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North Dakota Soybean

Variety Trial Results for 2024 and Selection Guide

Ana Carcedo, Carrie Miranda, Gustavo Kreutz, Ben Harms, Richard "Wade" Webster (North Dakota State University, Main Station); Mike Ostlie, Kristin Simons (Carrington Research Extension Center); Heidi Eslinger, Spencer Eslinger, Miguel Paniagua (Oakes Irrigation Research Site – CREC); Leandro Bortolon, Austin Kraklau, Jayden Hansen (North Central Research Extension Center); Bryan Hanson, Lawrence Henry, Richard Duerr (Langdon Research Extension Center); John Rickertsen (Hettinger Research Extension Center).

Variety trial data from all NDSU Research Extension Centers for all crops can be found at *www.ag.ndsu.edu/varietytrials* and the variety selection tool at *https://vt.ag.ndsu.edu/*.

Several herbicide traits are represented in the tables as the following: E = Enlist, RR = Roundup Ready, RRXT = RR2Xtend, F = Flex, X or XT = Xtend, GT = glyphosate tolerant, LL = Liberty Link.

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NDSU EXTENSION NDSU NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION

Fargo, North Dakota

In recent years, soybean production in North Dakota has seen significant growth with both planted acreage and yields steadily increasing. From 2020 to 2023, the state saw a consistent rise in production, with 2023 reaching a total of 2.19 million bushels from 6.2 million acres, yielding an average of 35.5 bushels per acre. This expansion is expected to continue with 6.65 million acres planted in 2024 producing 2.51 million bushels with a slight increase in average yield to 38 bushels per acre. Overall, North Dakota's soybean industry has flourished over the past decade with increasing efficiency and higher production.

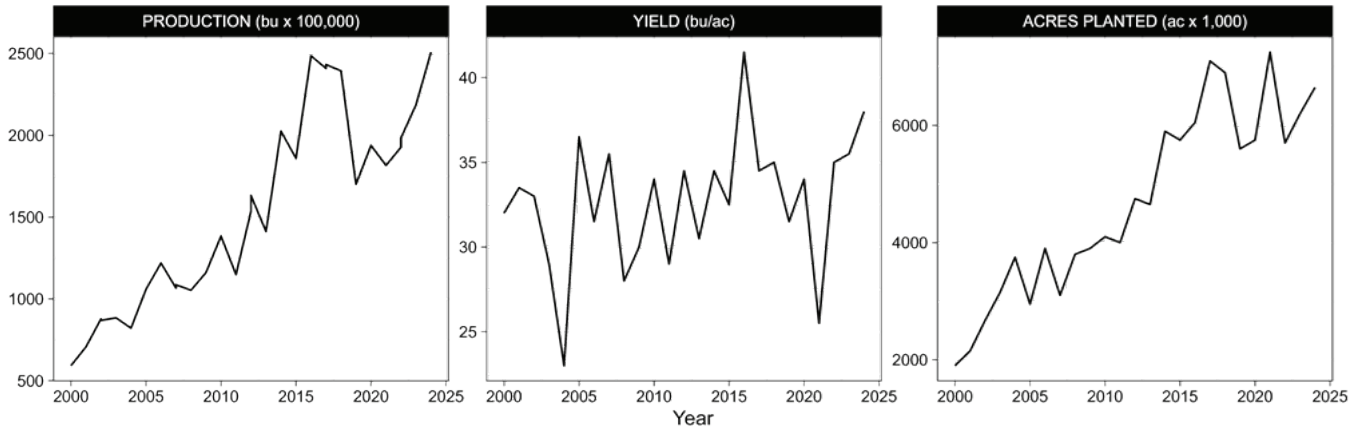


Figure 1. Soybean Production, Yield and Acres Planted in North Dakota from 2000 to 2024. Data from USDA-NASS.

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 numbers beneath the columns in tables are derived from the statistical analyses. If the difference between two varieties exceeds the LSD value, it means that with 95% or 90% probability (0.05 or 0.10 level), the higher-yielding variety has a significant yield advantage. If the difference between two varieties is less than the LSD value, then the variety yields are considered similar. The abbreviation NS is used to indicate "no significant difference" for that trait among any of the varieties. The coefficient of variation is a measure of variability in the trial and is expressed as a percentage. Large CVs mean a large amount of variation that could not be attributed to differences in the varieties. Only compare values within the table and look for trends for the desired trait among different experimental sites and years.

Selection

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.

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

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. 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 the mature color. Varieties may have a 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.

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.

P. 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 your 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 would include planting varieties with genetic resistance, the use of effective fungicide seed treatments, 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 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.

Iron-deficiency Chlorosis

Iron-deficiency chlorosis is a major problem in the eastern part of North Dakota. IDC 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 2022 season, IDC ratings are provided in Tables 3 and 4.

Soybean Cyst Nematode

Soybean cyst nematode, *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.

SCN 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, 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 here 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*.

Monitoring SCN egg levels by soil sampling is critical for evaluating how well your management strategies are working. In general, if egg levels remain approximately the same after a season of soybean, your 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.

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.

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

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

Company Name	Abbreviation	Website
AgriGold	AgriGold	https://agrigold.com/soybeans
Allegiant	Allegiant	https://www.allegiantseed.com/en/soybean
ATTAIN	ATTAIN	https://www.attainseed.com/en
BASF/ Xitavo	BASF	https://www.xitavosoybeanseed.com/
Bayer Crop Science	Bayer	https://www.cropscience.bayer.us/soybeans
Champion Seed	Champion	https://www.plantchampion.com/products/soybean/
Channel	Channel	https://www.cropscience.bayer.us/soybeans/channel/seed-catalog
Dahman Seed. Co.	Dahlman	https://www.dahlmanseed.com/product-category/soybeans/
Dak-Sota	Dak-Sota	https://thunderseed.com/crop/dak-sota-soybeans-us/
DuPont Pioneer	Pioneer	https://www.pioneer.com/us/products/soybeans
Dyna-Gro Seed	Dyna-Gro	https://dynagroseed.com/seed-finder/soybean
Fortus	Fortus	https://www.wilburellisagribusiness.com/fortus-seed/
Golden Harvest	Golden Harvest	https://www.goldenharvestseeds.com/soybeans
Integra Fortified Seed	Integra	https://www.wilburellisagribusiness.com/integra-seed/
Legacy Seeds	Legacy	https://legacyseeds.com/soybean/
LG Seeds	LG Seeds	https://lgseeds.com/products/soybeans
N.D. Foundation Seed	NDSU	https://www.ag.ndsu.edu/fss
P3 Genetics	P3 Genetics	https://www.petersonfarmsseed.com/products/soybeans/p3-soybeans
Peterson Farms Seed	Peterson	https://www.petersonfarmsseed.com/products/soybeans/
Proseed Inc.	Proseed	https://www.proseed.net/products/soybeans
Richland IFC	Richland	https://www.richlandifc.com/products/soybeans/
Syngenta NK Brand	NK Seeds	https://www.syngenta-us.com/soybeans/nk
Thunder Seed Inc.	Thunder	https://thunderseed.com/crop/thunder-soybeans-us

Table 3. Soybean variety trial results from Enlist, GT27, RR and Xtend Soybean Varieties - Iron-deficiency Chlorosis Trial. Data from C. Miranda, G. Kreutz, and B. Harms.

NDSU Enlist, GT27, RR and Xtend Soybean Iron-deficiency Chlorosis Trial.

		IDC score			
Company	Variety	Erie	Arthur	Garborg	Average
AgriGold	G0431E3	1.1	1.9	2.9	2.0
AgriGold	G1055E3	1.3	3.1	3.6	2.7
AtriGold	G0894E3	1.0	1.3	3.0	1.8
BASF	XO 0094E	1.3	2.8	3.5	2.5
BASF	XO 0234E	1.0	2.1	4.0	2.4
BASF	XO 0554E	1.0	1.8	3.6	2.1
BASF	XO 0602E	1.5	2.7	3.6	2.6
BASF	XO 0731E	1.1	2.0	4.0	2.4
BASF	XO 0993E	1.0	2.3	3.8	2.4
BASF	XO 1372	1.0	1.7	4.0	2.2
Bayer	A01E34/CT0124E	1.0	1.1	4.1	2.1
Bayer	A03E34/CT0324E	1.2	1.6	4.0	2.3
Bayer	A06E33/CT0623E	1.0	2.1	4.1	2.4
Bayer	A10E35/CT1025E	1.1	2.0	4.3	2.4
Bayer	A12E33/CT1223E	1.1	2.4	3.9	2.5
Bayer	A13E35/CT1325E	1.1	1.3	4.1	2.2
Bayer	A14E35	1.1	2.0	4.1	2.4
Bayer	A15E33/CT1523E	1.2	2.7	3.9	2.6
Bayer	A15E35/CT1525E	1.0	3.1	3.6	2.5
Bayer	AG007XF5	1.0	1.6	3.8	2.2
Bayer	AG02XF5	1.2	1.5	3.3	2.0
Bayer	AG12XF5	1.1	1.8	4.2	2.4
Champion	00704EN	1.0	2.1	4.0	2.4
Champion	0143EN	1.1	1.8	4.2	2.3
Champion	0165XL	1.1	1.3	3.4	1.9
Champion	0275EN	1.0	1.6	3.7	2.1
Champion	0425XL	1.0	1.7	3.4	2.0
Champion	0485EN	1.4	2.5	3.8	2.5
Champion	0494EN	1.0	1.4	4.1	2.2
Champion	0645EN	1.3	1.3	3.6	2.0
Champion	0784EN	1.3	1.4	3.7	2.1
Champion	0995EN	1.0	1.8	3.6	2.2
Champion	1305EN	1.0	2.5	4.1	2.5
Champion	1435EN	1.1	2.1	3.9	2.3
Channel	00924RXF	1.0	2.4	3.8	2.4
Channel	0122RXF	1.0	1.7	3.7	2.1
Channel	0218R2X	1.0	1.4	2.9	1.8
Channel	0225RXF	1.0	1.6	3.9	2.2
Channel	0325RXF	1.0	1.9	3.0	2.0
Channel	0423RXF	1.0	1.3	3.5	1.9
Channel	0525RXF	1.0	1.4	3.7	2.0
Channel	0823RXF	1.1	1.3	3.4	2.0
Channel	0924RXF	1.1	1.9	3.9	2.3
Channel	1024RXF	1.0	1.9	3.6	2.2
Channel	1125RXF	1.1	1.4	3.8	2.1
Mean		1.1	1.9	3.6	2.2
C.V. %		22.5	39	19.1	27
LSD 5%		0.3	1	1	0.5

Table 3. Soybean variety trial results from Enlist, GT27, RR and Xtend Soybean Varieties - Iron-deficiency Chlorosis Trial. Data from C. Miranda, G. Kreutz, and B. Harms. (continuation)

NDSU Enlist, GT27, RR and Xtend Soybean Iron-deficiency Chlorosis Trial

		IDC score			
Company	Variety	Erie	Arthur	Garborg	Average
Channel	1224RXF	1.0	1.1	3.8	2.0
Channel	1524RXF	1.0	1.4	2.9	1.8
Dahlman	7304XF	1.0	1.8	2.9	1.9
Dahlman	74009XF	1.0	2.4	3.8	2.4
Dahlman	7401XF	1.0	1.8	3.4	2.0
Dahlman	7504XF	1.0	2.3	3.3	2.2
Dahlman	7508XF	1.0	1.9	3.3	2.0
Dahlman	AE00940	1.0	1.9	3.4	2.1
Dahlman	AE0350	1.5	1.9	3.9	2.4
Dahlman	AE0541	1.1	1.8	3.1	2.0
Dyna-Gro	S01XF25	1.0	1.5	3.4	2.0
Dyna-Gro	S07EN45	1.2	2.9	4.3	2.8
Dyna-Gro	S09XF55	1.1	1.8	3.8	2.2
Legacy	LS012-23 E	1.0	2.1	4.0	2.4
Legacy	LS014-23 XF	1.0	1.1	3.2	1.8
Legacy	LS022-24 E	1.0	1.4	3.8	2.1
Legacy	LS024-23 XF	1.0	2.2	3.5	2.2
Legacy	LS032-23E	1.3	2.0	4.1	2.5
Legacy	LS034-24 XF	1.0	1.6	2.4	1.7
Legacy	LS044-23 XF	1.0	1.3	3.1	1.8
Legacy	LS052-23E	1.0	2.1	4.3	2.5
Legacy	LS052-24 E	1.1	2.2	3.6	2.3
Legacy	LS072-21 E	1.1	2.3	3.7	2.4
Legacy	LS074-22 XF	1.0	2.8	3.5	2.4
Legacy	LS082-24	1.0	1.4	2.5	1.7
Legacy	LS094-24 XF	1.0	1.8	3.3	2.0
Legacy	LS102-22 E	1.2	2.1	3.8	2.3
Legacy	LS104-24 XF	1.0	2.1	3.6	2.2
Legacy	LS124-23 XF	1.0	2.3	3.4	2.2
Legacy	LS132-24 E	1.1	1.5	4.2	2.3
LG Seeds	LGS00901E3	1.1	1.6	3.7	2.2
LG Seeds	LGS0105E3	1.0	2.3	3.9	2.4
LG Seeds	LGS0139XF	1.0	1.4	3.4	1.9
LG Seeds	LGS0444XF	1.1	1.3	2.3	1.6
NDSU	Traill	1.1	1.6	2.4	1.7
NDSU	ND Benson	1.0	1.6	3.1	1.9
NDSU	ND Rolette	1.0	1.6	2.4	1.7
NDSU	ND Stutsman	1.2	1.8	3.3	2.1
NDSU	ND21008GT20	1.1	1.3	3.1	1.8
NK Seeds	NK04-A9E3	1.1	3.2	4.1	2.8
NK Seeds	NK06-A1E3	1.0	2.5	4.2	2.6
NK Seeds	NK06-C4XF	1.0	1.9	3.7	2.2
NK Seeds	NK07-G5E3	1.0	1.2	4.1	2.1
Mean		1.1	1.9	3.6	2.2
C.V. %		22.5	39	19.1	27
LSD 5%		0.3	1	1	0.5

Table 3. Soybean variety trial results from Enlist, GT27, RR and Xtend Soybean Varieties - Iron-deficiency Chlorosis Trial. Data from C. Miranda, G. Kreutz, and B. Harms. (continuation)

NDSU Enlist, GT27, RR and Xtend Soybean Iron-deficiency Chlorosis Trial.

		IDC score			
Company	Variety	Erie	Arthur	Garborg	Average
NK Seeds	NK08-R3XF	1.0	2.0	3.7	2.2
NK Seeds	NK08-Z4E3	1.0	1.7	3.5	2.1
P3 Genetics	2003E	1.3	2.4	3.6	2.5
P3 Genetics	2106E	1.0	1.3	4.1	2.1
P3 Genetics	2108E	1.0	1.6	3.9	2.2
P3 Genetics	2201E	1.1	2.0	4.3	2.5
P3 Genetics	2207E	1.1	1.9	4.3	2.4
P3 Genetics	2212E	1.3	2.0	3.6	2.3
P3 Genetics	2304E	1.0	1.8	3.4	2.0
P3 Genetics	2309E	1.0	2.1	4.1	2.4
P3 Genetics	2311E	1.3	1.5	4.4	2.4
P3 Genetics	24009E	1.3	1.9	3.9	2.4
P3 Genetics	2401E	1.3	2.2	4.3	2.6
P3 Genetics	2405E	1.3	2.8	3.4	2.5
P3 Genetics	2406E	1.0	2.3	3.7	2.3
P3 Genetics	2414E	1.0	2.1	3.0	2.0
P3 Genetics	2510E	1.1	2.1	4.0	2.4
P3 Genetics	2511E	1.2	2.5	3.9	2.5
Peterson	19EN04	1.0	1.8	3.9	2.2
Peterson	21XF07	1.1	1.4	3.6	2.0
Peterson	22XF03	1.0	2.2	3.1	2.1
Peterson	22XF06	1.3	1.9	3.7	2.3
Peterson	22XF14	1.3	1.9	4.0	2.4
Peterson	23XF01	1.1	1.3	2.6	1.7
Peterson	23XF09	1.0	2.0	3.9	2.3
Peterson	24XF01	1.0	1.8	3.6	2.2
Peterson	24XF04	1.2	1.6	2.6	1.8
Peterson	24XF07	1.3	2.1	3.7	2.4
Peterson	25EN13	1.4	2.2	4.2	2.6
Peterson	25XF007	1.0	1.9	3.1	2.0
Peterson	25XF05	1.0	1.9	3.8	2.2
Peterson	25XF10	1.0	2.6	3.8	2.5
Peterson	25XF13	1.0	1.7	3.9	2.2
Peterson	X25EN05	1.1	1.1	3.1	1.8
Peterson	X25EN07	1.3	1.6	3.8	2.2
Peterson	X25EN09	1.1	1.7	3.5	2.1
Pioneer	P007Z45E	1.0	1.3	2.5	1.6
Pioneer	P009Z94E	1.2	2.7	3.6	2.5
Pioneer	P02Z34E	1.0	1.9	3.9	2.3
Pioneer	P04A98E	1.3	1.5	3.7	2.2
Pioneer	P04Z49E	1.4	2.3	4.0	2.6
Pioneer	P06Z90E	1.1	2.4	2.9	2.1
Pioneer	P08A44E	1.0	1.7	4.0	2.2
Pioneer	P09Z79E	1.0	1.4	4.3	2.2
Pioneer	P11Z72E	1.1	1.6	3.4	2.0
Mean		1.1	1.9	3.6	2.2
C.V. %		22.5	39	19.1	27
LSD 5%		0.3	1	1	0.5

Table 3. Soybean variety trial results from Enlist, GT27, RR and Xtend Soybean Varieties - Iron-deficiency Chlorosis Trial. Data from C. Miranda, G. Kreutz, and B. Harms. (continuation)

NDSU Enlist, GT27, RR and Xtend Soybean Iron-deficiency Chlorosis Trial.

		IDC score			
Company	Variety	Erie	Arthur	Garborg	Average
Pioneer	P13Z28E	1.0	1.7	4.2	2.3
Pioneer	P14Z67E	1.1	2.3	4.3	2.5
Proseed	EL50-063N	1.3	2.7	3.8	2.6
Proseed	EL50-13N	1.0	1.6	3.9	2.2
Proseed	EL50-33N	1.2	1.9	3.3	2.2
Proseed	EL50-73N	1.4	2.7	3.9	2.7
Proseed	EL51-03N	1.0	1.9	3.3	2.1
Proseed	EL51-33N	1.2	1.5	4.3	2.3
Proseed	XF50-52N	1.2	2.4	4.0	2.5
Proseed	XF50-62N	1.0	2.1	3.1	2.1
Proseed	XF50-82N	1.0	1.9	2.4	1.8
Proseed	XF51-02N	1.0	1.3	4.1	2.1
Proseed	XT80-20N	1.0	1.1	2.6	1.6
Stine	008EH23	1.2	2.5	3.2	2.3
Stine	009EG32	1.2	1.3	3.3	1.9
Stine	01EG23	1.1	1.4	3.8	2.1
Stine	01EH32	1.0	1.6	3.9	2.2
Stine	02EH62	1.3	1.3	3.9	2.2
Stine	03EB02	1.2	1.3	3.8	2.1
Stine	03EH02	1.0	1.7	4.3	2.3
Stine	05EG26	1.0	2.1	3.8	2.3
Stine	08EC32	1.3	1.9	4.1	2.4
Stine	08EG62	1.1	1.6	3.4	2.0
Stine	08EH62	1.1	2.5	4.3	2.6
Stine	09EH20	1.0	1.2	3.9	2.0
Stine	10EF23	1.3	2.8	4.0	2.7
Stine	10EG20	1.3	1.6	4.4	2.4
Stine	10EH02	1.0	2.0	4.0	2.3
Stine	10FF62	1.0	2.6	4.0	2.5
Stine	11EH06	1.3	2.2	4.1	2.5
Stine	12EE63	1.0	2.7	3.9	2.5
Stine	12EG32	1.0	2.9	3.4	2.4
Stine	12EH02	1.4	2.9	4.4	2.9
Stine	13EG23	1.1	3.1	3.3	2.5
Stine	13EH62	1.1	1.2	3.6	2.0
Mean		1.1	1.9	3.6	2.2
C.V. %		22.5	39	19.1	27
LSD 5%		0.3	1	1	0.5

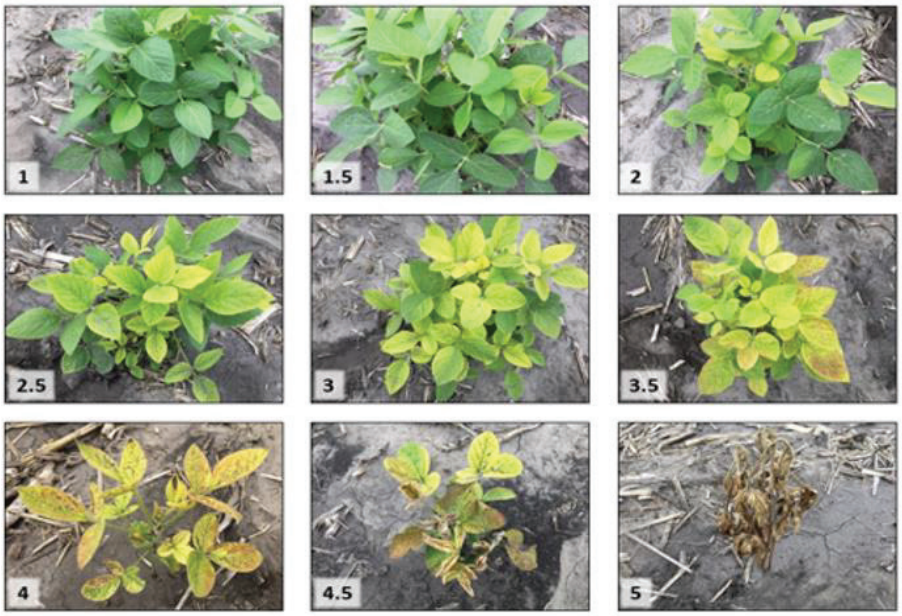
[1]IDC score was 1-5, with 1-green, 3-yellow, 5-dead tissue.

Table 4. Soybean variety trial results from Conventional Soybean varieties - Iron-deficiency Chlorosis Trial. Data from C. Miranda, G. Kreutz, and B. Harms.

NDSU Conventional Soybean Iron-deficiency Chlorosis Trial

		IDC score			
Company	Variety	Erie	Arthur	Garborg	Average
NDSU	Traill	1.3	1.6	3.7	2.2
NDSU	ND Benson	1.1	1.5	4.0	2.2
NDSU	ND Rolette	1.2	1.8	3.4	2.2
NDSU	ND Stutsman	1.1	1.5	3.9	2.2
NDSU	ND21008GT20	1.1	2.0	4.1	2.4
Peterson	Hana	1.3	1.7	4.2	2.4
Peterson	Aya	1.2	1.6	3.9	2.2
Peterson	Wilma	1.3	2.5	4.0	2.6
Peterson	Zeta	1.2	3.1	4.0	2.8
Proseed	PC 50-099	1.1	2.2	4.2	2.5
Proseed	PC 50-59	1.2	1.5	3.8	2.2
Proseed	PC 50-89	1.1	2.4	4.2	2.5
Richland	MK009	1.0	1.8	4.2	2.3
Richland	MK0249	1.2	1.8	4.2	2.4
Richland	MK0603	1.2	1.8	4.1	2.4
Richland	MK808CN	1.3	2.1	4.3	2.5
Richland	MK1023	1.1	2.0	3.8	2.3
Richland	MK41	1.3	1.4	4.3	2.3
Richland	MK146	1.3	1.9	3.6	2.2
Mean		1.2	1.9	3.9	2.3
C.V. %		22.5	38.6	10.1	20.7
LSD 5%		0.3	1.0	0.6	0.4

[1] *IDC 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. Soybean variety trial results from NDSU Soybean Cyst Nematode Yield Trials. Data from R.W. Webster, C. Miranda, G. Kreutz, and B. Harms.

NDSU Soybean Cyst Nematode Yield Trials.

Brand	Variety	Trait	Maturity Group	Maturity[1] date	Days to Maturity	Oil	Protein	Yield	
								Absaraka	Colfax[2]
					(days)	(%)	(%)	(bu/a)	
NDSU	ND21008GT20	GT	00.8	10/3	113	--	--	24.4	--
NDSU	ND17009GT	GT	00.9	10/2	112	19.0	37.1	22.8	--
NDSU	ND2108GT73	GT	0.8	10/7	117	19.1	35.0	26.0	--
BASF	XO 0094E	Enlist E3	00.9	10/8	118	18.3	35.8	34.5	--
BASF	XO 0234E	Enlist E3	0.2	10/7	117	18.0	37.0	31.8	--
BASF	XO 0554E	Enlist E3	0.5	10/13	123	18.9	36.0	34.7	--
BASF	XO 0602E	Enlist E3	0.6	10/9	119	17.8	36.6	45.6	--
BASF	XO 0731E	Enlist E3	0.7	10/4	114	18.5	36.5	51.6	--
BASF	XO 0993E	Enlist E3	0.9	10/9	119	19.4	34.6	47.3	--
BASF	XO 1372	Enlist E3	1.3	10/16	126	19.4	35.7	42.1	--
Mean				10/7	115	18.7	36.0	37.5	--
C.V. %				19.4	5.8	2.8	2.7	35.0	--
LSD 5%				6.9	6.9	0.4	0.9	16.0	--

Abasaraka Planted: June 12. Harvested: Oct 18. Previous crop: Wheat. Base SCN counts were 452 eggs/100cc.

Colfax Planted: June 12. Harvested: Oct 17. Previous crop: Soybean. Base SCN counts were 1,552 eggs/100cc

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

[2] Colfax location had severe iron deficiency chlorosis which resulted in many plots having no harvestable grain.

ND21008GT20 has missing seed oil and protein due to low yield.

Table 6. Soybean variety trial results from varieties with Enlist, GT27, RR and Xtend traits, Central Locations in North Dakota. Data from C. Miranda, G. Kreutz, and B. Harms.

Soybean Enlist, GT27, RR and Xtend **Central Locations in North Dakota**

									Yield		
Brand	Variety	Herbicide Trait	Maturity Group	Maturity[1,2] date	Days to Maturity	Plant Height	Oil	Protein	Arthur[2]	Galesburg	2-site Avg.	2-yr. Avg.
					(days)*	(inch)	(%)	(%)	----------(bu/a)----------			
BASF	XO 0094E	Enlist E3	0	9/20	112	28	18.3	34.4	18.3	53.6	35.9	39.4
BASF	XO 0234E	Enlist E3	0.2	9/22	114	27	17.9	35.9	23.1	51.7	37.4	43.4
Legacy	LS012-23 E	Enlist E3	0.1	9/23	114	28	17.6	36.2	24.5	57.9	41.2	46.9
Legacy	LS014-23 XF	RR2XF	0.1	9/19	111	29	18.9	33.6	19.0	46.3	32.6	40.5
Legacy	LS022-24 E	Enlist E3	0.2	9/20	112	30	17.9	35.5	22.5	54.6	38.6	--
Legacy	LS024-23 XF	RR2XF	0.2	9/20	111	29	19.2	35.5	17.4	49.6	33.5	37.0
Legacy	LS032-23E	Enlist E3	0.3	9/22	113	28	18.2	35.2	20.9	53.4	37.1	44.7
NDSU	ND17009GT	GT	00.9	9/19	111	34	18.3	37.3	17.2	47.1	32.1	35.5
NDSU	ND21008GT20	GT	00.8	9/15	107	29	18.3	35.2	10.7	41.2	26.0	29.0
NDSU	ND2108GT73	GT	0.8	9/28	119	29	18.7	35.0	11.0	54.9	32.9	32.0
Proseed	EL40-33N	Enlist E3	0.3	9/23	115	28	18.1	35.0	30.7	54.2	42.5	47.6
Proseed	EL50-13N	Enlist E3	0.1	9/19	111	28	17.8	35.7	28.6	52.3	40.4	--
Proseed	EL50-33N	Enlist E3	0.3	9/22	113	27	18.5	33.9	23.5	56.8	40.1	--
Mean				9/20	112	29	18.3	35.3	20.6	51.8	36.2	39.6
C.V. %				10.9	2.0	9.4	1.2	1.1	44.4	11.7	21.3	--
LSD 5%				0.8	1	5	0.4	0.6	14.5	9.8	2.9	--

Arthur Planted: June 10. Harvested: Oct 1. Previous crop: Corn.

Galesburg Planted: May 22. Harvested: Oct 4. Previous crop: Corn.

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

[2] *Arthur was affected by external factors that affected plant performance and resulted in higher CV*

Arthur was excluded from plant height due to stunted plants, high CV

Arthur was excluded from protein and oil due to lack of sufficient seed amount

Table 7. Soybean variety trial results from Conventional Varieties and Liberty Link Soybean Varieties, Central Locations in North Dakota. Data from C. Miranda, G. Kreutz, and B. Harms.

Soybean Conventional and Liberty Link											**Central Locations in North Dakota**
		Maturity	Maturity[1]	Days to	Plant			Yield			
Brand	Variety	Group	date	Maturity	Height	Oil	Protein	Arthur[2]	Galesburg	2-site Avg.	2-yr. Avg.
				(days)*	(inch)	(%)	(%)	----------(bu/a)----------			
NDSU	ND Benson	0.4	9/20	112	21	17.9	37.6	12.0	38.5	25.3	32.5
NDSU	ND Dickey	0.7	9/23	114	23	18.0	35.4	20.7	50.3	35.5	40.7
NDSU	ND Rolette	00.9	9/16	108	20	18.7	35.3	12.4	34.0	23.2	29.3
Peterson	AYA	0.7	9/22	114	24	16.8	38.0	28.7	33.4	31.1	--
Peterson	Hana	0.9	9/17	109	24	16.8	39.3	21.4	35.7	28.5	33.6
Proseed	PC 50-099	0.9	9/17	109	30	17.5	37.7	24.8	36.0	30.4	--
Richland	MK009	00.9	9/19	110	23	17.6	34.6	18.9	33.6	26.2	29.3
Richland	MK0249	0.2	9/20	111	18	18.2	34.9	8.8	26.8	17.8	22.7
Mean			9/19	111	23	17.7	36.6	18.5	36.0	27.3	31.3
C.V. %			7.75	1.4	11.1	1.8	2.2	31.0	16.8	21.3	--
LSD 5%			0.64	1	4	0.6	1.4	8.4	10.4	2.4	--

Arthur Planted: June 10. Harvested: Oct 1. Previous crop: Corn.
Galesburg Planted: May 22. Harvested: Oct 4. Previous crop: Corn.
[1] Maturity is date of 95% brown or tan pods.
[2] Arthur was affected by external factors that affected plant performance and resulted in higher CV. Arthur was excluded from plant height due to stunted plants, high CV. Arthur was excluded from protein and oil due to lack of sufficient seed amount
** Days after planting*

Table 8. Soybean variety trial results from Conventional Varieties and Liberty Link Soybean Varieties, Southern Locations in North Dakota. Data from C. Miranda, G. Kreutz, and B. Harms.

Soybean Conventional and Liberty Link											**Southern Locations in North Dakota**
		Maturity	Maturity[1]	Days to	Plant	Seed	Seed	Yield			
Brand	Variety	Group	(date)	Maturity	Height	Oil	Protein	Antelope[2]	Milnor	2-site Avg.	2-yr. Avg.
				(days)*	(inch)	(%)	(%)	----------(bu/a)----------			
NDSU	ND Benson	0.4	9/19	114	29	18.7	36.1	36.2	33.8	48.1	47.4
NDSU	ND Dickey	0.7	9/25	120	27	18.9	34.0	32.5	32.8	46.8	47.3
NDSU	ND Rolette	00.9	9/16	111	26	19.6	33.7	28.9	30.3	39.3	40.6
Peterson	AYA	0.7	9/23	118	29	18.0	36.3	29.0	33.7	40.4	--
Peterson	WILMA	1.0	9/29	124	29	18.2	35.6	33.9	36.5	46.1	--
Peterson	ZETA	1.3	10/1	126	29	19.6	34.3	32.6	36.0	50.8	--
Proseed	PC 50-59	0.5	9/24	119	29	17.7	36.6	32.4	34.3	45.9	--
Proseed	PC 50-89	0.8	9/27	122	32	18.3	35.5	49.0	37.8	57.8	--
Richland	MK0603	0.6	9/22	117	28	17.5	34.5	32.2	35.3	45.1	42.8
Richland	MK1023	1.0	9/24	119	28	18.5	33.3	29.7	34.5	43.8	44.3
Richland	MK146	1.1	9/30	125	29	18.4	36.6	46.0	33.2	53.9	50.0
Richland	MK41	1.1	9/21	116	31	17.8	36.8	42.2	37.8	50.6	47.9
Richland	MK808CN	0.8	9/27	122	27	20.2	33.3	29.5	32.5	45.7	47.8
Mean			9/24	119	29	18.6	35.1	34.9	34.5	47.3	46.0
C.V. %			9.4	1.9	8.2	1.2	1.1	15.8	8.0	12.0	--
LSD 5%			0.8	1	1	0.1	0.1	8.8	4.5	2.0	--

Antelope Planted: May 31. Harvested: Oct 5. Previous crop: Corn.
Milnor Planted: May 29. Harvested: Oct 6. Previous crop: Soybean.
[1] Maturity is date of 95% brown or tan pods.
[2] Antelope was affected by excessive soil moisture in early stages of the crop, resulting
** Days after planting*

Table 9. Soybean variety trial results from varieties with NDSU Enlist, GT27, RR and Xtend traits, Southern Locations in North Dakota. Data from, C. Miranda, G. Kreutz, and B. Harms.

Soybean Enlist, GT27, RR and Xtend **Southern Locations in North Dakota**

Brand	Variety	Trait	Maturity Group	Maturity[1] date	Days to Maturity	Plant Height	Oil	Protein	Yield			
									Antelope[2]	Milnor	2-site Avg.	2-yr. Avg.
					(days)*	(inch)	(%)	(%)	(bu/a)			
BASF	XO 0554E	Enlist E3	0.5	9/29	124	23	19.3	34.2	36.9	67.9	52.4	55.2
BASF	XO 0602E	Enlist E3	0.6	9/28	123	23	18.5	34.7	36.6	57.5	47.0	54.4
BASF	XO 0731E	Enlist E3	0.7	10/1	126	24	18.9	35.0	34.8	67.1	51.0	54.8
BASF	XO 0993E	Enlist E3	0.9	9/30	125	24	19.8	33.0	36.2	61.2	48.7	55.1
BASF	XO 1372	Enlist E3	1.3	9/33	128	23	20.3	33.1	27.4	56.7	42.1	52.4
Legacy	LS044-23 XF	XtendFlex	0.4	9/23	118	25	19.2	34.7	31.6	65.3	48.5	50.2
Legacy	LS052-23E	Enlist E3	0.5	9/26	121	27	19.4	33.9	42.8	66.9	54.9	58.0
Legacy	LS052-24 E	Enlist E3	0.5	9/24	119	24	20.2	32.9	42.2	57.9	50.0	--
Legacy	LS074-22 XF	XtendFlex	0.7	9/30	125	22	19.1	33.8	17.3	53.2	35.3	46.1
Legacy	LS082-24	Enlist E3	0.8	9/27	122	27	19.8	33.6	49.4	61.6	55.5	--
Legacy	LS094-24 XF	XtendFlex	0.9	9/30	125	25	18.7	35.3	27.2	56.6	41.9	--
Legacy	LS102-22 E	Enlist E3	1.0	10/2	127	25	19.0	34.9	39.5	57.4	48.5	56.3
Legacy	LS104-24 XF	XtendFlex	1.0	9/29	124	28	19.4	33.5	38.4	61.3	49.9	--
Legacy	LS124-23 XF	XtendFlex	1.2	9/29	124	26	19.4	34.5	48.5	58.9	53.7	56.3
Legacy	LS132-24 E	Enlist E3	1.3	9/30	125	26	20.2	34.3	39.8	66.1	52.9	--
NDSU	ND17009GT	GT	00.9	9/20	115	25	18.5	36.5	21.8	35.4	28.6	38.9
NDSU	ND21008GT20	GT	00.8	9/17	112	20	19.4	33.7	18.1	36.0	27.1	33.7
NDSU	ND2108GT73	GT	0.8	9/30	125	22	18.8	34.2	20.4	56.9	38.7	47.0
NK Seeds	NK04-A9E3	Enlist E3	0.4	9/25	120	22	19.3	34.0	34.6	58.7	46.7	--
NK Seeds	NK06-A1E3	Enlist E3	0.6	9/25	120	25	19.9	33.7	44.4	61.2	52.8	--
NK Seeds	NK06-C4XF	XtendFlex	0.6	9/24	119	25	18.5	33.4	37.0	68.0	52.5	--
NK Seeds	NK07-G5E3	Enlist E3	0.7	9/26	121	24	19.2	33.4	41.2	64.6	52.9	57.9
NK Seeds	NK08-R3XF	XtendFlex	0.8	9/30	125	25	19.2	35.1	28.3	61.3	44.8	--
NK Seeds	NK08-Z4E3	Enlist E3	0.8	9/28	123	26	17.9	35.4	35.5	64.9	50.2	--
Proseed	EL50-73N	Enlist E3	0.7	10/1	126	24	19.3	32.8	38.5	57.1	47.8	--
Proseed	EL51-03N	Enlist E3	1.0	10/1	126	26	19.4	34.9	39.7	61.3	50.5	--
Proseed	EL51-33N	Enlist E3	1.3	10/1	126	28	18.7	34.7	43.8	60.9	52.4	--
Proseed	XF50-52N	XtendFlex	0.5	9/26	121	24	18.3	35.8	32.8	56.9	44.9	--
Proseed	XF50-62N	XtendFlex	0.6	9/24	119	27	20.7	31.5	44.2	55.7	50.0	--
Proseed	XF50-82N	XtendFlex	0.8	9/24	119	23	19.5	34.0	31.5	59.5	45.5	--
Proseed	XF51-02N	XtendFlex	1.0	9/30	125	29	19.3	33.7	35.0	62.0	48.5	--
Mean				10/1	122	25	19.3	34.1	35.3	59.2	47.3	51.1
C.V. %				11.3	2.4	10.2	1.4	1.5	29.2	14.2	19.8	--
LSD 5%				0.8	1	1	0.1	0.1	15.8	12.9	2.3	--

Antelope Planted: June 6. Harvested: Oct 16. Previous crop: Corn.

Milnor Planted: May 14. Harvested: Sep 28. Previous crop: Soybean.

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

[2] Antelope was affected by excessive soil moisture in early stages of the crop, resulting

ND17009GT, ND2108GT73, LS074-22 XF had missing Seed Oil and Protein data from Antelope, so only Milnor averages were used

Table 10. Soybean variety trial results from varieties with RR2XF, Enlist and GT traits. Data from Langdon REC.

Soybean - RR2XF, Enlist and GT **Langdon**

Brand	Variety	Herbicide Trait	Maturity Group[1]	Maturity date[2]	Plant Height	Oil	Protein	Yield 2024	Yield 2-yr Avg
					(inch)	(%)	(%)	------(bu/a)-----	
Allegiant	009F23	RR2XF	00.9	9/24	27	15.5	34.5	59.3	--
Allegiant	01F24N	RR2XF	0.1	9/25	32	14.6	34.8	55.1	--
ATTAIN	01A5N	Enlist E3	0.1	9/24	28	15.4	35.0	65.5	--
Channel	00924RXF	RR2XF	00.9	9/24	30	15.0	33.0	56.6	--
Channel	0225RXF	RR2XF	0.2	9/27	31	14.9	34.1	62.9	--
Dyna-Gro	S01XF25	RR2XF	0.1	9/25	32	14.8	34.6	61.5	--
Fortus	0084E	Enlist E3	00.9	9/25	30	15.5	34.5	68.6	--
Fortus	0089E	Enlist E3	00.8	9/25	32	15.6	33.8	59.5	--
Fortus	0165E	Enlist E3	0.1	9/25	30	15.1	35.5	64.6	--
Golden Harvest	GH00864XF	RR2XF	00.8	9/23	29	15.2	34.6	63.2	46.6
Golden Harvest	GH00973E3	Enlist E3	00.9	9/24	29	14.9	35.3	69.2	50.9
Golden Harvest	GH0225XF	RR2XF	0.2	9/26	31	15.4	34.4	60.1	--
Golden Harvest	GH0295E3	Enlist E3	0.2	9/26	29	15.2	35.9	71.7	--
Integra	XF0063	RR2XF	00.6	9/21	26	15.6	33.7	52.7	43.6
Integra	XF0082	RR2XF	00.9	9/25	28	15.4	34.5	49.5	41.0
Legacy	LS0068-23 XF	RR2XF	00.6	9/23	32	15.3	32.9	60.3	46.5
Legacy	LS088-23 E	Enlist E3	00.8	9/25	30	15.2	34.5	70.4	52.2
Legacy	LS0098-23 XF	RR2XF	00.9	9/24	31	15.8	34.0	69.4	52.1
Legacy	LS012-23 E	Enlist E3	0.1	9/26	29	15.3	35.8	68.4	51.4
Legacy	LS014-23 XF	RR2XF	0.1	9/25	33	15.1	34.5	58.8	46.1
Legacy	LS022-24 E	Enlist E3	0.2	9/27	29	14.9	35.2	63.5	--
Legacy	LS024-23 XF	RR2XF	0.2	9/26	32	16.0	35.0	58.1	43.7
Legacy	LS034-24 XF	RR2XF	0.2	9/28	34	15.7	34.4	71.7	--
NDSU	ND17009GT	GT	00.9	9/23	32	16.1	36.5	48.5	38.8
NDSU	ND21008GT20	GT	00.8	9/22	32	15.2	35.4	54.5	41.5
Proseed	EL 40-093N	Enlist E3	00.9	9/25	28	15.3	35.0	66.6	47.6
Proseed	EL 50-063N	Enlist E3	00.6	9/20	25	14.7	37.2	63.2	--
Proseed	XF 30-062	RR2XF	00.6	9/19	27	15.6	33.5	56.5	44.3
Proseed	XF 30-092N	RR2XF	00.9	9/25	29	15.7	33.7	66.0	50.2
Proseed	XF 40-12	RR2XF	0.1	9/25	31	14.6	34.7	56.7	47.1
Thunder Seed	DE54007	Enlist E3	00.7	9/25	30	15.4	34.8	66.5	--
Thunder Seed	TE71008N	Enlist E3	00.8	9/26	31	15.2	34.2	59.2	--
Thunder Seed	TE7502N	Enlist E3	0.2	9/25	30	14.9	35.8	75.1	--
Thunder Seed	TX82008N	RR2XF	00.8	9/24	30	15.3	34.5	62.2	--
Thunder Seed	TX8402N	RR2XF	0.2	9/24	32	14.5	35.2	55.7	46.4
Thunder Seed	TX85008	RR2XF	00.8	9/21	30	14.9	35.0	62.1	--
BAFT	XO 0094E	Enlist E3	0.0	9/26	30	15.6	34.3	65.7	51.6
BAFT	XO 0234E	Enlist E3	0.2	9/26	29	15.3	35.6	67.9	51.0
Mean				9/24	29.9	15.3	34.7	61.8	
C.V. %				1.1	6.1	1.5	1.2	6.3	
LSD 10%				1.6	2.2	0.4	0.7	4.6	

Planting Date: May 27 *Harvest Date: October 7* *Previous Crop: Barley*

Soil Type: Svea-Barnes loam

[1] *Maturity Group provided by company*

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

Data includes only released varieties. Experimental lines are not included. Statistics reflect the entire trial.

Table 11. Soybean variety trial results from conventional varieties. Data from Langdon REC.

Soybean - Conventional									**Langdon**
		Maturity	Maturity	Plant			Yield		
Brand	Variety	Group[1]	Date[2]	Height	Oil	Protein	2024	2 yr Avg.	2-site Avg.[3]
				(inch)	(%)	(%)	----------(bu/a)----------		
Legacy	LS0090-20C	00.7	9/22	28	15.6	38.2	54.7	40.9	48.7
Legacy	LSX020-23C	0.2	9/23	32	15.6	36.7	57.3	47.8	55.3
NDSU	ND Benson	0.4	9/29	33	15.7	35.4	58.4	46.2	61.2
NDSU	ND Rolette	00.9	9/23	30	15.9	34.1	60.3	47.8	61.1
Peterson	HANA	00.9	9/25	31	14.9	38.2	63.0	--	61.0
Proseed	PC 50-099	00.9	9/23	33	15.6	35.9	52.8	--	56.7
Richland	MK009	00.9	9/26	29	15.3	33.8	49.4	40.0	50.6
Richland	MK0249	0.2	9/28	27	15.4	33.8	54.5	45.5	53.3
Mean			9/25	30.3	15.7	35.1	58.6		
C.V. %			1.4	7.2	1.5	0.9	5.0		
LSD 10%			2.3	2.6	0.4	0.6	3.5		

Planting Date: May 17

Harvest Date: October 7

Previous Crop: Barley

Soil Type: Svea-Barnes loam

[1] Maturity Group provided by company

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

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

Data includes only released varieties. Experimental lines are not included. Statistics reflect the entire trial.

Table 12. Soybean variety trial results from varieties with RR2XF, Enlist and GT traits. Data from Park River, Walsh County, ND.

Soybean - RR2XF, Enlist and GT **Park River - Walsh County**

Brand	Variety	Herbicide Trait	Maturity Group[1]	Maturity Date[2]	IDC[3]	Plant Height	Oil	Protein	Yield 2024	Yield 2-yr Avg.	Yield 2-site Avg.[3]
						(inch)	(%)	(%)	(bu/a)		
Channel	00924RXF	RR2XF	00.9	9/8	1.6	29	16.8	32.8	61.3	--	--
Channel	0225RXF	RR2XF	0.2	9/16	2.9	23	16.3	33.4	60.0	--	57.7
Channel	0325RXF	RR2XF	0.3	9/14	1.0	27	16.6	34.2	71.3	--	64.8
Dyna-Gro	S01XF25	RR2XF	0.1	9/8	1.0	30	16.7	32.4	70.2	--	--
Fortus	0084E	Enlist E3	00.9	9/11	1.0	26	16.7	33.9	67.5	--	58.0
Fortus	0165E	Enlist E3	0.1	9/12	1.4	28	17.0	33.8	69.1	--	57.8
Fortus	0324E	Enlist E3	0.3	9/17	1.0	26	16.6	34.3	61.3	--	56.0
Fortus	0544E	Enlist E3	0.5	9/20	1.9	27	16.9	33.7	64.6	--	57.0
Golden Harvest	GH0225XF	RR2XF	0.2	9/12	3.1	25	16.9	34.0	59.8	--	59.2
Golden Harvest	GH0384XF	RR2XF	0.3	9/15	2.8	27	16.1	35.1	56.1	47.6	59.3
Integra	XF0115	RR2XF	0.1	9/8	1.0	30	16.4	33.0	67.5	--	59.6
Integra	XF0212	RR2XF	0.2	9/10	1.0	34	16.7	33.7	65.4	--	55.5
Integra	XF0493	RR2XF	0.4	9/18	1.2	29	16.6	35.0	66.6	52.3	56.3
Legacy	LS014-23 XF	RR2XF	0.1	9/8	1.0	31	16.5	32.2	69.0	54.4	58.5
Legacy	LS022-24 E	Enlist E3	0.2	9/12	1.0	26	16.8	32.6	65.2	--	61.2
Legacy	LS024-23 XF	RR2XF	0.2	9/11	1.3	26	17.6	34.2	58.9	47.4	53.1
Legacy	LS032-23 E	Enlist E3	0.3	9/16	1.1	27	16.7	33.7	68.4	54.2	64.1
Legacy	LS034-24 XF	RR2XF	0.2	9/15	1.0	28	16.8	33.8	76.2	--	68.9
Legacy	LS044-23 XF	RR2XF	0.4	9/18	1.0	28	16.6	35.1	72.8	56.4	68.0
NDSU	ND17009GT	GT	00.9	9/9	1.6	30	17.1	35.7	62.4	48.9	54.7
NDSU	ND21008GT20	GT	00.8	9/6	1.0	28	17.0	33.2	58.7	47.7	51.8
NK Seeds	NK006-U6E3	Enlist E3	00.6	9/2	1.1	21	16.6	33.9	50.8	--	--
NK Seeds	NK006-Z5XF	RR2XF	00.6	9/3	1.0	24	17.4	33.5	51.4	--	--
NK Seeds	NK009-G7E3	Enlist E3	00.9	9/8	1.0	25	16.3	34.3	65.6	51.3	--
NK Seeds	NK02-W8E3	Enlist E3	0.2	9/15	2.3	26	16.6	35.0	67.4	--	--
NK Seeds	NK03-V5E3	Enlist E3	0.3	9/12	1.0	25	16.3	34.2	71.3	55.4	--
Proseed	EL 50-13N	Enlist E3	0.1	9/10	1.0	27	17.2	33.7	70.2	--	--
Proseed	EL 50-33N	Enlist E3	0.3	9/17	1.3	27	16.8	33.5	63.4	--	60.0
Proseed	XF 30-42	RR2XF	0.4	9/16	1.0	28	16.5	35.2	62.6	51.1	62.3
Proseed	XF 40-12	RR2XF	0.1	9/8	1.0	31	16.6	33.1	68.1	53.3	60.7
Proseed	XF 50-52N	RR2XF	0.5	9/16	1.0	25	15.6	35.9	68.6	--	67.6
BAFT	XO 0094E	Enlist E3	0.0	9/12	1.0	24	16.7	34.4	65.7	50.4	58.4
BAFT	XO 0234E	Enlist E3	0.2	9/15	1.1	25	16.3	35.1	69.9	55.1	65.3
Mean				9/12	1.3	27.1	16.7	33.9	64.3		
C.V. %				1.5	34.3	6.5	1.5	1.0	9.4		
LSD 10%				2.2	0.5	2.1	0.4	0.6	7.1		

Planting Date: May 10 *Harvest Date: October 2* *Previous Crop: Wheat*

Soil Type: Bearden Silty Clay Loam *[1] Maturity Group provided by company*

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

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

Data includes only released varieties. Experimental lines are not included. Statistics reflect the entire trial.

[3] IDC score - 1=green, 5=dead tissue

Table 13. Soybean variety trial results from conventional varieties. Data from Park River, Walsh County, ND.

Soybean - Conventional											**Park River - Walsh County**
			Maturity	Maturity	Plant				Yield		
Brand	Variety	Status	Group[1]	Date[2]	Height	IDC[3]	Oil	Protein	2024	2-yr Avg.	2-site Avg.[4]
					(inch)	(1-5)	(%)	(%)	----------(bu/a)----------		
Legacy	LS0090-20C	CA	00.7	9/11	20	3.1	16.3	38.0	42.6	37.4	48.7
Legacy	LSX020-23C	CA	0.2	9/13	25	2.5	16.6	36.2	53.4	45.1	55.3
NDSU	ND Benson	CA	0.4	9/16	28	1.0	16.8	35.5	64.0	52.0	61.2
NDSU	ND Rolette	CA	00.9	9/10	27	1.3	17.4	33.2	62.0	49.3	61.1
Peterson	HANA	CA	00.9	9/10	25	2.4	16.0	37.4	59.1	--	61.0
Proseed	PC 50-099	CA	00.9	9/10	28	1.1	17.2	33.1	60.7	--	56.7
Proseed	PC 50-59	CA	0.5	9/17	29	1.0	15.1	37.2	70.4	--	--
Richland	MK009	CA	00.9	9/15	25	2.9	16.1	33.1	51.7	44.6	50.6
Richland	MK0249	CA	0.2	9/15	24	2.0	16.4	32.5	52.1	45.3	53.3
Mean				9/12	26.3	1.7	16.7	34.5	59.7		
C.V. %				1.4	6.4	23.0	1.2	1.0	7.8		
LSD 10%				2.1	2.0	0.5	0.4	0.6	5.6		

Planting Date: May 10

Harvest Date: October 2

Previous Crop: Wheat

Soil Type: Antler clay loam

[1] *Maturity Group provided by company*

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

[3] *IDC score - 1=green, 5=dead tissue*

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

Data includes only released varieties. Experimental lines are not included. Statistics reflect the entire trial.

Table 14. Soybean variety trial results from varieties with RR2XF, Enlist and GT traits. Data from Pekin, Nelson County, ND.

Soybean - RR2XF, Enlist and GT - 2024 **Pekin - Nelson County**

Brand	Variety	Herbicide Trait	Maturity Group[1]	Maturity Date[2]	Oil	Protein	Yield		
							2024	2-yr Avg.	2-site Avg.[3]
					(%)	(%)	----------(bu/a)----------		
Channel	0225RXF	RR2XF	0.2	9/30	15.1	34.4	55.3	--	57.7
Channel	0325RXF	RR2XF	0.3	10/1	15.8	34.8	58.4	--	64.8
Fortus	0084E	Enlist E3	00.9	9/29	15.1	35.0	48.4	--	58.0
Fortus	0165E	Enlist E3	0.1	9/29	15.7	35.1	46.5	--	57.8
Fortus	0324E	Enlist E3	0.3	9/30	15.3	35.2	50.7	--	56.0
Fortus	0544E	Enlist E3	0.5	10/1	15.6	34.5	49.4	--	57.0
Golden Harvest	GH0225XF	RR2XF	0.2	9/25	15.9	34.2	58.6	--	59.2
Golden Harvest	GH0384XF	RR2XF	0.3	9/26	15.7	34.2	62.5	59.6	59.3
Integra	XF0115	RR2XF	0.1	9/27	14.9	34.4	51.7	--	59.6
Integra	XF0212	RR2XF	0.2	9/28	15.5	34.8	45.5	--	55.5
Integra	XF0493	RR2XF	0.4	10/1	15.6	34.4	46.1	49.0	56.3
Legacy	LS014-23 XF	RR2XF	0.1	9/26	15.3	33.9	48.1	50.8	58.5
Legacy	LS022-24 E	Enlist E3	0.2	9/27	14.7	34.6	57.3	--	61.2
Legacy	LS024-23 XF	RR2XF	0.2	9/27	16.4	34.1	47.3	47.5	53.1
Legacy	LS032-23 E	Enlist E3	0.3	9/30	15.3	34.8	59.9	56.4	64.1
Legacy	LS034-24 XF	RR2XF	0.2	9/28	15.5	34.7	61.6	--	68.9
Legacy	LS044-23 XF	RR2XF	0.4	9/28	15.5	34.8	63.2	59.1	68.0
NDSU	ND17009GT	GT	00.9	9/26	16.2	36.1	47.0	46.2	54.7
NDSU	ND21008GT20	GT	00.8	9/27	15.8	34.5	44.8	44.6	51.8
Proseed	EL 50-33N	Enlist E3	0.3	9/29	15.3	35.1	56.6	--	60.0
Proseed	XF 30-42	RR2XF	0.4	9/28	15.8	34.2	62.1	57.5	62.3
Proseed	XF 40-12	RR2XF	0.1	9/26	15.1	34.1	53.2	53.7	60.7
Proseed	XF 50-52N	RR2XF	0.5	9/26	15.1	34.9	66.7	--	67.6
BAFT	XO 0094E	Enlist E3	0.0	9/30	15.1	35.2	51.0	50.4	58.4
BAFT	XO 0234E	Enlist E3	0.2	9/29	15.1	35.6	60.7	56.2	65.3
Mean				9/28	15.5	34.7	53.0	--	--
C.V. %				1.3	1.9	1.4	8.2	--	--
LSD 10%				1.7	0.5	0.9	5.1	--	--

Planting Date: June 6, Harvest Date: October 9, Previous Crop: Barley, Soil Type: Svea-Cresbard loam

[1] Maturity Group provided by company.

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

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

Data includes only released varieties. Experimental lines are not included. Statistics reflect the entire trial.

Table 15. Soybean variety trial results from conventional varieties. Data from Carrington REC.

Soybean - Irrigated, Conventional Varieties **Carrington**

Brand	Variety	Maturity Group	Days to Maturity	Pod height	Plant height	Lodging score	Oil	Protein	1000 Seed weight	Seeds/ Pound	Test Weight	Yield 2024	Yield 2-yr. Avg.	Yield 3-yr. Avg.
			(days)*	(inch)	(inch)	(0-9)	(%)	(%)	(g)	(seed)	(lb/bu)	---	(bu/a)	---
NDSU	ND Stutsman	0.7	115	3	32	2	18.2	32.2	139.4	3260	54.3	68.0	72.1	71.2
NDSU	ND Rolette	00.9	108	4	30	2	17.9	33.0	124.1	3657	54.7	56.9	60.8	64.2
NDSU	ND Benson	0.4	113	4	31	2	17.1	35.1	125.2	3626	54.7	53.0	57.4	58.6
NDSU	ND Dickey	0.7	115	4	30	1	17.2	33.7	155.9	2911	54.1	65.7	65.5	64.3
Richland	MK009	00.9	111	3	30	3	16.7	32.1	71.0	6395	55.1	42.0	45.6	47.5
Richland	MK0249	0.2	111	3	29	2	17.3	32.2	89.9	5053	55.0	45.6	49.9	52.7
Richland	MK0603	0.6	117	5	33	5	15.8	34.4	84.6	5369	54.8	54.6	61.9	60.5
Peterson	Aya	0.7	115	3	30	1	16.9	35.7	185.8	2453	53.9	63.6	--	--
Peterson	Wilma	1	120	4	32	1	17.3	33.4	185.7	2442	54.7	73.6	--	--
Mean			114	4	31	2	17.2	33.5	129.1	3907	54.6	58.1	--	--
C.V. %			1	27	6	33	0.7	0.8	4.5	4	0.7	4.9	--	--
LSD 10%			1	1	2	1	0.2	0.3	7.1	211	0.5	3.4	--	--

Planting Date = May 28; Harvest Date = October 7; Previous Crop = Flax

Lodge: 1 = upright; 9 = flat

**Days after planting*

Table 16. Soybean variety trial results from Roundup Ready Varieties. Data from Carrington REC.

Soybean - Irrigated, Roundup Ready Varieties												**Carrington**	
									1000			Yield	
Brand	Variety	Trait	Maturity Group	Days to Maturity	Pod height	Plant height	Oil	Protein	Seed weight	Seeds/ Pound	Test Weight	2024	2-yr. Avg	3-yr. Avg.
				(days)*	(inch)	(inch)	(%)	(%)	(g)	(seed)	(lb/bu)	-------	(bu/a)	-------
Dyna-Gro	S07EN45	Enlist E3	0.7	118	2	31	17.9	31.5	131.7	3447	54.9	67.3	--	--
Dyna-Gro	S05XF73	RR2XF	0.5	116	4	36	17.6	32.9	139.5	3261	54.2	64.7	78.2	73.5
Fortus	0544E	Enlist E3	0.5	117	2	32	17.7	33.0	144.6	3138	54.2	63.4	--	--
Integra	XF0493	RR2XF	0.4	117	3	32	18.3	33.0	152.1	2982	54.2	55.2	69.1	--
Legacy	LS032-23 E	Enlist E3	0.3	115	3	30	17.3	33.2	147.0	3086	54.0	62.8	72.9	--
Legacy	LS052-24 E	Enlist E3	0.5	115	3	33	18.0	32.8	143.6	3160	53.7	66.8	--	--
Legacy	LS052-23 E	Enlist E3	0.5	116	2	31	17.7	33.0	148.6	3055	54.1	71.1	78.5	--
Legacy	LS044-23 XF	RR2XF	0.4	116	3	34	18.3	33.3	156.1	2923	54.3	64.7	78.4	--
Legacy	LS064-23 XF	RR2XF	0.6	116	2	32	17.8	33.2	150.5	3017	54.7	67.3	77.2	--
NDSU	ND21008GT20	GT	00.8	105	3	32	17.4	33.5	141.5	3206	55.1	51.5	56.5	58.0
NDSU	ND2108GT73	GT	0.8	119	3	34	17.8	33.4	139.2	3262	55.0	66.8	74.8	70.8
NDSU	ND17009GT	GT	00.9	107	3	32	17.8	34.6	159.1	2852	55.9	47.8	55.4	55.7
NK Seeds	NK02-W8E3	Enlist E3	0.2	110	2	31	17.7	33.7	148.5	3054	54.0	66.7	--	--
NK Seeds	NK06-A1E3	Enlist E3	0.6	115	3	33	18.0	32.6	162.8	2787	54.0	71.8	--	--
NK Seeds	NK02-Y2XF	RR2XF	0.3	109	2	32	18.2	31.9	159.7	2841	54.6	62.3	--	--
NK Seeds	NK03-J1XF	RR2XF	0.3	110	3	32	18.3	33.2	165.6	2740	53.7	68.5	--	--
NK Seeds	NK06-C4XF	RR2XF	0.6	113	3	35	17.1	31.4	144.0	3159	54.5	66.5	--	--
NK Seeds	NK08-R3XF	RR2XF	0.8	118	4	37	17.7	33.1	173.8	2610	54.6	75.0	--	--
Mean				114	3	33	17.8	33.0	149.4	3052	54.5	63.8	--	--
C.V. %				1	27	4	0.8	0.6	3.5	4	0.3	6.6	--	--
LSD 10%				1	1	1	0.2	0.3	6.1	126	0.2	5.0	--	--

Planting Date = May 28; Harvest Date = October 7; Previous Crop = Flax

No significant differences in lodging were observed.

**Days after planting*

Table 17. Soybean variety trial results from conventional varieties. Data from Barnes County - Dazey, ND.

Soybean - Conventional Varieties											**Barnes County - Dazey**		
									1000			Yield	
Brand	Variety	Maturity Group	Days to Maturity	Pod height	Plant height	Lodging score	Oil	Protein	Seed weight	Seeds/ Pound	Test Weight	2024	2-yr. Avg.	3-yr. Avg.
			(days)*	(inch)	(inch)	(0-9)	(%)	(%)	(g)	(seed)	(lb/bu)	------	(bu/a)	------
NDSU	ND Stutsman	0.7	123	2	33	1	18.2	32.0	157.6	2878	52.2	71.0	64.5	64.6
NDSU	ND Rolette	00.9	117	3	30	1	18.1	32.4	124.7	3641	52.6	64.0	59.3	60.2
NDSU	ND Benson	0.4	121	3	24	1	17.6	34.5	154.3	2943	52.2	62.6	58.1	59.1
NDSU	ND Dickey	0.7	122	2	27	1	17.8	32.6	175.8	2582	51.7	72.6	65.9	65.6
Richland	MK009	00.9	119	2	27	1	16.7	32.4	84.3	5386	53.1	56.7	51.8	51.7
Richland	MK0249	0.2	119	2	28	2	17.3	31.7	101.0	4496	52.7	60.0	55.6	56.8
Richland	MK0603	0.6	123	4	35	3	15.7	34.1	94.6	4797	52.1	58.6	54.1	53.8
Richland	MK808CN	0.8	123	2	31	2	18.6	31.8	149.5	3039	52.4	63.5	59.8	61.1
Richland	MK1023	1	125	2	29	1	16.3	32.3	99.0	4582	53.0	55.2	52.1	50.4
Richland	MK9102	1.2	126	3	39	2	--	--	220.4	2062	55.4	52.4	53.0	--
Richland	Decker	1	123	4	27	1	--	--	156.6	2898	54.9	52.9	48.0	--
Richland	MK41	1.1	120	2	34	1	16.6	34.8	181.3	2502	52.4	69.4	66.0	63.7
Richland	MK146	1.1	126	2	30	1	17.5	34.9	174.2	2607	51.9	60.7	63.9	--
Mean			122	3	30	1	13.3	32.1	144.1	3416	52.8	61.5	--	--
C.V. %			1	26	12	24	1.2	1.5	3.5	3	0.8	11.5	--	--
LSD 10%			2	1	5	0	0.2	0.6	5.9	121	0.5	8.4	--	--

Planting Date = May 17; Harvest Date = October 7; Previous Crop = Spring wheat/barley

Lodge: 1 = upright; 9 = flat

**Days after planting*

Table 18. Soybean variety trial results from Roundup Ready Varieties. Data from Barnes County - Dazey, ND.

Soybean - Dryland, Roundup Ready Varieties **Barnes County - Dazey**

Brand	Variety	Trait	Maturity Group	Days to Maturity	Pod height	Plant height	Lodging score	Oil	Protein	1000 Seed weight	Seeds/ Pound	Test Weight	Yield 2024	Yield 2-yr. Avg	Yield 3-yr. Avg.
				(days)*	(inch)	(inch)	(0-9)	(%)	(%)	(g)	(seed)	(lb/bu)	-------	(bu/a)	-------
Dyna-Gro	S07EN45	Enlist E3	0.7	125	2	28	1	18.0	31.5	152.7	2971	52.3	73.8	--	--
Dyna-Gro	S09XF55	RR2XF	0.9	126	4	32	1	17.4	32.7	170.0	2669	52.3	79.4	--	--
Fortus	0544E	Enlist E3	0.5	123	2	28	1	18.0	32.5	159.9	2840	52.1	51.4	--	--
Fortus	0831E	Enlist E3	0.8	125	3	30	1	17.6	33.0	175.8	2584	51.9	69.5	--	--
Legacy	LS092-22 E	Enlist E3	0.9	124	3	27	1	18.6	31.8	150.4	3023	51.8	71.5	67.3	67.4
Legacy	LS082-24 E	Enlist E3	0.8	125	3	30	1	18.7	31.9	197.5	2297	51.6	76.3	--	--
Legacy	LS102-22 E	Enlist E3	1	126	3	29	1	17.3	32.7	159.5	2846	51.6	76.3	72.2	68.4
Legacy	LS094-24 XF	RR2XF	0.9	127	5	33	1	17.4	32.7	168.0	2700	52.2	81.2	--	--
Legacy	LS104-24 XF	RR2XF	1	127	4	33	1	17.8	32.0	167.6	2709	51.8	75.7	--	--
Legacy	LS124-23 XF	RR2XF	1.2	128	2	29	1	17.8	33.4	177.8	2554	51.8	74.6	71.2	--
NDSU	ND21008GT20	GT	00.8	117	2	29	2	17.6	33.4	145.4	3127	52.9	42.5	41.6	42.3
NDSU	ND2108GT73	GT	0.8	126	3	31	1	17.8	32.8	143.2	3179	52.5	68.3	61.2	58.4
NDSU	ND17009GT	GT	00.9	119	3	30	1	18.2	34.2	167.5	2709	53.3	52.4	48.7	48.1
NK Seeds	NK02-Y2XF	RR2XF	0.3	120	3	31	1	18.2	31.7	168.0	2702	52.4	66.9	--	--
NK Seeds	NK03-J1XF	RR2XF	0.3	120	3	30	1	18.0	32.9	172.9	2623	51.8	62.1	--	--
NK Seeds	NK06-C4XF	RR2XF	0.6	123	3	33	2	16.7	31.3	160.4	2829	52.5	66.5	--	--
NK Seeds	NK08-R3XF	RR2XF	0.8	124	3	32	1	17.5	32.8	176.1	2581	52.3	76.7	--	--
Proseed	XF 30-42	RR2XF	0.4	123	3	30	1	17.7	32.9	165.4	2744	51.7	68.0	66.1	--
Proseed	XF 50-52N	RR2XF	0.5	123	2	29	1	16.9	34.5	187.6	2422	52.9	77.7	--	--
Proseed	XF 50-62N	RR2XF	0.6	124	2	34	1	18.4	31.3	166.1	2732	51.9	70.3	--	--
Thunder	TE7407N	Enlist E3	0.7	123	3	30	1	17.3	32.7	166.7	2725	52.5	73.0	--	--
Thunder	TE7509N	Enlist E3	0.9	123	3	29	1	17.0	33.5	184.1	2464	52.8	71.2	--	--
Thunder	TX8305N	RR2XF	0.5	124	2	29	1	17.6	33.7	183.9	2472	52.5	74.8	68.4	--
Thunder	TX8307N	RR2XF	0.7	125	3	33	1	17.0	32.5	178.5	2544	52.8	76.7	71.4	67.2
Thunder	TX8309N	RR2XF	0.9	126	2	32	2	16.9	32.9	154.5	2940	52.4	71.3	67.9	64.9
Mean				124	3	30	1	17.7	32.7	166.2	2752	52.3	69.2	--	--
C.V. %				1	22	6	20	1.2	1.5	3.5	4	0.7	12.8	--	--
LSD 10%				1	1	2	0	0.3	0.6	6.8	118	0.5	10.4	--	--

Planting Date = May 17; Harvest Date = October 7; Previous Crop = Spring wheat/barley

Lodge: 1 = upright; 9 = flat

**Days after planting*

Table 19. Soybean variety trial results from conventional varieties. Data from Wishek, ND.

Soybean - Dryland, Conventional Varieties												**Wishek**
Brand	Variety	Maturity Group	Days to Maturity	Pod height	Plant height	Lodging score	Oil	Protein	1000 Seed weight	Seeds/ Pound	Test Weight	Yield
			(days)*	(inch)	(inch)	(0-9)	(%)	(%)	(g)	(seed)	(lb/bu)	(bu/a)
NDSU	ND Stutsman	0.7	117	5	30	1	18.0	33.4	142.6	3187	54.4	54.1
NDSU	ND Rolette	00.9	114	4	28	2	17.9	33.9	128.5	3533	54.2	48.9
NDSU	ND Benson	0.4	117	5	28	1	17.4	35.9	145.5	3123	54.3	51.2
NDSU	ND Dickey	0.7	119	8	29	1	17.0	34.6	157.5	2891	54.1	56.2
Peterson	Wilma	1	129	4	34	2	16.9	35.2	188.6	2410	54.3	65.8
Richland	MK009	00.9	117	4	29	4	16.2	34.3	70.5	6453	54.8	44.2
Richland	MK0603	0.6	116	3	31	5	15.5	35.3	87.4	5207	54.7	45.6
Richland	MK808CN	0.8	117	5	31	2	18.6	32.5	129.9	3496	55.0	43.8
Richland	MK9102	1.2	123	8	39	1	--	--	210.0	2167	56.3	43.4
Richland	Decker	1	116	4	27	4	--	--	130.5	3477	56.5	26.6
Richland	MK41	1.1	116	3	33	2	16.4	37.2	178.9	2544	54.1	58.2
Richland	MK146	1.1	125	5	30	1	17.5	36.1	162.1	2803	53.6	55.5
Mean			119	5	31	2	12.8	33.6	144.3	3441	54.7	49.5
C.V. %			4	35	8	46	2.4	1.9	4.5	6	0.6	9.8
LSD 10%			6	2	3	1	0.4	0.8	7.8	228	0.4	5.8

Planting Date = May 20; Harvest Date = October 8; Previous Crop = Wheat
Lodge: 1 = upright; 9 = flat
**Days after planting*

Table 20. Soybean variety trial results from Roundup Ready Varieties. Data from Wishek, ND.

Soybean - Dryland, Roundup Ready Varieties														**Wishek**
													Yield	
Brand	Variety	Trait	Maturity Group	Days to Maturity	Pod height	Plant height	Lodging score	Oil	Protein	1000 Seed weight	Seeds/ Pound	Test Weight	2024	2-yr. Avg.	3-yr. Avg.
				(days)*	(inch)	(inch)	(0-9)	(%)	(%)	(g)	(seed)	(lb/bu)	--------	(bu/a)	-------
Dyna-Gro	S07EN45	Enlist E3	0.7	119	4	27	1	17.6	32.4	135.5	3352	54.8	56.2	--	--
Dyna-Gro	S09XF55	RR2XF	0.9	119	4	33	1	17.0	35.1	148.3	3066	54.6	60.6	--	--
NDSU	ND21008GT20	GT	00.8	115	5	29	2	17.5	33.4	133.9	3385	54.6	40.0	42.0	--
NDSU	ND2108GT73	GT	0.8	119	4	30	2	17.3	33.6	129.6	3504	54.8	55.5	55.3	53.0
NDSU	ND17009GT	GT	00.9	113	3	32	2	17.7	35.7	151.1	3005	55.1	39.8	42.4	43.7
Mean				117	4	30	1	17.5	34.0	138.2	3299	54.7	49.5	--	--
C.V. %				3	39	9	38	2.0	1.7	4.0	4	0.4	11.4	--	--
LSD 10%				4	2	3	1	0.4	0.7	6.8	162	0.3	6.9	--	--

Planting Date = May 20; Harvest Date = October 8; Previous Crop = Wheat
No significant lodging was observed.
** Dasy after planting*

Table 21. Soybean variety trial results from Roundup Ready Varieties. Data from Oakes, Dickey County, ND.

Soybean - Irrigated, Roundup Ready Varieties											**Dickey County - Oakes**		
											Yield		
Brand	Variety	Maturity Group[1]	Days to Maturity	Pod height	Plant height	Lodging score[2]	Seeds/ Pound	Oil	Protein	Test weight	2024	2-yr. Avg.	3-yr. Avg.
			(days)*			(1-9)	(seed)	(%)	(%)	(lb/bu)	-----(bu/ac)-----		
NDSU	ND21008GT20	00.8	108	4.5	28.3	7.0	2575	19.3	35.0	56.4	47.8	--	--
NDSU	ND2108GT73	0.8	122	4.3	33.3	4.0	2496	18.8	35.8	55.5	67.0	73.6	73.1
NDSU	ND17009GT	00.9	112	5.0	34.3	4.9	2214	19.8	37.0	56.7	48.7	54.9	54.4
Legacy	LS094-24 XF	0.9	123	5.3	36.5	3.4	2185	18.4	36.7	55.7	80.6	--	--
Legacy	LS092-22 E	0.9	122	5.0	32.3	6.2	2500	20.0	35.2	55.3	74.4	79.4	77.5
Legacy	LS082-24 E	0.8	120	6.0	37.8	2.3	1856	19.8	35.2	55.7	71.0	--	--
Legacy	LS102-22 E	1.0	123	5.8	35.0	1.6	2518	19.1	36.2	54.6	75.2	83.7	83.0
Legacy	LS104-24 XF	1.0	122	5.0	38.3	4.2	2272	19.2	34.8	55.2	79.9	--	--
Legacy	LS124-23 XF	1.2	123	5.3	38.0	1.4	2153	18.8	35.9	55.3	75.2	--	--
Legacy	LS132-24 E	1.2	124	4.8	34.0	5.3	2291	20.7	34.8	54.1	78.3	--	--
Mean			120	5.1	34.5	4.1	2306	19.3	35.7	55.5	69.1	--	--
C.V. %			0.7	17.2	6.1	14.92t	2	0.9	0.8	0.8	7.8	--	--
LSD 5%			1.0	1.1	2.6	0.79 - 1.94	55	0.2	0.3	0.6	6.4	--	--
LSD 10%			1.3	1.3	3.1	0.98 - 2.28	66	0.3	0.4	0.7	7.7	--	--

Planting date = May 16; Harvest date = October 1; Previous crop = corn

[1] Maturity group based on data provided by seed company.

[2] Plant lodge: 1 = no lodging; 9 = plants lying flat.

t = highly variable data was transformed for statistical analysis and LSDs are reported as a range.

** Days after planting*

Data includes only released varieties. Experimental lines are not included. Statistics reflect the entire trial.

Table 22. Soybean variety trial results from Roundup Ready Varieties. Data from Oakes, Dickey County, ND.

Soybean - Dryland, Roundup Ready Varieties											**Dickey County - Oakes**	
											Yield	
Brand	Variety	Maturity Group[1]	Days to Maturity	Pod height	Plant height	Lodging score[2]	Seeds/ Pound	Oil	Protein	Test weight	2024	2-yr Avg.
			(days)*			(1-9)	(seed)	(%)	(%)	(lb/bu)	-----(bu/ac)-----	
NDSU	ND21008GT20	00.8	111	4.5	33.3	6.5	2563	19.1	35.2	53.8	44.1	42.6
NDSU	ND2108GT73	0.7	126	5.0	37.0	1.9	2572	19.0	35.6	54.9	72.5	65.8
NDSU	ND17009GT	00.9	116	4.8	37.7	4.2	2361	19.6	37.1	56.7	43.9	44.1
Legacy	LS094-24 XF	0.9	126	5.0	39.0	1.2	2248	18.5	36.6	55.4	90.7	--
Legacy	LS092-22 E	0.9	125	4.8	35.3	4.6	2538	19.6	35.6	55.8	79.8	71.3
Legacy	LS082-24 E	0.8	125	5.0	37.0	1.2	1932	20.3	35.3	56.1	79.8	--
Legacy	LS102-22 E	1.0	127	5.3	37.7	2.0	2494	18.5	36.4	54.4	90.5	81.7
Legacy	LS104-24 XF	1.0	128	5.8	39.7	3.4	2275	19.3	34.9	56.5	89.0	--
Legacy	LS124-23 XF	1.2	128	5.0	37.7	2.0	2195	18.8	36.1	55.1	70.3	74.5
Legacy	LS132-24 E	1.2	129	5.0	37.0	5.6	2239	20.3	36.1	54.0	84.8	--
Mean			124	5.1	37.3	3.2	2341	19.3	35.9	55.2	74.73	--
C.V. %			1.1	25.2	7.2	21.59t	5	1.2	1.2	3.2	17.2	--
LSD 5%			1.7	1.6	3.8	0.92 - 2.20	141	0.3	0.5	2.1	15.5	--
LSD 10%			2.0	1.9	4.6	1.15 - 2.56	170	0.3	0.6	2.6	18.6	--

Planting Date = May 13; Harvest Date = October 7; Previous Crop = Soybean

[1] Maturity group based on data provided by seed company.

[2] Plant lodge: 1 = no lodging; 9 = plants lying flat.

** Days after planting*

t = highly variable data was transformed for statistical analysis and LSDs are reported as a range.

Data includes only released varieties. Experimental lines are not included. Statistics reflect the entire trial.

Table 23. Soybean variety trial results from Conventional Varieties. Data from Oakes, Dickey County, ND.

Soybean - Irrigated, Conventional Varieties											**Dickey County - Oakes**	
		Maturity	Days to	Pod	Plant	Lodging	Seeds/			Test	Yield	
Brand	Variety	Group[1]	Maturity	height	height	score[2]	Pound	Oil	Protein	weight	2024	2-yr Avg.
			(days)*	(inch)	(inch)	(1-9)	(seed)	(%)	(%)	(lb/bu)	---- (bu/ac) ----	
NDSU	ND Benson	0.4	119	5.0	30.8	6.8	2373	18.5	38.9	54.4	58.9	61.7
NDSU	ND Dickey	0.7	120	5.5	38.5	2.3	2029	18.3	36.2	55.6	73.6	76.0
NDSU	ND Rolette	0.9	111	5.5	37.3	1.8	2750	19.2	35.8	55.8	70.2	--
NDSU	ND Stutsman	0.7	123	6.3	39.3	4.3	2248	18.9	35.9	55.4	77.4	--
Peterson	Aya	0.7	119	5.0	35.5	4.3	1861	17.9	38.7	55.8	75.9	--
Peterson	Wilma	1.0	124	5.5	36.3	6.5	1975	18.3	36.6	55.5	81.9	--
Mean			119	5.5	36.3	4.3	2206	18.5	37.0	55.4	76.1	--
C.V. %			0.7	12.8	8.6	15.1	2.2	1.0	0.9	2.8	7.2	--
LSD 5%			1.1	0.9	3.9	0.8	60.8	0.2	0.4	1.9	6.5	--
LSD 10%			1.3	1.1	4.7	1.0	73.9	0.3	0.5	2.3	7.9	--

Planting Date = May 16; Harvest Date = October 2; Previous Crop = Corn

[1] Maturity group based on data provided by seed company.

[2] Plant lodge: 1 = no lodging; 9 = plants lying flat.

**Days after planting*

Table 24. Soybean variety trial results from Conventional Varieties. Data from Oakes, Dickey County, ND.

Soybean - Dryland, Conventional Varieties											**Dickey County - Oakes**	
		Maturity	Days to	Pod	Plant	Lodging	Seeds/			Test	Yield	
Brand	Variety	Group[1]	Maturity	height	height	score[2]	Pound	Oil	Protein	weight	2024	2-yr Avg.
			(days)*	(inch)	(inch)	(1-9)	(seed)	(%)	(%)	(lb/bu)	---- (bu/ac) ----	
NDSU	ND Benson	0.4	120	5.0	34.0	4.0	2356	18.9	38.1	53.5	61.4	51.6
NDSU	ND Dickey	0.7	124	4.8	35.0	2.8	2081	18.7	36.0	55.6	68.6	60.8
NDSU	ND Stutsman	0.7	118	5.5	37.0	1.8	2400	19.4	35.2	55.2	61.2	--
NDSU	ND Rolette	0.9	122	6.3	38.5	2.0	2354	19.3	35.7	53.1	67.6	--
Peterson	Aya	0.7	124	5.0	33.5	5.8	2051	18.2	38.4	56.0	64.7	--
Peterson	Wilma	1.0	127	4.5	35.8	5.0	2022	18.3	37.2	55.9	70.1	--
Mean			122	5.2	35.6	3.6	2211	18.8	36.8	54.9	65.6	--
C.V. %			2.1	17.7	6.3	33.0	6.5	1.1	0.9	4.7	15.1	--
LSD 5%			3.1	1.1	2.8	1.5	211.8	0.3	0.4	3.2	12.3	--
LSD 10%			3.8	1.4	3.4	1.8	260.3	0.3	0.5	3.9	14.9	--

Planting Date = May 13; Harvest Date = October 7; Previous Crop = Soybean

[1] Maturity group based on data provided by seed company.

[2] Plant lodge: 1 = no lodging; 9 = plants lying flat.

**Days after planting*

Table 25. Soybean variety trial results from Roundup Ready Varieties. Data from Hettinger REC.

Soybean - Roundup Ready **Hettinger**

Brand	Variety	Maturity Group	Maturity Date	Plant Height	Test Weight	Oil	Protein	Yield 2024	Yield 2-yr. Avg.	Yield 3-yr Avg.
				(inch)	(lb/bu)	(%)	(%)	----------(bu/a) ----------		
BASF	XO 0094E	00.9	9/15	19.5	54.3	18.0	30.2	22.4	36.7	--
BASF	XO 0234E	0.2	9/16	22	55.1	17.5	31.6	26.2	38.5	--
BASF	XO 0554E	0.5	9/18	22.75	54.4	18.5	29.2	24.8	39.3	--
BASF	XO 0602E	0.5	9/16	22	55.8	17.1	31.0	26.0	41.7	38.2
BASF	XO 0731E	0.6	9/18	20	55.0	18.1	30.3	23.7	40.9	36.8
NDSU	ND17009GT	00.9	9/10	27	56.1	17.8	32.6	20.2	32.1	30.4
NDSU	ND2108GT73	0.7	9/16	22	55.8	18.0	30.0	27.3	42.7	37.8
Thunder	TE7502N	0.2	9/15	22	53.2	17.6	31.8	20.2	--	--
Thunder	TX8402N	0.2	9/15	26	54.6	17.0	30.5	27.6	--	--
Thunder	TX8304N	0.4	9/14	26	54.2	17.9	30.4	25.3	--	--
Thunder	TX8305N	0.4	9/20	24	55.1	17.4	31.6	25.3	--	--
Thunder	TE7405N	0.5	9/17	23	54.8	18.4	29.4	24.1	--	--
Mean			9/15	23	54.9	17.8	30.7	24.4	38.8	35.8
C.V. %			0.9	7.0	1.0	2.5	2.9	7.0	--	--
LSD 5%			1.2	1.9	0.6	0.5	1.1	2.0	--	--
LSD 10%			0.9	1.5	0.5	0.4	0.8	1.6	--	--

Planting Date: May 28
Harvest Date: September 25
Previous Crop: Spring Wheat

Table 26. Soybean variety trial results from Conventional Varieties. Data from Hettinger REC.

Soybean - Conventional **Hettinger**

Variety	Maturity Group	Maturity Date	Plant Height	Test Weight	Protein	Oil	Yield 2022	Yield 2023	Yield 2024	Yield 2-Yr. Avg.	Yield 3-Yr Avg.
			(inch)	(lb/bu)	(%)	(%)	----------(bu/a) ----------				
ND Rolette	00.9	9/14	19	55.0	30.2	18.5	30.4	49.6	23.4	36.5	34.5
ND Benson	0.4	9/19	20	54.7	32.6	17.7	30.3	53.7	20.8	37.3	34.9
ND Dickey	0.7	9/21	21	54.6	31.0	16.9	28.2	59.5	22.4	41.0	36.7
Mean		9/18	20	54.8	31.2	17.7	28.4	54.2	22.2	38.2	35.4
C.V. %		0.0	6.8	1.7	2.5	6.1	10.4	5.7	11.7	--	--
LSD 5%		2.5	2.3	1.6	1.4	0.6	4.9	5.3	4.5	--	--
LSD 10%		2.0	1.9	1.3	1.1	0.5	3.9	4.2	3.5	--	--

Planting Date: May 28
Harvest Date: September 25
Previous Crop: Spring Wheat

Table 27. Soybean variety trial results from Roundup Ready Varieties. Data from Mandan, ND.

Soybean - Roundup Ready - 2024 **Mandan**

Brand	Variety	Maturity Group	Plant Height	Test Weight	Protein	Oil	Yield 2024	Yield 2-yr. Avg.	Yield 3-yr Avg.
			(inch)	(lb/bu)	(%)	(%)	----------(bu/a) ----------		
BASF	XO 0094E	00.9	26	55.2	16.0	34.7	52.7	51.0	--
BASF	XO 0234E	0.2	28	55.1	15.8	35.9	55.1	55.0	--
BASF	XO 0554E	0.5	28	55.1	16.5	34.2	55.2	58.4	--
BASF	XO 0602E	0.5	30	54.8	15.0	36.0	56.5	60.1	54.7
BASF	XO 0731E	0.6	30	55.6	15.8	35.6	55.4	57.9	54.7
NDSU	ND17009GT	00.9	37	57.6	16.9	35.9	46.3	47.2	45.0
NDSU	ND2108GT73	0.7	31	54.7	16.4	34.4	51.7	56.5	53.8
Thunder	TE7502N	0.2	28	54.5	16.3	35.0	53.8	--	--
Thunder	TX8402N	0.2	34	55.3	15.6	33.8	53.5	--	--
Thunder	TX8304N	0.4	34	55.5	16.1	34.8	52.3	--	--
Thunder	TX8305N	0.4	30	55.5	15.6	36.2	56.1	--	--
Thunder	TE7405N	0.5	31	53.8	16.3	34.4	55.9	--	--
Mean			31	55.2	16.0	35.1	53.7	55.2	52.1
C.V. %			6.0	1.6	1.6	1.5	4.7	--	--
LSD 5%			2.2	1.0	0.3	0.6	2.9	--	--
LSD 10%			1.7	0.8	0.2	0.5	2.2	--	--

Planting Date: May 31
Harvest Date: October 3
Previous Crop: Spring Wheat

Table 28. Soybean variety trial results from Roundup Ready Varieties. Data from Minot, ND.

Soybean Varieties										**Minot**
Brand	Variety	Trait	Maturity Group	Days to maturity	Lodging score	Plant Height	Test Weight	Protein	Oil	Yield
				(days)*	(1 - 9)**	(inch)	(lb/bu)	(%)	(%)	(bu/a)
BASF	XO 0094E	Enlist E3	0.0	130	1	23	53.8	32.9	17.0	38.5
BASF	XO 0234E	Enlist E3	0.2	133	1	19	54.0	33.7	16.8	35.0
BASF	XO 0315E	Enlist E3	0.3	133	1	16	54.5	33.9	17.2	38.0
BASF	XO 0554E	Enlist E3	0.5	130	1	19	53.7	32.6	17.4	36.4
Channel	00924RXF	RRXF	00.9	127	1	22	53.2	32.8	17.4	35.7
Dyna-Gro	S009EN24	Enlist E3	0.09	124	1	19	53.4	32.9	17.1	38.6
Dyna-Gro	S01XF43	Xtendflex	0.1	130	1	18	54.4	33.2	17.5	38.0
Dyna-Gro	S03EN94	Enlist E3	0.3	133	1	17	53.2	34.3	16.6	41.8
Golden Harvest	GH00864XF	RR2XF	0.08	124	1	23	53.7	33.8	16.8	33.5
Golden Harvest	GH0225XF	RR2XF	0.2	131	1	17	54.5	32.9	17.4	26.3
Integra	XF0212	Xtendflex	0.2	128	1	26	54.0	33.0	17.4	40.6
Integra	XF0493	Xtendflex	0.4	132	1	22	54.1	33.2	16.9	36.9
Integra	E0234	Enlist	0.2	130	1	22	53.9	32.9	16.9	37.3
Legacy	LS0098-23 XF	XF	00.9	128	1	22	54.4	33.4	17.0	33.3
Legacy	LS12-23 E	E3	0.1	133	1	24	53.4	33.8	16.7	34.5
Legacy	LS014-23 XF	XF	0.1	128	1	23	54.1	33.4	17.0	37.8
Legacy	LS024-23 XF	XF	0.2	130	1	23	54.1	34.0	17.5	25.4
Legacy	LS034-24 XF	XF	0.3	133	1	22	53.5	33.8	16.9	36.0
LG Seeds	LGS00820XF	XF	0.008	127	1	21	53.4	32.6	17.1	39.6
LG Seeds	LGS0125XF	XF	0.01	123	1	15	54.2	32.6	17.3	35.7
LG Seeds	LGS0139XF	XF	0.01	128	1	17	54.4	32.9	16.6	35.5
NDSU	ND17009GT	GT	0.09	131	1	17	54.5	33.1	17.0	44.4
NDSU	ND21008GT20	GT	0.08	131	1	24	55.1	34.6	17.3	41.9
NK Seeds	NK008-P8XF	Xtend	0.08	124	1	25	53.6	32.4	17.2	39.5
NK Seeds	NK02-W8E3	Enlist	0.2	128	1	22	53.6	34.0	16.8	38.8
NK Seeds	NK02-Y2FX	Xtend	0.2	132	1	22	53.1	32.9	17.2	34.2
NK Seeds	NK03-J1XF	Xtend	0.3	133	1	26	53.8	34.5	17.0	37.4
Proseed	EL 50-13N	E3	0.1	130	1	22	53.3	34.0	16.8	44.3
Proseed	XF 30-062	XF	0.06	125	1	22	54.2	33.5	16.9	44.5
Proseed	XF 30-092N	XF	0.09	123	1	25	53.4	33.5	16.8	39.1
Proseed	XF 40-12	XF	0.1	127	1	22	54.6	32.7	16.8	33.3
Mean	--	--	--	129	1	21	53.9	33.3	17.1	37.5
C.V. %	--	--	--	3.2	--	18.8	1.5	3.6	2.9	9.0
LSD 5%	--	--	--	7	--	6	1.3	1.9	0.8	5,5
LSD 10%	--	--	--	6	--	5	1,1	1.6	0.7	4.6

**Days after planting.*
***Lodging: 1 = none, 9 = lying flat on the ground.*
Planting date: May 12, 2024
Harvest date: October 10, 2024
Seeding rate: 150,000 live seeds/acre
Previous crop: soybeans
Tillage system: no-till
Soil type: Williams loam

Table 29. Soybean variety trial results from Roundup Ready Varieties. Data from Rugby, ND.

Soybean Varieties									**Rugby**
Brand	Variety	Trait	Maturity Group	Lodging score	Plant Height	Test Weight	Protein	Oil	Yield
				(1 - 9)*	(inch)	(lb/bu)	(%)	(%)	(bu/a)
BASF	XO 0094E	Enlist E3	0.0	1	25	53.6	33.5	16.2	54.9
BASF	XO 0234E	Enlist E3	0.2	1	24	53.1	34.2	16.3	48.8
BASF	XO 0315E	Enlist E3	0.3	1	22	53.3	33.1	16.1	50.6
BASF	XO 0554E	Enlist E3	0.5	1	23	54.1	33.3	16.2	53.1
Dak-Sota	DE54007	E3	00.7	1	25	53.8	33.2	16.0	55.5
Golden Harvest	GH00864XF	RR2XF	0.08	1	24	53.4	33.2	16.6	57.4
Golden Harvest	GH0414E3	Enlist E3	0.4	1	25	53.0	33.5	16.2	53.5
Golden Harvest	GH0225XF	RR2XF	0.2	1	24	54.5	34.3	16.4	50.0
Integra	XF0212	Xtendflex	0.2	1	29	54.2	33.3	16.2	49.3
Integra	E0234	Enlist	0.2	1	25	53.9	34.1	16.2	56.1
Legacy	LS0098-23 XF	XF	00.9	1	26	54.3	32.7	16.3	52.9
Legacy	LS12-23 E	E3	0.1	1	25	53.3	33.1	16.4	51.4
Legacy	LS014-23 XF	XF	0.1	1	26	54.5	33.1	16.5	47.8
Legacy	LS024-23 XF	XF	0.2	1	25	54.0	32.8	16.8	50.3
Legacy	LS034-24 XF	XF	0.3	1	26	53.9	33.3	16.4	51.2
Legacy	LS044-23 XF	XF	0.4	1	26	52.6	33.7	16.1	52.2
NDSU	ND17009GT	GT	0.09	1	27	54.7	34.1	16.1	49.4
NDSU	ND21008GT20	GT	0.08	1	23	54.8	34.3	16.5	48.1
Proseed	EL 50-13N	E3	0.1	1	27	52.9	33.4	16.5	51.8
Proseed	XF 30-062	XF	0.06	1	26	54.2	32.5	16.4	50.0
Proseed	XF 30-092N	XF	0.09	1	24	53.5	32.9	16.5	53.0
Proseed	XF 40-12	XF	0.1	1	24	54.4	32.4	16.5	48.6
Proseed	EL 50-063N	E3	0.06	1	20	53.9	33.9	16.8	53.3
Thunder	TX85008	XF	00.8	1	23	53.2	32.8	16.6	51.6
Thunder	TE7502N	E3	0.2	1	23	53.0	33.5	16.7	50.2
Thunder	TX8402N	XF	0.2	1	24	53.6	33.5	16.4	53.6
Mean	--	--	--	1	25	53.8	33.4	16.4	51.5
C.V. %	--	--	--	--	12.5	1.9	2.6	2.7	9.1
LSD 5%	--	--	--	--	5	1.7	1.4	0.7	7.7
LSD 10%	--	--	--	--	4	1.4	1.1	0.6	6.4

**Lodging: 1 = none, 9 = lying flat on the ground.*

Planting date: May 15, 2024

Harvest date: October 8, 2024

Seeding rate: 150,000 live seeds/acre

Previous crop: barley

Tillage system: minimum

Soil type: Gardena silt loam

Table 30. Soybean variety trial results from Roundup Ready Varieties. Data from Mohall, ND.

Soybean Varieties									**Mohall**
Brand	Variety	Trait	Maturity Group	Lodging score	Plant Height	Test Weight	Protein	Oil	Yield
				(1 - 9)*	(inch)	(lb/bu)	(%)	(%)	(bu/a)
BASF	XO 0094E	Enlist E3	0.0	1	26	55.8	36.7	14.8	31.4
BASF	XO 0234E	Enlist E3	0.2	1	24	55.0	37.7	14.0	27.1
BASF	XO 0315E	Enlist E3	0.3	1	24	54.8	36.1	15.2	28.3
BASF	XO 0554E	Enlist E3	0.5	1	21	54.7	34.8	15.5	25.9
Dak-Sota	DE54007	E3	00.7	1	26	55.9	37.6	14.6	32.6
Golden Harvest	GH00864XF	RR2XF	0.08	1	28	54.9	35.2	15.5	35.2
Golden Harvest	GH0225XF	RR2XF	0.2	1	28	55.3	35.4	15.4	32.6
Integra	XF0082	Xtendflex	0.08	1	28	55.5	35.1	15.4	26.4
Integra	XF0212	Xtendflex	0.2	1	31	55.2	36.0	15.7	30.5
Legacy	LS0098-23 XF	XF	00.9	1	28	55.3	35.0	15.7	37.9
Legacy	LS12-23 E	E3	0.1	1	26	55.5	38.1	14.2	30.2
Legacy	LS014-23 XF	XF	0.1	1	27	55.2	35.1	14.7	26.8
Legacy	LS024-23 XF	XF	0.2	1	28	56.1	36.1	16.0	24.9
Legacy	LS034-24 XF	XF	0.3	1	27	54.7	36.7	15.2	30.3
LG Seeds	LGS0125XF	XF	0.01	1	29	55.8	35.0	15.4	35.4
NDSU	ND17009GT	GT	0.09	1	32	57.3	36.1	16.0	23.4
NDSU	ND21008GT20	GT	0.08	1	28	55.8	34.1	15.9	26.9
NK Seeds	NK006-Z5XF	Xtend	0.06	1	27	55.3	33.3	16.3	34.0
NK Seeds	NK006-U6E3	Enlist	0.06	1	25	55.4	35.5	15.2	31.5
NK Seeds	NK008-P8XF	Xtend	0.08	1	27	54.7	35.6	15.1	30.1
NK Seeds	NK02-Y2FX	Xtend	0.2	1	27	55.2	36.3	14.8	25.5
Proseed	XF 30-062	XF	0.06	1	25	54.3	32.5	16.3	32.3
Proseed	XF 30-092N	XF	0.09	1	26	55.4	35.6	15.4	30.5
Proseed	XF 40-12	XF	0.1	1	28	55.4	34.3	15.4	32.2
Proseed	EL 50-063N	E3	0.06	1	23	55.0	35.6	15.6	28.9
Thunder	TX83006	XF	00.6	1	21	54.8	32.7	16.3	30.8
Thunder	TX85008	XF	00.8	1	24	54.5	34.8	15.8	33.6
Thunder	TX8402N	XF	0.2	1	29	55.4	33.8	15.4	30.0
Mean	--	--	--	1	26	55.3	35.4	15.3	30.4
C.V. %	--	--	--	--	10.3	0.7	2.4	2.5	10.1
LSD 5%	--	--	--	--	4	0.6	1.4	0.6	5.0
LSD 10%	--	--	--	--	3	0.5	1.1	0.5	4.2

**Lodging: 1 = none, 9 = lying flat on the ground.*
Planting date: May 16, 2024
Harvest date: October 8, 2024
Seeding rate: 150,000 live seeds/acre
Previous crop: soybeans
Tillage system: minimum
Soil type: Barnes loam
Note: The trial sustained hail damage on June 27. View data with caution.

Table 31. Soybean variety trial results from Roundup Ready Varieties. Data from Garrison, ND.

Soybean Varieties									**Garrison**
Brand	Variety	Herbicide Trait	Maturity Group	Lodging score	Plant Height	Test Weight	Protein	Oil	Yield
				(1 - 9)*	(inch)	(lb/bu)	(%)	(%)	(bu/a)
BASF	XO 0094E	Enlist E3	0.0	1	18	54.6	34.5	16.9	37.2
BASF	XO 0234E	Enlist E3	0.2	1	20	54.5	35.0	17.0	37.5
BASF	XO 0315E	Enlist E3	0.3	1	19	54.1	35.2	16.8	35.9
BASF	XO 0554E	Enlist E3	0.5	1	20	53.8	34.1	17.0	37.6
Channel	0423RXF	RRXF	0.4	1	20	54.9	34.5	17.7	33.0
Golden Harvest	GH0225XF	RR2XF	0.2	1	18	54.2	34.8	17.3	30.9
Golden Harvest	GH0384XF	RR2XF	0.3	1	22	54.4	35.1	17.1	34.9
Golden Harvest	GH0363E3	Enlist E3	0.3	1	18	54.6	34.8	16.9	33.7
Golden Harvest	GH0414E3	Enlist E4	0.4	1	19	55.0	34.5	17.0	39.5
Integra	XF0212	Xtendflex	0.2	1	25	54.9	34.7	16.9	41.0
Integra	XF0493	Xtendflex	0.4	1	18	54.5	34.4	17.2	36.9
Integra	E0234	Enlist	0.2	1	18	54.5	34.6	16.7	37.5
Integra	E0544	Enlist	0.5	1	20	54.7	33.6	16.9	38.8
Legacy	LS014-23 XF	XF	0.1	1	20	55.4	34.3	17.2	34.4
Legacy	LS024-23 XF	XF	0.2	1	19	54.9	34.5	16.7	36.0
Legacy	LS034-24 XF	XF	0.3	1	21	54.9	34.6	16.9	38.7
Legacy	LS032-23 E	E3	0.3	1	19	54.7	34.0	17.0	34.6
Legacy	LS044-23 XF	XF	0.4	1	18	54.5	35.0	16.8	35.9
LG Seeds	LGS0444XF	XF	0.04	1	19	54.7	34.6	16.7	35.3
NDSU	ND17009GT	GT	0.09	1	21	54.6	35.0	17.2	34.6
NDSU	ND21008GT20	GT	0.08	1	18	54.8	34.8	17.2	36.1
NK Seeds	NK008-P8XF	Xtend	0.08	1	20	54.9	34.4	17.1	37.8
NK Seeds	NK02-W8E3	Enlist	0.2	1	19	54.7	34.9	16.8	37.7
NK Seeds	NK02-Y2FX	Xtend	0.2	1	18	55.2	34.3	17.1	35.0
NK Seeds	NK03-J1XF	Xtend	0.3	1	19	54.3	34.8	16.9	38.8
NK Seeds	NK03-V5E3	Enlist	0.3	1	17	54.8	35.5	16.6	38.7
NK Seeds	NK05-W3XF	Xtend	0.5	1	20	55.0	34.7	16.6	33.9
NK Seeds	NK06-A1E3	Enlist	0.6	1	20	54.3	34.9	17.1	38.4
NK Seeds	NK06-C4XF	Xtend	0.6	1	20	54.7	33.1	16.8	35.7
Proseed	EL 50-13N	E3	0.1	1	20	54.4	34.6	17.5	36.7
Proseed	XF 30-062	XF	0.06	1	18	54.8	34.1	17.2	32.8
Proseed	XF 30-092N	XF	0.09	1	19	54.1	34.1	17.4	34.1
Proseed	XF 40-12	XF	0.1	1	19	54.9	34.5	16.8	39.1
Mean	--	--	--	1	19	54.6	34.6	17	36.4
C.V. %	--	--	--	--	12.2	11.2	2.8	3.1	8.3
LSD 5%	--	--	--	--	4	1.1	1.6	0.9	4.9
LSD 10%	--	--	--	--	3	0.9	1.3	0.7	4.1

**Lodging: 1 = none, 9 = lying flat on the ground.*

Planting date: May 20, 2024

Harvest date: October 9, 2024

Seeding rate: 150,000 live seeds/acre

Previous crop: canola

Tillage system: no-till; Soil type: Bowbells loam

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

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