401	56.7	19.6	34.6	18.2	44.9
Prograin	Asana	0.6	9/29	4	19	1	2,604	57.6	18.5	38.1	19.9	--
Prograin	Marula	0.6	9/27	4	23	0	2,541	56.9	18.8	36.5	22.7	--
Richland	MK0249	0.2	9/22	2	16	0	4,379	57.1	17.5	36.7	14.0	34.3
Richland	MK0508	0.8	9/25	4	17	0	3,855	57.5	16.5	38.5	16.9	32.4
Richland	MK0603	0.6	9/27	4	19	1	3,815	57.3	15.3	39.6	20.4	31.4
Richland	MK808CN	0.8	9/29	3	18	1	2,735	57.2	18.4	36.6	19.4	36.7
Sevita	Panorama	0.3	9/13	4	17	1	2,865	57.7	17.4	39.2	9.9	36.2
Mean			9/20	4	18	1	3,282	57.1	17.9	37.4	17.7	37.3
CV %			2.5	27	11.1	85	6.1	0.5	1.6	1.5	17.3	--
LSD 0.05			4.4	1.4	2.8	0.7	293	0.4	0.4	0.8	4.4	--
LSD 0.10			3.6	1.1	2.3	0.5	244	0.4	0.3	0.7	3.7	--

Planted: May 21. Harvested: Aug. 16. Previous crop: spring wheat.

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

Table 15. 2021 Soybean - Enlist, GT27, RR and Xtend - Dazey (Carrington REC) - Authors, M. Ostlie, B. Schatz and T. Indergaard.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Ht	Plant Lodge[2]	Test Weight	Seed Oil	Seed Protein	Seeds/ Pound	Seed Yield		
											2021	2-yr. Avg.	3-yr. Avg.
			(date)	(inch)	(inch)	(0-9)	(lb/bu)	(%)	(%)		---------(bu/a)---------		
Dairyland	DSR-0847E	0.8	9/4	3	23	0	57.3	19.9	34.7	2,863	47.2	48.8	48.2
Dairyland	DSR-0920E	0.9	9/4	4	25	0	56.7	19.9	34.2	2,750	49.4	50.5	--
Dairyland	DSR-1010E	1.0	9/6	4	25	0.3	57.5	18.8	36.1	2,760	44.0	--	--
Dairyland	DSR-1290E	1.2	9/4	3	24	0	57.6	21.0	32.2	2,640	50.1	--	--
DynaGro	S05EN82	0.5	8/31	3	21	0	56.4	20.4	33.9	3,256	45.3	--	--
DynaGro	S07EN61	0.7	9/2	4	25	0	57.1	20.4	33.4	2,681	43.8	49.6	--
DynaGro	S09EN41	0.9	9/7	4	22	0.3	57.2	18.7	36.7	2,711	41.6	45.9	--
DynaGro	SX21906XF	0.6	9/1	3	23	0	57.4	19.6	34.6	3,149	46.1	--	--
Legacy	LS062-21E	0.6	8/30	3	19	0	56.3	20.3	34.2	3,383	42.5	--	--
Legacy	LS072-21E	0.7	9/3	3	21	0	57.2	19.5	34.6	2,891	39.7	--	--
Legacy	LS082-20E	0.8	9/1	4	25	0.3	56.8	21.0	33.7	3,115	48.6	50.3	--
Legacy	LS094-21 XF	0.9	9/2	4	22	0	56.8	20.5	33.9	3,054	43.5	--	--
Legacy	LS102-20E	1.0	9/5	4	22	0	57.4	18.7	36.3	2,785	40.3	43.5	--
Legacy	LS122-21E	1.2	9/3	3	25	0	57.1	21.1	32.0	2,780	48.8	--	--
LG Seeds	LGS0618XF	0.6	9/2	3	23	0.3	57.2	20.1	35.7	2,930	43.1	--	--
LG Seeds	LGS0701XF	0.7	8/31	3	25	0	57.2	20.1	33.8	3,085	44.4	--	--
NDSU	ND17009GT	00.9	8/21	4	25	0	58.3	20.0	35.9	3,319	38.4	42.5	--
NDSU	ND21008GT20	00.8	8/17	2	23	0	57.3	19.6	35.1	4,204	36.6	--	--
NDSU	ND2108GT73	0.8	8/31	2	22	0	57.8	20.8	32.5	3,514	37.3	41.7	44.5
P3 Genetics	2106E	0.6	8/31	3	20	0	56.3	20.5	34.0	3,238	38.6	43.9	--
P3 Genetics	2207E	0.7	9/2	3	23	0	57.7	19.5	34.4	3,009	37.3	--	--
Peterson	21XF07	0.7	9/1	3	27	0	56.9	19.9	33.5	2,797	42.0	--	--
Peterson	22XF10	1.0	9/6	3	25	0	56.6	20.7	33.5	2,992	51.3	--	--
Proseed	EL20-73N	0.7	9/3	3	24	0	56.8	20.5	33.1	3,060	44.4	--	--
Proseed	XF10-70	0.7	8/30	4	25	0	56.9	20.2	33.4	3,212	42.4	--	--
Proseed	XT90-50	0.5	9/2	4	26	0	57.3	21.0	33.5	2,908	45.6	46.9	--
REA	R0632XF	0.6	8/31	3	24	0	57.5	19.4	35.0	3,262	40.4	--	--
REA	RX0411	0.4	8/29	3	30	0	57.2	21.1	32.1	2,607	43.3	--	--
REA	RX0721	0.7	8/31	3	27	0	57.1	20.6	33.4	2,644	43.6	--	--
Syng NK	NK04-G8E3	0.4	8/27	3	24	0	56.6	19.2	35.8	3,212	36.7	--	--
Syng NK	NK05-W3XF	0.5	8/29	4	26	0	57.0	19.6	34.6	2,732	41.3	--	--
Syng NK	NK08-B7XF	0.8	8/31	5	29	0	57.4	19.4	34.3	3,243	42.8	--	--
Syng NK	S04-Q7X	0.4	9/1	4	26	0	57.3	20.6	33.9	2,817	45.1	47.8	--
Syng NK	S05-N5X	0.5	9/1	3	22	0	56.1	21.1	32.3	2,934	44.0	48.0	53.2
Thunder	SB8104N	0.4	8/31	4	22	0	57.0	20.9	33.0	2,861	39.0	--	--
Thunder	TE7207	0.7	9/4	4	25	0	57.1	20.2	32.9	3,157	44.4	--	--
Thunder	TX8109N	0.9	9/3	4	23	0	57.2	20.7	33.6	2,933	46.0	--	--
Thunder	TX8206N	0.6	9/1	4	26	0	57.5	19.4	34.3	2,883	43.4	--	--
Thunder	TX8207N	0.7	9/1	4	24	0	57.5	19.7	33.9	3,162	42.6	--	--
Mean			9/1	3	24	0.03	57.1	20.1	34.0	3,014	43.2	46.6	48.7
CV %			1.6	27	8.1	623	0.9	1.5	1.6	5.8	10.9	--	--
LSD 0.05			2.4	1.3	2.7	0.2	0.8	0.4	0.8	243	6.6	--	--
LSD 0.10			2.0	1.1	2.3	0.2	0.6	0.3	0.7	203	5.5	--	--

Planted: May 18. Harvested: Sept. 28. Previous crop: spring wheat.

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

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

Table 16. 2021 Soybean - Irrigated, Enlist, RR and Xtend - Oakes (Carrington REC) - Authors, K. Cooper, H. Eslinger and S. Nelson.

Company/		Mat.		Pod	Plant	Plant	Seeds/	Test	Seed	Seed	Seed Yield	
Brand	Variety	Group	Maturity[1]	Height	Height	Lodge[2]	Pound	Weight	Oil	Protein	2021	2-yr. Avg.
			(date)	(inch)	(inch)	(0-9)	(seeds)	(lb/bu)	(%)	(%)	-------(bu/a)-------	
Dairyland	DSR-0920E	0.9	9/18	5	38	4	2,376	55.0	18.0	36.9	81.2	73.2
Dairyland	DSR-1010E	1.0	9/17	6	36	3	2,616	56.1	17.5	37.6	76.8	--
Dairyland	DSR-1290E	1.2	9/21	4	39	5	2,511	55.6	19.6	33.5	84.0	--
Dyna-Gro	S09XF62	0.9	9/12	6	41	2	2,574	54.9	19.4	34.6	90.0	--
Dyna-Gro	S12EN72	1.2	9/20	6	38	6	2,166	55.5	18.3	36.7	83.8	--
Dyna-Gro	S12XF92	1.2	9/16	6	38	3	2,500	55.3	18.5	35.5	89.9	--
Legacy	LS094-21 XF	0.9	9/14	5	40	4	2,571	55.2	18.4	36.3	90.0	--
Legacy	LS102-20E	1.0	9/15	5	35	4	2,680	55.0	17.8	36.6	87.0	77.7
Legacy	LS122-21E	1.2	9/16	5	40	5	2,538	55.9	19.8	33.1	99.9	--
Legacy	LS-1320N	1.3	9/19	5	40	6	2,238	54.7	18.3	35.3	92.6	--
LG Seeds	LGS0701XF	0.7	9/9	5	40	5	2,543	54.6	18.4	35.7	84.0	--
LG Seeds	LGS0822E3	0.8	9/15	5	37	5	2,180	55.2	18.6	36.6	84.3	--
LG Seeds	LGS0939XF	0.9	9/15	5	41	3	2,557	48.0	19.1	34.9	76.2	--
LG Seeds	LGS1203E3	1.2	9/20	5	38	5	2,224	55.4	18.4	36.4	88.2	--
LG Seeds	LGS1232XF	1.2	9/16	6	40	4	2,605	54.9	18.5	35.5	88.6	--
NDSU	ND2108GT73	0.8	9/20	6	37	4	2,775	53.9	18.4	35.9	56.9	62.2
P3 Genetics	2106E	0.6	9/14	4	34	2	2,673	55.1	18.1	36.9	62.1	--
P3 Genetics	2108E	0.8	9/16	5	36	4	2,310	55.1	18.7	36.2	63.1	--
REA	RX0721	0.7	9/14	5	39	5	2,580	54.7	18.7	35.1	70.9	--
REA	R1042XF	1.0	9/18	5	42	4	2,650	55.7	18.1	37.0	74.4	--
REA	R1350XF	1.3	9/20	5	38	6	2,554	56.3	19.1	34.6	82.1	--
Thunder	TX8109N	0.9	9/14	5	40	4	2,608	55.2	18.5	36.0	82.5	--
Thunder	SB8010N	1.0	9/17	5	38	4	2,326	53.9	19.2	34.6	77.4	--
Thunder	TE7011	1.1	9/19	5	42	4	2,607	56.7	17.1	35.8	85.5	--
Thunder	TX8211N	1.1	9/18	6	40	4	2,634	55.8	18.2	36.8	74.6	--
Mean			9//17	5	38	4	2,504	54.9	18.5	35.8	81.0	71.0
CV %			1.0	17.0	2.8	30	2.8	5.5	1.0	0.9	8.3	--
LSD 0.05			1.7	1.2	2.9	2	97	4.2	0.3	0.5	9.4	--
LSD 0.10			1.4	1.0	2.4	1	81	3.5	0.2	0.4	7.9	--

Planted: May 21. Harvested: Oct. 5. Previous crop: soybean.

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

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

Table 17. 2021 Soybean - Irrigated, Conventional - Oakes (Carrington REC) - Authors, K. Cooper, H. Eslinger and S. Nelson.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Height	Plant Lodge[2]	Seeds/ Pound	Test Weight	Seed Oil	Seed Protein	Seed Yield 2021	Seed Yield 3-yr. Avg.
			(date)	(inch)	(inch)	(0-9)	(seeds)	(lb/bu)	(%)	(%)	--------(bu/a)--------	
Brushvale	BS1146	1.2	9/19	4	38	5.0	2,326	50.7	17.8	38.1	65.7	63.2
Brushvale	BS1512	1.5	9/18	5	37	7.0	2,499	53.7	17.9	37.2	66.7	61.5
NDSU	ND Dickey	0.7	9/17	4	37	4.0	2,379	55.3	18.2	35.7	69.2	67.1
NDSU	ND Stutsman	0.8	9/17	5	40	4.8	2,618	54.6	18.7	35.2	69.2	67.9
Sevita	Panorama	0.3	9/9	4	33	6.3	2,185	52.5	18.1	38.4	77.1	66.8
Sevita	Skyline	1.0	9/17	5	42	6.0	2,271	55.9	18.3	38.8	82.9	70.1
Mean			9/16	4	38	6	2,380	53.8	18.2	37.2	71.8	66.1
CV %			1.3	20.9	4.6	19	2.1	5.9	1.0	1.2	12.2	--
LSD 0.05			1.9	1.1	2.1	1.3	61	3.9	0.2	0.6	10.5	--
LSD 0.10			2.3	1.4	2.6	1.5	74	4.7	0.3	0.7	12.7	--

Planted: May 21. Harvested: Oct. 5. Previous crop: soybean.

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

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

Table 18. 2021 Soybean - Conventional - Dazey (Carrington REC) - Authors, M. Ostlie, B. Schatz and T. Indergaard.

Company/ Brand	Variety	Mat. Group	Maturity[1]	Pod Ht	Plant Height	Test Weight	Seed Oil	Seed Protein	Seed Yield 2021	Seed Yield 3-yr. Avg.
			(date)	(inch)	(inch)	(lb/bu)	(%)	(%)	--------(bu/a)--------	
Legacy	LS020-20	0.2	8/29	6	29	58.6	19.6	35.9	23.4	--
Legacy	LS040-21	0.4	9/27	4	28	57.3	19.3	38.2	29.9	--
NDSU	ND Benson	0.4	9/8	3	22	57.8	20.2	35.7	35.1	45.2
NDSU	ND Dickey	0.7	9/11	3	24	58.2	20.3	34.7	40.9	48.3
NDSU	ND Rolette	00.9	8/29	3	23	57.5	20.0	35.3	34.4	46.5
NDSU	ND Stutsman	0.8	9/6	3	26	58.2	20.8	34.0	39.3	51.0
Prograin	Asana	0.6	9/7	4	24	58.4	20.6	36.2	37.7	--
Prograin	Marula	0.6	9/9	4	29	58.2	19.9	36.0	39.8	--
Richland	MK0249	0.2	9/6	4	23	57.7	19.8	33.8	36.2	40.1
Richland	MK0508	0.8	9/12	4	24	58.2	18.8	34.9	35.4	37.7
Richland	MK0603	0.6	9/12	5	28	57.5	17.6	36.2	37.0	39.0
Richland	MK1016	1.0	9/8	4	28	58.0	19.3	35.8	36.0	38.8
Richland	MK146	1.1	9/16	4	24	57.5	19.1	37.0	43.5	47.2
Richland	MK41	1.1	9/5	4	27	58.3	18.9	35.9	36.6	48.0
Richland	MK808CN	0.8	9/10	4	26	57.8	21.1	33.2	33.9	46.5
Richland	MK9101	1.1	9/16	5	28	57.4	23.4	41.8	35.0	--
U of M	MN0811CN	0.8	9/10	4	24	58.1	20.4	35.8	38.5	--
Mean			9/8	4	26	57.9	19.9	35.9	36.0	44.4
CV %			1.6	23	8.6	0.7	1.6	1.8	10.5	--
LSD 0.05			2.5	1.3	3.1	0.6	0.5	0.9	5.4	--
LSD 0.10			2.1	1.1	2.6	0.5	0.4	0.8	4.5	--

Planted: May 18. Harvested: Sept. 28.

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

Table 19. 2021 Soybean - Enlist, GT27, RR and Xtend - LaMoure (Carrington REC) - Authors, C. Miranda and B. Schatz.

Company/		Maturity	Seed	Seed	Seed Yield	
Brand	Variety	Group	Protein	Oil	2021	2-yr. Avg.
			(%)	(%)	----------(bu/a)----------	
Dairyland	DSR-1010E	1.0	35.4	20.6	27.4	--
Dairyland	DSR-0920E	0.9	36.7	20.6	26.0	44.7
Dairyland	DSR-1290E	1.2	33.4	23.9	34.3	--
DynaGro	S07EN61	0.7	30.7	26.4	34.2	46.6
DynaGro	S09EN941	0.9	36.6	20.3	31.9	46.8
DynaGro	S09XF62	0.9	34.5	21.7	28.8	--
Legacy	LS094-21 XF	0.9	3.1	21.8	32.1	--
Legacy	LS102-20E	1.0	35.7	20.9	27.2	38.1
Legacy	LS122-21E	1.2	33.9	22.3	33.3	--
Legacy	LS-1320N	1.3	37.5	20.3	35.0	--
LG Seeds	AG06X8	0.9	35.6	21.7	28.6	--
LG Seeds	LGS0701XF	0.7	36.5	20.7	25.1	--
LG Seeds	LGS0822E3	0.8	33.9	21.9	28.1	--
P3 Genetics	1911E	1.1	34.4	21.2	26.7	45.6
P3 Genetics	2013E	1.3	34.2	22.1	29.8	--
P3 Genetics	2108E	0.8	34.5	21.9	27.3	44.3
P3 Genetics	2212E	1.2	35.6	20.9	29.4	--
Peterson	22XF10	1.0	34.4	22.1	28.2	--
Proseed	EL21-03N	1.0	36.5	20.3	25.8	39.3
Proseed	EL21-23N	1.2	33.8	22.6	25.2	44.4
Syng NK	NK08-B7XF	0.8	36.4	20.7	27.9	--
Syng NK	NK10-W8XF	0.1	35.7	21.0	27.1	--
Syng NK	NK14-C7XF	1.4	36.3	21.0	32.8	--
Mean			33.7	21.6	29.2	43.7
CV %			--	--	21.5	--
LSD 0.05			--	--	9.8	--
LSD 0.10			--	--	8.2	--

Planted: May 17. Harvested: Oct. 4.

Table 20. 2021 Soybean - Conventional - LaMoure (Carrington REC) - Authors, C. Miranda and B. Schatz.

Company/		Maturity	Seed	Seed	Seed Yield	
Brand	Variety	Group	Protein	Oil	2021	3-yr. Avg.
			(%)	(%)	----------(bu/a)----------	
NDSU	ND Benson	0.4	35.0	21.9	23.7	37.7
NDSU	ND Dickey	0.7	33.7	21.6	28.5	--
Richland	MK0508	0.8	34.6	19.8	26.0	27.5
Richland	MK0603	0.6	37.2	18.7	29.8	35.6
Richland	MK1016	1.0	36.3	20.3	22.7	31.3
Richland	MK146	1.1	36.2	20.8	31.7	39.5
Richland	MK41	1.1	36.8	19.9	22.2	37.0
Richland	MK808CN	0.8	33.4	22.8	28.8	34.1
Richland	MK9101	1.1	38.3	18.8	30.7	--
Sevita	Skyline	1.0	36.2	21.3	33.2	--
Mean			35.8	20.6	27.7	34.7
CV %			--	--	14.7	--
LSD 0.05			--	--	6.9	--
LSD 0.10			--	--	5.7	--

Planted: May 17. Harvested: Oct. 4.

Table 21. 2021 Soybean - Enlist, GT27, RR and Xtend - Wishek (Carrington REC) - Authors, M. Ostlie, B. Schatz and T. Indergaard.

Company/		Maturity		Pod	Plant	Seeds/	Test	Seed	Seed	Seed Yield	
Brand	Variety	Group	Maturity[1]	Ht	Ht	Pound	Weight	Oil	Protein	2021	2-yr. Avg.
			(date)	(inch)	(inch)		(lb/bu)	(%)	(%)	-------(bu/a)-------	
Integra	40602N	0.6	9/16	3	22	2,768	57.9	18.4	39.6	45.2	--
Integra	40831N	0.8	9/16	3	23	2,560	56.2	19.1	37.4	37.7	--
Integra	70622N	0.6	9/13	3	26	3,283	56.6	18.5	37.9	42.7	--
Integra	70832N	0.8	9/12	4	27	3,053	57.2	18.5	38.2	41.4	--
Legacy	LS102-20E	1.0	9/18	3	22	2,841	57.2	18.1	41.2	42.5	--
Legacy	LS122-21E	1.2	9/15	4	26	2,919	55.4	21.0	35.0	44.1	--
Legacy	LS094-21 XF	0.9	9/18	3	23	2,855	56.3	18.9	38.9	41.5	--
LG Seeds	LGS0701XF	0.7	9/14	4	25	3,119	56.4	18.8	37.8	40.0	--
NDSU	ND17009GT	00.9	8/30	4	24	3,361	57.7	19.9	38.9	31.9	--
NDSU	ND21008GT20	00.8	8/25	3	23	4,126	57.0	19.2	37.4	26.6	--
NDSU	ND2108GT73	0.7	9/14	3	22	3,419	56.6	20.0	36.6	37.0	47.9
P3 Genetics	2106E	0.6	9/14	4	20	3,098	55.5	19.6	38.8	36.4	48.4
P3 Genetics	2108E	0.8	9/16	4	22	2,499	56.1	19.2	37.5	38.4	--
REA	R1042XF	1.0	9/19	4	25	2,915	56.7	18.8	39.7	43.0	--
REA	RX0411	0.4	9/12	5	29	2,829	55.7	20.2	35.6	44.0	55.8
REA	RX0721	0.7	9/14	5	25	2,944	56.6	19.4	37.5	41.5	56.7
REA	R0632XF	0.6	9/13	4	23	3,265	56.4	18.2	39.6	36.3	--
Syng NK	NK05-W3XF	0.5	9/13	5	26	3,075	56.6	18.8	38.1	41.1	--
Syng NK	NK08-B7XF	0.8	9/14	4	28	2,890	56.6	18.2	37.8	39.4	--
Syng NK	NK10-W8XF	0.1	9/15	5	24	2,832	57.0	18.1	38.8	48.6	--
Syng NK	S05-N5X	0.5	9/14	3	23	3,071	56.2	19.2	37.5	35.5	52.2
Mean			9/13	4	24	3,034	56.6	19.1	38.1	39.8	52.2
CV %			1.3	26	9.7	3.8	1.0	3.7	3.6	12.9	--
LSD 0.05			2.2	1.3	3.3	159	0.8	1.0	1.9	7.3	--
LSD 0.10			1.9	1.1	2.8	133	0.7	0.8	1.6	6.1	--

Planted: May 13. Harvested: Oct. 8 Previous crop: spring wheat.

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

Table 22. 2021 Soybean - Conventional - Wishek (Carrington REC) - Authors, M. Ostlie, B. Schatz and T. Indergaard.

Company/		Maturity		Pod	Plant	Seeds/	Test	Seed	Seed	Seed Yield	
Brand	Variety	Group	Maturity[1]	Ht	Ht	Pound	Weight	Oil	Protein	2021	3-yr. Avg.
			(date)	(inch)	(inch)		(lb/bu)	(%)	(%)	--------(bu/a)--------	
NDSU	ND Benson	0.4	9/14	3	18	3,109	56.1	19.5	38.7	25.1	33.6
NDSU	ND Dickey	0.7	9/13	3	20	2,811	56.7	19.5	37.1	25.4	40.8
NDSU	ND Stutsman	0.8	9/10	4	22	3,568	55.9	21.1	34.4	28.5	39.1
Sevita	Skyline	1.0	9/20	4	22	2,669	57.2	18.6	40.7	27.9	--
Mean			9/15	3	21	3,039	56.5	19.7	37.7	26.7	37.8
CV %			0.8	19	8.3	4.0	0.5	2.1	1.8	10.9	--
LSD 0.05			1.6	1.0	2.6	186	0.5	0.6	1.0	4.5	--
LSD 0.10			1.3	0.8	2.2	152	0.4	0.5	0.8	3.7	--

Planted: May 13. Harvested: Oct. 8. Previous crop: spring wheat.

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

Table 23. 2021 Soybean - Enlist, GT, RR and Xtend - Langdon - Authors, B. Hanson, L. Henry and J. Faul (1 of 2).

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Seed Yield		
								2021	2-yr. Avg.	2-site Avg.[2]
				(date)	(inch)	(%)	(%)	----------(bu/a)----------		
BioGene	BG8000	RR2X	00.9	9/10	37	16.5	32.3	59.6	59.0	54.5
BioGene	BG8006	RR2X	00.6	9/8	34	16.3	32.3	61.4	--	51.8
BioGene	BG9021E3	Enlist E3	0.2	9/18	34	15.4	32.8	62.4	--	53.6
Dahlman	1102E3N	Enlist E3	0.2	9/21	27	16.0	32.2	66.3	64.4	56.9
Dahlman	1201E3N	Enlist E3	0.1	9/18	33	15.8	32.1	64.5	--	54.6
Dairyland	DSR-0119E	Enlist E3	0.1	9/18	34	16.5	30.9	68.3	--	--
Dyna-Gro	S009XF52	RR2XF	00.9	9/6	31	16.9	31.3	55.9	--	46.5
Dyna-Gro	S009XT68	RR2X	00.9	9/12	36	15.0	33.4	63.2	63.3	57.2
Dyna-Gro	S02EN71	Enlist E3	0.2	9/20	26	15.9	32.2	67.7	--	58.4
Golden H.	GH00833E3	Enlist E3	00.8	9/13	37	16.3	32.7	65.9	61.5	54.1
Golden H.	GH00982XF	RR2XF	00.9	9/12	31	16.0	32.6	63.1	--	53.6
Golden H.	GH0272XF	RR2XF	0.2	9/11	33	16.3	31.5	59.1	--	55.4
Innvictis	A00918X	RR2X	00.9	9/11	35	15.9	32.3	60.7	--	51.5
Innvictis	A00979X	RR2X	00.9	9/13	29	15.8	34.1	66.6	--	56.0
Integra	40089N	Enlist E3	00.8	9/13	35	15.9	32.6	64.8	60.3	54.0
Integra	50081N	RR2X	00.8	9/8	30	15.5	34.4	52.8	55.1	44.3
Legacy	LS-00639N RR2X	RR2X	00.6	9/6	32	16.2	32.3	59.5	60.0	48.5
Legacy	LS0094-21 XF	RR2XF	00.9	9/8	31	16.4	31.3	52.5	--	45.7
Legacy	LS-00930 RR2X	RR2X	00.9	9/13	30	16.0	33.9	63.4	58.9	56.8
Legacy	LS012-20E	Enlist E3	0.1	9/15	29	15.9	32.3	61.1	63.4	53.8
Legacy	LS012-21E	Enlist E3	0.1	9/20	34	16.1	32.8	66.8	--	58.7
Legacy	LS-0239N RR2X	RR2X	0.2	9/15	35	15.8	31.5	66.7	65.6	60.5
LG Seeds	LGS00663RX	RR2X	00.6	9/9	33	15.7	33.3	61.7	62.4	51.9
LG Seeds	LGS00838XF	RR2XF	00.8	9/12	32	15.8	33.0	57.8	--	49.2
LG Seeds	LGS0111RX	RR2X	0.1	9/14	37	16.1	33.7	67.3	65.1	58.3
NDSU	21ND008GT20	GT	00.8	9/7	33	16.0	33.6	59.4	--	50.3
NDSU	ND17009GT	GT	00.9	9/11	36	16.5	34.7	56.1	55.7	48.8
P3 Genetics	2002E	Enlist E3	0.2	9/18	28	15.5	32.5	61.0	--	53.1
P3 Genetics	2201E	Enlist E3	0.1	9/21	35	16.2	32.8	60.6	--	56.0
Peterson	19EN008	Enlist E3	00.8	9/12	37	16.0	32.8	67.9	62.8	56.8
Peterson	21X007	RR2X	00.7	9/6	33	16.1	30.7	68.7	64.0	55.2
Peterson	22XF009	RR2XF	00.9	9/7	32	16.6	31.5	54.6	--	48.0
Pioneer	P005A83X	RR2X	00.5	9/7	32	16.6	32.6	56.9	--	--
Pioneer	P006A37X	RR2X	00.6	9/5	30	16.8	32.4	62.6	--	--
Pioneer	P009T18E	Enlist E3	00.9	9/11	34	16.1	32.4	62.8	--	53.0
Pioneer	P00A49X	RR2X	0.0	9/11	36	16.7	31.7	62.6	60.3	54.3
Pioneer	P01A84X	RR2X	0.1	9/17	32	16.8	31.3	61.0	57.1	49.5
Pioneer	P01T92E	Enlist E3	0.1	9/17	33	16.3	31.9	61.1	--	--
Proseed	EL80-093N	Enlist E3	00.9	9/12	35	15.8	33.0	62.5	56.7	--
Proseed	XT20-07	RR2X	00.7	9/6	32	16.6	29.9	60.9	59.4	--
Proseed	XT80-20N	RR2X	0.2	9/13	35	15.6	32.0	65.5	--	--
REA	R0112XF	RR2XF	0.1	9/15	40	15.3	34.2	68.4	--	58.0
REA	RX00912	RR2X	00.9	9/11	35	16.6	31.2	59.4	--	51.7
Stine	002EE06	Enlist E3	00.6	9/2	32	16.0	33.6	47.5	--	37.0
Stine	01EA63	Enlist E3	0.0	9/14	31	15.5	33.2	67.7	64.3	55.2
Stine	01EE03	Enlist E3	0.1	9/20	35	16.2	33.1	64.2	--	57.4
Stine	03EB02	Enlist E3	0.2	9/16	28	15.6	32.0	62.7	--	54.6
Syng NK	NK009-T1XF	RR2XF	00.9	9/11	32	16.1	32.8	63.3	--	54.8
Mean				9/12	33	16.1	32.7	61.5	60.7	53.2
CV %				1.6	7.9	1.6	1.5	8.2	--	--
LSD 0.05				2.6	3.7	0.5	1.0	7.1	--	--
LSD 0.10				2.2	3.1	0.4	0.8	5.9	--	--

Table 23. 2021 Soybean - Enlist, GT, RR and Xtend - Langdon - Authors, B. Hanson, L. Henry and J. Faul (2 of 2).

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Seed Yield 2021	Seed Yield 2-yr. Avg.	Seed Yield 2-site Avg.[2]
				(date)	(inch)	(%)	(%)	----------(bu/a)----------		
Syng NK	S006-R7X	RR2X	00.6	9/3	29	16.6	32.2	61.0	62.4	52.1
Syng NK	S008-E3	Enlist E3	008	9/11	34	15.8	33.1	64.4	61.3	57.1
Thunder	SB8001	RR2X	0.1	9/12	27	16.3	33.4	61.8	57.9	55.0
Thunder	SB81006	RR2X	00.6	9/6	31	16.6	30.3	56.8	57.8	48.7
Thunder	SB87009	RR2X	00.9	9/11	35	15.2	33.2	62.1	61.9	54.2
Thunder	SB88007N	RR2X	00.7	9/8	34	16.6	32.5	60.3	58.3	51.4
Thunder	TE71008N	Enlist E3	00.8	9/11	36	16.2	32.5	61.8	60.5	55.0
Thunder	TX82008N	RR2XF	00.8	9/12	34	15.9	32.7	63.1	--	54.5
Mean				9/12	33	16.1	32.7	61.5	60.7	53.2
CV %				1.6	7.9	1.6	1.5	8.2	--	--
LSD 0.05				2.6	3.7	0.5	1.0	7.1	--	--
LSD 0.10				2.2	3.1	0.4	0.8	5.9	--	--

Planted: May 18. Harvested: Oct. 5. Previous crop: wheat.

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

[2]A 2-site average of Cavalier County (Langdon) and Pembina County (Cavalier).

Table 24. 2021 Soybean - Conventional - Langdon - Authors, B. Hanson, L. Henry and J. Faul.

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Seed Yield 2021	Seed Yield 2-yr. Avg.	Seed Yield 2-site Avg.[2]
Conventional			(date)	(inch)	(%)	(%)	----------(bu/a)----------		
Legacy	LS0090-20	00.9	9/7	25	16.2	35.7	49.9	51.0	36.3
Legacy	LS020-20	0.2	9/10	34	15.9	32.8	50.2	51.5	37.4
Legacy	LS004-21	00.4	9/5	32	17.6	32.4	43.5	--	30.6
Legacy	LS005-21	00.5	9/3	27	14.8	39.8	43.6	--	31.5
Legacy	LS006-21	00.6	9/5	29	16.2	34.0	51.3	--	36.6
Prograin	Liska	00.3	9/7	26	15.6	35.9	51.3	--	--
Prograin	Maya	00.7	9/7	26	14.7	36.2	48.8	47.9	--
Prograin	Hana	0.1	9/11	27	15.9	35.9	53.7	51.5	--
Richland	MK0249	0.2	9/13	24	15.8	32.2	49.3	45.4	38.8
Sevita	Astor	0.3	9/11	29	16.7	34.4	53.8	50.3	40.1
NDSU	ND Rolette	00.9	9/10	27	16.8	32.0	58.4	54.0	42.4
NDSU	ND Benson	0.4	9/18	30	16.3	33.0	52.6	49.6	44.2
Roundup Ready Check									
	RR2X Check#1	00.5	9/4	25	16.4	31.4	53.1	50.7	41.1
	RR2Y Check#2	00.9	9/10	28	16.2	32.7	60.2	59.2	47.3
	RR2Y Check#3	00.8	9/8	26	15.8	31.7	53.8	54.2	40.5
Mean			9/10	28	16.1	34.0	51.6	51.4	38.9
CV %			1.2	7.4	1.8	1.6	7.8	--	--
LSD 0.05			2	2.9	0.6	1.1	5.6	--	--
LSD 0.10			1.7	2.4	0.5	0.9	7.8	--	--

Planted: May 22. Harvested: Sept. 29. Previous crop: wheat.

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

[2]A 2-site average of conventional trials at Langdon REC and Walsh County (Park River).

Table 25. 2021 Soybean - Enlist, GT, RR and Xtend - Park River (Langdon REC) - Authors, B. Hanson, L. Henry and J. Faul (1 of 2).

Company/		Herbicide	Maturity		Plant	Seed	Seed	Seed Yield		
Brand	Variety	Trait	Group	Maturity[1]	Height	Oil	Protein	2021	2-yr. Avg.	2-site avg.[2]
				(date)	(inch)	(%)	(%)	----------(bu/a)----------		
BioGene	BG8000	RR2X	00.9	9/3	17	19.1	30.2	27.1	46.7	--
BioGene	BG8006	RR2X	00.6	8/31	18	18.3	31.1	23.5	--	--
BioGene	BG9021E3	Enlist E3	0.2	9/9	17	17.4	31.7	26.0	--	--
Dahlman	6004XN	RR2X	0.4	9/15	19	17.4	32.8	32.8	52.9	45.2
Dahlman	7203XF	RR2XF	0.3	9/7	22	17.7	32.5	30.6	--	42.7
Dyna-Gro	S02EN71	Enlist E3	0.2	9/14	16	17.3	33.0	24.5	51.2	37.0
Dyna-Gro	S04XF32	RR2XF	0.4	9/13	22	17.5	32.4	34.7	--	44.3
Dyna-Gro	S04XT91	RR2X	0.4	9/14	18	17.7	31.9	33.4	53.2	44.2
Golden H.	GH0272XF	RR2XF	0.2	9/9	19	18.2	32.2	30.1	--	37.2
Golden H.	GH0325E3	Enlist E3	0.3	9/9	19	17.9	31.1	31.2	53.5	38.3
Golden H.	GH0452E3	Enlist E3	0.4	9/13	19	17.3	34.3	26.3	--	40.1
Innvictis	A0338X	RR2X	0.3	9/8	18	16.9	32.0	32.2	--	43.5
Innvictis	B0330E	Enlist E3	0.3	9/14	18	17.9	32.6	26.1	--	37.7
Integra	40201N	Enlist E3	0.2	9/14	18	17.8	32.5	28.8	51.2	41.3
Integra	40300N	Enlist E3	0.3	9/9	19	17.4	32.1	27.9	--	40.3
Integra	50309N	RR2X	0.3	9/9	18	16.4	32.9	30.2	49.9	43.6
Legacy	LS-00930 RR2X	RR2X	00.9	9/7	16	17.7	33.4	22.5	--	35.0
Legacy	LS012-21E	Enlist E3	0.1	9/9	20	17.4	32.8	37.2	--	46.1
Legacy	LS-0239N RR2X	RR2X	0.2	9/10	18	17.6	30.6	23.3	48.4	39.4
Legacy	LS-0320E	Enlist E3	0.4	9/14	20	17.4	32.3	29.7	52.2	38.2
Legacy	LS042-21E	Enlist E3	0.4	9/13	19	17.3	33.0	28.8	--	40.9
Legacy	LS-0429	Enlist E3	0.4	9/15	20	17.4	34.1	26.6	--	38.2
LG Seeds	LGS00663RX	RR2X	00.6	9/1	17	17.9	31.5	24.4	47.8	34.1
LG Seeds	LGS00838XF	RR2XF	00.8	9/6	20	17.5	33.3	23.3	--	34.5
LG Seeds	LGS0111RX	RR2X	0.1	9/9	22	17.7	33.4	28.0	49.2	41.8
LG Seeds	LGS0355RX	RR2X	0.3	9/10	18	17.7	31.5	29.7	46.5	41.8
LG Seeds	LGS0400RX	RR2X	0.4	9/13	21	17.7	30.9	33.3	55.1	47.5
NDSU	21ND008GT20	GT	00.8	8/31	17	17.8	32.1	18.5	--	28.5
NDSU	ND17009GT	GT	00.9	9/5	18	18.2	33.2	23.6	44.5	34.4
Peterson	22XF03	RR2XF	0.3	9/7	21	18.1	32.0	29.1	--	40.9
Pioneer	P00A49X	RR2X	0.0	9/5	20	18.4	32.3	27.5	--	--
Pioneer	P01A84X	RR2X	0.1	9/10	19	17.8	32.5	27.2	48.5	--
Pioneer	P01T92E	Enlist E3	0.1	9/7	17	18.6	31.0	22.6	--	--
Pioneer	P03A17X	RR2X	0.2	9/10	19	18.5	31.4	29.7	48.4	--
Pioneer	P03A26X	RR2X	0.3	9/11	21	17.4	32.3	28.5	49.0	--
Pioneer	P03T87E	Enlist E3	0.3	9/16	18	17.1	34.0	28.1	--	--
Proseed	EL90-33N	Enlist E3	0.3	9/8	18	17.3	31.6	27.8	--	--
Proseed	XT20-07	RR2X	00.7	8/31	18	18.6	30.3	20.6	46.1	--
Proseed	XT20-40	RR2X	0.4	9/14	18	17.2	33.0	29.3	--	--
Proseed	XT80-20N	RR2X	0.2	9/9	18	16.8	32.4	29.7	--	--
REA	R0112XF	RR2XF	0.1	9/7	23	18.5	31.4	28.4	--	40.8
REA	RX00912	RR2X	00.9	9/3	18	18.5	30.3	24.7	--	32.1
REA	RX0411	RR2X	0.4	9/13	22	18.0	30.7	32.8	54.7	43.0
Stine	002EE06	Enlist E3	00.6	8/28	16	17.6	32.8	7.0	--	18.2
Stine	01EA63	Enlist E3	0.0	9/10	18	17.1	32.9	25.0	--	35.5
Stine	01EE03	Enlist E3	0.1	9/12	20	17.9	32.4	28.2	--	40.6
Mean				9/9	19	17.7	32.3	27.3	50.1	39.1
CV %				1.1	7.6	--	--	9.5	--	--
LSD 0.05				1.1	1.2	--	--	2.2	--	--
LSD 0.10				0.9	1.0	--	--	1.9	--	--

Table 25. 2021 Soybean - Enlist, GT, RR and Xtend - Park River (Langdon REC) - Authors, B. Hanson, L. Henry and J. Faul (2 of 2).

Company/		Herbicide	Maturity		Plant	Seed	Seed	Seed Yield		
Brand	Variety	Trait	Group	Maturity[1]	Height	Oil	Protein	2021	2-yr. Avg.	2-site avg.[2]
				(date)	(inch)	(%)	(%)	----------(bu/a)----------		
Stine	03EB02	Enlist E3	0.2	9/10	17	17.6	30.9	27.2	--	40.4
Syng NK	NK009-T1XF	RR2XF	00.9	9/6	19	18.4	32.4	25.0	--	38.2
Syng NK	NK04-G8E3	Enlist E3	0.4	9/14	18	17.1	35.0	24.7	--	--
Syng NK	S008-E3	Enlist E3	008	9/3	20	18.0	31.6	25.6	--	--
Syng NK	S01-C4X	RR2X	0.1	9/8	19	17.3	32.7	27.0	49.5	38.5
Syng NK	S04-Q7X	RR2X	0.4	9/15	19	16.9	34.9	31.6	--	43.5
Thunder	SB8001	RR2X	0.1	9/8	17	17.6	33.4	24.6	52.4	36.9
Thunder	SB8104N	RR2X	0.4	9/14	18	17.1	31.5	30.2	53.3	43.0
Thunder	SB87009	RR2X	00.9	9/4	19	17.2	32.7	25.1	--	36.7
Thunder	SB8903N	RR2X	0.3	9/8	19	17.2	31.1	31.5	48.7	44.5
Thunder	TX82008N	RR2XF	00.8	9/6	19	18.2	32.4	23.6	--	35.1
Mean				9/9	19	17.7	32.3	27.3	50.1	39.1
CV %				1.1	7.6	--	--	9.5	--	--
LSD 0.05				1.1	1.2	--	--	2.2	--	--
LSD 0.10				0.9	1.0	--	--	1.9	--	--

Planted: May 17. Harvested: Sept. 29. Previous crop: wheat.

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

[2]2-site average Walsh County (Park River) and Nelson County (Pekin).

Table 26. 2021 Soybean - Conventional - Park River (Langdon REC) - Authors, B. Hanson, L. Henry and J. Faul.

Company/		Maturity		Plant		Seed	Seed	Seed Yield		
Brand	Variety	Group	Maturity[1]	Height	Shatter[3]	Oil	Protein	2021	2-yr. Avg.	2-site Avg.[2]
Conventional			(date)	(inch)	(0-9)	(%)	(%)	----------(bu/a)----------		
Legacy	LS0090-20	00.9	8/31	16	0	17.6	34.8	22.7	39.1	36.3
Legacy	LS020-20	0.2	9/2	20	1.3	18.0	32.8	24.6	42.0	37.4
Legacy	LS004-21	00.4	8/29	22	3.4	18.9	33.3	17.8	--	30.6
Legacy	LS005-21	00.5	8/30	16	3.8	15.7	39.7	19.3	--	31.5
Legacy	LS006-21	00.6	8/29	17	0.5	18.3	33.3	21.9	--	36.6
Legacy	LS040-21	0.4	9/5	21	0.2	17.0	34.7	29.0	--	--
NDSU	ND Rolette	00.9	9/6	16	0	18.7	32.1	26.5	48.0	42.4
NDSU	ND Benson	0.4	9/14	18	0	17.4	34.7	35.8	48.5	44.2
Richland	MK0249	0.2	9/8	17	0	17.4	32.1	28.3	41.7	38.8
Sevita	Astor	0.3	9/8	17	0.8	18.0	35.2	26.4	44.1	40.1
Roundup Ready Check										
	RR2X Check#1	00.5	8/31	18	0	18.2	31.8	29.1	47.1	41.1
	RR2Y Check#2	00.9	9/6	20	0	17.7	32.1	34.4	55.6	47.3
	RR2Y Check#3	00.8	8/31	17	1.2	18.0	31.4	27.1	46.8	40.5
Mean			9/4	18	0.9	17.7	33.7	26.4	45.9	38.9
CV %			0.7	6.8	45.5	1.8	2.2	6.4	--	--
LSD 0.05			0.7	1.1	0.2	0.7	1.5	1.7	--	--
LSD 0.10			0.6	0.9	0.2	0.6	1.3	1.4	--	--

Planted: May 17. Harvested: Sept. 29. Previous crop: wheat.

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

[2]A 2-site average of conventional trials at Langdon REC and Walsh County (Park River).

[3]Relative Rating 0-9, just prior to harvest; 0 = none.

Table 27. 2021 Soybean - Enlist, GT, RR and Xtend - Cavalier (Langdon REC) - Authors, B. Hanson, L. Henry and J. Faul (1 of 2).

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Seed Yield		
								2021	2-yr. Avg.	2-site Avg.[2]
				(date)	(inches)	(%)	(%)	----------(bu/a)----------		
BioGene	BG8000	RR2X	00.9	9/6	26	17.3	32.0	49.5	52.7	54.5
BioGene	BG8006	RR2X	00.6	8/30	23	17.4	32.3	42.3	--	51.8
BioGene	BG9021E3	Enlist E3	0.2	9/13	23	16.1	32.3	44.8	--	53.6
Dahlman	1102E3N	Enlist E3	0.2	9/11	25	16.5	32.3	47.6	55.3	56.9
Dahlman	1201E3N	Enlist E3	0.1	9/12	23	16.3	32.6	44.7	--	54.6
Dyna-Gro	S009XF52	RR2XF	00.9	8/31	24	17.6	31.8	37.1	--	46.5
Dyna-Gro	S009XT68	RR2X	00.9	9/4	24	16.3	32.8	51.1	58.2	57.2
Dyna-Gro	S02EN71	Enlist E3	0.2	9/12	25	17.0	32.1	49.2	--	58.4
Golden H.	GH00833E3	Enlist E3	00.8	9/7	23	17.0	31.1	42.4	50.6	54.1
Golden H.	GH00982XF	RR2XF	00.9	9/5	23	16.7	32.8	44.1	--	53.6
Golden H.	GH0272XF	RR2XF	0.2	9/10	24	17.2	31.5	51.7	--	55.4
Innvictis	A00918X	RR2X	00.9	9/4	24	16.5	33.6	42.3	--	51.5
Innvictis	A00979X	RR2X	00.9	9/11	23	16.9	32.9	45.4	--	56.0
Integra	40089N	Enlist E3	00.8	9/6	24	17.2	32.0	43.1	52.7	54.0
Integra	50081N	RR2X	00.8	8/31	24	16.3	34.4	35.8	47.2	44.3
Legacy	LS-00639N RR2X	RR2X	00.6	8/31	24	17.2	31.6	37.6	47.9	48.5
Legacy	LS0094-21 XF	RR2XF	00.9	8/30	23	17.8	31.4	38.9	--	45.7
Legacy	LS-00930 RR2X	RR2X	00.9	9/10	21	16.8	32.5	50.3	55.0	56.8
Legacy	LS012-20E	Enlist E3	0.1	9/11	22	16.4	32.4	46.5	54.6	53.8
Legacy	LS012-21E	Enlist E3	0.1	9/14	22	17.1	32.3	50.7	--	58.7
Legacy	LS-0239N RR2X	RR2X	0.2	9/11	26	16.5	31.7	54.4	58.8	60.5
LG Seeds	LGS00663RX	RR2X	00.6	8/31	23	16.9	32.1	42.0	51.2	51.9
LG Seeds	LGS00838XF	RR2XF	00.8	9/5	24	17.1	32.3	40.5	--	49.2
LG Seeds	LGS0111RX	RR2X	0.1	9/11	26	16.5	32.7	49.3	53.6	58.3
NDSU	21ND008GT20	GT	00.8	9/3	24	17.1	32.5	41.1	--	50.3
NDSU	ND17009GT	GT	00.9	9/9	24	16.8	34.2	41.4	48.2	48.8
P3 Genetics	2002E	Enlist E3	0.2	9/13	20	16.3	32.9	45.2	--	53.1
P3 Genetics	2201E	Enlist E3	0.1	9/15	22	16.9	32.6	51.5	--	56.0
Peterson	19EN008	Enlist E3	00.8	9/7	24	17.4	31.0	45.7	52.9	56.8
Peterson	21X007	RR2X	00.7	8/30	26	17.4	30.5	41.7	50.6	55.2
Peterson	22XF009	RR2XF	00.9	9/1	26	17.0	32.0	41.4	--	48.0
Pioneer	P009T18E	Enlist E3	00.9	9/7	23	17.6	31.6	43.3	--	53.0
Pioneer	P00A49X	RR2X	0.0	9/7	26	16.9	32.8	46.1	51.7	54.3
Pioneer	P01T92E	Enlist E3	0.1	9/11	21	17.9	31.0	37.9	--	49.5
Pioneer	P03A17X	RR2X	0.2	9/12	24	17.7	31.2	48.9	53.1	--
Pioneer	P03A26X	RR2X	0.3	9/15	27	17.2	31.1	54.3	53.1	--
Pioneer	P03T87E	Enlist E3	0.3	9/14	20	16.6	31.2	43.3	--	--
REA	R0112XF	RR2XF	0.1	9/11	28	17.0	32.7	47.6	--	58.0
REA	RX00912	RR2X	00.9	9/5	22	16.9	32.2	43.9	--	51.7
Stine	002EE06	Enlist E3	00.6	8/25	20	17.1	32.5	26.5	--	37.0
Stine	01EA63	Enlist E3	0.0	9/11	21	16.4	32.4	42.8	--	55.2
Stine	01EE03	Enlist E3	0.1	9/13	22	16.9	32.7	50.7	--	57.4
Stine	03EB02	Enlist E3	0.2	9/11	23	16.7	31.7	46.4	--	54.6
Syng NK	NK009-T1XF	RR2XF	00.9	9/5	23	17.3	31.9	46.3	--	54.8
Syng NK	S006-R7X	RR2X	00.6	8/29	22	17.9	31.8	43.1	--	52.1
Syng NK	S008-E3	Enlist E3	008	9/8	25	17.0	31.9	49.9	57.5	57.1
Thunder	SB8001	RR2X	0.1	9/11	22	16.6	34.3	48.2	54.8	55.0
Thunder	SB81006	RR2X	00.6	8/30	24	17.5	30.5	40.7	51.7	48.7
Mean				9/7	23	17.0	32.2	44.8	52.8	53.2
CV %				1.3	6.7	2.0	2.0	7.4	--	--
LSD 0.05				1.3	1.3	0.7	1.3	2.8	--	--
LSD 0.10				1.1	1.1	0.6	1.1	2.4	--	--

Table 27. 2021 Soybean - Enlist, GT, RR and Xtend - Cavalier (Langdon REC) - Authors, B. Hanson, L. Henry and J. Faul (2 of 2).

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Maturity[1]	Plant Height	Seed Oil	Seed Protein	Seed Yield		
								2021	2-yr. Avg.	2-yr. site Avg.[2]
				(date)	(inches)	(%)	(%)	----------(bu/a)----------		
Thunder	SB87009	RR2X	00.9	9/5	24	16.0	33.2	46.2	51.8	54.2
Thunder	SB88007N	RR2X	00.7	9/1	24	17.3	31.8	42.5	47.8	51.4
Thunder	TE71008N	Enlist E3	00.8	9/8	24	17.0	31.3	48.2	55.2	55.0
Thunder	TX82008N	RR2XF	00.8	9/5	22	17.3	32.0	45.9	--	54.5
Mean				9/7	23	17.0	32.2	44.8	52.8	53.2
CV %				1.3	6.7	2.0	2.0	7.4	--	--
LSD 0.05				1.3	1.3	0.7	1.3	2.8	--	--
LSD 0.10				1.1	1.1	0.6	1.1	2.4	--	--

Planted: May 14. Harvested: Sept. 28. Previous crop: soybean.

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

[2]2-site average of Langdon REC and Pembina County (Cavalier).

Table 28. 2021 Soybean - Enlist, GT, RR and Xtend - Grand Forks County. Author K. Landeis.

Company/ Brand	Variety	Maturity Group	Seed Yield
			(bu/a)
Channel	0122 RXF	0.1	64.0
Channel	0320 R2X	0.3	64.5
Channel	0622 RXF	0.6	61.0
Channel	0721 RXF	0.7	67.0
Dyna-Gro	S009XF52	00.9	52.9
Dyna-Gro	S04XF32	0.4	69.7
Dyna-Gro	S05EN82	0.5	66.3
Integra	40511	0.4	62.8
Integra	70212	0.2	57.8
Integra	50309N	0.3	67.0
Integra	70082N	00.8	56.2
Legacy	LS021-12 E	0.1	63.6
Legacy	LS0320 E	0.3	63.0
Legacy	LS042-21 E	0.4	56.9
Legacy	LS062-21 E	0.6	69.5
LG Seeds	LGS0355RX	0.3	71.4
LG Seeds	LGS0400RX	0.4	63.8
NDSU	ND17009GT	00.9	52.0
NDSU	ND21008GT20	00.8	57.0
REA	R0112XF	0.1	57.2
REA	R0632XF	0.6	72.5
REA	RX0228	0.2	62.6
REA	RX0411	0.4	57.4
Stine	01EE03	0.1	60.2
Stine	02EE30	0.2	68.1
Stine	04EE06	0.4	68.7
Stine	05EA23	0.5	65.6
Stine	07EC06	0.7	71.2
Syng NK	NK02M4XF	0.2	66.3
Syng NK	S04-Q7X	0.4	62.5
Mean			63.3
CV %			8.9
LSD 0.05			7.9
LSD 0.10			6.6

Planted: May 17. Harvested: Oct. 7. Previous crop: soybean.

Table 29. 2021 Soybean - Enlist, GT, RR and Xtend - Pekin (Langdon REC) - Authors, B. Hanson, L. Henry and J. Faul.

Company/		Herbicide	Maturity		Plant	Seed	Seed	Seed Yield		
Brand	Variety	Trait	Group	Maturity[1]	Height	Oil	Protein	2021	2-yr. Avg.	2-site Avg.[2]
				(date)	(inch)	(%)	(%)	----------(bu/a)----------		
Dahlman	6004XN	RR2X	0.4	9/15	25	17.0	33.6	57.6	58.8	45.2
Dahlman	7203XF	RR2XF	0.3	9/9	28	16.3	35.4	54.8	--	42.7
Dyna-Gro	S02EN71	Enlist E3	0.2	9/15	20	16.5	33.5	49.5	54.1	37.0
Dyna-Gro	S04XF32	RR2XF	0.4	9/16	31	16.3	33.7	53.8	--	44.3
Dyna-Gro	S04XT91	RR2X	0.4	9/12	24	17.4	32.7	55.0	59.2	44.2
Golden H.	GH0272XF	RR2XF	0.2	9/9	24	16.7	34.4	44.2	--	37.2
Golden H.	GH0325E3	Enlist E3	0.3	9/11	21	16.5	32.7	45.3	51.9	38.3
Golden H.	GH0452E3	Enlist E3	0.4	9/13	25	16.3	35.2	54.0	--	40.1
Innvictis	A0338X	RR2X	0.3	9/14	26	16.1	32.7	54.7	--	43.5
Innvictis	B0330E	Enlist E3	0.3	9/14	18	16.4	34.3	49.3	--	37.7
Integra	40201N	Enlist E3	0.2	9/16	17	16.8	33.3	53.8	55.4	41.3
Integra	40300N	Enlist E3	0.3	9/10	23	16.9	32.4	52.7	--	40.3
Integra	50309N	RR2X	0.3	9/13	26	16.2	32.5	57.0	56.9	43.6
Legacy	LS-00930 RR2X	RR2X	00.9	9/6	21	17.1	34.4	47.4	--	35.0
Legacy	LS012-21E	Enlist E3	0.1	9/15	23	17.1	33.4	55.0	--	46.1
Legacy	LS-0239N RR2X	RR2X	0.2	9/14	25	16.0	33.7	55.6	55.9	39.4
Legacy	LS-0320E	Enlist E3	0.4	9/10	20	16.9	32.4	46.7	52.3	38.2
Legacy	LS042-21E	Enlist E3	0.4	9/12	23	17.0	31.6	53.0	--	40.9
Legacy	LS-0429	Enlist E3	0.4	9/14	26	17.0	34.6	49.7	52.9	38.2
LG Seeds	LGS00663RX	RR2X	00.6	9/5	23	16.5	34.2	43.7	50.6	34.1
LG Seeds	LGS00838XF	RR2XF	00.8	9/6	26	16.9	33.4	45.7	--	34.5
LG Seeds	LGS0111RX	RR2X	0.1	9/9	29	16.5	34.7	55.5	56.2	41.8
LG Seeds	LGS0355RX	RR2X	0.3	9/12	23	16.0	33.6	54.0	55.4	41.8
LG Seeds	LGS0400RX	RR2X	0.4	9/12	28	16.9	32.7	61.6	62.3	47.5
NDSU	21ND008GT20	GT	00.8	9/4	20	17.3	33.0	38.6	--	28.5
NDSU	ND17009GT	GT	00.9	9/7	22	17.4	35.5	45.2	48.8	34.4
Peterson	22XF03	RR2XF	0.3	9/12	29	16.5	34.9	52.7	--	40.9
REA	R0112XF	RR2XF	0.1	9/8	31	16.8	33.7	53.1	--	40.8
REA	RX00912	RR2X	00.9	9/4	23	16.6	33.9	39.4	--	32.1
REA	RX0411	RR2X	0.4	9/12	31	16.4	33.5	53.2	56.1	43.0
Stine	002EE06	Enlist E3	00.6	9/3	16	16.5	33.0	29.4	--	18.2
Stine	01EA63	Enlist E3	0.0	9/7	21	16.7	33.2	46.0	51.4	35.5
Stine	01EE03	Enlist E3	0.1	9/12	24	16.9	33.6	53.0	--	40.6
Stine	03EB02	Enlist E3	0.2	9/9	23	16.6	32.3	53.6	--	40.4
Syng NK	NK009-T1XF	RR2XF	00.9	9/6	25	16.9	33.0	51.3	--	38.2
Syng NK	S01-C4X	RR2X	0.1	9/6	27	16.7	32.9	50.0	54.3	38.5
Syng NK	S04-Q7X	RR2X	0.4	9/13	23	15.7	35.1	55.4	57.9	43.5
Thunder	SB8001	RR2X	0.1	9/8	20	17.0	34.2	49.2	53.8	36.9
Thunder	SB8104N	RR2X	0.4	9/12	23	16.7	33.2	55.7	59.6	43.0
Thunder	SB87009	RR2X	00.9	9/8	23	15.7	35.0	48.2	--	36.7
Thunder	SB8903N	RR2X	0.3	9/13	27	16.2	32.7	57.5	57.3	44.5
Thunder	TX82008N	RR2XF	00.8	9/8	22	16.8	34.6	46.6	--	35.1
Mean				9/10	24	16.6	33.6	50.7	55.3	39.1
CV %				1.1	7.9	1.9	1.8	6.2	--	--
LSD 0.05				1.2	1.7	0.6	1.2	2.7	--	--
LSD 0.10				1.0	1.4	0.5	1.0	2.3	--	--

Planted: May 18. Harvested: Oct. 5. Previous crop: wheat.

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

[2]A 2-site average of our southern region, Walsh County (Park River) and Nelson County (Pekin).

Table 30. 2021 Soybean - Enlist, GT, RR and Xtend - Minot (North Central REC) - Authors, E. Eriksmoen, A. Kraklau and J. Hansen.

Company/ Brand	Variety	Herbicide Trait[1]	Maturity Group	IDC Rating[2]	Maturity[3]	Plant Height	Seed Protein	Seed Oil	Test Weight	Seed Yield 2020	Seed Yield 2021 [4]
				(1-5)	(date)	(inches)	(%)	(%)	(lb/bu)	-----(bu/a)-----	
Dairyland	DSR-0119E	Enlist E3	0.1	2.3	9/6	19	30.2	17.6	57.8	39.7	20.5
Dyna-Gro	S009XF52	RR2XF	00.9	3.0	9/2	16	31.1	17.8	57.5	--	15.3
Dyna-Gro	S009XT68	Xtend	00.9	2.8	9/5	19	31.9	16.5	58.2	36.9	20.2
Dyna-Gro	S03XT29	Xtend	0.3	1.2	9/7	16	31.6	16.6	58.8	37.0	20.5
Golden H.	GH00833E3	Enlist E3	00.8	1.8	9/8	23	31.7	17.2	57.7	34.2	21.8
Golden H.	GH00982XF	RR2XF	00.9	3.1	9/7	19	31.8	17.1	57.5	--	24.6
Golden H.	GH0272XF	RR2XF	0.2	2.6	9/9	20	30.6	18.0	57.9	--	27.5
Hefty	H01x0	Xtend	0.1	--	9/7	15	32.1	17.4	57.7	--	21.4
Hefty	H02E1	Enlist E3	0.2	--	9/9	19	31.1	17.6	56.3	--	14.7
Integra	40201N	Enlist E3	0.2	3.3	9/9	16	32.2	17.0	57.6	34.4	16.9
Integra	40300N	Enlist E3	0.3	2.3	9/7	19	31.1	17.1	57.8	30.0	22.9
Integra	50309N	Xtend	0.3	1.4	9/9	19	30.7	16.6	58.1	33.1	25.2
Integra	70212 XF	RR2XF	0.2	2.5	9/7	20	31.6	17.5	57.9	--	15.2
Legacy	LS-00930 RR2X	RR2X	00.9	2.6	9/6	16	32.3	17.4	57.8	34.1	19.0
Legacy	LS012-20E	Enlist E3	0.1	2.5	9/5	16	31.5	16.9	57.7	31.2	21.3
Legacy	LS012-21E	Enlist E3	0.1	2.3	9/9	17	31.9	17.4	56.8	--	20.3
Legacy	LS-0239 RR2X	RR2X	0.2	1.1	9/8	19	30.7	16.5	58.3	32.0	29.3
Legacy	LS-0320N E	Enlist E3	0.3	2.7	9/7	17	31.1	17.3	58.0	--	17.9
LG Seeds	LGS00838XF	RR2XF	00.8	3.2	9/5	19	31.5	17.4	57.7	--	23.7
LG Seeds	LGS0111RX	Xtend	0.1	2.7	9/9	20	32.1	17.2	57.4	35.1	24.2
LG Seeds	LGS0400RX	Xtend	0.4	2.3	9/9	20	30.6	17.1	57.2	37.3	23.3
MS Tech.	XO 0101E	Enlist E3	0.1	--	9/7	18	31.7	16.9	57.2	--	17.7
MS Tech.	XO 0311E	Enlist E3	0.3	--	9/8	18	32.5	16.6	57.5	--	12.2
NDSU	ND17009GT	GT	00.9	3.8	9/9	20	34.1	17.2	59.5	27.1	20.0
NDSU	ND21008GT20	GT	00.8	1.2	9/5	20	31.1	17.8	57.8	--	20.3
Proseed	XT60-40N	RR2X	0.4	3.0	9/9	21	31.5	17.4	57.8	--	21.3
Proseed	XT80-20N	RR2X	0.2	1.1	9/11	16	30.5	16.6	58.3	--	24.8
REA	RX00912	RR2X	00.9	3.1	9/7	19	31.5	17.3	57.7	--	20.4
REA	RX0411	RR2X	0.4	2.6	9/11	19	30.7	17.4	57.0	--	19.6
REA	R0112XF	RR2XF	0.1	2.4	9/8	22	31.3	17.5	57.7	--	21.8
Stine	003EB62	Enlist E3	00.7	--	9/6	18	31.8	17.3	58.2	--	15.1
Stine	01EA63	Enlist E3	00.9	--	9/6	17	31.9	16.9	58.0	--	16.6
Stine	01EE03	Enlist E3	00.9	--	9/8	16	31.8	17.2	56.8	--	13.0
Stine	002EE06	Enlist E3	00.6	--	8/31	18	32.1	16.8	57.8	--	9.5
Syng NK	NK009-T1XF	RR2XF	00.9	2.8	9/5	17	31.2	17.6	57.5	--	19.0
Syng NK	NK02-M4XF	RR2XF	0.2	3.1	9/7	21	30.9	17.7	56.3	--	20.4
Syng NK	S006-R7X	Xtend	00.6	3.0	9/4	16	31.1	18.0	57.9	33.5	23.7
Syng NK	S008-E3	Enlist E3	00.8	1.5	9/7	15	31.1	17.5	57.9	--	19.9
Syng NK	S02-E3	Enlist E3	0.2	2.6	9/6	17	31.1	17.2	57.7	--	15.0
Syng NK	S02-F9X	Xtend	0.2	3.2	9/10	16	30.7	17.0	58.8	36.4	22.8
Thunder	TE71008N	Enlist E3	00.8	1.9	9/7	21	32.2	17.1	57.4	35.6	16.8
Thunder	TX82008N	RR2XF	00.8	3.7	9/7	20	31.4	17.5	57.8	--	23.3
Thunder	SB8001	Xtend	0.1	2.7	9/5	15	32.0	17.3	57.5	33.9	19.0
Zinesto	Z0100E	Enlist E3	0.1	--	9/9	19	31.8	16.9	57.3	--	20.6
Zinesto	Z0102E	Enlist E3	0.1	--	9/11	15	30.6	16.9	57.8	--	22.6
Mean				2.6	9/7	18	31.5	17.2	57.7	34.2	20.0
CV %				19	0.2	12.8	2.2	1.8	1.0	8.1	22.1
LSD 0.05				0.7	3	4.0	1.1	0.5	0.9	4.4	7.1
LSD 0.10				0.6	2	3.0	1.0	0.4	0.8	3.6	5.9

Planted: May 19. Harvested: Sept. 27. Previous crop: soybean.

[1]Herbicide trait: GT= Glyphosate Tolerant, RR = Roundup Ready and X = Extend.

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

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

[4]The 2021 trial sustained extreme drought. Data from this trial should be viewed with caution.

Table 31. 2021 Soybean - Enlist, GT, RR and Xtend - Mohall (North Central REC) - Authors, E. Eriksmoen, A. Kraklau and J. Hansen.

Company/ Brand	Variety	Herbicide Trait[1]	Maturity Group	IDC Rating[2]	Plant Height	Seed Protein	Seed Oil	Test Weight	Seed Yield	
									2020	2021 [3]
				(1-5)	(inch)	(%)	(%)	(lb/bu)	-------(bu/a)-------	
Croplan	RX00847	Xtend	00.8	--	28	30.2	17.6	58.8	--	29.0
Croplan	RX00926	Xtend	00.9	--	25	31.0	16.7	58.7	--	29.8
Dairyland	DSR-0119E	Enlist E3	0.1	2.3	28	33.3	17.0	60.2	35.3	30.4
Golden H.	GH00982XF	RR2XF	00.9	3.1	27	31.6	16.9	58.2	--	40.6
Golden H.	GH0272XF	RR2XF	0.2	2.6	30	31.3	16.9	58.1	--	44.1
Hefty	H006E	Enlist E3	00.6	--	22	31.8	16.1	59.0	--	20.3
Hefty	H008E1	Enlist E3	00.8	--	28	31.0	16.8	58.8	--	34.2
Hefty	H008x8	Xtend	00.8	--	28	30.2	17.6	58.2	--	28.9
Hefty	H009E9	Enlist E3	00.9	--	24	31.5	16.4	57.1	--	34.8
Hefty	H009x7	Xtend	00.9	--	27	32.3	15.9	58.8	--	29.7
Hefty	H01x0	Xtend	0.1	--	22	32.5	16.5	57.7	--	32.3
Hefty	H02E1	Enlist E3	0.2	--	25	32.4	16.6	53.3	--	32.7
Hefty	H009XF	RR2XF	00.9	--	27	29.8	18.0	58.9	--	26.0
Integra	40089N	Enlist E3	00.8	2.0	28	32.1	16.5	58.4	41.2	37.0
Integra	40201N	Enlist E3	0.2	3.3	22	32.3	16.3	56.0	--	43.2
Integra	50081N	Xtend	00.8	2.6	26	32.3	16.6	58.6	45.2	37.5
Integra	70082N XF	RR2XF	00.8	3.5	27	32.5	16.6	57.9	--	38.3
Legacy	LS-00930 RR2X	RR2X	00.9	2.6	23	32.6	16.5	57.5	--	37.1
Legacy	LS012-20E	Enlist E3	0.1	2.5	23	32.6	16.0	57.0	--	36.7
Legacy	LS012-21E	Enlist E3	0.1	2.3	26	32.9	16.5	53.8	--	44.3
Legacy	LS-0239 RR2X	RR2X	0.2	1.1	24	30.8	16.4	59.0	--	34.3
Legacy	LS-0320N E	Enlist E3	0.3	2.7	25	32.2	16.2	57.8	--	39.1
LG Seeds	LGS00838XF	RR2XF	00.8	3.2	29	32.2	16.3	58.0	--	37.0
LG Seeds	LGS0111RX	Xtend	0.1	2.7	28	33.3	16.7	56.8	36.7	46.1
MS Tech.	XO 0101E	Enlist E3	0.1	--	24	33.2	15.9	57.0	--	36.2
MS Tech.	XO 0311E	Enlist E3	0.3	--	23	31.7	16.2	57.7	--	32.1
NDSU	ND17009GT	GT	00.9	3.8	27	33.6	16.7	60.4	36.9	31.3
NDSU	ND21008GT20	GT	00.8	1.2	26	32.5	16.5	59.3	--	29.2
Proseed	EL80-093N	Enlist E3	00.9	2.5	25	31.3	16.7	58.8	--	29.9
Proseed	XT20-07	Xtend	00.7	3.1	28	30.6	17.0	58.8	38.6	32.2
Proseed	XT70-09N	Xtend	00.9	2.5	28	30.7	17.4	58.3	39.3	32.4
REA	R0112XF	RR2XF	0.1	2.4	31	33.8	16.2	55.7	--	41.5
REA	RX00912	RR2X	00.9	3.1	30	31.5	16.7	57.9	--	43.7
Stine	002EE06	Enlist E3	00.6	--	25	31.9	16.1	58.7	--	26.7
Stine	003EB62	Enlist E3	00.7	--	29	30.6	16.9	58.7	--	33.0
Stine	01EA63	Enlist E3	00.9	--	23	31.5	16.6	58.0	--	30.7
Stine	01EE03	Enlist E3	00.9	--	25	32.5	16.3	55.6	--	41.9
Syng NK	NK009-T1XF	RR2XF	00.9	2.8	26	32.6	16.4	58.0	--	38.5
Syng NK	S006-R7X	Xtend	00.6	3.0	27	31.5	17.3	58.6	50.3	28.8
Syng NK	S008-E3	Enlist E3	00.8	1.5	26	31.2	16.6	58.4	--	34.2
Zinesto	Z0100E	Enlist E3	0.1	--	21	31.5	16.3	57.5	--	28.6
Zinesto	Z0102E	Enlist E3	0.1	--	25	32.5	16.2	55.7	--	41.9
Mean				2.6	26	31.9	16.6	57.8	40.4	34.7
CV %				19.1	6.8	3.3	3.0	1.1	5.5	8.8
LSD 0.05				0.7	3.0	1.7	0.8	1.1	3.0	4.9
LSD 0.10				0.6	2.0	1.4	0.7	0.9	2.5	4.1

Planted: May 18. Harvested: Sept. 23. Previous crop: canola.

[1]Herbicide trait: GT= Glyphosate Tolerant, RR = Roundup Ready, and X = Extend.

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

[3]The 2021 trial sustained moderate drought.

Table 32. 2021 Soybean - Enlist, GT, RR and Xtend - Rugby (North Central REC) - Authors, E. Eriksmoen, A. Kraklau and J. Hansen.

Company/ Brand	Variety	Herbicide Trait[1]	Maturity Group	IDC Rating[2]	Plant Height	Seed Protein	Seed Oil	Test Weight	Seed Yield	
									2020	2021 [3]
				(1-5)	(inch)	(%)	(%)	(lb/bu)	--------(bu/a)--------	
Golden H.	GH00833E3	Enlist E3	00.8	1.8	17	32.4	17.1	53.1	--	14.0
Golden H.	GH00982XF	RR2XF	00.9	3.1	15	33.3	17.3	53.0	--	16.1
Golden H.	GH0272XF	RR2XF	0.2	2.6	16	31.6	18.1	52.0	--	18.5
Integra	40201N	Enlist E3	0.2	3.3	17	33.9	17.0	50.6	38.9	18.6
Integra	50081N	Xtend	00.8	2.6	16	33.7	17.0	53.2	--	13.1
Integra	50309N	Xtend	0.3	1.4	15	32.5	16.4	52.7	34.3	23.2
Legacy	LS-0239 RR2X	RR2X	0.2	1.1	17	32.4	16.5	52.4	35.1	22.8
Legacy	LS-0320N E	Enlist E3	0.3	2.7	17	33.0	16.7	52.8	36.8	15.6
Legacy	LS042-21E	Enlist E3	0.4	2.1	17	33.1	16.8	49.7	--	22.9
Legacy	LS-0429 E	Enlist E3	0.4	1.8	19	35.1	16.6	50.8	30.9	21.8
Legacy	LS044-21 XF	RR2XF	0.4	1.6	22	34.1	16.5	48.2	--	23.9
LG Seeds	LGS00838XF	RR2XF	00.8	3.2	16	32.8	17.4	53.1	--	12.3
LG Seeds	LGS0111RX	Xtend	0.1	2.7	19	33.6	17.0	52.7	36.2	20.8
LG Seeds	LGS0400RX	Xtend	0.4	2.3	17	34.5	16.2	49.0	37.3	21.2
MS Tech.	XO 0101E	Enlist E3	0.1	--	18	33.3	16.6	52.4	--	19.0
MS Tech.	XO 0311E	Enlist E3	0.3	--	16	33.2	16.6	52.9	--	19.1
NDSU	ND17009GT	GT	00.9	3.8	14	35.8	16.7	52.6	29.8	11.6
NDSU	ND21008GT20	GT	00.8	1.2	14	34.1	16.8	53.8	--	11.1
Proseed	XT60-40N	RR2X	0.4	3.0	15	34.8	16.6	49.7	--	15.1
Proseed	XT70-09N	RR2X	00.9	2.5	15	32.8	17.1	53.1	35.9	12.9
Proseed	XT80-20N	RR2X	0.2	1.1	17	32.0	16.7	52.4	--	21.7
REA	R0112XF	RR2XF	0.1	2.4	20	33.1	17.5	52.7	--	17.4
REA	RX00912	RR2X	00.9	3.1	17	32.9	17.2	53.1	--	12.0
Stine	002EE06	Enlist E3	00.6	--	14	32.8	16.8	53.0	--	8.7
Stine	003EB62	Enlist E3	00.7	--	15	33.1	17.1	54.0	--	12.3
Stine	01EA63	Enlist E3	00.9	--	15	34.1	16.3	52.0	--	12.6
Stine	01EE03	Enlist E3	00.9	--	17	33.4	17.1	50.4	--	18.2
Syng NK	NK009-T1XF	RR2XF	00.9	2.8	14	32.5	17.6	53.1	--	15.7
Syng NK	NK02-M4XF	RR2XF	0.2	3.1	16	32.0	17.6	52.3	--	17.3
Syng NK	S006-R7X	Xtend	00.6	3.0	15	32.9	17.0	53.5	39.2	12.4
Syng NK	S008-E3	Enlist E3	00.8	1.5	15	32.0	17.1	53.4	--	15.0
Syng NK	S02-F9X	Xtend	0.2	3.2	15	34.2	16.3	51.3	36.8	14.9
Thunder	SB8001	Xtend	0.1	2.7	18	33.8	17.1	52.1	36.5	18.7
Thunder	SB81006	Xtend	00.6	2.7	18	31.0	17.6	53.3	37.5	15.1
Thunder	SB88007N	Xtend	00.7	2.2	17	32.6	17.4	52.9	--	16.0
Thunder	TX82008N	RR2XF	00.8	3.7	17	32.0	17.5	53.3	--	19.1
Mean				2.6	16	33.2	17.0	52.2	35.8	16.7
CV %				19.1	10.8	2.3	1.9	2.3	7.8	22.9
LSD 0.05				0.7	3.0	1.2	0.5	1.9	3.9	6.1
LSD 0.10				0.6	2.0	1.0	0.4	1.6	3.3	5.1

Planted: May 19. Harvested: Sept. 23. Previous crop: soybean.

[1]Herbicide trait: GT= Glyphosate Tolerant, RR = Roundup Ready, and X = Extend.

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

[3]The 2021 trial sustained extreme drought. Data from this trial should be viewed with caution.

Table 33. 2021 Soybean - GT, RR and Xtend - Hettinger (REC) - Authors, J. Rickertsen and M. Wells.

Company/ Brand	Variety	Maturity Group	Maturity[1]	Plant Height	Test Weight	Seed Oil	Seed Protein	Seed Yield	
								2021	2-yr. Avg.
			(date)	(inch)	(lb/bu)	(%)	(%)	--------(bu/a)--------	
Integra	40300N	0.3	9/13	21	55.6	17.5	30.9	21.3	24.2
Integra	50309N	0.3	9/13	22	56.4	17.1	30.7	21.9	23.6
Integra	70212XF	0.2	9/10	24	56.8	18.4	30.0	21.8	--
Integra	70622XF	0.6	9/15	19	56.6	16.6	32.0	22.9	--
NDSU	ND17009GT	00.9	9/9	24	58.1	17.9	32.9	21.1	22.3
NDSU	ND2108GT73	0.8	9/17	19	57.1	17.9	30.6	23.6	22.8
Proseed	EL20-73N	0.7	9/17	20	56.5	17.0	31.2	23.3	--
Proseed	EL90-33N	0.3	9/14	20	55.8	17.5	30.7	22.2	--
Proseed	XT20-70	0.7	9/16	23	56.8	16.7	31.8	23.8	--
Proseed	XT60-40N	0.4	9/13	21	56.4	18.1	31.1	22.3	22.1
Proseed	XT80-20N	0.2	9/13	22	56.8	17.0	30.7	23.8	23.0
Proseed	XT90-50	0.5	9/15	19	56.7	17.9	31.4	24.0	--
Mean			9/14	21	56.6	17.5	31.2	22.7	23.1
CV %			1.1	7.5	0.7	1.7	1.7	9.1	--
LSD 0.05			1.6	2.3	0.5	0.4	0.6	2.5	--
LSD 0.10			1.3	1.9	0.4	0.3	0.5	1.9	--

Planted: June 1. Harvested: Sept. 24. Previous crop: spring wheat.

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

Table 34. 2021 Soybean - GT, RR and Xtend - Mandan (Hettinger REC) - Authors, J. Rickertsen and M. Wells.

Company/ Brand	Variety	Maturity Group	Plant Height	Test Weight	Seed Oil	Seed Protein	Seed Yield	
							2021	2-yr. Avg.
			(inch)	(lb/bu)	(%)	(%)	--------(bu/a)--------	
Integra	40300N	0.3	21	53.7	17.3	31.2	30.4	35.4
Integra	50309N	0.3	21	56.3	16.0	32.0	30.7	34.1
Integra	70212XF	0.2	23	55.5	17.1	32.3	28.1	--
Integra	70622XF	0.6	16	55.9	15.9	33.0	25.9	--
NDSU	ND17009GT	00.9	23	56.2	17.6	34.2	27.8	33.2
NDSU	ND2108GT73	0.8	19	56.2	17.2	31.6	31.8	34.9
Proseed	EL20-73N	0.7	17	56.0	16.2	32.4	29.3	--
Proseed	EL90-33N	0.3	19	54.4	17.1	31.9	27.8	--
Proseed	XT20-70	0.7	16	53.6	16.1	33.3	24.8	--
Proseed	XT60-40N	0.4	18	54.3	16.8	33.1	25.5	28.8
Proseed	XT80-20N	0.2	21	55.8	16.3	31.8	29.3	32.2
Proseed	XT90-50	0.5	16	54.2	16.7	32.6	27.9	--
Mean			19	55.2	16.7	32.4	28.3	33.1
CV %			7.0	2.0	1.6	1.7	7.1	--
LSD 0.05			1.6	1.3	0.3	0.7	2.4	--
LSD 0.10			1.3	1.0	0.2	0.5	1.9	--

Planted: June 2. Harvested: Sept. 30. Previous crop: spring wheat.

Table 35. 2021 Soybean - Dryland, GT, RR and Xtend - Williston - Authors, J. Bergman, G. Pradhan, and C. Wahlstrom.

Company/		Maturity	Plant	Test	Seed	Seed	Seed Yield		
Brand	Variety	Group	Height	Weight	Oil	Protein	2021	2-yr. Avg.	3-yr. Avg.
			(inch)	(lb/bu)	(%)	(%)	----------(bu/a)----------		
Dyna-Gro	S009XT68	00.9	15	55.7	20.0	39.6	12.8	11.1	20.7
Dyna-Gro	S03XT29	0.3	15	55.7	19.7	40.1	13.1	11.2	21.9
LG Seeds	LGS00838XF	00.8	15	55.7	20.8	40.1	13.4	--	--
LG Seeds	LGS0111RX	0.1	17	56.4	21.3	40.3	14.7	13.1	22.8
NDSU	ND17009GT	00.9	19	58.7	20.8	41.3	15.4	12.3	21.0
NDSU	ND18008GT	00.8	20	58.4	20.5	41.4	15.0	11.4	20.0
NDSU	ND21008GT20	00.8	15	57.5	21.3	38.5	13.1	11.5	20.9
NDSU	ND2108GT73	0.8	14	57.1	20.7	38.5	13.5	10.4	--
REA	RX00912	00.9	15	56.1	21.4	38.1	12.0	--	--
REA	RX0112XF	0.1	18	55.8	21.0	38.4	17.5	--	--
REA	RX0411	0.4	16	56.4	19.5	39.4	16.1	11.6	--
Mean			16	56.7	20.6	39.6	14.2	11.6	21.2
CV %			12	1.1	1.8	2.1	14.9	--	--
LSD 0.05			3	0.9	0.5	1.2	3.0	--	--
LSD 0.10			2	0.7	0.4	1.0	2.5	--	--

Planted: May 27. Harvested: Sept. 30. Previous crop: wheat.

Table 36. 2021 Soybean - Irrigated, Conventional - Nesson Valley (Williston REC) - Authors, J. Jacobs and T. Tjelde.

Company/		Maturity	Plant	Test	Seed	Seed	Seed Yield		
Brand	Variety	Group	Height	Weight	Oil	Protein	2021	2-yr. Avg.[1]	3-yr. Avg.[2]
			(inch)	(lb/bu)	(%)	(%)	----------(bu/a)----------		
NDSU	ND Benson	0.4	28	57.4	18.7	36.2	54.6	51.9	58.7
NDSU	ND Dickey	0.7	26	57.3	17.5	34.5	56.5	--	--
NDSU	ND Rolette	00.9	25	57.4	19.5	34.7	52.2	48.5	-
NDSU	ND Stutsman	0.7	28	57.9	18.7	32.3	64.4	56.1	64.6
Prograin	Hana	00.9	25	57.3	18.6	37.1	39.3	--	--
Prograin	Liska	00.3	25	56.8	17.7	38.2	45.8	--	--
Prograin	Maya	00.6	27	58.6	16.7	38.6	46.5	--	--
Mean			26	57.5	18.2	35.9	51.3	52.2	61.7
CV %			--	0.6	1.2	1.2	8.0	--	--
LSD 0.05			--	0.5	0.3	0.6	6.1	--	--
LSD 0.10			--	0.4	0.3	0.5	5.1	--	--

Planted: May 19. Harvested: Oct. 7. Previous crop: barley.

[1]2-yr. Avg. is 2019 and 2021 . [2] 3-yr. Avg. is 2018, 2019, and 2021.

Table 37. 2021 Soybean - Irrigated, GT, RR and Xtend - Nesson Valley (Williston REC) - Authors, J. Jacobs, T. Tjelde and A. Turnquist.

Company/		Maturity	Plant	Test	Seed	Seed	Seed Yield		
Brand	Variety	Group	Height	Weight	Oil	Protein	2021	2-yr. Avg.	3-yr. Avg.
			(inch)	(lb/bu)	(%)	(%)	----------(bu/a)----------		
Integra	40300N	0.3	28	56.5	18.8	32.1	60.0	--	--
Integra	50309N	0.3	27	56.2	18.5	33.4	52.7	47.4	--
Integra	70212XF	0.2	31	57.7	19.1	33.5	57.0	--	--
NDSU	ND17009GT	00.9	25	58.7	19.5	36.0	48.5	39.1	35.8
NDSU	ND21008GT20	00.8	21	58.0	18.9	33.7	50.5	--	--
NDSU	ND2108GT73	0.8	28	58.5	18.6	33.8	63.0	--	--
REA	R0112XF	0.1	30	57.3	19.0	33.9	54.9	--	--
REA	RX00912	00.9	26	56.9	19.4	31.6	50.0	--	--
REA	RX0411	0.4	31	57.5	19.0	31.7	56.9	46.6	-
Mean			27	57.5	19.0	33.3	54.8	44.4	35.8
CV %			--	1.0	1.2	1.1	7.6	--	--
LSD 0.05			--	0.8	0.3	0.5	6.1	--	--
LSD 0.10			--	0.7	0.3	0.4	5.0	--	--

Planted: May 19. Harvested: Oct. 7. Previous crop: barley.

Table 38. 2021 Soybean - Irrigated, GT, RR and Xtend - Trenton (Williston REC) - Authors, J. Jacobs, T. Tjelde and A. Turnquist.

Company/		Maturity	Test	Seed	Seed	Seed Yield
Brand	Variety	Group	Weight	Oil	Protein	2021
			(lb/bu)	(%)	(%)	(bu/a)
Integra	40300N	0.3	56.0	18.0	34.4	57.7
Integra	50309N	0.3	57.0	17.4	34.2	62.0
Integra	70212XF	0.2	56.9	18.1	35.0	53.8
NDSU	ND17009GT	00.9	57.8	18.4	37.5	48.2
NDSU	ND21008GT20	0.8	57.2	18.3	34.4	50.5
NDSU	ND2108GT73	00.8	57.0	17.7	33.9	55.7
REA	R0112XF	0.1	56.9	18.0	35.0	56.5
REA	RX00912	00.9	57.0	18.6	33.1	49.3
REA	RX0411	0.4	56.8	18.0	32.9	52.3
Mean			56.9	18.0	34.5	54.0
CV %			0.9	1.5	1.6	11.2
LSD 0.05			0.8	0.4	0.8	8.8
LSD 0.10			0.6	0.3	0.7	7.3

Planted: May 19. Harvested: Oct. 6. Previous crop: sugarbeet.

Table 39. 2021 Soybean - Enlist, RR and Xtend - Ransom and Sargent Counties - Authors, B. Zimprich, M. Seykora, H. Kandel and C. Deplazes.

			Ransom				Sargent				Combined 2021			
Company/ Brand	Variety	Mt. Group	Test Weight	Seed Protein	Seed Oil	Seed Yield	Test Weight	Seed Protein	Seed Oil	Seed Yield	Test Weight	Seed Protein	Seed Oil	Seed Yield
			(lb/bu)	(%)	(%)	(bu/a)	(lb/bu)	(%)	(%)	(bu/a)	(lb/bu)	(%)	(%)	(bu/a)
AgriGold	G0801E3	0.8	57.3	32.1	19.2	42.2	56.8	34.6	18.6	21.5	57.1	33.3	18.9	33.9
AgriGold	G1490XF	1.4	56.9	32.6	18.7	58.4	57.1	34.1	18.9	31.7	57.0	33.2	18.8	47.7
Golden H.	GH0502XF	0.5	58.1	32.8	18.8	44.5	58.0	35.0	18.1	20.6	58.0	33.8	18.5	34.9
Golden H.	GH0543X	0.5	56.7	31.3	19.7	45.7	57.2	33.7	18.8	19.0	56.9	32.3	19.4	35.0
Golden H.	GH1032XF	1.0	58.4	33.0	18.4	46.6	57.5	35.0	17.7	21.3	58.0	33.8	18.0	36.4
Golden H.	GH1442XF	1.4	57.2	33.3	18.7	56.2	58.3	34.0	18.5	35.6	57.6	33.6	18.7	48.0
Hefty	Z0801E	0.8	57.5	32.2	19.5	51.2	55.6	34.6	18.9	23.9	56.7	33.1	19.3	40.3
Hefty	Z1001E	1.0	58.5	34.0	18.2	50.4	58.6	34.8	18.0	28.4	58.6	34.4	18.1	41.6
Hefty	Z1101E	1.1	57.7	31.8	19.6	56.2	58.5	32.5	19.3	26.9	58.1	32.2	19.4	44.5
Legacy	LS082-20E	0.8	57.6	32.8	19.3	53.1	58.0	34.8	19.0	29.5	57.7	33.7	19.1	43.7
Legacy	LS094-20XF	0.9	57.5	32.4	19.2	47.2	56.7	35.0	18.6	22.8	57.1	33.4	18.9	37.4
Legacy	LS102-20E	1.0	58.3	34.3	18.2	42.8	58.3	34.9	18.1	26.5	58.3	34.5	18.2	36.3
Legacy	LS122-21E	1.2	57.4	31.1	20.0	50.2	57.6	33.1	18.8	20.9	57.5	31.9	19.5	38.5
Legacy	LS1320NE	1.3	57.0	34.0	18.2	48.5	57.8	34.7	18.2	32.1	57.3	34.4	18.2	41.9
REA	R0632XF	0.6	57.5	33.2	18.4	34.5	56.6	34.2	18.5	25.5	57.1	33.6	18.4	30.9
REA	R1042XF	1.0	57.5	32.6	19.0	43.7	58.3	35.0	18.5	24.9	57.8	33.6	18.9	36.2
REA	R1350XF	1.3	57.6	32.0	19.3	48.4	57.2	34.5	18.9	25.4	57.4	33.1	19.2	39.2
REA	RX0721	0.7	57.2	32.3	19.0	48.4	57.5	34.6	18.6	22.1	57.3	33.3	18.8	37.9
Mean			57.5	32.7	19.0	48.2	57.5	34.4	18.6	25.5	57.5	33.4	18.8	39.1
C.V. %			0.6	2.6	1.9	10.8	1.6	1.2	1.5	9.1	1.2	2.3	1.9	12.3
LSD 0.05			0.6	1.4	0.6	8.5	NS	0.7	0.5	4.8	0.8	0.9	0.4	6.0
LSD 0.10			0.5	1.1	0.5	7.1	NS	0.6	0.4	4.0	0.7	0.8	0.4	5.0

Planted: May 7. Harvested: Sept. 28. Previous crop: corn.

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

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