

A843-23 (December 2023)

North Dakota Soybean

Variety Trial Results for 2023 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 and in the variety selection tool at <https://vt.ag.ndsu.edu/>. Several herbicide traits are represented in the tables: E = Enlist or E3; RR = Roundup Ready; RRXT = RR2Xtend; XF = XtendFlex; X = Xtend; GT = glyphosate tolerant; and LL = Liberty Link.

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Soybean Variety Selection

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Selection

Soybean variety selection should be based on maturity, yield, seed quality, lodging resistance, iron deficiency chlorosis tolerance, disease tolerance, and herbicide resistance traits.

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, compare yields of varieties that are of similar maturity. 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 reached physiological maturity, which will reduce yield and percent of oil.

Soybean Maturity

Soybean plants 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. 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 mature 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. 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 generally adapted to the southern two thirds of North Dakota. Maturity group 1 primarily is suitable for extreme south-east counties. 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 a dry season and normal rainfall conditions is the best way to identify a variety that does relatively well, regardless of growing season weather fluctuations.

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 2023 season, IDC ratings are provided in Tables 3 and 4.

Disease Resistance and Tolerance

Phytophthora

Phytophthora root rot, caused by the pathogen *Phytophthora sojae*, 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.

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

Similarly, continually rotating effective genes is very important. Lack of gene or crop rotation can speed the development of new *Phytophthora* 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 includes planting varieties with genetic resistance, using effective fungicide seed treatments, managing water (surface and subsurface drainage) and rotating crops.

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 soybean, 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.

Soybean Cyst Nematode

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. The primary source of resistance available in soybean varieties grown in North Dakota is PI88788. While PI88788 is still largely effective in North Dakota, the nematode is slowly adapting to it. Other sources of resistance, such as Peking, will be effective in the vast majority of fields in the state. However, few varieties have sources of resistance other than PI88788. Rotation of resistant varieties will help manage SCN. While rotating between sources is ideal (such as a PI88788 – Peking rotation), it is not always possible. However, because PI88788 is made up of multiple genes (and copy numbers of those genes), rotating among varieties with PI88788 may

limit nematode adaptation. 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 even one year is beneficial, but two to three years is better. Dry edible bean is the only other SCN-susceptible crop grown in North Dakota 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 on soybean cyst nematode can be found at www.thescncoalition.com.

Monitoring SCN egg levels by soil sampling is critical for evaluating how well management strategies are working. In general, if egg levels remain approximately the same after a season of soybean, the management strategy is working. If egg levels increase (especially by orders of magnitude) after a season of soybean, adjusting the source of resistance, the rotation crops, the length of rotation and/or considering a nematode-protectant seed treatment may be advised.

Herbicide-Resistance Traits

Numerous choices exist for single- and multi-trait herbicide resistance in soybean. See NDSU and University of Minnesota Extension publication “Herbicide Resistant Traits for Minnesota and North Dakota” (PS 1945).

Table 1. Agronomic Characteristics of NDSU Soybean Varieties.

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

¹Remarks: 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 = Tolerant to soybean aphid.

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

Company	Abbreviated	Website
AgriGold	AgriGold	agrigold.com/soybeans
BASF	Xitavo	www.xitavosoybeanseed.com/
Bayer Crop Science	Bayer	www.dekalbasgrowdeltapine.com/en-us.html
Brushvale Seed Inc.	Brushvale	www.brushvaleseed.com
Champion Seed	Champion	www.plantchampion.com/
Channel	Channel	www.cropscience.bayer.us/soybeans/channel/seed-catalog
Dahlman Seed Co.	Dahlman	www.dahlmanseed.com
Dairyland Seed	Dairyland	www.dairylandseed.com
DuPont Pioneer	Pioneer	www.pioneer.com/us
Dyna-Gro Seed	Dyna-Gro	www.dynagroseed.com
Farmer's Business Network Inc.	Paloma	www.fbn.com/direct/seed
Golden Harvest	Golden H.	www.goldenharvestseeds.com/soybeans
Innictis Seed Solutions	Innictis	www.innictisseed.com/products/soybeans/107
Integra Fortified Seed	Integra	www.wilburellisagribusiness.com/integra-seed/
Latham Hi-Tech Seeds	Latham	www.lathamseeds.com
Legacy Seeds	Legacy	www.legacyseeds.com
LG Seeds	LG Seeds	www.lgseeds.com
N.D. Foundation Seed	NDSU	www.ag.ndsu.edu/fss/
Peterson Farms Seed	Peterson	www.petersonfarmsseed.com
Proseed Inc.	Proseed	www.proseed.net
REA Hybrids	REA	www.rea-hybrids.com/en-us/products/soybeans.html
Richland IFC	Richland	www.richlandifc.com
Sevita International	Sevita	www.sevitagenetics.com
Stine Company	Stine	www.stinseed.com/soybeans
Syngenta NK Brand	Syng NK	www.syngenta-us.com/seed
Thunder Seed Inc.	Thunder	www.thunderseed.com

Table 3. 2023 Soybean – Herbicide-Resistant, Iron-deficiency Chlorosis - Authors, C. Miranda and G. Kreutz (Page 1 of 3).

Company	Variety	Trial Mean IDC ¹	Company	Variety	Trial Mean IDC ¹
AgriGold	G0301E3	3.2	Dairyland	DSR-1290E	3.0
AgriGold	G0431E3	2.8	Dyna-Gro	S01XF43	3.0
AgriGold	G0500XF	2.4	Dyna-Gro	S03EN94	3.0
AgriGold	G0577E3	2.6	Dyna-Gro	S05XF73	2.8
AgriGold	G0854XF	3.5	Golden H.	GH00864XF	3.0
AgriGold	G0893E3	3.6	Golden H.	GH0234E3	3.2
AgriGold	G1055E3	3.0	Golden H.	GH0363E3	2.9
AgriGold	G1202XF	3.5	Golden H.	GH0384XF	3.3
AgriGold	G1209E3	3.0	Golden H.	GH0414E3	3.4
AgriGold	G1490XF	3.0	Golden H.	GH0502XF	3.3
AgriGold	G1493E3	3.3	Golden H.	GH0653XF	2.8
Bayer	AG02XF4	2.9	Golden H.	GH0734E3	2.8
Bayer	AG04XF4	2.9	Golden H.	GH0764XF	3.5
Bayer	AG05XF4	2.2	Golden H.	GH1124XF	3.0
Bayer	AG07XF4	2.8	Golden H.	GH1194E3	3.3
Bayer	AG10XF4	3.1	Golden H.	GH1323XF	3.2
Bayer	AG11XF4	2.7	Legacy	LS0098-23XF	2.8
Bayer	AG13XF4	3.2	Legacy	LS012-23E	2.7
Bayer	AG14XF4	3.6	Legacy	LS014-23XF	2.6
Channel	00924RXXF	2.8	Legacy	LS024-23XF	3.3
Channel	0122RXXF	2.9	Legacy	LS032-23E	3.2
Channel	0218R2X	1.9	Legacy	LS044-23XF	2.2
Channel	0320R2X	2.2	Legacy	LS052-23E	3.2
Channel	0423RXXF	2.3	Legacy	LS064-23XF	3.4
Channel	0724RXXF	3.2	Legacy	LS072-21E	3.1
Channel	0823RXXF	3.0	Legacy	LS074-22XF	3.5
Channel	0924RXXF	3.0	Legacy	LS084-22XF	3.3
Channel	1024RXXF	3.0	Legacy	LS092-22E	3.7
Channel	1224RXXF	2.4	Legacy	LS094-20XF	3.0
Channel	1524RXXF	2.6	Legacy	LS102-22E	3.3
Dahlman	7301XF	2.9	Legacy	LS124-23XF	2.9
Dahlman	7304XF	2.6	LG Seeds	LGS00719XF	3.8
Dahlman	74009XF	3.1	LG Seeds	LGS00901E3	2.9
Dahlman	7401XF	2.6	LG Seeds	LGS0105E3	3.4
Dahlman	7412XF	2.5	LG Seeds	LGS0111RX	3.1
Dahlman	AE00940	3.0	LG Seeds	LGS0125XF	3.1
Dahlman	AE0140	3.4	LG Seeds	LGS0139XF	2.4
Dahlman	AE1220	3.4	LG Seeds	LGS0323E3	3.2
Dairyland	DSR-0220E	3.4	LG Seeds	LGS0405E3	2.5
Dairyland	DSR-0585E	2.7	LG Seeds	LGS0444XF	3.0
Dairyland	DSR-0757E	3.1	LG Seeds	LGS0550E3	3.0
Dairyland	DSR-0920E	3.0	LG Seeds	LGS0701XF	3.1
Dairyland	DSR-1121E	2.8	LG Seeds	LGS0822E3	2.9
Mean		3.0	Mean		3.0
CV %		22.2	CV %		22.2
LSD 0.05		0.5	LSD 0.05		0.5
LSD 0.10		0.4	LSD 0.10		0.4

Table 3. 2023 Soybean – Herbicide-Resistant, Iron-deficiency Chlorosis - Authors, C. Miranda and G. Kreutz (Page 2 of 3).

Company	Variety	Trial Mean IDC ¹	Company	Variety	Trial Mean IDC ¹
LG Seeds	LGS0988XF	3.2	Peterson	X2414E	2.9
LG Seeds	LGS1043E3	3.1	Peterson	X24XF01	2.3
LG Seeds	LGS1232XF	3.3	Pioneer	P02A78E	2.9
LG Seeds	LGS1385XF	2.8	Pioneer	P04A98E	2.7
NDSU	ND21008GT20	2.3	Pioneer	P06A38E	2.6
NDSU	ND2108GT73	3.1	Pioneer	P06A85E	2.4
NDSU	ND17009GT	3.7	Pioneer	P08A44E	2.0
Paloma / Farmer's BN	PL2E013	3.6	Pioneer	P11A97E	2.2
Paloma / Farmer's BN	PL2E043	2.8	Proseed	EL40-093N	2.9
Paloma / Farmer's BN	PL2E061	3.1	Proseed	EL40-13N	3.2
Paloma / Farmer's BN	PL2E073	2.7	Proseed	EL40-33N	3.4
Paloma / Farmer's BN	PL2E093	3.0	Proseed	EL40-83N	3.3
Paloma / Farmer's BN	PL2E101	3.3	Proseed	EL41-13N	3.1
Peterson	18X008N	2.3	Proseed	XF40-12	2.5
Peterson	19EN04	2.8	Proseed	XF41-22N	2.7
Peterson	19X03N	3.0	Proseed	XT80-20N	2.2
Peterson	2003E	3.2	REA	R0422XF	2.6
Peterson	2005E	2.4	REA	R0743XF	3.4
Peterson	2013E	3.1	REA	R0944XF	2.7
Peterson	2106E	2.8	REA	R1234XF	2.6
Peterson	2108E	3.4	Stine	009EG32	2.7
Peterson	2109E	3.8	Stine	01EG23	3.2
Peterson	21XF07	2.9	Stine	03EB02	2.9
Peterson	2201E	2.8	Stine	03EG62	3.1
Peterson	2207E	3.2	Stine	05EG26	3.4
Peterson	2212E	2.9	Stine	05EG62	2.9
Peterson	2214E	2.9	Stine	06EC23	2.8
Peterson	22XF009	3.2	Stine	06EG29	3.3
Peterson	22XF03	3.1	Stine	08EC32	3.1
Peterson	22XF06	3.2	Stine	08EG62	2.9
Peterson	22XF10	2.8	Stine	09EG92	3.3
Peterson	22XF12	3.2	Stine	12EB32	3.2
Peterson	22XF14	3.0	Stine	12EG32	3.5
Peterson	2304E	3.3	Syng NK	NK05-W3XF	3.2
Peterson	2309E	3.4	Syng NK	NK06-D9E3	3.3
Peterson	2311E	3.1	Syng NK	NK06-P2XF	2.5
Peterson	23EN009	3.4	Syng NK	NK07-G5E3	2.8
Peterson	23EN10	2.9	Syng NK	NK09-B5XF	2.7
Peterson	23XF009	2.8	Syng NK	NK11-A4E3	3.0
Peterson	23XF01	2.9	Syng NK	NK11-U2XF	3.1
Peterson	23XF09	3.2	Syng NK	NK13-Y4XF	2.9
Peterson	23XF13	3.2	Xitavo	XO 0094E	2.8
Peterson	X2412E	3.5	Xitavo	XO 0213E	2.5
Mean		3.0	Mean		3.0
CV %		22.2	CV %		22.2
LSD 0.05		0.5	LSD 0.05		0.5
LSD 0.10		0.4	LSD 0.10		0.4

Table 3. 2023 Soybean – Herbicide-Resistant, Iron-deficiency Chlorosis - Authors, C. Miranda and G. Kreutz (Page 3 of 3).

Company	Variety	Trial Mean IDC ¹	Company	Variety	Trial Mean IDC ¹
Xitavo	XO 0234E	2.9	Xitavo	XO 0993E	3.5
Xitavo	XO 0311E	3.0	Xitavo	XO 1133E	2.9
Xitavo	XO 0554E	3.0	Xitavo	XO 1212E	2.9
Xitavo	XO 0602E	3.2	Xitavo	XO 1372E	3.1
Xitavo	XO 0731E	3.1			
Mean		3.0	Mean		3.0
CV %		22.2	CV %		22.2
LSD 0.05		0.5	LSD 0.05		0.5
LSD 0.10		0.4	LSD 0.10		0.4

Note: ND21008GT20 is the resistant control (green highlight). NDSU ND17009GT is the susceptible control (red highlight).

Scores averaged from three testing locations in North Dakota: Colfax, Leonard, and Amenia

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

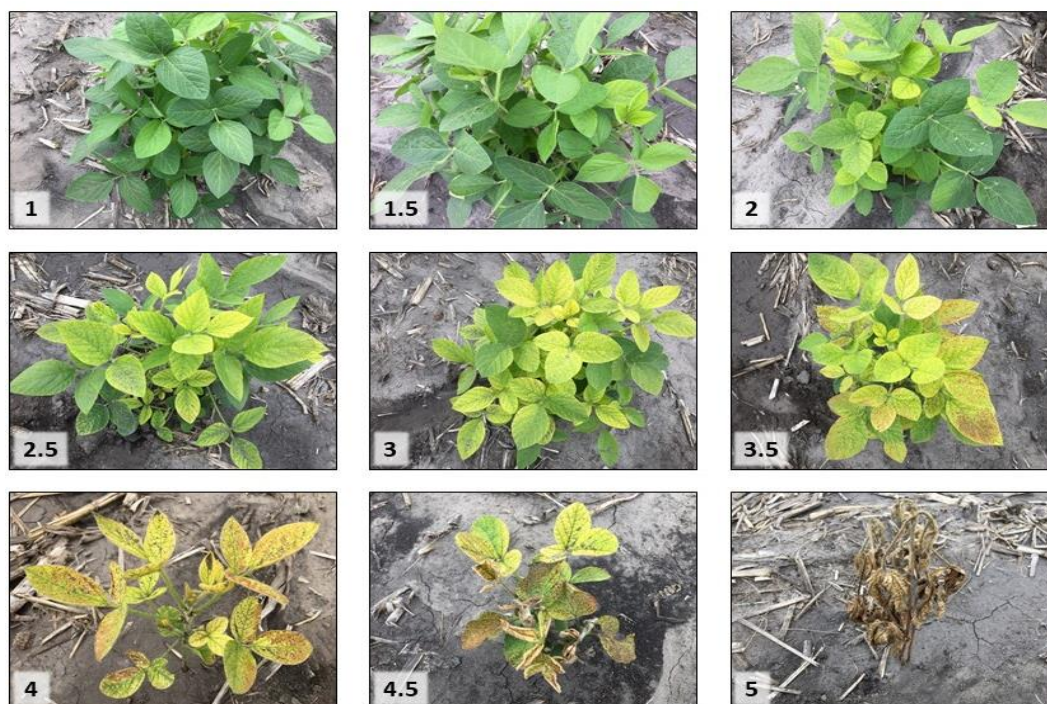


Soybean plants with IDC scores; 1 is green and 5 is dead tissue.

Table 4. 2023 Soybean – Conventional, Iron-deficiency Chlorosis - Authors, C. Miranda and G. Kreutz.

Company	Variety	Trial Mean IDC ¹	Company	Variety	Trial Mean IDC ¹
Legacy	LS0090-20C	3.0	Richland	MK0603	2.7
Legacy	LS0090-23C	3.0	Richland	MK1023	3.0
Legacy	LSX020-23C	3.0	Richland	MK146	3.1
Legacy	LSX101-23C	3.1	Richland	MK41	2.9
Legacy	LSX102-23C	3.1	Richland	MK808CN	2.8
NDSU	ND Benson	2.7	Sevita	Alinova	2.6
NDSU	ND Dickey	3.0	Sevita	Barton	3.2
NDSU	ND Rolette	2.3	Sevita	Finch	3.2
Richland	MK009	3.2	Sevita	Odessa	3.2
Richland	MK0249	2.8	Sevita	Skyline	3.2
Mean		2.9	Mean		2.9
CV %		13.9	CV %		13.9
LSD 0.05		0.3	LSD 0.05		0.3
LSD 0.10		0.2	LSD 0.10		0.2

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



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

Table 5. 2023 Soybean – Herbicide-Resistant, Soybean Cyst Nematode (SCN) - Authors, C. Miranda and G. Kreutz (1 of 2).

Company	Variety	Mat. Group	Maturity ¹ (date)	Plant Height (in)	Seed Oil (%)	Seed Protein (%)	Seed Yield			
							Absaraka	Colfax	2-site Avg.	2-yr. Avg.
							------(bu/a)-----			
Dahlman	7304XF	0.4	9/22	30	20.0	34.6	39.8	57.2	48.5	53.3
Dahlman	74009XF	00.9	9/18	32	20.2	34.3	39.8	57.5	48.7	--
Dahlman	7401XF	0.1	9/19	34	20.2	32.9	33.8	54.2	44.0	--
Dahlman	7412XF	1.2	10/1	33	19.6	34.4	46.3	58.2	52.3	--
Dahlman	AE00940	00.9	9/18	27	19.5	34.2	32.0	54.6	43.3	--
Dahlman	AE0140	0.1	9/23	30	19.2	35.1	44.4	57.7	51.0	--
Dahlman	AE0541	0.5	9/25	29	20.1	34.0	46.4	57.5	51.9	--
Dahlman	AE1210S	1.2	9/26	34	20.6	33.2	40.5	69.6	55.0	--
Dahlman	AE1220	1.2	10/4	33	19.3	35.7	49.1	54.1	51.6	59.4
Golden H.	GH0414E3	0.4	9/22	29	19.2	35.1	45.0	60.6	52.8	--
Golden H.	GH0693E3	0.6	9/23	30	20.0	34.0	42.1	61.6	51.8	57.5
Golden H.	GH0734E3	0.7	9/23	32	19.8	33.4	55.0	64.7	59.8	--
Golden H.	GH0764XF	0.7	9/25	31	20.6	33.1	47.9	64.8	56.3	--
Golden H.	GH1124XF	1.1	10/1	31	19.7	35.2	44.1	58.7	51.4	--
Golden H.	GH1194E3	1.1	9/30	30	20.4	33.2	59.6	63.8	61.7	--
Legacy	LS064-23 XF	0.6	9/26	28	19.7	34.7	54.9	50.4	52.6	--
Legacy	LS072-21E	0.7	9/25	31	18.8	34.9	51.6	59.8	55.7	--
Legacy	LS074-22 XF	0.7	9/26	31	19.9	33.9	45.9	61.5	53.7	--
Legacy	LS084-22 XF	0.8	9/25	33	19.9	33.8	35.5	60.2	47.9	--
Legacy	LS092-22E	0.9	9/25	31	20.0	34.2	53.4	57.7	55.6	--
LG Seeds	LGS00719XF	00.7	9/18	28	19.9	35.4	39.9	36.0	38.0	--
LG Seeds	LGS00901E3	00.9	9/18	29	19.1	35.1	42.9	55.6	49.3	--
LG Seeds	LGS0105E3	0.1	9/22	29	19.1	35.3	39.9	58.4	49.1	--
LG Seeds	LGS0111RX	0.1	9/18	35	20.0	34.8	26.9	52.5	39.7	--
LG Seeds	LGS0125XF	0.1	9/18	31	20.1	34.4	37.1	54.8	46.0	--
LG Seeds	LGS0139XF	0.1	9/19	35	20.0	33.1	34.7	54.8	44.7	--
LG Seeds	LGS0323E3	0.3	9/24	30	19.8	33.9	35.7	59.6	47.6	--
LG Seeds	LGS0405E3	0.4	9/24	31	19.8	34.1	49.4	64.6	57.0	--
LG Seeds	LGS0444XF	0.4	9/23	29	19.7	34.8	47.5	52.7	50.1	--
LG Seeds	LGS0550E3	0.5	9/23	31	18.9	35.6	43.9	59.0	51.5	--
LG Seeds	LGS0701XF	0.7	9/24	32	19.0	35.1	46.3	58.1	52.2	--
LG Seeds	LGS0822E3	0.8	9/25	32	19.5	35.2	49.8	61.5	55.6	--
LG Seeds	LGS0988XF	0.9	9/25	33	18.6	34.9	44.3	54.1	49.2	--
LG Seeds	LGS1043E3	1	9/30	28	19.0	34.8	49.0	58.1	53.6	--
LG Seeds	LGS1232XF	1.2	9/28	28	19.3	34.9	44.9	53.7	49.3	--
LG Seeds	LGS1385XF	1.3	10/2	37	19.2	34.8	45.9	64.3	55.1	--
NDSU	ND17009GT	00.9	9/15	36	18.9	37.2	22.1	42.5	32.3	37.8
NDSU	ND21008GT20	00.8	9/14	35	19.3	35.3	31.2	45.7	38.5	35.9
NDSU	ND2108GT73	0.8	9/23	32	19.2	33.7	20.4	50.1	35.3	44.1
Paloma	PL2E013	0.1	9/19	27	19.4	34.4	42.6	54.0	48.3	--
Paloma	PL2E043	0.4	9/22	30	19.6	34.3	24.3	54.0	39.2	--
Paloma	PL2E061	0.6	9/24	28	20.0	33.7	35.3	56.5	45.9	--
Paloma	PL2E073	0.7	9/25	31	19.4	35.2	40.4	54.0	47.2	--
Mean			9/24	31	19.6	34.5	43.1	58.2	50.6	54.3
CV %			8.5	6.2	2.4	2.3	22.3	10.2	15.7	--
LSD 0.05			2.4	3.1	0.5	0.9	15.2	9.5	8.9	--
LSD 0.10			2	2.6	0.5	0.8	12.7	8.0	7.5	--

Table 5. 2023 Soybean – Herbicide-Resistant, SCN - Authors, C. Miranda and G. Kreutz (2 of 2).

Company	Variety	Mat. Group	Maturity ¹ (date)	Plant Height (in)	Seed Oil (%)	Seed Protein (%)	Seed Yield			
							Absaraka	Colfax	2-site Avg.	2-yr. Avg.
Paloma	PL2E093	0.9	9/30	34	19.0	34.6	53.6	65.5	59.6	--
Paloma	PL2E101	1	9/30	29	19.3	34.5	35.8	63.7	49.7	--
REA	R0422XF	0.4	9/23	29	19.8	34.7	44.7	57.8	51.3	58.1
REA	R0743XF	0.7	9/27	32	20.2	34.3	50.9	62.9	56.9	--
REA	R0944XF	0.9	9/29	38	20.2	34.0	43.8	64.2	54.0	--
REA	R1234XF	1.2	9/29	29	19.7	34.4	41.0	52.5	46.8	--
Stine	01EG23	0.1	9/23	28	19.3	35.1	43.4	54.9	49.2	--
Stine	03EG62	0.3	9/24	30	19.9	33.6	39.8	57.0	48.4	--
Stine	05EG26	0.5	9/25	30	19.8	34.1	36.7	61.6	49.1	--
Stine	06EG29	0.6	9/25	25	19.2	34.0	46.3	57.8	52.0	--
Stine	08EC32	0.8	9/29	28	19.5	35.2	53.8	54.9	54.4	--
Stine	08EG62	0.8	9/30	29	19.8	34.0	41.0	59.3	50.2	--
Syng NK	NK05-W3XF	0.5	9/22	34	18.9	35.4	49.7	56.5	53.1	57.8
Syng NK	NK06-D9E3	0.6	9/22	30	19.8	34.1	37.5	60.7	49.1	52.0
Syng NK	NK06-P2XF	0.6	9/22	35	19.9	34.7	45.5	63.5	54.5	56.8
Syng NK	NK07-G5E3	0.7	9/23	31	19.0	34.5	46.2	69.2	57.7	--
Syng NK	NK09-B5XF	0.9	9/27	30	18.9	35.8	41.1	62.0	51.6	57.4
Syng NK	NK11-A4E3	1.1	10/1	30	20.3	33.5	49.2	62.4	55.8	--
Syng NK	NK11-U2XF	1.1	9/30	33	19.2	36.0	49.7	60.7	55.2	--
Syng NK	NK13-Y4XF	1.3	10/1	33	19.4	34.7	47.2	63.6	55.4	60.5
Xitavo	XO 0094E	0	9/20	27	19.2	34.9	47.2	61.6	54.4	--
Xitavo	XO 0213E	0.2	9/21	31	19.8	34.2	24.7	51.9	38.3	42.6
Xitavo	XO 0234E	0.2	9/23	29	19.2	35.0	44.4	61.3	52.8	--
Xitavo	XO 0311E	0.3	9/19	31	18.9	34.9	40.4	59.4	49.9	54.1
Xitavo	XO 0554E	0.5	9/26	29	19.9	34.2	43.8	62.0	52.9	--
Xitavo	XO 0602E	0.6	9/25	28	18.6	34.9	42.1	58.8	50.4	56.7
Xitavo	XO 0731E	0.7	9/28	30	19.9	34.6	47.4	59.8	53.6	58.9
Xitavo	XO 0993E	0.9	9/26	30	20.1	33.9	50.7	60.3	55.5	60.9
Xitavo	XO 1133E	1.1	10/1	29	19.3	34.7	42.2	63.9	53.0	58.9
Xitavo	XO 1212E	1.2	10/5	32	19.5	35.7	53.2	57.5	55.3	59.8
Xitavo	XO 1372E	1.3	10/2	29	20.7	33.0	53.0	58.6	55.8	62.7
Mean			9/24	31	19.6	34.5	43.1	58.2	50.6	54.3
CV %			8.5	6.2	2.4	2.3	22.3	10.2	15.7	--
LSD 0.05			2.4	3.1	0.5	0.9	15.2	9.5	8.9	--
LSD 0.10			2	2.6	0.5	0.8	12.7	8.0	7.5	--

Absaraka Planted: June 7. Harvested: Oct 17. Previous crop: Soybean.

Colfax Planted: June 8. Harvested: Oct 15. Previous crop: Sunflower.

Maturity is date of 95% brown or tan pods.

Table 6. 2023 Soybean – Conventional, SCN - Authors, C. Miranda and G. Kreutz.

Company/ Brand	Variety	Mat.		Plant Height	Seed Oil	Seed Protein	Seed Yield			
		Group	Maturity ¹ (date)				Absaraka	Colfax	2-site Avg. 2-yr. Avg. (bu/a)	
NDSU	ND Benson	0.4	9/18	31	19.5	35.4	21.7	48.7	35.2	43.8
NDSU	ND Dickey	0.7	9/23	32	18.7	34.5	13.0	52.1	32.6	41.6
NDSU	ND Rolette	00.9	9/13	31	19.4	34.0	12.3	39.9	26.1	33.5
Sevita	Alinova	1.4	9/26	33	19.6	35.2	24.0	48.7	36.4	--
Sevita	Barton	1.4	9/27	28	19.2	35.3	20.6	47.8	34.2	--
Sevita	Skyline	1.1	9/27	30	19.4	36.0	23.8	41.9	32.8	45.3
Mean			9/22	31	19.3	35.1	19.2	46.5	32.9	41.0
CV %			7.8	7.4	1.7	2.6	25.1	13.0	16.6	--
LSD 0.05			2.1	4.1	0.4	1.1	8.2	10.7	6.4	--
LSD 0.10			1.7	3.3	0.3	0.9	6.7	8.8	5.3	--

Absaraka Planted: June 7. Harvested: Oct 17. Previous crop: Soybean.

Colfax Planted: June 8. Harvested: Oct 15. Previous crop: Sunflower.

Maturity is date of 95% brown or tan pods.

Table 7. 2023 Soybean – Herbicide-Resistant - Central Locations in Eastern North Dakota - Authors, C. Miranda and G. Kreutz.

Company/ Brand	Variety	Mat.		Plant Height	Seed Oil	Seed Protein	Seed Yield				
		Group	Maturity ¹ (date)				Arthur	Grandin	Hatton	3-site Avg. 2-yr. Avg. (bu/a)	
Dairyland	DSR-0220E	0.2	9/14	24	19.6	34.2	55.9	30.9	71.4	52.7	45.4
Dyna-gro	S01XF43	0.1	9/10	25	19.3	34.2	37.5	29.4	58.7	41.9	--
Dyna-gro	S03EN94	0.3	9/16	23	19.5	34.1	44.1	30.3	61.4	45.3	--
Legacy	LS0098-23XF	00.9	9/10	26	20.1	33.7	43.3	35.1	66.6	48.3	--
Legacy	LS012-23E	0.1	9/16	24	19.0	34.8	51.8	35.4	70.5	52.6	--
Legacy	LS014-23XF	0.1	9/13	30	19.9	33.2	48.2	35.4	61.5	48.4	--
Legacy	LS024-23XF	0.2	9/13	25	20.2	34.5	31.1	31.0	59.3	40.5	--
Legacy	LS032-23E	0.3	9/16	26	19.3	34.1	51.4	34.8	70.4	52.2	--
LG Seeds	LGS0105E3	0.1	9/16	24	19.0	34.7	47.5	30.9	67.7	48.7	--
LG Seeds	LGS0125XF	0.1	9/11	24	20.0	33.5	48.1	29.4	60.7	46.1	--
LG Seeds	LGS0139XF	0.1	9/11	29	19.8	33.4	37.3	32.7	53.5	41.2	--
LG Seeds	LGS0323E3	0.3	9/16	26	19.3	34.4	48.2	36.7	64.9	49.9	--
NDSU	ND21008GT20	00.8	9/7	27	19.1	34.4	32.3	26.2	38.7	32.4	32.0
NDSU	ND2108GT73	0.8	9/20	25	19.8	33.2	34.5	33.0	49.8	39.1	38.8
NDSU	ND17009GT	00.9	9/9	28	19.1	36.1	23.1	25.4	40.9	29.8	31.0
Paloma	PL2E013	0.1	9/13	23	19.8	33.3	44.0	31.5	70.6	48.7	--
Proseed	EL 40-33N	0.3	9/17	27	19.4	34.2	46.8	38.8	72.4	52.7	--
REA	R0422XF	0.4	9/17	25	19.8	34.1	52.2	27.1	68.2	49.2	--
Stine	01EG23	0.1	9/16	27	19.0	34.7	46.3	35.8	68.1	50.0	--
Stine	03EG62	0.3	9/17	25	19.5	34.1	52.5	35.2	69.2	52.3	--
Xitavo	XO 0094E	0	9/15	25	19.5	33.8	35.2	32.6	60.8	42.9	--
Xitavo	XO 0213E	0.2	9/15	27	20.1	33.4	30.0	38.9	58.2	42.4	42.1
Xitavo	XO 0234E	0.2	9/16	24	19.0	34.8	46.4	35.0	66.7	49.3	--
Xitavo	XO 0311E	0.3	9/11	27	19.6	33.1	45.6	36.7	61.3	47.9	46.7
Mean			9/14	26	19.5	34.1	43.1	32.8	62.1	46.0	39.3
CV %			10.3	6.8	1.8	1.6	25.9	17.8	7.3	16.7	--
LSD 0.05			1.7	2.9	0.3	0.5	17.9	9.6	7.3	7.1	--
LSD 0.10			1.4	2.4	0.3	0.4	15.0	8.0	6.1	5.9	--

Arthur Planted: May 22. Harvested: Oct 8. Previous crop: Corn.

Grandin Planted: May 21. Harvested: Oct 2. Previous crop: Wheat.

Hatton Planted: May 25. Harvested: Oct 9. Previous crop: Turnip.

Maturity is date of 95% brown or tan pods.

Table 8. 2023 Soybean – Conventional and Liberty Link - Central Locations in Eastern N.D. - Authors, C. Miranda and G. Kreutz.

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Height (in)	Seed Oil (%)	Seed Protein (%)	Seed Yield				
							Arthur	Grandin	Hatton	3-site Avg.	2-yr. Avg.
Legacy	LS0090-20C	00.9	9/8	24	18.2	37.9	35.7	28.2	51.9	38.6	--
Legacy	LS0090-23C	00.9	9/11	26	19.7	35.5	39.9	32.8	50.0	40.9	--
Legacy	LSX020-23C	0.2	9/10	28	18.8	36.7	31.9	32.6	49.2	37.9	--
NDSU	ND Benson	0.4	9/17	28	19.5	35.1	41.6	37.0	41.4	40.0	39.7
NDSU	ND Dickey	0.7	9/17	28	19.5	33.9	43.1	38.1	53.1	44.8	45.9
NDSU	ND Rolette	00.9	9/9	26	19.9	34.2	36.0	28.8	42.3	35.7	35.4
Peterson	Hana	00.9	9/11	25	18.3	37.2	33.0	33.3	49.7	38.7	--
Richland	MK009	00.9	9/12	25	19.2	33.6	35.3	29.1	35.9	33.4	32.4
Richland	MK0249	0.2	9/12	25	19.9	33.0	23.8	33.2	38.2	31.7	27.5
Mean			9/12	26	19.2	35.2	35.6	32.6	45.7	38.0	36.2
CV %			11.8	5.2	2.0	1.6	21.5	9.8	9.2	13.9	--
LSD 0.05			1.4	2.4	0.4	0.5	13.6	5.6	7.4	5.1	--
LSD 0.10			1.2	1.9	0.3	0.4	11.2	4.6	6.1	4.3	--

Arthur Planted: May 22. Harvested: Oct 8. Previous crop: Corn.

Grandin Planted: May 21. Harvested: Oct 3. Previous crop: Wheat.

Hatton Planted: May 25. Harvested: Oct 9. Previous crop: Turnip.

Maturity is date of 95% brown or tan pods.

Table 9. 2023 Soybean – Conventional and Liberty Link - Southern Locations in Eastern N.D. - Authors, C. Miranda and G. Kreutz.

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Plant Height (in)	Seed Oil (%)	Seed Protein (%)	Seed Yield			
							Lisbon	Milnor	2-site Avg.	2-yr. Avg.
Brushvale	BS1616	1.3	9/26	35	20.1	34.0	59.7	41.7	50.7	--
Brushvale	BS91614	1.0	9/22	29	20.6	34.3	56.5	41.1	48.8	--
Brushvale	BS91615	1.2	9/24	34	19.3	34.9	57.5	34.2	45.9	--
Legacy	LSX101-23C	1.0	9/25	38	18.6	35.7	44.5	28.1	36.3	--
Legacy	LSX102-23C	1.0	9/23	34	19.7	34.7	52.0	36.8	44.4	--
NDSU	ND Benson	0.4	9/15	29	19.8	35.3	45.1	32.8	39.0	46.6
NDSU	ND Dickey	0.7	9/19	31	19.6	34.0	57.4	42.5	49.9	47.8
NDSU	ND Rolette	00.9	9/10	30	20.3	34.5	48.8	24.9	36.9	41.9
Richland	MK0603	0.6	9/18	36	18.0	34.7	53.2	20.3	36.8	40.5
Richland	MK1023	1.0	9/21	34	19.4	33.6	53.1	24.4	38.7	44.8
Richland	MK146	1.1	9/25	32	19.3	35.7	56.3	35.9	46.1	--
Richland	MK41	1.1	9/17	37	18.3	36.8	48.2	33.0	40.6	45.1
Richland	MK808CN	0.8	9/21	33	20.8	33.3	57.6	34.3	46.0	49.8
Mean			9/20	33	19.5	34.7	53.1	33.1	43.1	45.2
CV %			6.7	4.0	1.2	1.0	8.4	13.3	10.3	--
LSD 0.05			1.6	2.2	0.3	0.4	7.5	7.4	5.2	--
LSD 0.10			1.3	1.8	0.2	0.3	6.2	6.2	4.3	--

Lisbon Planted: May 31. Harvested: Oct 5. Previous crop: Soybean.

Milnor Planted: May 29. Harvested: Oct 6. Previous crop: Corn.

Maturity is date of 95% brown or tan pods.

Table 10. 2023 Soybean – Herbicide-Resistant - Southern Locations in Eastern North Dakota - Author, C. Miranda and G. Kreutz (1 of 2).

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Plant Height (inch)	Seed Oil (%)	Seed Protein (%)	Seed Yield			
							Lisbon	Milnor	2-site Avg.	2-yr. Avg.
							------(bu/a)-----			
Dahlman	7412XF	1.2	9/24	34	19.7	34.0	60.3	61.5	60.9	--
Dahlman	AE1210S	1.2	9/22	35	21.0	32.0	66.8	56.6	61.7	--
Dahlman	AE1220	1.2	9/26	33	19.3	35.1	60.8	56.2	58.5	63.3
Dairyland	DSR-0585E	0.5	9/19	31	20.4	33.1	58.1	53.6	55.9	--
Dairyland	DSR-0757E	0.7	9/20	31	20.3	33.3	64.3	47.3	55.8	57.4
Dairyland	DSR-0920E	1.1	9/24	31	19.4	34.1	62.3	62.2	62.2	64.2
Dairyland	DSR-1121E	1.1	9/24	29	20.7	32.5	59.6	53.8	56.7	59.3
Dairyland	DSR-1290E	1.2	9/23	32	20.9	32.2	60.3	56.1	58.2	60.5
Golden H.	GH0653XF	0.6	9/18	32	20.0	34.0	60.4	52.3	56.3	57.8
Golden H.	GH0693E3	0.6	9/18	27	19.8	33.9	52.2	56.6	54.4	57.3
Golden H.	GH0734E3	0.7	9/18	28	19.9	33.0	60.3	49.7	55.0	--
Golden H.	GH0764XF	0.7	9/19	30	21.1	32.4	65.9	59.1	62.5	--
Golden H.	GH1124XF	1.1	9/25	36	19.1	35.5	62.8	48.3	55.6	--
Golden H.	GH1194E3	1.1	9/25	31	20.3	32.6	64.7	54.3	59.5	--
Golden H.	GH1323XF	1.3	9/24	33	19.0	34.9	62.2	57.2	59.7	59.6
Legacy	LS044-23 XF	0.4	9/16	30	19.8	34.4	54.2	49.6	51.9	--
Legacy	LS052-23E	0.5	9/20	30	20.2	33.1	61.8	60.3	61.0	--
Legacy	LS064-23 XF	0.6	9/18	30	19.5	34.5	58.9	49.9	54.4	--
Legacy	LS072-21E	0.7	9/18	29	19.2	33.9	61.1	57.3	59.2	--
Legacy	LS074-22 XF	0.7	9/20	31	20.0	33.1	56.8	57.1	56.9	--
Legacy	LS084-22 XF	0.8	9/21	32	20.0	33.4	59.6	54.6	57.1	57.2
Legacy	LS092-22E	0.9	9/22	31	20.2	33.0	60.5	50.4	55.4	59.1
Legacy	LS094-20 XF	0.9	9/21	31	19.6	34.6	59.8	59.2	59.5	56.5
Legacy	LS102-22E	1.0	9/25	31	19.1	34.2	68.2	58.0	63.1	64.1
Legacy	LS124-23 XF	1.2	9/25	32	19.7	34.4	63.9	53.7	58.8	--
LG Seeds	LGS0405E3	0.4	9/18	28	20.4	33.5	56.8	52.1	54.5	--
LG Seeds	LGS0444XF	0.4	9/17	32	19.4	34.7	58.2	53.5	55.8	--
LG Seeds	LGS0701XF	0.7	9/19	34	19.1	34.3	63.9	56.3	60.1	59.6
LG Seeds	LGS0822E3	0.8	9/22	30	19.5	34.8	65.5	55.8	60.6	61.2
LG Seeds	LGS0988XF	0.9	9/20	32	19.1	34.0	58.2	61.3	59.8	63.4
LG Seeds	LGS1043E3	1.0	9/24	30	18.9	34.2	67.7	52.7	60.2	--
LG Seeds	LGS1385XF	1.3	9/27	38	19.2	34.6	64.3	51.0	57.7	62.7
NDSU	ND17009GT	00.9	9/12	32	19.6	36.7	48.3	47.9	48.1	49.1
NDSU	ND21008GT20	00.8	9/12	28	19.2	34.9	44.6	33.1	38.9	40.3
NDSU	ND2108GT73	0.8	9/21	31	19.6	33.5	60.8	54.3	57.6	55.3
Palmona	PL2E043	0.4	9/16	30	19.4	34.7	58.5	54.7	56.6	--
Palmona	PL2E061	0.6	9/18	25	20.3	32.9	58.7	53.6	56.1	57.8
Palmona	PL2E073	0.7	9/19	30	20.0	33.6	66.0	60.8	63.4	--
Palmona	PL2E093	0.9	9/24	31	19.4	33.6	48.4	58.3	53.4	--
Palmona	PL2E101	1.0	9/25	30	19.1	34.1	65.7	58.2	62.0	64.2
Proseed	EL 40-83N	0.8	9/23	32	20.0	33.5	57.2	51.7	54.4	--
Proseed	EL 41-13N	1.1	9/22	33	20.3	33.4	60.2	57.5	58.8	--
Proseed	XF 30-92N	0.9	9/22	33	18.9	34.6	60.1	65.3	62.7	62.5
Mean			9/21	31	19.7	33.9	61.2	55.7	58.5	59.4
CV %			8.1	6.3	1.3	1.2	11.4	14.0	12.6	--
LSD 0.05			1.9	3.1	0.4	0.7	11.2	12.5	8.4	--
LSD 0.10			1.6	2.6	0.3	0.6	9.4	10.5	7.0	--

Table 10. 2023 Soybean – Herbicide-Resistant - Southern Locations in Eastern North Dakota - Author, C. Miranda and G. Kreutz (2 of 2).

Company/		Mat.	Plant	Seed	Seed	Seed Yield				
Brand	Variety	Group	Maturity ¹	Height	Oil	Protein	Lisbon	Milnor	2-site Avg.	2-yr. Avg.
			(date)	(inch)	(%)	(%)	------(bu/a)-----			
Proseed	XF 41-22N	1.2	9/24	34	19.7	33.7	61.8	55.1	58.5	--
REA	R0743XF	0.7	9/22	34	19.7	34.0	67.2	54.2	60.7	--
REA	R0944XF	0.9	9/23	39	19.8	33.7	65.4	60.3	62.8	--
REA	R1234XF	1.2	9/24	32	19.3	33.8	69.9	51.1	60.5	--
Stine	05EG26	0.5	9/20	32	19.7	33.8	67.4	59.1	63.3	--
Stine	06EG29	0.6	9/19	27	19.2	33.1	64.2	58.5	61.4	--
Stine	08EC32	0.8	9/24	31	19.4	34.7	63.8	60.3	62.1	--
Stine	08EG62	0.8	9/24	29	19.7	33.4	61.2	59.9	60.6	--
Syng NK	NK05-W3XF	0.5	9/18	31	19.0	34.3	59.9	62.2	61.0	61.8
Syng NK	NK06-D9E3	0.6	9/17	28	19.8	34.2	64.5	53.6	59.1	60.1
Syng NK	NK06-P2XF	0.6	9/19	33	19.7	34.4	59.6	50.6	55.1	57.6
Syng NK	NK07-G5E3	0.7	9/19	29	19.6	33.4	66.5	59.4	62.9	--
Syng NK	NK09-B5XF	0.9	9/22	32	18.9	35.3	64.7	56.9	60.8	60.0
Syng NK	NK11-A4E3	1.1	9/25	30	20.4	32.6	65.1	63.2	64.2	--
Syng NK	NK11-U2XF	1.1	9/24	35	19.1	35.3	57.0	63.6	60.3	--
Syng NK	NK13-Y4XF	1.3	9/25	33	19.2	34.6	60.5	57.1	58.8	61.1
Xitavo	XO 0554E	0.5	9/22	28	20.2	33.5	63.0	53.0	58.0	--
Xitavo	XO 0602E	0.6	9/18	29	19.1	34.0	62.3	60.2	61.2	61.7
Xitavo	XO 0731E	0.7	9/22	28	19.5	34.7	54.3	56.3	55.3	58.5
Xitavo	XO 0993E	0.9	9/21	29	20.3	33.0	65.9	53.1	59.5	61.4
Xitavo	XO 1133E	1.1	9/25	30	19.1	34.5	60.8	61.3	61.0	61.1
Xitavo	XO 1212E	1.2	9/25	29	19.3	35.3	64.2	58.5	61.3	63.4
Xitavo	XO 1372E	1.3	9/25	31	20.6	32.7	63.5	57.6	60.5	62.7
Mean			9/21	31	19.7	33.9	61.2	55.7	58.5	59.4
CV %			8.1	6.3	1.3	1.2	11.4	14.0	12.6	--
LSD 0.05			1.9	3.1	0.4	0.7	11.2	12.5	8.4	--
LSD 0.10			1.6	2.6	0.3	0.6	9.4	10.5	7.0	--

Lisbon Planted: May 31. Harvested: Oct 5. Previous crop: Soybean.

Milnor Planted: May 29. Harvested: Oct 5. Previous crop: Corn.

Maturity is date of 95% brown or tan pods.

Table 11. 2023 Soybean - Dryland, Herbicide-Resistant - Carrington - Authors, M. Ostlie, K. Simons, H. Burgard and T. Indergaard (1 of 2).

Company/ Brand		Variety	Trait	Mat. Group	Pod Maturity ¹	Plant Ht	Plant Lodge ²	Seeds/ Pound	Test Weight	Seed Oil	Seed Protein	Seed Yield		
					(date)	(inch)	(0-9)	(seeds)	(lb/bu)	(%)	(%)	------(bu/a)-----		
												2023	2-yr. Avg.	3-yr Avg.
Champion	0294XL	RR2XF	0.2	9/8	3	38	2	2,506	56.1	20.7	33.1	54.6	--	--
Champion	0444XL	RR2XF	0.4	9/12	4	37	2	2,699	56.0	20.6	31.4	63.4	--	--
Champion	0563XL	RR2XF	0.5	9/15	2	37	3	3,155	56.1	19.2	32.7	66.8	64.5	--
Champion	0624XL	RR2XF	0.6	9/15	4	37	3	2,807	55.9	19.2	33.7	66.3	--	--
Champion	0743XL	RR2XF	0.7	9/14	3	36	1	2,517	56.2	19.4	34.4	68.1	62.2	--
Dairyland	DSR-0220E	E3	0.2	9/12	4	30	2	2,743	55.5	19.9	33.5	70.8	--	--
Dairyland	DSR-0585E	E3	0.5	9/16	3	34	3	3,013	55.7	19.7	33.4	63.2	--	--
Dairyland	DSR-0757E	E3	0.7	9/17	4	33	1	2,653	56.7	19.9	32.2	62.8	56.7	--
Dyna-Gro	S03EN94	E3	0.3	9/12	3	37	3	2,977	55.8	19.5	33.5	63.6	--	--
Dyna-Gro	S05XF73	RR2XF	0.5	9/11	4	45	2	3,199	55.9	19.7	33.1	71.2	66.7	--
Dyna-Gro	S05EN82	E3	0.5	9/11	4	33	3	2,929	55.2	19.2	34.9	69.4	66.7	54.3
Golden H.	GH0502XF	RR2XF	0.5	9/13	3	40	4	2,911	57.0	19.0	33.7	76.0	--	--
Golden H.	GH0384XF	RR2XF	0.3	9/7	3	38	2	2,573	55.4	20.3	32.6	74.4	--	--
Integra	E0324	E3	0.3	9/13	3	31	2	2,906	55.8	19.7	32.9	57.4	--	--
Integra	E0544	E3	0.5	9/13	4	37	4	2,779	55.9	19.7	33.1	72.0	--	--
Integra	XF0212	RR2XF	0.2	9/5	4	41	2	2,633	55.3	20.0	32.8	69.1	--	--
Integra	XF0493	RR2XF	0.4	9/12	3	38	2	2,681	55.5	20.4	32.9	66.2	--	--
Integra	XF0674	RR2XF	0.6	9/13	4	37	2	2,782	55.7	19.5	33.2	70.8	--	--
Legacy	LS032-23 E	E3	0.3	9/11	3	38	3	2,848	55.6	19.5	33.7	70.8	--	--
Legacy	LS044-23 XF	RR2XF	0.4	9/11	5	40	2	2,601	55.4	20.2	33.2	77.7	--	--
Legacy	LS052-23 E	E3	0.5	9/11	4	35	3	2,824	55.7	20.0	32.7	76.5	--	--
Legacy	LS064-23 XF	RR2XF	0.6	9/11	3	39	2	2,734	55.8	19.8	33.2	77.2	--	--
Legacy	LS072-21 E	E3	0.7	9/13	4	33	2	2,772	56.6	18.4	34.9	76.4	69.0	55.3
Legacy	LS074-22 XF	RR2XF	0.7	9/13	3	38	2	2,451	55.4	20.1	32.7	76.5	67.6	--
LG Seeds	LGS0125XF	RR2XF	0.1	9/4	2	36	5	2,954	55.7	19.6	33.2	73.6	--	--
LG Seeds	LGS0139XF	RR2XF	0.1	9/5	4	38	3	2,695	55.3	19.6	32.4	67.4	--	--
LG Seeds	LGS0444XF	RR2XF	0.4	9/11	3	38	2	2,683	55.2	20.4	32.8	71.9	--	--
LG Seeds	LGS0701XF	RR2XF	0.7	9/12	5	37	2	2,898	56.1	19.3	32.9	71.0	62.6	51.4
NDSU	ND21008GT20	GT	00.8	8/29	3	37	4	3,143	55.3	18.9	33.4	49.0	51.0	40.0
NDSU	ND2108GT73	GT	0.8	9/19	3	34	4	3,069	56.5	19.5	33.4	63.8	62.8	49.9
NDSU	ND17009GT	GT	00.9	8/31	3	38	3	2,791	56.6	19.5	35.2	53.0	50.8	40.6
Paloma	PL2E013	E3	0.1	9/10	3	35	3	2,843	55.2	19.6	32.9	69.4	--	--
Paloma	PL2E043	E3	0.4	9/8	4	34	2	2,886	55.1	19.2	34.3	66.7	--	--
Paloma	PL2061	E3	0.6	9/12	4	35	4	3,322	56.1	19.7	33.1	62.1	--	--
Paloma	PL2E073	E3	0.7	9/19	4	35	3	2,334	56.2	19.7	32.5	69.1	--	--
Paloma	PL2E093	E3	0.9	9/18	5	38	3	2,504	56.2	19.2	32.9	72.9	--	--
Paloma	PL2E101	E3	1	9/20	4	35	2	2,880	56.7	19.0	32.8	72.4	--	--
Proseed	XF 40-12N	RR2XF	0.1	9/3	4	39	3	2,792	55.1	19.8	31.7	66.9	--	--
Proseed	XF 30-42N	RR2XF	0.4	9/10	3	38	2	2,643	55.5	20.4	32.9	71.6	65.9	--
Proseed	XF 30-52N	RR2XF	0.5	9/10	4	41	2	3,315	55.7	20.1	32.2	71.0	--	--
REA	R0422XF	RR2XF	0.4	9/12	3	34	2	2,714	55.6	20.2	33.2	66.2	60.9	--
REA	R0743XF	RR2XF	0.7	9/17	3	37	2	2,741	55.9	19.9	33.1	72.0	--	--
Stine	03EG62	E3	0.3	9/12	3	33	2	2,948	55.6	19.7	32.9	69.5	--	--
Mean				9/11	3	37	2	2,817	55.9	19.6	33.2	68.4	63.0	49.7
CV %				0.0	23.2	9.3	41.4	3.5	0.5	1.5	1.4	6.5	--	--
LSD 0.05				2.3	1.1	4.7	1.4	139	0.4	0.4	0.6	6.2	--	--
LSD 0.10				1.9	0.9	4.0	1.2	116	0.3	0.3	0.5	5.2	--	--

Table 11. 2023 Soybean - Dryland, Herbicide-Resistant - Carrington - Authors, M. Ostlie, K. Simons, H. Burgard and T. Indergaard (2 of 2).

Company/ Brand	Variety	Trait	Mat.		Pod	Plant	Plant	Seeds/ Pound	Test Weight	Seed Oil	Seed Protein	Seed Yield		
			Group	Maturity ¹	Ht	Ht	Lodge ²					2023	2-yr. Avg.	3-yr Avg.
				(date)	(inch)	(inch)	(0-9)	(seeds)	(lb/bu)	(%)	(%)	------(bu/a)-----		
Stine	05EG26	E3	0.5	9/14	3	37	2	2,858	55.9	19.7	32.8	72.9	--	--
Stine	06EG62	E3	0.6	9/15	3	35	4	3,391	56.4	18.5	32.8	69.4	--	--
Syng NK	NK02-H6E3	E3	0.2	9/8	4	36	2	2,769	55.7	18.5	34.6	69.8	--	--
Syng NK	NK04-A9E3	RR2XF	0.4	9/11	4	34	2	2,623	55.5	18.8	34.3	74.4	--	--
Syng NK	NK03-J1XF	RR2XF	0.3	9/8	4	38	2	2,555	55.6	20.1	33.1	71.1	--	--
Syng NK	NK05-W3XF	RR2XF	0.5	9/12	3	39	4	2,796	57.0	19.1	33.6	78.2	69.6	56.3
Syng NK	NK06-P2XF	RR2XF	0.6	9/11	4	41	3	2,621	56.2	20.3	33.2	72.2	64.4	--
Thunder	TX8304N	RR2XF	0.4	9/11	4	39	3	3,422	55.8	20.1	32.0	67.8	66.1	--
Thunder	TEX2305	XF	0.5	9/13	4	39	2	2,788	55.6	20.2	33.2	64.3	--	--
Thunder	TX8305N	RR2XF	0.5	9/15	3	35	2	2,525	56.3	19.0	34.7	69.8	63.7	--
Thunder	TX8307N	RR2XF	0.7	9/18	4	38	3	2,831	57.6	18.7	33.7	73.5	--	--
Thunder	TE7407N	E3	0.7	9/13	3	35	2	2,683	57.1	18.9	34.3	68.3	--	--
Mean				9/11	3	37	2	2,817	55.9	19.6	33.2	68.4	63.0	49.7
CV %				0.0	23.2	9.3	41.4	3.5	0.5	1.5	1.4	6.5	--	--
LSD 0.05				2.3	1.1	4.7	1.4	139	0.4	0.4	0.6	6.2	--	--
LSD 0.10				1.9	0.9	4.0	1.2	116	0.3	0.3	0.5	5.2	--	--

Planted: May 22. Harvested: Oct. 17. Previous crop: winter rye.

¹Date of physiological maturity at R7 stage (one pod on the main stem is mature brown or tan color).²Lodging: 0-none, 9-lying flat on the ground.**Table 12. 2023 Soybean - Dryland, Conventional - Carrington - Authors, M. Ostlie, K. Simons, H. Burgard and T. Indergaard.**

Company/ Brand	Variety	Mat.		Pod	Plant	Plant	Seeds/ Pound	Test Weight	Seed Oil	Seed Protein	Seed Yield			
		Group	Maturity ¹	Ht	Ht	Lodge ²					2023	2-yr. Avg.	3-yr Avg.	
				(date)	(inch)	(inch)	(0-9)	(seeds)	(lb/bu)	(%)	(%)	------(bu/a)-----		
NDSU	ND Benson	0.4	9/15	5	33	4	2,780	54.9	18.2	35.3	66.3	59.5	45.1	
NDSU	ND Dickey	0.7	9/14	6	33	4	2,586	54.3	18.6	32.9	67.2	64.7	50.6	
NDSU	ND Rolette	00.9	9/8	3	33	3	3,005	54.4	18.2	34.0	67.5	62.4	46.4	
NDSU	ND Stutsman	0.7	9/13	5	36	6	3,012	55.1	18.8	32.1	76.3	64.8	49.3	
Proseed	PXC05992	0.5	9/12	4	38	5	2,049	54.9	17.9	35.2	86.4	--	--	
Proseed	PXC0899	0.8	9/15	5	39	5	2,469	55.5	17.9	32.3	91.1	--	--	
Richland	MK009	00.9	9/10	6	34	5	5,536	55.2	17.3	33.2	58.8	51.8	--	
Richland	MK0249	0.2	9/10	4	32	5	4,324	54.9	18.1	31.8	66.4	60.9	45.3	
Richland	MK0603	0.6	9/18	6	42	7	4,816	54.6	17.2	33.7	61.6	54.0	42.8	
Richland	MK808CN	0.8	9/16	6	40	5	3,069	55.3	19.4	32.0	71.5	64.4	49.4	
	RR Check 1	0.4	9/14	5	32	3	2,682	53.9	19.3	32.3	67.4	--	--	
	RR Check 2	0.7	9/14	5	36	2	2,626	54.2	19.1	32.1	87.2	--	--	
Mean			9/13	5	36	4	3,246	54.8	18.3	33.1	72.3	60.3	47.0	
CV %			0.0	28.7	7.4	40.0	3.9	0.7	0.8	1.1	10.8	--	--	
LSD 0.05			2.1	2.0	3.8	2.5	183	0.5	0.2	0.5	11.3	--	--	
LSD 0.10			1.7	1.7	3.2	2.1	153	0.5	0.2	0.4	9.4	--	--	

Planted: May 22. Harvested: Oct. 9. Previous crop: winter rye.

¹Date of physiological maturity at R7 stage (one pod on the main stem is mature brown or tan color).²Lodging: 0-none, 9-lying flat on the ground.

Table 13. 2023 Soybean - Irrigated, Herbicide-Resistant - Carrington - Authors, M. Ostlie, K. Simons, H. Burgard and T. Indergaard.

Company/ Brand	Variety	Trait	Mat. Group	Pod Maturity ¹ (date)	Pod Ht (inch)	Plant Ht (inch)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
												2023	2-yr. Avg. ------(bu/a)-----
Dairyland	DSR-0220E	E3	0.2	9/13	2	32	2	2,466	55.9	19.1	35.4	81.6	--
Dairyland	DSR-0585E	E3	0.5	9/17	3	36	2	2,803	56.3	20.0	34.1	76.6	--
Dairyland	DSR-0757E	E3	0.7	9/19	2	35	2	2,381	57.2	19.7	33.5	70.9	--
Dyna-Gro	S03EN94	E3	0.3	9/13	2	34	2	2,596	56.4	19.0	34.8	78.6	--
Dyna-Gro	S05XF73	RR2XF	0.5	9/11	2	44	3	2,971	56.7	18.4	36.3	91.7	--
Dyna-Gro	S05EN82	E3	0.5	9/14	3	32	2	2,655	55.8	19.5	34.8	82.3	--
Integra	XF0493	RR2XF	0.4	9/12	2	38	2	2,577	56.4	19.2	35.6	83.1	--
Integra	XF0674	RR2XF	0.6	9/15	2	38	2	2,608	56.7	18.5	35.7	86.5	--
Legacy	LS032-23 E	E3	0.3	9/13	2	34	2	2,674	56.3	19.0	35.2	83.0	--
Legacy	LS044-23 XF	RR2XF	0.4	9/12	2	40	2	2,426	56.2	18.8	36.3	92.2	--
Legacy	LS052-23 E	E3	0.5	9/19	3	38	3	2,391	57.0	18.9	35.4	85.9	--
Legacy	LS064-23 XF	RR2XF	0.6	9/13	2	38	3	2,606	56.7	18.5	35.6	87.2	--
Legacy	LS072-21 E	E3	0.7	9/19	3	38	2	2,468	57.0	17.9	36.5	85.2	70.1
Legacy	LS074-22 XF	RR2XF	0.7	9/17	3	39	2	2,238	55.7	19.4	34.4	87.9	--
LG Seeds	LGS0125XF	RR2XF	0.1	9/8	2	39	6	2,847	57.4	19.1	34.6	87.5	--
LG Seeds	LGS0139XF	RR2XF	0.1	9/7	2	42	4	2,602	56.5	18.8	34.6	78.9	--
LG Seeds	LGS0444XF	RR2XF	0.4	9/12	2	39	2	2,567	56.4	19.0	35.9	85.0	--
LG Seeds	LGS0701XF	RR2XF	0.7	9/13	3	41	3	2,639	57.1	18.4	34.9	89.7	74.7
NDSU	ND21008GT20	GT	00.8	9/5	3	36	4	2,954	57.2	18.9	37.0	61.4	57.8
NDSU	ND2108GT73	GT	0.8	9/17	4	37	2	2,888	57.0	18.4	35.4	82.9	67.3
NDSU	ND17009GT	GT	00.9	9/6	2	37	3	2,769	59.3	19.0	35.4	63.1	56.7
Paloma	PL2E013	E3	0.1	9/10	3	34	2	2,710	55.6	19.3	34.7	78.2	--
Paloma	PL2E043	E3	0.4	9/12	3	38	4	2,650	55.9	18.8	35.3	74.0	--
Paloma	PL2061	E3	0.6	9/17	2	32	3	3,016	57.3	18.6	36.8	77.5	--
Paloma	PL2E073	E3	0.7	9/20	3	39	3	2,139	56.9	18.8	34.8	85.3	--
Paloma	PL2E093	E3	0.9	9/20	3	41	2	2,362	57.0	18.9	34.5	81.6	--
Paloma	PL2E101	E3	1.0	9/21	3	37	2	2,594	57.3	18.7	35.0	82.2	--
REA	R0422XF	RR2XF	0.4	9/15	2	37	1	2,561	56.4	19.1	35.5	72.2	--
REA	R0743XF	RR2XF	0.7	9/18	3	41	3	2,448	57.1	19.1	35.2	89.7	--
Stine	03EG62	E3	0.3	9/12	1	34	2	2,678	56.2	19.0	34.7	79.2	--
Stine	05EG26	E3	0.5	9/19	3	38	4	2,548	56.7	19.0	35.2	81.2	--
Stine	06EG62	E3	0.6	9/16	2	34	2	2,943	57.1	18.5	33.8	89.2	--
Mean				9/14	2	37	2	2,636	56.7	18.9	35.2	81.1	65.3
CV %				0.0	38	4.5	34.2	3.2	0.4	1.2	1.3	6.3	--
LSD 0.05				2.5	1.3	2.3	1.2	117	0.3	0.3	0.7	7.1	--
LSD 0.10				2.1	1.1	2.0	1.0	98	0.3	0.3	0.6	6.0	--

Planted: May 22. Harvested: Oct. 11. Previous crop: field pea.

¹Date of physiological maturity at R7 stage (one pod on the main stem is mature brown or tan color).²Lodging: 0-none, 9-lying flat on the ground.

Table 14. 2023 Soybean - Irrigated, Conventional - Carrington - Authors, M. Ostlie, K. Simons, H. Burgard and T. Indergaard.

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Ht (inch)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
											2023	2-yr. Avg.	3-yr Avg.
NDSU	ND Stutsman	0.7	9/10	2	37	2	3,009	57.0	19.1	34.3	76.3	72.8	72.7
NDSU	ND Benson	0.4	9/10	3	35	4	2,794	57.0	18.7	37.8	61.8	61.4	61.1
NDSU	ND Dickey	0.7	9/13	3	33	3	2,527	56.1	18.9	35.0	65.2	63.7	66.5
NDSU	ND Rolette	00.9	9/2	3	36	2	2,957	56.9	19.1	36.2	64.7	67.8	65.5
Richland	MK009	00.9	9/5	2	31	5	5,668	57.5	18.0	35.2	49.3	50.3	--
Richland	MK0249	0.2	9/5	3	31	4	4,426	56.8	18.8	34.2	54.1	56.2	--
Richland	MK0603	0.6	9/17	4	38	6	4,399	56.6	18.2	36.1	69.3	63.4	--
	RR Check 1	0.4	9/12	3	36	2	2,604	56.3	19.6	34.8	72.0	--	--
	RR Check 2	0.7	9/17	2	39	3	2,452	57.0	19.7	34.5	92.6	--	--
Mean			9/10	3	35	3	3,432	56.8	18.9	35.4	67.3	62.2	66.5
CV %			0.7	39	9.4	39	4.2	0.3	1.1	1.3	9.4	--	--
LSD 0.05			2.6	1.6	4.8	1.8	208	0.3	0.3	0.7	9.2	--	--
LSD 0.10			2.1	1.3	4.0	1.5	172	0.2	0.3	0.6	7.6	--	--

Planted: May 19. Harvested: Oct. 11. Previous crop: field pea.

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

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

Table 15. 2023 Soybean - Herbicide-Resistant - Dazey (CREC) - Authors, M. Ostlie, K. Simons, H. Burgard and T. Indergaard.

Company/ Brand		Variety	Trait	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Ht (inch)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield (bu/a)		
												2023	2-yr. Avg.	3-yr Avg.
Dairyland	DSR-0220E	E3	0.2	9/10	3	27	2,888	54.8	19.0	33.9	55.0	--	--	
Dairyland	DSR-0585E	E3	0.5	9/14	3	32	3,334	54.2	19.0	33.2	55.0	--	--	
Dairyland	DSR-0757E	E3	0.7	9/15	5	32	2,705	55.8	19.2	32.7	51.8	53.3	--	
Dairyland	DSR-0920E	E3	1.0	9/18	6	31	2,728	55.0	19.0	33.3	61.0	58.6	55.5	
Dairyland	DSR-1121E	E3	1.1	9/18	4	30	2,929	55.2	20.4	31.7	59.0	58.4	--	
Dairyland	DSR-1290E	E3	1.2	9/15	4	32	2,959	55.3	20.0	31.1	69.1	66.6	61.1	
Dyna-Gro	S05XF73	RR2XF	0.5	9/8	3	35	3,451	54.9	19.5	32.9	63.0	--	--	
Dyna-Gro	S09EN53	E3	0.9	9/17	5	31	2,815	55.9	18.7	32.6	72.9	65.6	--	
Legacy	LS064-23 XF	RR2XF	0.6	9/10	4	31	2,965	55.2	18.7	34.1	59.5	--	--	
Legacy	LS072-21 E	E3	0.7	9/14	4	26	2,817	55.6	18.5	34.2	67.8	64.4	56.2	
Legacy	LS074-22 XF	RR2XF	0.7	9/15	4	34	2,506	54.9	19.4	32.5	62.0	61.8	--	
Legacy	LS084-22 XF	RR2XF	0.8	9/15	4	36	2,811	55.7	19.5	32.5	65.6	63.3	--	
Legacy	LS092-22 E	E3	0.9	9/13	5	28	3,264	54.8	19.6	32.8	63.2	65.4	--	
Legacy	LS094-20 XF	RR2XF	0.9	9/14	4	29	3,027	55.4	19.6	33.1	61.8	58.8	53.4	
Legacy	LS102-22 E	E3	1.0	9/19	5	30	2,922	55.8	18.7	32.8	68.2	64.4	--	
Legacy	LS124-23 XF	RR2XF	1.2	9/18	4	31	2,596	55.6	18.8	34.0	67.9	--	--	
NDSU	ND17009GT	GT	00.9	9/6	4	31	2,710	56.0	19.4	35.0	45.0	46.0	43.4	
NDSU	ND21008GT20	GT	00.8	9/5	4	29	3,414	54.5	18.2	33.7	40.8	42.2	40.4	
NDSU	ND2108GT73	GT	0.8	9/12	4	27	3,359	55.8	19.1	32.6	54.1	53.4	48.0	
Paloma	PL2061	E3	0.6	9/9	4	27	3,330	55.7	19.3	33.4	63.9	--	--	
Paloma	PL2E013	E3	0.1	9/8	4	28	3,191	54.2	19.4	32.5	56.2	--	--	
Paloma	PL2E043	E3	0.4	9/8	5	29	2,892	54.6	19.3	33.9	57.4	--	--	
Paloma	PL2E073	E3	0.7	9/14	5	30	2,371	55.0	19.6	32.2	61.4	--	--	
Paloma	PL2E093	E3	0.9	9/15	5	33	2,543	55.5	19.1	32.5	66.5	--	--	
Paloma	PL2E101	E3	1.0	9/18	6	26	2,817	55.7	19.2	32.2	66.9	64.7	--	
Proseed	XF 30-42N	RR2XF	0.4	9/11	4	29	2,792	54.7	19.1	34.4	64.3	--	--	
Proseed	XF 30-52N	RR2XF	0.5	9/8	4	38	3,801	55.0	19.1	33.1	62.2	62.1	--	
Proseed	XF 30-72N	RR2XF	0.7	9/10	3	29	3,179	55.4	18.8	32.9	55.0	59.3	--	
REA	R0422XF	RR2XF	0.4	9/14	5	28	2,795	54.6	19.4	33.3	45.1	--	--	
REA	R0743XF	RR2XF	0.7	9/16	4	35	2,752	55.6	19.5	33.2	66.8	--	--	
REA	R0944XF	RR2XF	0.9	9/16	5	40	2,700	55.1	19.4	32.7	66.1	--	--	
Stine	05EG26	E3	0.5	9/14	4	29	2,991	54.9	19.9	32.0	61.7	--	--	
Stine	06EG62	E3	0.6	9/10	4	26	3,378	55.1	18.4	32.4	62.7	--	--	
Syng NK	NK03-V5E3	E3	0.3	9/9	4	27	3,009	55.1	18.6	34.2	55.8	56.5	--	
Syng NK	NK05-W3XF	RR2XF	0.5	9/11	3	34	3,044	55.6	18.5	33.6	67.2	62.4	55.4	
Syng NK	NK06-P2XF	RR2XF	0.6	9/11	4	32	2,712	55.5	19.6	33.7	61.3	56.9	--	
Syng NK	NK07-G5E3	E3	0.7	9/11	4	30	3,035	55.4	18.7	32.9	69.3	--	--	
Thunder	TE7309N	E3	0.9	9/15	5	29	2,717	55.4	19.2	32.7	67.3	64.2	--	
Thunder	TE7407N	E3	0.7	9/13	4	29	2,798	56.0	18.4	34.0	61.9	--	--	
Thunder	TX8305N	RR2XF	0.5	9/14	5	31	2,529	55.2	18.6	34.5	62.1	--	--	
Thunder	TX8307N	RR2XF	0.7	9/14	5	34	2,881	56.4	18.7	33.1	66.1	62.4	--	
Thunder	TX8309N	RR2XF	0.9	9/16	6	35	3,218	55.6	18.8	33.1	64.5	61.7	--	
Mean				9/12	4	31	2,955	55.3	19.1	33.2	60.7	59.7	51.7	
CV %				0.2	25	9.4	4.0	1.0	1.8	1.8	9.2	--	--	
LSD 0.05				2.0	2.9	4.0	167	0.8	0.5	0.8	7.8	--	--	
LSD 0.10				1.7	2.5	3.4	140	0.6	0.4	0.7	6.6	--	--	

Planted: May 23. Harvested: Oct. 12. Previous crop: spring wheat.

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

Table 16. 2023 Soybean - Irrigated, Herbicide-Resistant - Oakes (CREC) - Authors, M. Ostlie, H. Eslinger and S. Eslinger.

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Height (inch)	Plant Height (inch)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
											2023	2-yr. Avg.	3-yr. Avg.
Dairyland	DSR-0220E	0.2	9/7	4	34	2	2,084	56.2	19.2	36.1	78.6	--	--
Dairyland	DSR-0585E	0.5	9/14	4	34	2	2,157	54.9	20.0	33.6	75.0	--	--
Dairyland	DSR-0757E	0.7	9/17	4	36	1	1,836	56.0	19.6	34.5	73.4	--	--
Dairyland	DSR-0920E	1.0	9/21	5	38	1	2,014	55.5	18.5	37.2	89.5	82.7	82.2
Dairyland	DSR-1121E	1.1	9/21	5	33	1	2,055	55.5	20.0	35.0	89.1	82.8	--
Dairyland	DSR-1290E	1.2	9/19	5	39	1	2,084	55.6	20.0	33.7	92.3	84.7	84.4
Dyna-Gro	S09EN53	0.9	9/20	4	37	0	2,158	55.0	19.1	35.5	94.7	86.6	--
Dyna-Gro	S12EN72	1.2	9/24	4	36	2	1,820	55.3	18.4	37.4	92.3	84.4	84.2
Dyna-Gro	S12XF92	1.2	9/22	4	37	1	2,101	55.1	18.7	36.0	92.7	86.6	87.7
Legacy	LS084-22 XF	0.8	9/18	4	40	2	2,058	55.5	19.5	34.8	91.6	--	--
Legacy	LS092-22 E	0.9	9/18	4	36	1	2,218	54.5	19.8	35.2	84.3	79.1	--
Legacy	LS094-20 XF	0.9	9/16	4	39	1	2,126	54.7	19.1	35.7	87.1	81.3	--
Legacy	LS102-22 E	1.0	9/20	5	36	1	2,260	55.0	19.0	35.6	92.2	86.9	--
Legacy	LS124-23 XF	1.2	9/22	5	38	1	1,979	55.8	18.0	36.7	85.8	--	--
LG Seeds	LGS0822E3	0.8	9/19	4	36	1	1,846	55.2	18.7	37.0	83.6	79.5	81.1
LG Seeds	LGS0988XF	0.9	9/17	6	39	3	2,021	55.6	18.5	35.6	88.9	82.4	--
LG Seeds	LGS1043E3	1.0	9/18	4	35	1	2,212	55.3	18.6	35.2	94.3	--	--
LG Seeds	LGS1385XF	1.3	9/24	5	43	2	2,016	55.1	18.3	36.6	91.1	84.1	--
NDSU	ND17009GT	0.9	9/1	4	35	5	2,093	56.0	19.1	37.5	61.1	57.3	--
NDSU	ND21008GT20	0.8	9/1	4	35	8	2,407	53.8	18.6	35.9	58.0	--	--
NDSU	ND2108GT73	0.7	9/20	6	36	1	2,257	55.7	18.6	36.4	80.3	76.1	69.7
Paloma	PL2E093	0.9	9/21	5	39	2	1,843	55.4	18.8	35.8	89.9	--	--
Paloma	PL2E101	1.0	9/21	5	37	1	2,244	54.8	18.7	35.7	88.7	82.0	--
REA	R0944XF	0.9	9/20	4	45	3	2,028	55.4	19.3	35.7	75.9	--	--
REA	R1234XF	1.2	9/20	7	38	1	2,120	54.7	18.6	36.0	83.8	--	--
Mean			9/18	5	37	2	2,088	55.3	19.0	35.8	84.3	81.1	81.5
CV %			1.2	45.4	2.9	10	2.3	1.4	1.2	1.3	9.1	--	--
LSD 0.05			1.9	1.1	3.2	1.6	68	1.3	0.4	0.6	10.8	--	--
LSD 0.10			1.6	0.9	2.7	1.3	57	1.1	0.3	0.5	9.0	--	--

Planted: May 25. Harvested: Oct. 11. Previous crop: corn.

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

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

Table 17. 2023 Soybean - Irrigated, Conventional - Oakes (CREC) - Authors, M. Ostlie, H. Eslinger and S. Eslinger.

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Height (inch)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
											2023	3-yr. Avg.
NDSU	ND Benson	0.4	9/18	3	38	2	2,199	56.4	18.3	37.8	64.5	--
NDSU	ND Dickey	0.7	9/16	4	38	1	1,954	56.1	18.6	35.7	78.4	68.0
Legacy	LS101-23C	1	9/20	4	38	8	1,990	55.8	17.8	36.9	67.0	--
Legacy	LSX102-23C	1	9/21	4	37	6	1,827	55.1	18.8	37.8	82.4	--
Mean			9/19	4	38	4	1,992	55.9	18.4	37.0	73.1	68.0
CV %			1.2	26.7	5.1	13.8	3.0	1.0	1.2	1.0	2.9	--
LSD 0.05			2.1	1.2	3.1	0.8	96	0.9	0.4	0.6	3.4	--
LSD 0.10			1.7	0.9	2.5	0.7	78	0.7	0.3	0.5	2.8	--

Planted: May 25. Harvested: Oct. 11. Previous crop: corn.

¹Maturity is date of 95% brown or tan pods.²Lodging: 0-none, 9-lying flat on the ground.**Table 18. 2023 Soybean - Conventional - Dazey (CREC) - Authors, M. Ostlie, K. Simons, H. Burgard and T. Indergaard.**

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Height (inch)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
										2023	2-yr. Avg.	3-yr Avg.
Legacy	LS101-23C	1	9/16	8	40	2,533	56.1	17.3	36.5	54.1	--	--
Legacy	LSX102-23C	1	9/18	7	36	2,446	56.2	18.5	35.5	62.0	--	--
NDSU	ND Benson	0.4	9/12	4	32	3,132	55.8	18.4	35.9	53.6	57.4	50.0
NDSU	ND Dickey	0.7	9/13	4	32	2,776	55.3	18.4	33.8	59.2	62.2	55.1
NDSU	ND Rolette	00.9	9/3	5	31	3,669	55.1	18.4	34.7	54.7	58.3	50.3
NDSU	ND Stutsman	0.7	9/11	5	37	3,313	55.8	19.1	33.3	58.1	61.4	54.0
Proseed	PXC05992	0.5	9/13	5	34	2,219	55.6	17.6	36.6	61.7	--	--
Proseed	PXC0899	0.8	9/15	5	37	2,517	56.4	17.7	34.3	72.3	--	--
Richland	Decker	1	9/12	6	32	3,173	54.8	--	27.2	43.0	--	--
Richland	MK009	00.9	9/7	4	30	6,324	56.0	17.3	34.1	46.8	49.2	43.3
Richland	MK0249	0.2	9/6	4	32	4,903	55.9	17.6	34.4	51.2	55.2	48.9
Richland	MK0603	0.6	9/16	5	38	4,884	55.9	16.8	36.0	49.6	51.4	46.6
Richland	MK1023	1	9/14	5	32	4,939	57.9	17.9	34.4	49.0	48.0	--
Richland	MK146	1.1	9/19	4	33	2,782	55.4	17.9	36.2	67.0	--	--
Richland	MK41	1.1	9/10	6	36	2,672	55.5	16.4	37.7	62.5	60.9	52.8
Richland	MK808CN	0.8	9/10	5	36	3,252	56.0	19.4	33.3	56.1	59.9	51.2
Richland	MK9101	1.1	9/17	9	39	2,343	56.4	--	27.6	49.5	53.8	47.5
Richland	MK9102	1.2	9/17	10	48	2,183	57.1	--	27.4	53.5	--	--
Richland	MK9103	1.2	9/16	8	43	2,323	56.7	--	27.5	54.2	--	--
Richland	Sable	1.2	9/12	5	29	3,184	54.2	--	28.0	41.3	--	--
	RR Check 1	0.4	9/14	4	34	2,902	55.0	19.1	34.2	50.9	62.6	--
	RR Check 2	0.7	9/15	5	33	2,662	55.7	18.9	34.1	72.2	63.4	--
Mean			9/12	5	35	3,202	55.9	18.1	33.6	55.1	57.2	50.0
CV %			0.7	21.8	6.2	4.5	0.8	2.0	1.6	10.2	--	--
LSD 0.05			2.6	1.7	3.1	202	0.7	0.5	0.8	7.9	--	--
LSD 0.10			2.2	1.4	2.6	169	0.6	0.4	0.6	6.6	--	--

Planted: May 23. Harvested: Oct. 12. Previous crop: spring wheat.

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

Table 19. 2023 Soybean - Herbicide-Resistant - Wishek (CREC) - Authors, M. Ostlie, K. Simons, H. Burgard and T. Indergaard.

Company/ Brand	Variety	Trait	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Ht (inch)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
												2023	2-yr. Avg.	3-yr Avg.
Dyna-Gro	S09EN53	E3	0.9	9/29	3	33	2	2,695	55.8	19.0	32.4	70.6	66.5	--
Dyna-Gro	S12EN72	E3	1.2	10/1	4	36	3	2,357	56.5	18.1	35.3	72.1	67.3	--
Dyna-Gro	S12XF92	RR2XF	1.2	9/29	3	31	2	2,625	55.6	18.6	33.8	73.9	65.0	--
Legacy	LS084-22 XF	RR2XF	0.8	9/26	3	36	3	2,750	55.4	18.6	33.2	66.8	65.4	--
Legacy	LS092-22 E	E3	0.9	9/27	3	31	2	2,929	55.2	19.4	33.6	68.4	63.2	--
Legacy	LS094-20 XF	RR2XF	0.9	9/23	3	34	3	2,928	55.2	18.2	34.5	63.1	66.5	--
Legacy	LS102-22 E	E3	1.0	10/1	3	35	2	2,670	55.9	18.1	33.0	77.6	70.5	--
Legacy	LS124-23 XF	RR2XF	1.2	9/30	3	36	2	2,601	56.0	18.8	34.1	72.7	--	--
LG Seeds	LGS0444XF	RR2XF	0.4	9/23	2	33	2	2,621	55.5	18.9	34.1	68.1	--	--
LG Seeds	LGS0701XF	RR2XF	0.7	9/23	2	36	2	2,805	55.7	18.3	33.2	68.6	59.6	53.0
NDSU	ND17009GT	GT	00.9	9/12	2	35	3	2,913	57.0	18.2	35.7	45.0	45.6	41.0
NDSU	ND21008GT20	GT	00.8	9/10	2	31	3	3,453	56.2	17.4	35.2	44.1	--	--
NDSU	ND2108GT73	GT	0.8	9/24	3	32	3	3,297	56.3	18.8	33.2	55.2	51.8	46.9
REA	R0422XF	RR2XF	0.4	9/25	2	32	1	2,564	55.2	18.7	34.2	67.5	--	--
REA	R0743XF	RR2XF	0.7	9/27	3	36	2	2,602	55.5	18.8	34.0	76.8	--	--
REA	R0944XF	RR2XF	0.9	9/30	3	45	3	2,363	55.8	18.4	34.1	83.3	--	--
Syng NK	NK05-W3XF	RR2XF	0.5	9/23	3	36	3	2,952	56.5	17.7	34.8	68.7	65.8	57.6
Syng NK	NK06-P2XF	RR2XF	0.6	9/24	3	37	2	2,536	55.4	18.8	33.2	72.4	65.4	--
Syng NK	NK09-B5XF	RR2XF	0.9	9/26	3	36	2	2,380	56.7	18.0	34.7	75.8	64.3	--
Syng NK	NK11-U2XF	RR2XF	1.1	10/1	3	38	2	2,347	56.5	18.4	34.2	79.4	--	--
Mean				9/25	3	35	2	2,757	55.9	18.5	34.0	67.4	62.8	49.6
CV %				0.7	46	8	31	3.9	0.7	2.6	2.1	10.9	--	--
LSD 0.05				2.8	2	4	1	153	0.5	0.7	1.1	10.4	--	--
LSD 0.10				2.3	2	3	1	127	0.4	0.6	0.9	8.7	--	--

Planted: June 2. Harvested: Oct. 20. Previous crop: barley/spring wheat.

¹Date of physiological maturity at R7 stage (one pod on the main stem is mature brown or tan color).²Lodging: 0-none, 9-lying flat on the ground.**Table 20. 2023 Soybean - Dryland, Herbicide-Resistant - Oakes (CREC) - Authors, M. Ostlie, H. Eslinger and S. Eslinger.**

Company/ Brand	Variety	Mat. Group	Maturity ¹ (date)	Pod Ht (inch)	Plant Height (inch)	Plant Lodge ² (0-9)	Seeds/ Pound (seeds)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield (bu/a)
Legacy	LS094-20 XF	0.9	9/25	6	36	2	2,227	54.6	19.1	35.2	76.1
Legacy	LS102-22 E	0.9	9/8	7	35	0	2,443	53.9	18.8	34.4	73.0
Legacy	LS124-23 XF	1.0	9/24	6	38	0	2,110	54.2	18.8	35.7	78.6
Legacy	LS084-22 XF	1.2	9/23	5	39	1	2,126	54.2	19.6	33.7	75.8
NDSU	ND17009GT	0.9	9/19	6	33	2	2,329	54.9	18.7	36.9	44.3
NDSU	ND21008GT20	0.8	9/21	5	30	4	2,610	54.6	18.9	34.9	41.1
NDSU	ND2108GT73	0.7	9/25	5	33	1	2,673	54.2	18.9	34.8	59.1
Paloma	PL2E093	0.9	9/18	7	36	2	2,150	54.7	18.7	34.9	71.0
Paloma	PL2E101	1.0	9/25	6	33	0	2,497	54.0	18.6	34.7	74.8
REA	R0944XF	0.9	9/25	7	47	2	2,102	53.8	19.2	35.2	75.8
REA	R1234XF	1.2	9/26	7	39	1	2,305	53.2	18.6	35.4	76.1
Mean			9/20	6	36	1	2,367	54.2	18.9	35.0	66.6
CV %			2.6	52	5	20	4	1.6	2.2	1.7	12.1
LSD 0.05			4.5	2	2	2	140	1.3	0.6	0.8	11.6
LSD 0.10			3.8	2	2	1	116	1.1	0.5	0.7	9.6

Planted: May 21. Harvested: Oct. 22. Previous crop: corn.

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

Table 21. 2023 Soybean - Herbicide-Resistant - LaMoure (CREC) - Authors, C. Miranda, G. Kreutz, M. Ostlie and K. Simons.

Company/ Brand	Variety	Maturity Group	Maturity ¹ (date)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield 2023 (bu/a)
Dairyland	DSR-0220E	0.2	9/15	54.5	19.8	33.9	30.2
Dairyland	DSR-0585E	0.5	9/19	54.9	20.1	32.6	40.8
Dairyland	DSR-0757E	0.7	9/18	55.0	20.1	32.6	40.2
Dairyland	DSR-0920E	1	9/23	55.7	20.0	33.0	42.6
Dairyland	DSR-1121E	1.1	9/24	55.2	21.1	31.1	44.1
Dairyland	DSR-1290E	1.2	9/23	55.8	20.7	32.4	44.1
Legacy	LS084-22 XF	0.8	9/19	55.9	20.2	32.3	46.5
Legacy	LS092-22 E	0.9	9/20	55.5	20.9	31.5	34.8
Legacy	LS094-20 XF	0.9	9/20	55.4	20.1	33.1	41.7
Legacy	LS102-22 E	1	9/22	56.7	19.2	33.5	34.7
Legacy	LS124-23 XF	1.2	9/22	55.1	20.1	33.2	37.8
LG Seeds	LGS0822E3	0.8	9/20	55.8	19.8	33.4	38.2
LG Seeds	LGS0988XF	0.9	9/19	56.6	19.1	33.3	43.4
LG Seeds	LGS1043E3	1	9/21	56.6	18.6	34.2	38.2
LG Seeds	LGS1385XF	1.3	9/23	56.0	19.4	33.4	42.4
NDSU	ND17009GT	00.9	9/11	57.1	19.6	35.5	23.0
NDSU	ND21008GT20	00.8	9/10	55.0	19.7	33.9	25.5
NDSU	ND2108GT73	0.8	9/21	55.6	19.8	33.0	35.1
Proseed	XF 30-72N	0.7	9/18	55.4	19.0	33.6	42.9
Proseed	XF 30-82N	0.8	9/19	55.2	18.9	34.7	35.7
Proseed	XF 30-92N	0.9	9/19	55.9	19.2	33.8	44.8
Syng NK	NK09-B5XF	0.9	9/20	56.2	19.2	34.0	44.3
Syng NK	NK11-U2XF	1.1	9/20	56.0	19.6	34.1	40.4
Syng NK	NK13-Y4XF	1.2	9/23	56.1	19.6	33.2	46.4
Mean			9/19	55.6	19.8	33.3	40.1
CV %			1.2	0.9	2.4	2.3	10.8
LSD 0.05			17.4	0.8	0.8	1.3	9.7
LSD 0.10			14.5	0.7	0.6	1.0	3.5

See footnotes below Table 22.

Table 22. 2023 Soybean - Conventional - LaMoure (CREC) - Authors, C. Miranda, G. Kreutz, M. Ostlie and K. Simons.

Company/ Brand	Variety	Maturity Group	Maturity ¹ (date)	Plant Lodge ² (1-5)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield 2023 (bu/a)
NDSU	ND Benson	0.4	9/17	1	55.2	19.6	33.8	47.5
NDSU	ND Dickey	0.7	9/20	1	55.5	19.4	32.3	59.0
NDSU	ND Rolette	00.9	9/11	1	55.6	20.0	32.4	43.1
Richland	MK0603	0.6	9/18	2	55.7	18.4	32.9	52.5
Richland	MK808CN	0.8	9/21	1	57.0	20.5	31.8	55.9
Richland	MK9101	1.1	9/23	1	56.6	--	--	49.8
Richland	MK9102	1.2	9/23	1	56.8	--	--	46.5
Richland	MK9103	1.2	9/21	1	57.3	--	--	44.9
Richland	Decker	1	9/21	1	56.4	--	--	43.3
Richland	Sable	1.2	9/20	1	56.1	--	--	42.0
Richland	MK41	1.1	9/17	1	55.9	18.2	35.3	54.3
Richland	MK146	1.1	9/24	1	55.3	18.9	34.5	59.1
Mean			9/20	1	56.0	19.3	33.3	50.3
CV %			0.9	26	0.5	1.3	1.5	9.4
LSD 0.05			1.8	0	0.5	0.4	0.9	8.0
LSD 0.10			1.5	0	0.4	0.4	0.7	6.6

Planted: May 23. Harvested: Oct. 4. Previous crop: corn.

¹Maturity is date of 95% brown or tan pods.²Lodge = 1 is upright and 5 is flat.

Table 23. 2023 Soybean - Herbicide-Resistant - Langdon - Authors, B. Hanson, L. Henry and R. Duerr (1 of 2).

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Maturity ¹ (date)	Plant Height (inch)	Seed Oil (%)	Seed Protein (%)	Seed Yield ------(bu/a)-----		
								2023	2-yr. Avg.	2-site Avg. ²
Dahlman	7301XF	RR2XF	0.1	9/6	23	16.3	33.9	31.8	49.7	43.6
Dahlman	74009XF	RR2XF	00.9	8/31	20	17.0	33.5	32.1	--	40.6
Dahlman	7401XF	RR2XF	0.1	9/2	22	16.6	32.0	35.0	--	46.9
Dahlman	AE0140	Enlist E3	0.1	9/11	20	16.1	33.3	35.4	--	45.8
Dairyland	DSR-0220E	Enlist E3	0.2	9/9	20	16.9	33.1	38.8	52.3	--
Dairyland	DSR-C801E	Enlist E3	00.8	8/30	17	17.2	32.1	28.5	--	--
Dyna-Gro	S006XF83	RR2XF	00.6	8/28	16	17.5	32.2	29.0	48.4	41.5
Dyna-Gro	S009EN24	Enlist E3	00.9	9/4	18	16.8	32.6	33.5	--	45.8
Dyna-Gro	S009XF33	RR2XF	00.9	9/1	20	16.4	32.1	29.6	45.9	42.7
Golden H.	GH00864XF	RR2XF	00.8	8/31	18	17.2	33.1	30.0	--	45.3
Golden H.	GH00973E3	Enlist E3	00.9	9/2	19	16.0	34.6	32.5	51.9	45.2
Golden H.	GH0234E3	Enlist E3	0.2	9/9	22	15.9	33.8	38.5	--	50.9
Innvictis	A00821XF	RR2XF	00.8	9/1	19	15.9	35.1	31.7	46.1	42.3
Innvictis	A00979X	RR2XF	00.9	9/5	18	17.5	33.1	29.5	45.1	45.7
Integra	E0084	Enlist E3	00.8	9/6	20	16.9	31.9	36.5	--	48.6
Integra	E0113	Enlist E3	0.1	9/6	19	16.2	33.9	36.5	53.6	49.4
Integra	XF0063	RR2XF	00.6	8/27	17	16.9	34.1	34.6	--	45.5
Integra	XF0082	RR2XF	00.9	9/1	20	16.9	34.3	32.6	48.9	41.4
Legacy	LS0068-23 XF	RR2XF	00.6	9/2	21	16.7	30.5	32.8	--	43.7
Legacy	LS008-23 E	Enlist E3	00.8	9/7	20	16.5	33.2	33.9	--	45.0
Legacy	LS0098-23 XF	RR2XF	00.9	9/5	20	16.7	33.2	34.8	--	48.0
Legacy	LS012-23 E	Enlist E3	0.1	9/10	20	16.2	33.6	34.5	--	46.7
Legacy	LS014-23 XF	RR2XF	0.1	9/5	23	17.1	33.2	33.4	--	47.4
Legacy	LS024-23 XF	RR2XF	0.2	9/6	19	17.2	34.5	29.3	--	40.7
LG Seeds	LGS00719XF	RR2XF	00.7	8/31	17	16.8	33.5	31.8	--	47.3
LG Seeds	LGS00901E3	Enlist E3	00.9	9/8	19	16.6	33.1	30.5	--	--
LG Seeds	LGS0125XF	RR2XF	0.1	9/3	19	17.0	33.0	35.0	--	48.2
LG Seeds	LGS0139XF	RR2XF	0.1	9/5	23	15.1	34.2	37.3	--	48.6
NDSU	ND17009GT	GT	00.9	9/2	19	17.7	34.4	29.1	45.6	41.1
NDSU	ND21008GT20	GT	00.8	8/29	17	16.7	34.2	28.4	46.6	38.2
Paloma	PL2E013	Enlist E3	0.1	9/11	21	16.5	32.2	33.7	--	44.8
Pioneer	P005A59E	Enlist E3	00.5	8/29	16	17.6	34.8	22.9	41.3	--
Pioneer	P007A68E	Enlist E3	00.7	8/30	17	17.8	32.7	27.3	--	--
Pioneer	P009T18E	Enlist E3	00.9	9/3	21	16.1	34.3	35.5	44.6	--
Pioneer	P02A78E	Enlist E3	0.2	9/5	19	17.0	31.5	31.2	--	--
Proseed	EL 40-093N	Enlist E3	00.9	9/10	20	17.1	32.0	28.6	--	38.1
Proseed	XF 30-062	RR2XF	00.6	8/27	18	16.4	32.5	32.2	48.4	43.1
Proseed	XF 30-092N	RR2XF	00.9	9/5	19	17.1	32.0	34.4	55.8	48.6
Proseed	XF 40-12	RR2XF	0.1	9/5	22	15.7	33.5	37.5	--	50.7
REA	R00934XF	RR2XF	00.9	9/2	20	16.7	32.2	33.2	--	47.5
Stine	01EG23	Enlist E3	00.9	9/11	20	17.3	33.3	36.4	--	48.3
Stine	03EG62	Enlist E3	0.2	9/14	19	16.3	33.7	29.9	--	42.3
Syng NK	NK009-G7E3	Enlist E3	00.9	9/4	18	15.4	36.0	31.1	50.2	43.4
Syng NK	NK009-T1XF	RR2XF	00.9	9/1	19	17.0	32.8	30.4	51.1	42.7
Syng NK	NK02-H6E3	Enlist E3	0.2	9/8	20	15.7	33.6	36.7	--	50.3
Mean				9/4	19	16.6	33.2	32.7	48.8	45.5
CV %				1.4	10.8	3.1	2.4	11.3	--	--
LSD 0.05				2.4	2.9	1.0	1.6	6.4	--	--
LSD 0.10				1.0	2.5	0.9	1.4	--	--	--

Table 25. 2023 Soybean - Herbicide-Resistant - Park River (LREC) - Authors, B. Hanson, L. Henry and R. Duerr.

Company/ Brand	Variety	Herbicide Trait	Maturity		Plant Height (inch)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
			Group	Maturity ¹ (date)				2023	2-yr. Avg. (bu/a)	2-site avg. ²
Dahlman	7304XF	RR2XF	0.4	8/31	22	17.3	32.6	40.7	61.1	47.7
Dairyland	DSR-0220E	Enlist E3	0.2	9/16	21	17.2	32.3	36.1	--	--
Dairyland	DSR-C801E	Enlist E3	00.8	9/3	17	17.8	31.6	27.1	--	--
Dyna-Gro	S01XF43	RR2XF	0.1	9/7	26	17.1	31.4	38.3	57.5	45.1
Dyna-Gro	S03EN94	Enlist E3	0.3	9/19	21	17.5	31.1	39.5	--	44.4
Golden H.	GH0234E3	Enlist E3	0.2	9/13	23	16.5	32.4	40.3	--	46.2
Golden H.	GH0363E3	Enlist E3	0.3	9/14	23	16.9	31.7	43.6	64.7	49.4
Golden H.	GH0384XF	RR2XF	0.3	9/18	25	17.2	32.7	39.2	--	47.9
Integra	E0113	Enlist E3	0.1	9/10	21	16.7	33.3	35.5	57.0	46.2
Integra	XF04093	RR2XF	0.4	9/13	23	17.3	31.7	38.0	--	44.9
Integra	E0324	Enlist E3	0.3	9/20	21	17.3	31.4	35.6	--	41.3
Latham	L 00725 XF	RR2XF	00.7	8/31	23	17.3	31.0	35.4	--	--
Latham	L 0114 XF	RR2XF	0.1	9/10	25	16.9	31.3	39.5	--	--
Latham	L 0254 XF	RR2XF	0.2	9/13	28	17.6	31.7	42.6	--	--
Latham	L 0235 E3	Enlist E3	0.2	9/19	22	17.2	31.6	38.4	--	--
Latham	L 0133 E3	Enlist E3	0.1	9/17	21	16.8	32.7	40.0	--	--
Legacy	LS0098-23 XF	RR2XF	00.9	9/5	24	17.6	31.6	33.4	--	46.6
Legacy	LS012-23 E	Enlist E3	0.1	9/17	23	16.6	32.8	41.2	--	48.4
Legacy	LS014-23 XF	RR2XF	0.1	9/8	26	16.9	30.7	39.7	--	46.6
Legacy	LS024-23 XF	RR2XF	0.2	9/12	21	17.6	32.9	35.9	--	41.8
Legacy	LS032-23E	Enlist E3	0.3	9/19	24	17.1	32.0	40.0	--	46.4
Legacy	LS044-23 XF	RR2XF	0.4	9/19	22	17.5	32.1	40.0	--	47.5
LG Seeds	LGS00901E3	Enlist E3	00.9	9/12	22	17.2	32.7	38.4	--	--
LG Seeds	LGS0125XF	RR2XF	0.1	9/9	24	17.6	31.0	37.6	--	46.4
LG Seeds	LGS0139XF	RR2XF	0.1	9/7	27	16.8	31.2	37.8	--	46.0
LG Seeds	LGS0444XF	RR2XF	0.4	9/20	23	17.1	31.8	41.4	--	48.2
NDSU	ND17009GT	GT	00.9	9/2	26	17.5	34.1	35.4	52.5	40.4
NDSU	ND21008GT20	GT	00.8	8/31	25	17.1	32.2	36.8	54.7	40.6
Paloma	PL2E013	Enlist E3	0.1	9/14	24	17.5	31.0	39.9	--	47.9
Paloma	PL2E043	Enlist E3	0.4	9/15	23	17.0	33.2	37.7	--	45.3
Proseed	EL 40-093N	Enlist E3	00.9	9/15	20	17.2	32.6	32.9	--	--
Proseed	XF 30-092N	RR2XF	00.9	9/5	22	17.4	31.7	32.7	61.2	--
Proseed	XF 30-42	RR2XF	0.4	9/19	23	17.6	32.2	39.7	--	46.4
Proseed	XF 30-52N	RR2XF	0.5	9/18	26	18.0	30.1	41.8	--	47.4
Proseed	XF 40-12	RR2XF	0.1	9/9	24	16.8	31.4	38.5	--	46.4
REA	R00934XF	RR2XF	00.9	9/5	24	17.4	30.5	35.7	--	45.3
REA	R0422XF	RR2XF	0.4	9/19	20	17.4	31.9	35.4	58.8	43.2
Syng NK	NK009-G7E3	Enlist E3	00.9	9/9	22	16.4	34.0	36.9	59.9	45.9
Syng NK	NK009-T1XF	RR2XF	00.9	9/5	22	17.5	31.8	35.9	57.9	42.6
Syng NK	NK02-H6E3	Enlist E3	0.2	9/14	25	16.2	32.5	40.7	--	47.8
Syng NK	NK03-V5E3	Enlist E3	0.3	9/13	22	17.1	31.6	39.5	59.5	48.4
Syng NK	NK04-A9E3	Enlist E3	0.4	9/18	23	16.7	32.1	44.7	--	52.6
Xitavo	XO 0094E	Enlist E3	0.0	9/12	21	17.4	31.9	35.0	--	42.3
Xitavo	XO 0213E	Enlist E3	0.2	9/17	24	16.9	33.0	38.4	53.1	45.0
Xitavo	XO 0234E	Enlist E3	0.2	9/19	22	16.7	33.3	40.4	--	46.1
Mean				9/13	23	17.1	32.0	38.1	58.2	45.8
CV %				1.6	6.9	1.8	1.6	9.7	--	--
LSD 0.05				2.4	2.2	0.6	1.0	5.2	--	--
LSD 0.10				2.0	1.9	0.5	0.9	4.3	--	--

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

¹Date of physiological maturity at R7 stage (one pod on the main stem is mature brown or tan color).²2-site average Walsh County (Park River) and Nelson County (Pekin).

Table 26. 2023 Soybean - Conventional - Park River (LREC) - Authors, B. Hanson, L. Henry and R. Duerr.

Company/ Brand	Variety	Maturity		Plant Height	Seed Oil	Seed Protein	Seed Yield		
		Group	Maturity ¹ (date)				2023	2-yr. Avg.	2-site Avg. ²
Legacy	LS0090-20C	00.8	9/6	22	15.7	36.9	32.1	41.2	29.6
Legacy	LS0090-23C	00.9	9/12	24	17.1	33.2	37.9	52.6	37.7
Legacy	LSX020-23C	0.2	9/8	23	16.6	34.4	36.9	--	37.6
NDSU	ND Benson	0.4	9/21	25	17.2	34.0	40.0	--	37.0
NDSU	ND Rolette	00.9	9/11	28	16.9	33.8	36.6	53.1	36.0
Richland	MK009	00.9	9/14	25	16.3	32.7	37.5	48.4	34.0
Richland	MK0249	0.2	9/16	21	16.9	31.2	38.5	48.8	37.5
Mean			9/11	26	16.6	33.8	38.0	48.8	35.6
CV %			2.1	8.1	1.7	1.8	7.7	--	--
LSD 0.05			3.1	3.0	0.6	1.4	4.2	--	--
LSD 0.10			2.6	2.5	0.5	1.1	3.5	--	--

Planted: May 31. Harvested: Oct. 16. Previous crop: wheat.

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

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

Table 27. 2023 Soybean - Herbicide-Resistant - Cavalier (LREC) - Authors, B. Hanson, L. Henry and R. Duerr.

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Maturity ¹ (date)	Plant Height (inches)	Plant Lodge (0-9)	Seed Oil (%)	Seed Protein (%)	Seed Yield		
									2023	2-yr. Avg.	2-site Avg. ²
Dahlman	7301XF	RR2XF	0.1	9/25	38	2	15.6	35.1	55.4	61.7	43.6
Dahlman	74009XF	RR2XF	00.9	9/22	33	2	16.4	33.4	49.1	--	40.6
Dahlman	7401XF	RR2XF	0.1	9/24	37	2	15.3	33.6	58.8	--	46.9
Dahlman	AE0140	Enlist E3	0.1	9/27	29	0	15.7	34.7	56.1	--	45.8
Dyna-Gro	S006XF83	RR2XF	00.6	9/13	33	1	16.7	31.9	54.0	63.3	41.5
Dyna-Gro	S009EN24	Enlist E3	00.9	9/23	29	1	15.7	34.9	58.1	--	45.8
Dyna-Gro	S009XF33	RR2XF	00.9	9/18	29	0	16.3	32.7	55.8	62.9	42.7
Golden H.	GH00864XF	RR2XF	00.8	9/21	34	1	15.8	34.0	60.7	--	45.3
Golden H.	GH00973E3	Enlist E3	00.9	9/21	29	1	16.0	34.2	57.9	65.8	45.2
Golden H.	GH0234E3	Enlist E3	0.2	9/28	31	0	15.3	34.4	63.4	--	50.9
Innvictis	A00821XF	RR2XF	00.8	9/19	32	2	16.3	32.9	53.0	54.2	42.3
Innvictis	A00979X	RR2XF	00.9	9/24	30	1	16.1	33.9	62.0	61.3	45.7
Integra	XF0063	RR2XF	00.6	9/15	36	0	16.5	32.1	56.3	62.0	45.5
Integra	E0113	Enlist E3	0.1	9/25	29	1	15.6	34.1	62.3	63.5	49.4
Integra	XF0082	RR2XF	00.9	9/20	35	2	16.1	33.7	50.1	52.6	41.4
Integra	E0084	Enlist E3	00.8	9/24	28	1	15.8	34.6	60.8	--	48.6
Legacy	LS0068-23 XF	RR2XF	00.6	9/19	34	1	16.2	32.4	54.7	--	43.7
Legacy	LS008-23 E	Enlist E3	00.8	9/24	28	1	15.8	34.4	56.0	--	45.0
Legacy	LS0098-23 XF	RR2XF	00.9	9/21	33	3	16.0	33.7	61.2	--	48.0
Legacy	LS012-23 E	Enlist E3	0.1	9/27	29	1	15.9	34.3	58.9	--	46.7
Legacy	LS014-23 XF	RR2XF	0.1	9/21	39	2	15.7	33.6	61.3	--	47.4
Legacy	LS024-23 XF	RR2XF	0.2	9/23	30	1	16.9	34.1	52.0	--	40.7
LG Seeds	LGS00719XF	RR2XF	00.7	9/17	35	1	16.9	33.1	62.8	--	47.3
LG Seeds	LGS0125XF	RR2XF	0.1	9/23	34	3	16.2	33.7	61.5	--	48.2
LG Seeds	LGS0139XF	RR2XF	0.1	9/21	36	2	15.5	34.0	60.0	--	48.6
NDSU	ND17009GT	GT	00.9	9/20	37	2	16.5	35.2	53.2	58.1	41.1
NDSU	ND21008GT20	GT	00.8	9/18	34	2	15.9	34.3	48.1	53.4	38.2
Paloma	PL2E013	Enlist E3	0.1	9/27	31	1	15.5	33.9	55.9	--	44.8
Proseed	EL 40-093N	Enlist E3	00.9	9/29	28	1	15.7	34.4	47.6	--	38.1
Proseed	XF 30-062	RR2XF	00.6	9/14	33	1	17.0	32.2	53.9	62.4	43.1
Proseed	XF 30-092N	RR2XF	00.9	9/20	35	3	16.1	33.5	62.7	70.3	48.6
Proseed	XF 40-12	RR2XF	0.1	9/22	36	3	15.7	33.5	63.9	--	50.7
REA	R00934XF	RR2XF	00.9	9/19	37	1	15.7	32.8	61.8	--	47.5
Stine	01EG23	Enlist E3	00.9	9/26	30	0	15.7	34.6	60.1	--	48.3
Stine	03EG62	Enlist E3	0.2	10/1	28	1	15.8	33.3	54.6	--	42.3
Syng NK	NK009-G7E3	Enlist E3	00.9	9/22	30	2	15.5	34.9	55.6	64.9	43.4
Syng NK	NK009-T1XF	RR2XF	00.9	9/19	31	2	16.1	33.1	55.0	61.6	42.7
Syng NK	NK02-H6E3	Enlist E3	0.2	9/26	34	1	15.2	34.4	63.9	--	50.3
Syng NK	NK03-V5E3	Enlist E3	0.3	9/26	32	2	15.9	34.8	65.6	--	--
Thunder	TE7101N	Enlist E3	0.1	9/25	28	0	16.1	33.2	59.7	67.1	47.3
Thunder	TE7302N	Enlist E3	0.2	9/22	28	2	16.0	33.5	61.8	65.0	46.9
Thunder	TX8301	RR2XF	0.1	9/20	30	0	16.0	33.1	58.1	64.4	44.2
Thunder	TX8402N	RR2XF	0.2	9/21	35	2	15.2	34.3	57.8	--	47.4
Xitavo	XO 0094E	Enlist E3	0.0	9/26	28	1	15.7	34.8	58.8	--	48.2
Xitavo	XO 0213E	Enlist E3	0.2	9/28	33	3	16.5	33.5	59.6	60.2	48.3
Xitavo	XO 0234E	Enlist E3	0.2	9/29	30	0	15.6	34.2	61.2	--	47.7
Mean				9/22	32	1	16.0	33.8	57.6	61.8	45.5
CV %				1.6	6.8	93.4	1.8	1.6	6.7	--	--
LSD 0.05				2.8	3.1	1.8	0.6	1.1	5.4	--	--
LSD 0.10				2.3	2.6	1.5	0.5	0.9	4.5	--	--

Planted: May 25. Harvested: Oct. 16. Previous crop: soybean.

¹Date of physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color).²2-site average of Langdon REC and Pembina County (Cavalier).

Table 28. 2023 Soybean - Herbicide-Resistant - Pekin (LREC) - Authors, B. Hanson, L. Henry and R. Duerr.

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Maturity ¹ (date)	Plant Height (inch)	Seed Oil (%)	Seed Protein (%)	Seed Yield ------(bu/a)-----		
								2023	2-yr. Avg.	2-site Avg. ²
Dahlman	7304XF	RR2XF	0.4	9/9	27	16.4	35.0	54.7	57.3	47.7
Dyna-Gro	S01XF43	RR2XF	0.1	8/31	25	15.9	34.8	51.9	51.7	45.1
Dyna-Gro	S03EN94	Enlist E3	0.3	9/10	24	16.5	34.3	49.2	--	44.4
Golden H.	GH0234E3	Enlist E3	0.2	9/7	27	15.7	35.6	52.2	--	46.2
Golden H.	GH0363E3	Enlist E3	0.3	9/6	24	15.9	35.3	55.2	56.6	49.4
Golden H.	GH0384XF	RR2XF	0.3	9/7	29	16.2	35.0	56.7	--	47.9
Integra	E0113	Enlist E3	0.1	9/5	27	16.1	35.6	57.0	52.6	46.2
Integra	XF0493	RR2XF	0.4	9/10	26	16.1	35.2	51.9	--	44.9
Integra	E0324	Enlist E3	0.3	9/11	23	16.3	34.2	46.9	--	41.3
Legacy	LS0098-23 XF	RR2XF	0.9	9/3	28	16.5	33.6	59.8	--	46.6
Legacy	LS012-23 E	Enlist E3	0.1	9/7	27	16.1	35.5	55.7	--	48.4
Legacy	LS014-23 XF	RR2XF	0.1	8/1	31	15.6	33.7	53.6	--	46.6
Legacy	LS024-23 XF	RR2XF	0.2	9/4	25	17.1	35.3	47.8	--	41.8
Legacy	LS032-23E	Enlist E3	0.3	9/9	24	16.7	34.3	52.8	--	46.4
Legacy	LS044-23 XF	RR2XF	0.4	9/9	28	16.7	34.6	55.1	--	47.5
LG Seeds	LGS0125XF	RR2XF	0.1	9/3	28	16.4	34.3	55.3	--	46.4
LG Seeds	LGS0139XF	RR2XF	0.1	9/1	30	15.9	33.3	54.3	--	46.0
LG Seeds	LGS0444XF	RR2XF	0.4	9/8	26	16.3	34.8	55.1	--	48.2
NDSU	ND17009GT	GT	0.9	8/28	25	16.9	36.3	45.4	45.3	40.4
NDSU	ND21008GT20	GT	0.8	8/26	28	16.3	35.0	44.4	45.8	40.6
Paloma	PL2E013	Enlist E3	0.1	8/8	26	15.8	34.4	55.8	--	47.9
Paloma	PL2E043	Enlist E3	0.4	9/7	26	15.9	35.7	52.9	--	45.3
Proseed	XF 30-42	RR2XF	0.4	9/9	27	16.3	34.8	53.0	--	46.4
Proseed	XF 30-52N	RR2XF	0.5	9/7	32	16.2	34.8	52.9	--	47.4
Proseed	XF 40-12	RR2XF	0.1	8/30	30	15.9	33.9	54.3	--	46.4
REA	R00934XF	RR2XF	0.9	8/30	27	15.9	33.2	54.9	--	45.3
REA	R0422XF	RR2XF	0.4	9/11	28	16.5	35.0	51.0	55.6	43.2
Syng NK	NK009-G7E3	Enlist E3	0.9	9/4	27	15.9	36.2	55.0	56.3	45.9
Syng NK	NK009-T1XF	RR2XF	0.9	8/30	25	16.4	34.3	49.3	51.5	42.6
Syng NK	NK02-H6E3	Enlist E3	0.2	9/6	24	15.1	36.1	54.9	--	47.8
Syng NK	NK02-M4XF	RR2XF	0.2	8/31	26	16.7	33.6	58.3	54.1	--
Syng NK	NK03-V5E3	Enlist E3	0.3	9/7	26	15.8	35.5	57.4	58.0	48.4
Syng NK	NK04-A9E3	Enlist E3	0.4	9/10	27	16.2	34.6	60.5	--	52.6
Xitavo	XO 0094E	Enlist E3	0.0	9/9	25	16.4	34.9	49.7	--	42.3
Xitavo	XO 0213E	Enlist E3	0.2	9/7	26	17.1	34.4	51.6	50.3	45.0
Xitavo	XO 0234E	Enlist E3	0.2	9/9	24	15.8	35.4	51.7	--	46.1
Mean				9/5	27	16.2	34.8	53.3	52.9	45.8
CV %				1.5	8.6	1.2	1.2	7.8	--	--
LSD 0.05				2.1	3.2	0.4	0.8	5.8	--	--
LSD 0.10				1.8	2.7	0.3	0.7	4.9	--	--

Planted: May 26. Harvested: Oct. 13. Previous crop: wheat.

¹Date of physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color).²A 2-site average of our southern region, Walsh County (Park River) and Nelson County (Pekin).

Table 29. 2023 Soybean - Herbicide-Resistant - Minot (NCREC) - Authors, L. Bortolon, A. Kraklau and J. Hansen.

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Maturity ¹ (date)	Plant Height (inches)	Seed Protein (%)	Seed Oil (%)	Test Weight (lb/bu)	Seed Yield 2023 2-yr. Avg. ----- (bu/a) -----	
Dairyland	DSR-0220E	E3	0.2	9/18	30	32.7	16.9	53.0	54.6	46.5
Dairyland	DSR-C801E	E3	00.8	9/12	31	34.7	15.8	53.5	52.4	--
Dyna-Gro	S009EN24	Enlist E3	00.9	9/17	31	33.9	16.3	53.4	62.4	--
Dyna-Gro	S01XF43	Enlist E3	0.1	9/16	32	32.5	16.7	53.2	51.1	47.3
Dyna-Gro	S03EN94	Enlist E3	0.3	9/19	33	33.2	16.4	53.4	53.6	--
Golden H.	GH00864XF	XF	00.8	9/15	35	33.5	16.0	53.6	60.1	--
Golden H.	GH00982XF	XF	00.9	9/15	28	32.9	16.9	53.8	56.1	--
Integra	E0113N	Enlist	0.1	9/20	35	33.6	16.3	54.4	56.6	--
Integra	E0324	Enlist	0.3	9/20	39	33.7	15.8	54.0	61.8	--
Integra	XF0212	XtendFlex	0.2	9/16	31	33.6	16.2	53.8	55.4	--
Integra	XF0493	XtendFlex	0.4	9/21	31	33.9	16.3	53.7	61.7	--
Latham	L 00725 XF	XF	0.07	9/8	32	33.8	16.2	53.2	57.9	--
Latham	L 0114 XF	XF	0.1	9/16	36	33.9	15.9	53.8	63.0	--
Latham	L 0254 XF	XF	0.2	9/14	30	33.3	16.6	53.6	55.4	--
Legacy	LS0068-23 XF	XF	00.6	9/15	35	32.4	16.8	53.7	53.5	--
Legacy	LS008-23 E	E3	00.8	9/16	31	32.4	16.7	53.1	60.4	--
Legacy	LS0098-23 XF	XF	00.9	9/19	32	34.2	16.1	53.7	60.3	--
Legacy	LS012-23 E	E3	0.1	9/18	34	33.6	16.2	53.9	67.0	--
Legacy	LS014-23 XF	XF	0.4	9/17	30	33.6	16.5	53.8	58.2	--
Legacy	LS024-23 XF	XF	0.2	9/15	33	33.5	16.8	54.0	53.8	--
LG Seeds	LGS00719XF	XF	00.7	9/12	30	33.9	16.5	52.3	53.3	--
LG Seeds	LGS0125XF	XF	0.1	9/15	33	33.8	16.3	53.8	60.9	--
LG Seeds	LGS0139XF	XF	0.1	9/15	33	33.0	16.3	53.6	56.7	--
NDSU	ND17009GT	GT	00.9	9/13	31	33.4	16.6	53.6	54.1	43.9
NDSU	ND21008GT20	GT	00.8	9/9	32	34.3	15.8	54.0	54.3	46.6
Proseed	XF 30-062N	RRXF	00.6	9/7	27	33.7	16.6	53.0	49.9	--
Proseed	XF 30-092N	RRXF	00.9	9/17	32	33.4	16.2	53.5	62.0	54.2
Proseed	XF 40-12N	RRXF	0.1	9/15	36	33.7	16.4	53.6	56.0	--
REA	R00934XF	RRXF	00.9	9/14	34	32.7	16.7	53.2	54.7	--
REA	R0422XF	RRXF	0.4	9/21	35	33.5	16.1	53.8	58.9	49.5
Syng NK	NK008-P2XF	XtendFlex	00.8	9/15	36	32.5	16.6	53.4	53.3	--
Syng NK	NK009-G7E3	Enlist	00.9	9/16	33	33.1	17.1	53.7	56.8	48.7
Syng NK	NK009-T1XF	XtendFlex	00.9	9/13	38	33.6	16.1	53.7	53.9	45.4
Syng NK	NK02-H6E3	Enlist	0.2	9/20	33	34.0	16.0	54.2	59.4	--
Syng NK	NK03-J1XF	XtendFlex	0.3	9/20	34	33.3	16.6	53.5	56.5	--
Syng NK	NK03-V5E3	Enlist	0.3	9/20	28	33.8	16.4	53.0	57.7	46.9
Xitavo	XO 0094E	E3	0	9/19	34	33.8	16.3	53.6	60.0	--
Xitavo	XO 0213E	E3	0.2	9/18	36	33.1	16.5	53.4	61.4	50.5
Xitavo	XO 0234E	E3	0.2	9/20	39	33.4	16.7	54.0	52.1	--
Xitavo	XO 0311E	E3	0.3	9/19	33	32.9	16.9	53.4	55.5	--
Xitavo	XO 0554E	E3	0.5	9/26	32	32.8	16.8	53.7	49.5	--
Mean				9/16	33	33.4	16.4	53.6	56.9	47.9
CV %				2.0	14.5	2.8	3.6	1.3	11.3	--
LSD 0.05				3.4	7.8	1.5	1.0	1.1	10.4	--
LSD 0.10				2.8	6.5	1.3	0.8	0.9	8.7	--

Planted: June 2. Harvested: Oct. 12. Previous crop: fallow.

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

Table 30. 2023 Soybean - Herbicide-Resistant - Garrison (NCREC) - Authors, L. Bortolon, A. Kraklau and J. Hansen.

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Plant Height	Seed Protein	Seed Oil	Test Weight	Seed Yield	
								2023	2-yr. Avg.
								------(bu/a)-----	
Dyna-Gro	S009EN24	Enlist E3	00.9	20	34.3	17.0	53.6	34.9	--
Dyna-Gro	S01XF43	Enlist E3	0.1	18	34.4	16.3	53.7	39.1	39.1
Dyna-Gro	S03EN94	Enlist E3	0.3	22	34.1	16.4	53.9	37.5	--
Golden H.	GH00864XF	XF	00.8	21	34.1	16.6	53.4	41.8	--
Golden H.	GH00982XF	XF	00.9	19	33.4	17.1	53.1	34.9	--
Golden H.	GH0272XF	XF	0.2	21	33.1	17.3	53.5	36.3	36.3
Golden H.	GH0363E3	E3	0.3	18	35.0	15.8	53.8	36.0	--
Integra	E0113N	Enlist	0.1	19	35.3	15.7	53.9	38.5	--
Integra	E0324	Enlist	0.3	20	34.5	15.8	54.1	31.9	--
Integra	XF0212	XtendFlex	0.2	29	33.8	16.9	54.1	41.1	--
Integra	XF0493	XtendFlex	0.4	23	34.1	17.0	53.8	43.8	--
Legacy	LS0098-23 XF	XF	00.9	20	33.9	17.1	53.8	35.2	--
Legacy	LS012-23 E	E3	0.1	20	34.8	16.3	54.3	38.4	--
Legacy	LS014-23 XF	XF	0.4	21	33.6	16.3	53.7	31.8	--
Legacy	LS024-23 XF	XF	0.2	17	34.9	17.6	54.1	35.4	--
Legacy	LS032-23 E	E3	0.3	19	34.3	16.1	53.7	32.5	--
Legacy	LS044-23 XF	XF	0.4	20	34.1	17.2	53.8	37.4	--
Legacy	LS052-23 E	E3	0.5	22	33.9	16.4	54.0	38.2	--
LG Seeds	LGS0125XF	XF	0.1	20	34.0	16.9	54.1	34.9	--
LG Seeds	LGS0444XF	XF	0.4	20	34.3	16.9	53.8	35.3	--
NDSU	ND17009GT	GT	0.9	22	35.6	16.8	55.1	34.5	34.5
NDSU	ND21008GT20	GT	0.8	22	34.7	16.5	54.0	31.7	31.7
Proseed	XF 30-062N	RRXF	00.6	19	32.2	18.0	53.3	35.0	--
Proseed	XF 30-092N	RRXF	00.9	21	34.0	16.8	54.1	43.6	--
Proseed	XF 40-12N	RRXF	0.1	24	33.7	16.3	53.8	42.9	--
REA	R00934XF	RRXF	00.9	23	33.8	16.3	53.7	42.0	--
REA	R0422XF	RRXF	0.4	20	35.2	16.4	53.7	36.4	36.4
Syng NK	NK008-P2XF	XtendFlex	00.8	25	34.1	17.0	53.2	43.0	--
Syng NK	NK009-G7E3	Enlist	00.9	18	35.7	15.7	53.8	41.2	41.2
Syng NK	NK009-T1XF	XtendFlex	00.9	19	34.5	16.7	52.9	36.5	36.5
Syng NK	NK02-H6E3	Enlist	0.2	19	35.4	15.6	54.2	39.5	--
Syng NK	NK03-J1XF	XtendFlex	0.3	26	35.0	16.0	54.0	42.4	--
Syng NK	NK03-V5E3	Enlist	0.3	20	34.9	15.7	53.7	39.0	39.0
Syng NK	NK05-W3XF	XtendFlex	0.5	22	35.7	15.3	54.5	39.1	39.1
Syng NK	NK06-D9E3	Enlist	0.6	18	35.4	15.3	54.3	34.8	34.8
Syng NK	NK06-P2XF	Enlist	0.6	24	34.5	16.0	54.5	35.3	35.3
Xitavo	XO 0094E	E3	0.0	19	35.3	16.0	54.5	37.3	--
Xitavo	XO 0213E	E3	0.2	21	33.9	16.7	53.4	38.5	38.5
Xitavo	XO 0234E	E3	0.2	20	35.5	16.1	54.6	37.9	--
Xitavo	XO 0311E	E3	0.3	18	33.9	16.1	53.4	36.8	36.8
Xitavo	XO 0554E	E3	0.5	20	33.5	16.4	53.9	29.8	--
Mean				21	34.4	16.4	53.9	37.4	36.9
CV %				13.6	1.5	2.5	0.6	14.3	--
LSD 0.05				4.6	0.9	0.7	0.5	8.7	--
LSD 0.10				3.8	0.7	0.6	0.4	7.3	--

Planted: May 16. Harvested: Sept. 19. Previous crop: hard red spring wheat.

Table 31. 2023 Soybean - Herbicide-Resistant - Mohall (NCREC) - Authors, L. Bortolon, A. Kraklau and J. Hansen.

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Plant Height (inch)	Seed Protein (%)	Seed Oil (%)	Test Weight (lb/bu)	Seed Yield	
								2023	2-yr. Avg. ------(bu/a)-----
Dyna-Gro	S006XF83	XtendFlex	00.6	17	33.6	17.7	50.5	20.0	35.2
Dyna-Gro	S009EN24	Enlist E3	00.9	20	33.5	17.5	53.1	26.1	--
Dyna-Gro	S009XF33	XtendFlex	00.9	15	33.5	17.3	52.5	21.7	35.1
Golden H.	GH00864XF	XF	00.8	22	34.4	17.6	51.7	24.1	--
Golden H.	GH00982XF	XF	00.9	19	33.9	18.1	51.2	20.2	--
Integra	E0084	Enlist	00.8	19	34.4	17.0	53.1	23.5	--
Integra	E0113N	Enlist	0.1	19	33.6	17.1	53.0	30.1	--
Integra	XF0063	XtendFlex	00.6	19	33.6	17.7	51.2	21.0	--
Integra	XF0082	XtendFlex	00.8	23	33.8	17.9	51.8	29.2	--
Latham	L 00725 XF	XF	00.7	19	33.2	17.9	50.6	21.6	--
Latham	L 0114 XF	XF	0.1	25	32.6	17.4	52.7	31.1	--
Latham	L 0254 XF	XF	0.2	28	33.7	16.9	53.6	28.8	--
Legacy	LS0068-23 XF	XF	00.6	20	33.1	17.5	51.8	21.4	--
Legacy	LS008-23 E	E3	00.8	18	33.8	17.2	53.5	25.6	--
Legacy	LS0098-23 XF	XF	00.9	24	33.5	17.5	52.3	27.8	--
Legacy	LS012-23 E	E3	0.1	20	35.3	16.7	53.7	20.6	--
Legacy	LS014-23 XF	XF	0.4	22	32.6	17.2	52.5	27.0	--
Legacy	LS024-23 XF	XF	0.2	22	34.1	18.4	51.9	27.7	--
LG Seeds	LGS00719XF	XF	00.7	19	34.5	17.7	51.7	20.7	--
LG Seeds	LGS0125XF	XF	0.1	22	34.2	17.5	52.5	26.3	--
LG Seeds	LGS0139XF	XF	0.1	25	33.1	17.2	52.5	28.9	--
NDSU	ND17009GT	GT	00.9	24	35.3	17.3	53.8	24.9	32.0
NDSU	ND21008GT20	GT	00.8	20	34.9	16.9	51.8	19.9	31.2
Proseed	XF 30-062N	RRXF	00.6	19	33.3	17.5	51.2	20.6	--
Proseed	XF 30-092N	RRXF	00.9	21	33.8	17.7	52.2	24.3	39.7
Proseed	XF 40-12N	RRXF	0.1	22	32.9	17.5	52.8	24.4	--
REA	R00934XF	RRXF	00.9	20	32.9	17.6	52.6	25.4	--
Syng NK	NK008-P2XF	XtendFlex	00.8	21	33.3	17.9	51.3	25.9	--
Syng NK	NK009-G7E3	Enlist	00.9	19	35.8	16.4	53.1	28.5	41.0
Syng NK	NK009-T1XF	XtendFlex	00.9	21	34.2	17.7	51.6	29.0	37.8
Thunder	DE54007	EnlistE3	00.7	20	33.2	17.7	51.0	23.2	--
Thunder	TX82008N	XtendFlex	00.8	22	33.5	18.2	51.0	23.6	--
Thunder	TX8301	XtendFlex	0.1	17	33.6	17.2	53.3	21.5	--
Thunder	TX8402N	XtendFlex	0.2	24	33.0	17.2	52.9	28.1	--
Xitavo	XO 0094E	E3	0.0	17	34.1	16.9	54.1	22.2	--
Xitavo	XO 0213E	E3	0.2	20	34.2	17.0	53.1	23.8	--
Xitavo	XO 0234E	E3	0.2	18	35.2	16.7	53.6	20.5	--
Xitavo	XO 0311E	E3	0.3	21	33.7	16.9	53.3	24.1	--
Xitavo	XO 0554E	E3	0.5	22	33.7	16.7	54.3	24.9	--
Mean				21	33.8	17.4	52.4	24.6	36.0
CV %				11.0	1.6	2.0	1.0	13.7	--
LSD 0.05				3.7	0.9	0.6	0.9	5.5	--
LSD 0.10				3.1	0.7	0.5	0.7	4.6	--

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

Table 32. 2023 Soybean - Herbicide-Resistant - Rugby (NCREC) - Authors, L. Bortolon, A. Kraklau and J. Hansen.

Company/ Brand	Variety	Herbicide Trait	Maturity Group	Plant Height	Seed Protein	Seed Oil	Test Weight	Seed Yield	
								2023	2-yr. Avg.
				(inch)	(%)	(%)	(lb/bu)	------(bu/a)-----	
Integra	E0113N	Enlist	0.1	16	34.1	16.4	53.3	19.3	--
Integra	E0324	Enlist	0.3	21	32.7	17.4	54.3	17.7	--
Integra	XF0212	XtendFlex	0.2	14	33.0	17.3	53.8	21.7	--
Integra	XF0493	XtendFlex	0.4	16	33.4	17.2	54.1	20.4	--
Legacy	LS0098-23 XF	XF	00.9	19	33.4	17.5	54.0	17.7	--
Legacy	LS012-23 E	E3	0.1	19	34.7	16.7	54.5	23.4	--
Legacy	LS014-23 XF	XF	0.4	20	33.3	16.9	53.3	15.2	--
Legacy	LS024-23 XF	XF	0.2	20	34.3	17.5	54.1	19.4	--
Legacy	LS032-23 E	E3	0.3	16	33.3	17.3	54.1	20.8	--
Legacy	LS044-23 XF	XF	0.4	18	33.0	17.4	54.2	19.2	--
LG Seeds	LGS00719XF	XF	00.7	17	34.2	17.7	53.2	21.6	--
LG Seeds	LGS0125XF	XF	0.1	18	33.9	17.2	53.9	18.3	--
LG Seeds	LGS0139XF	XF	0.1	21	33.2	16.9	53.8	20.9	--
NDSU	ND17009GT	GT	00.9	25	34.8	17.2	55.1	18.0	35.1
Proseed	XF 30-062N	RRXF	00.6	18	32.8	17.6	52.5	22.2	--
Proseed	XF 30-092N	RRXF	00.9	19	33.2	17.6	53.3	25.8	39.2
Proseed	XF 40-12N	RRXF	0.1	19	32.7	17.0	53.5	24.8	--
REA	R00934XF	RRXF	00.9	19	32.8	17.3	53.5	26.9	--
REA	R0422XF	RRXF	0.4	20	33.5	17.4	53.3	27.2	--
Syng NK	NK008-P2XF	XtendFlex	00.8	18	34.0	17.4	53.1	26.4	--
Syng NK	NK009-G7E3	Enlist	00.9	19	34.1	16.7	54.0	24.2	35.9
Syng NK	NK009-T1XF	XtendFlex	00.9	17	33.5	17.3	52.8	24.8	36.2
Syng NK	NK02-H6E3	Enlist	0.2	17	34.2	16.7	54.4	26.5	--
Thunder	TE7302N	XtendFlex	0.2	17	34.4	16.6	53.4	23.8	36
Thunder	TX8301	XtendFlex	0.1	17	32.8	17.3	53.3	20.8	35
Thunder	TX8402N	XtendFlex	0.2	24	33.1	17.0	53.3	24.7	--
Xitavo	XO 0094E	E3	0.0	16	34.0	17.0	54.9	23.0	--
Xitavo	XO 0213E	E3	0.2	16	33.1	17.5	53.8	22.8	36
Xitavo	XO 0234E	E3	0.2	16	34.4	16.8	54.5	22.3	--
Xitavo	XO 0311E	E3	0.3	17	33.2	16.8	53.4	24.3	37
Mean				18	33.6	17.2	53.8	22.1	36.3
CV %				16.1	1.2	1.6	1.4	20.0	--
LSD 0.05				4.8	0.8	0.4	1.2	7.2	--
LSD 0.10				4.0	0.6	0.4	1.0	6.0	--

Planted: May 18. Harvested: Oct. 11. Previous crop: soybean.

Table 33. 2023 Soybean - Herbicide-Resistant - Hettinger - Authors, J. Rickertsen and M. Wells.

Company/ Brand	Variety	Maturity		Plant Height (inch)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
		Group	Maturity ¹ (date)					2023	2-yr. Avg. (bu/a)
Integra	E0324	0.3	9/26	30	55.0	16.8	33.8	49.3	--
Integra	XF0212	0.2	9/22	37	55.4	16.5	35.0	48.6	--
NDSU	ND17009GT	00.9	9/22	32	56.9	17.1	36.9	44.0	35.5
NDSU	ND21008GT20	00.8	9/19	31	55.4	16.4	35.7	47.6	36.8
NDSU	ND2108GT73	0.8	10/6	30	56.5	16.9	33.8	58.0	43.1
REA	R00934XF	00.9	9/25	30	54.5	15.4	34.5	49.7	--
REA	R0112XF	0.1	9/23	38	55.4	16.3	35.2	48.3	--
REA	R0422XF	0.4	9/28	31	55.6	16.7	34.2	47.9	--
Xitavo	XO 0094E	0.0	9/21	30	55.1	16.3	35.2	51.1	--
Xitavo	XO 0213E	0.2	9/23	33	53.9	16.9	34.1	54.4	42.4
Xitavo	XO 0234E	0.2	9/25	30	56.3	16.5	34.6	50.8	--
Xitavo	XO 0311E	0.3	9/29	31	54.6	16.4	33.8	54.0	42.2
Xitavo	XO 0554E	0.5	10/3	30	56.3	16.8	33.6	53.9	--
Xitavo	XO 0602E	0.6	10/3	33	56.6	16.0	34.1	57.3	44.2
Xitavo	XO 0731E	0.7	10/4	31	57.3	16.3	34.8	58.1	43.4
Mean			9/26	32	55.8	16.5	34.7	50.9	41.1
CV %			0.1	5.1	0.9	1.6	1.2	5.3	--
LSD 0.05			1.9	1.9	0.6	0.3	0.5	3.2	--
LSD 0.10			1.6	1.5	0.5	0.2	0.4	2.5	--

Planted: May 22. Harvested: Oct. 8. Previous crop: spring wheat.

¹Maturity is date of 95% brown or tan pods.**Table 34. 2023 Soybean - Herbicide-Resistant - Mandan (HREC) - Authors, J. Rickertsen and M. Wells.**

Company/ Brand	Variety	Maturity		Plant Height (inch)	Test Weight (lb/bu)	Seed Oil (%)	Seed Protein (%)	Seed Yield	
		Group						2022	2-yr. Avg. (bu/a)
Integra	E0324	0.3		34	54.3	16.4	33.6	54.1	--
Integra	XF0212	0.2		39	53.9	16.5	34.5	52.6	--
NDSU	ND17009GT	00.9		34	57.6	17.0	35.7	48.2	44.4
NDSU	ND21008GT20	00.8		32	54.4	16.3	34.4	46.9	44.4
NDSU	ND2108GT73	0.8		35	55.6	16.5	34.5	61.3	54.8
REA	R00934XF	00.9		34	54.4	16.3	32.9	53.9	--
REA	R0112XF	0.1		40	53.8	16.6	33.9	50.1	--
REA	R0422XF	0.4		34	54.1	16.4	34.1	54.5	--
Xitavo	XO 0094E	0.0		30	54.5	16.6	34.1	49.3	--
Xitavo	XO 0213E	0.2		35	53.0	17.0	33.9	46.5	44.6
Xitavo	XO 0234E	0.2		32	55.3	16.4	34.6	54.9	--
Xitavo	XO 0311E	0.3		31	53.4	16.3	33.6	50.3	48.2
Xitavo	XO 0554E	0.5		30	54.6	16.9	32.8	61.5	--
Xitavo	XO 0602E	0.6		34	55.8	15.8	34.2	63.8	53.8
Xitavo	XO 0731E	0.7		35	55.7	16.3	34.6	60.4	54.3
Mean				34	54.9	16.5	34.2	53.3	50.0
CV %				5.1	0.7	1.9	1.4	7.4	--
LSD 0.05				2.0	0.5	0.4	0.6	4.7	--
LSD 0.10				1.6	0.4	0.3	0.5	3.7	--

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

Table 35. 2023 Soybean - Herbicide Resistant - Grand Forks County - Author, K. Landeis.

Brand	Variety	Maturity Group	Seed Oil (%)	Seed Protein (%)	Seed Yield	
					2023	2-yr. Avg. ------(bu/a)-----
Integra	E0324	0.3	19.8	33.6	43.0	--
Integra	E0544	0.5	20.3	32.3	46.5	--
Integra	XF0212	0.2	19.9	33.2	42.9	--
Integra	XF0493	0.4	20.1	33.2	49.4	--
Legacy	LS024-23 XF	0.2	20.1	34.7	37.9	--
Legacy	LS032-23 E	0.3	19.6	33.9	41.4	--
Legacy	LS044-23 XF	0.4	20.1	33.3	47.6	--
Legacy	LS052-23 E	0.5	20.4	32.7	46.8	--
Legacy	LS064-23 XF	0.6	19.1	34.6	46.9	--
NDSU	ND 17009 GT	00.9	19.3	34.6	38.4	40.9
NDSU	ND 21008 GT20	00.8	20.3	35.3	40.4	43.8
Proseed	EL 40-33N	0.3	19.8	33.6	40.2	--
Proseed	XF 30-42N	0.4	19.9	33.6	47.5	--
Proseed	XF30-52N	0.5	20.8	32.4	50.7	--
REA	R00934XF	00.9	19.9	33.1	41.0	--
REA	R0112XF	0.1	20.1	33.1	43.5	48.3
REA	R0422XF	0.4	20.1	33.2	44.6	49.4
REA	R0743XF	0.7	20.3	33.4	46.4	--
Mean			20.0	33.5	44.2	45.6
C.V. %			2.3	2.7	11.5	--
LSD 0.05			0.4	0.7	5.4	--
LSD 0.10			0.3	0.6	4.5	--

Planted: June 2. Harvested: Oct. 12.

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