Langdon Research Extension Center

North Dakota State University

2007 Annual Research Report

NDSU

Langdon Research Center
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Use of this Report

The 2007 Annual Research Report is intended to provide the producer with long term variety yield, agronomic, and disease data from the Langdon Research Extension Center and its off-station locations. Some older varieties, variety trials and variety agronomic information are omitted because of space limitations, but can be found on our web site.

Choosing a variety is one of the most important decisions a producer makes in raising a successful crop. Factors to consider when selecting a variety include yield, disease resistance, protein, straw strength, height, stability across years, maturity, test weight, quality and economic profitability. A variety's performance may differ from year to year and from location to location within a year due to varying environmental conditions. When selecting a variety to grow it is best to consider a variety's performance over several years and locations. For small grain and flax variety descriptions get extension bulletins A-574, A-1049, A-1067 and A-1196 from your extension office.

The data in this report are averages of several plots at each location. The trials are designed so that "real" yield differences can be statistically separated from yield differences that occur by chance. The least significant difference (LSD) values given in this report are used for this purpose. For example, if the LSD 5% is 5 bushels, then if the difference between any two varieties is greater than 5 bushels they are said to be significantly different from one another 95 times out of 100 under those growing conditions. If the difference between 2 varieties is less than 5 bushels, they are not significantly different from one another. If there is a "NS" for an LSD 5% value it means there was no real difference between any varieties or the trial was too variable to detect a real difference.

2003-2007 Growing Season Summaries

2003

Stored soil moisture was adequate for the start of the 2003 growing season. Spring planting began from mid-April to early May across the region. May and June precipitation was generally normal to above normal. July precipitation was spotty with areas ranging from below to above rainfall. Most regions were dryer than normal in August. The small grain crop was the best in years across the area with very low disease levels and excellent weather for harvest which resulted in excellent quality. Corn and soybean harvest weather was also good but yields were down because of dryer conditions in August and September.

2004

Cold! This best describes what will be remembered for the 2004 growing season. Temperatures were much below normal May-August. Corn GDD was only 70-80% of normal across NE ND. Fewer GDD delayed development of early season crops at least two weeks but the effect on later row crops was far more severe. An August 20 frost across the region resulted in damage to many crops, especially corn**,** drybeans and soybeans. August was the coldest on record at Langdon. Mid-May brought rain, snow and ice to the region which delayed spring planting two weeks or more. Precipitation levels across the region were 100-125% of normal from April to September. Harvest conditions from August to mid-September were poor resulting in reduced quality especially in small grains. Many corn, drybean and soybean fields across the region were not harvested.

2005

Precipitation in September-October 2004 was generally above normal across the region while November 2004-April 2005 precipitation was below normal. Stored soil moisture levels were adequate for the start of the 2005 growing season. Precipitation levels in May were slightly above normal and were nearly double the normal in June. This resulted in many drowned out areas in fields or saturated soil conditions which had a detrimental effect on crop yields. Temperatures were below normal in May and August, near normal in June and July and above normal in September. The first killing frost occurred in early to late October which allowed soybeans and row crops to mature. Fusarium head blight was at the highest levels seen for several years resulting in reduced yields and quality. Sclerotinia in canola and sunflowers were at low levels.

2006

Precipitation levels in September-October 2005 were generally below normal while the November 2005 – April 2006 precipitation was above normal. Stored soil moisture levels were good for the start of the growing season. Even though May precipitation levels were below normal, most crops got off to a

good start with adequate stands. Precipitation amounts for June and July were much below normal in many areas. Rainfall events were spotty. Despite the lack of rainfall yield levels were better than expected because of the good stored soil moisture levels. Quality of the crop was excellent. Disease levels of fusarium head blight and sclerotinia in canola and sunflowers were almost non-existent.

2007

Precipitation levels in September-October 2006 were generally below normal while the November 2006 – April 2007 precipitation was near normal. May rainfall was 200-300% above normal while June rainfall was 100-200% above normal. July rainfall was also above normal will August rainfall dropped to 50-100% of normal. The early heavy rain caused some stand problems in canola. Foliar diseases on small grain were the main disease problem during the growing season.

2007 Variety Trials

The NDSU Langdon Research Extension Center, in addition to its on-station research program, conducted variety research trials at five off-station locations in 2007. Trial locations were 6 miles south of Pekin on Hwy 1, 2 miles north of the Perth, Walsh small grains at the Walsh County Farm at Park River, Walsh soybeans 3 miles east of Park River, Pembina County trials 2.5 miles north of the junction of Hwy 5 and 18 east of Cavalier and the Ramsey County trials 2 miles west of Devils Lake on Hwy 2. These locations are in cooperation with the farmer, the Extension Service and the County Agricultural Improvement Association.

Frost Dates

Length of growing season in Northeast North Dakota varies quite dramatically from the northwest to southeast. The performance of a variety or hybrid in a given year can also vary dramatically depending on the number of frost free days. Knowing the average frost free period in your area is particularly important when choosing a variety or hybrid of corn, sunflower, soybeans and drybeans.

The following table gives the frost dates 32^0 and 28^0 F, and the number of days above 32^0 and 28^0 F for Langdon, Cavalier, Park River, and Pekin. Normal (50 percent probability of observing a temperature as cold, or colder, later in the spring or earlier in the fall than the indicated date) frost dates and frost free days are from 1961-1990.

	32 degrees F			**28 degrees F**		
	Last Spr.	First Fall	Frost Free	Last Spr.	First Fall	Frost Free
Langdon	Frost	Frost	Days	Frost	Frost	Days
Normal	5/28	9/13	108	5/17	9/21	128
2007	5/27	9/9	105	4/14	10/22	191
2006	5/21	9/8	110	5/12	9/28	139
2005	5/16	10/5	142	5/15	10/6	144
2004	5/27	8/20	85	5/14	10/1	140
2003	5/20	9/25	128	4/29	9/25	149
Cavalier						
Normal	5/18	9/23	127	5/5	10/2	149
2007	5/27	9/11	107	4/25	9/12	140
2006	5/21	9/9	111	5/5	9/9	127
2005	5/15	10/5	143	5/15	10/19	157
2004	5/16	8/20	96	5/16	10/2	139
2003	5/20	9/25	128	4/29	9/25	149
Park River						
Normal	5/16	9/25	132	5/5	10/3	151
2007	5/12	9/9	132	4/13	10/24	194
2006	5/21	10/9	157	4/8	10/11	186
2005	5/15	10/5	143	5/03	10/26	176
2004	5/14	8/20	98	5/14	10/3	142
2003	5/1	9/25	147	4/17	9/30	166
Pekin						
Normal	5/17	9/21	127	5/6	10/1	148
2007	4/14	10/22	191	4/13	10/22	192
2005	5/15	10/5	143	5/11	10/22	164

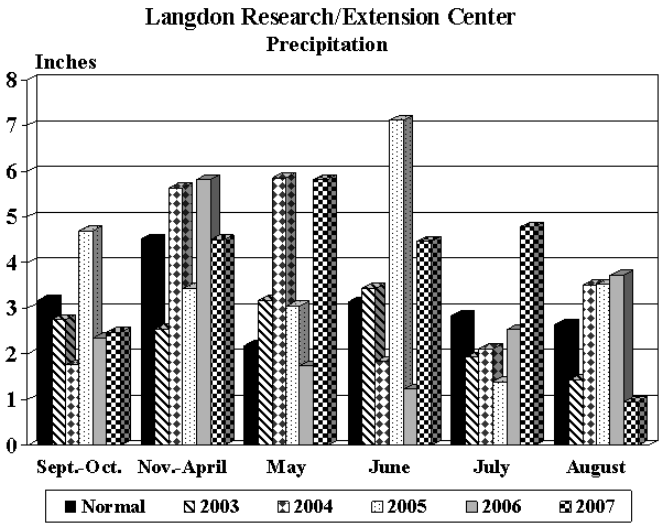
2007 Off-Station Crop Management						
Location(County/ Field Trial	**Previous Crop**	**Seeding Rate Unit/Acre**	**Yield Goal**	**Planting Date**	**Harvest Date**	**Row Spacing**
Cavalier (Pembina)						
HRSW	soybeans	1.50 million pls	55 bu	4/26	8/15	6
Barley	soybeans	1.25 million pls	80 bu	4/26	7/2	6
Soybeans	sugarbeets	200,000 pls	60 bu	5/30	10/2	6
Drybeans	sugarbeets	70,000-90,000 pls	2000 lb	5/30	9/27	30
Park River (Walsh)	**Hoople - Soybeans**					
HRSW	fallow	1.50 million pls	60 bu	4/26	8/15	6
Soybean	wheat	200,000 pls	60 bu	5/17	10/1	6
Pekin (Nelson)						
HRSW	wheat	1.50 million pls	60 bu	4/30	8/16	6
Soybean	wheat	200,000 pls	60 bu	5/18	10/3	6
Devils Lake (Ramsey)						
HRSW	soybean	1.50 million pls	50 bu	4/30	8/16	6
Durum	soybean	1.50 million pls	50 bu	4/30	8/16	6
Barley	soybean	1.25 million pls	80 bu	4/30	8/3	6
Perth (Towner)						
HRSW	fallow	1.50 million pls	70 bu	5/1	8/29	6
Durum	fallow	1.50 million pls	70 bu	5/1	8/29	6
Barley	fallow	1.25 million pls	100 bu	5/1	8/3	6
Location	**Soil Type**					
Cavalier	Neche silty clay loam					
Park River	Wheat-Glyndon silt loam, Soybean-Fairdale silt loam					
Pekin	Svea-Cresbard loam					
Devils Lake	Overly silty clay loam					
Perth	Hamerly-Barnes					

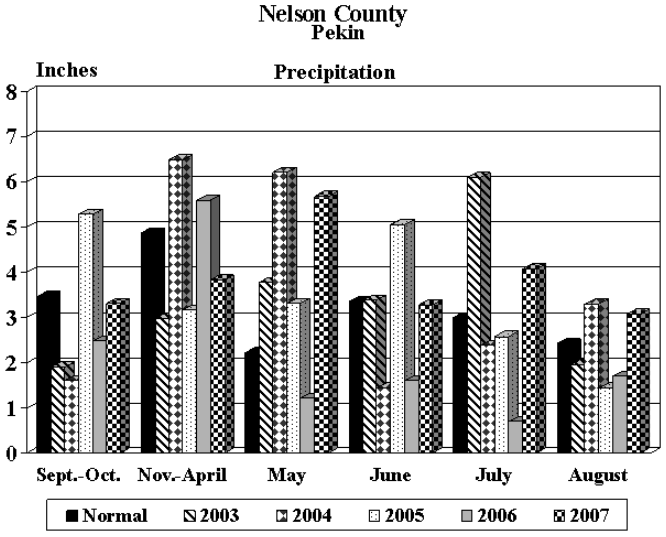
pls=pure live seeds

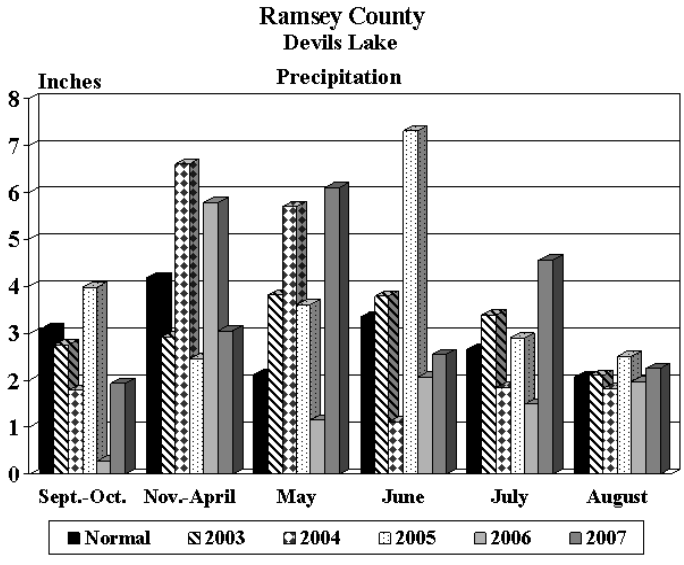
2007 Crop Management - Langdon						
Field Trial	**Previous Crop**	**Seeding Rate Unit/Acre**	**Yield Goal**	**Planting Date**	**Harvest Date**	**Row Spacing**
Barley	fallow	1.25 million pls	85 bu	4/24	8/7	6
Buckwheat	wheat	700,000 pls	1700 lb	6/1	9/17	6
Canola - Conv, LL, CL	potato	610,000 pls	2500 lb	5/8	8/24	6
Canola - RR	potato	610,000 pls	2500 lb	5/8	8/23	6
Corn	potato	28,000 thinned	110 bu	5/11	10/24	30
Durum	fallow	1.50 million pls	50 bu	4/24	8/21	6
Drybean	fallow	70-90,000 pls	2500 lb	6/1	9/28	30
Field Pea	fallow	300,000 pls	60 bu	4/27	8/26	6
Flax	fallow	2.8 million pls	50 bu	4/27	8/31	6
Forage (Cool Season)	fallow	varied	varied	4/27	7/23	6
Forage (Warm Season)	wheat	varied	varied	6/1	8/20	6
HRSW	fallow	1.50 million pls	55 bu	4/24	8/17	6
HRWW	fallow	1.0 million pls	60 bu	9/13/06	8/9	6
Mustard	potato	610,000 pls	2000 lb	5/8	8/24	6
Oats	fallow	1.0 million pls	100 bu	4/24	8/22	6
Soybean - Conventional	potato	200,000 pls	60 bu	5/21	10/4	6
Soybean - RR	potato	200,000 pls	60 bu	5/21	10/4	6
Sunflower - Confection	fallow	17,000 thinned	2500 lb	5/16	10/15	30
Sunflower-Oil	fallow	20,000 thinned	2500 lb	5/16	10/16,22	30
Soil Type - Svea-Barnes loam						

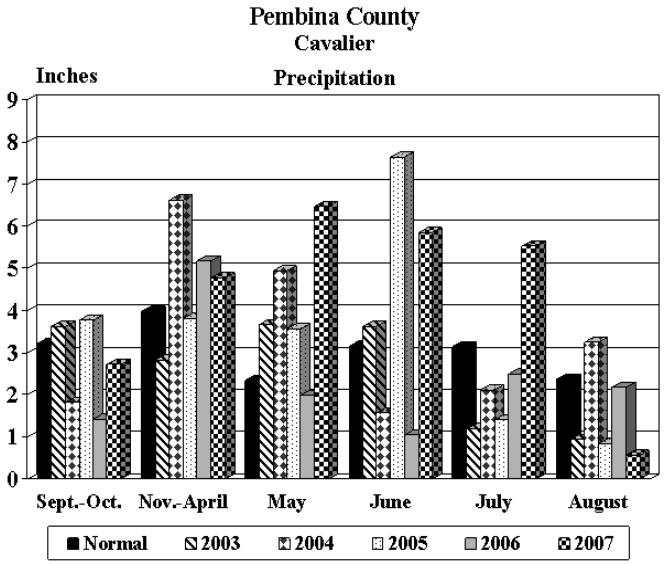
Langdon Research Extension Center and Off-Station
2003-2007 Precipitation Summaries

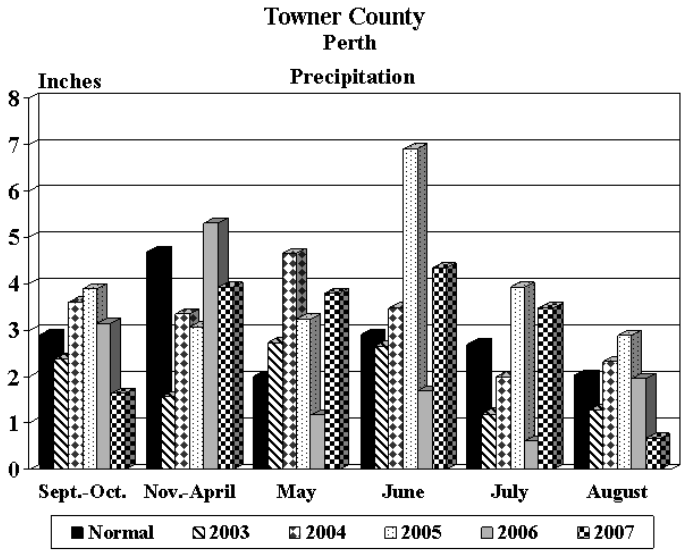
The graphs shown below indicate precipitation amounts from Langdon and each off-station location. Precipitation totals from the Langdon Research Extension Center are recorded on site while precipitations amounts from off-station locations are gathered from the nearest reporting weather station(s) to the trial. Normal precipitation totals are from 1961-1990 except Langdon, which is from 1896-2006. Normal precipitation totals from Pekin and Perth are taken from Petersburg and Leeds, respectively. September-October and November-April precipitation totals are fall and winter recharge for the next years cropping season. Additional information on where precipitations totals were gathered for specific locations are as follows; 2003-2007 Park River Totals are from Grafton, Forest River, Adams and Grand Forks area. Pekin totals are from Petersburg and McHenry. Perth totals are from Cando, Hansboro, Rolla and Rolette.

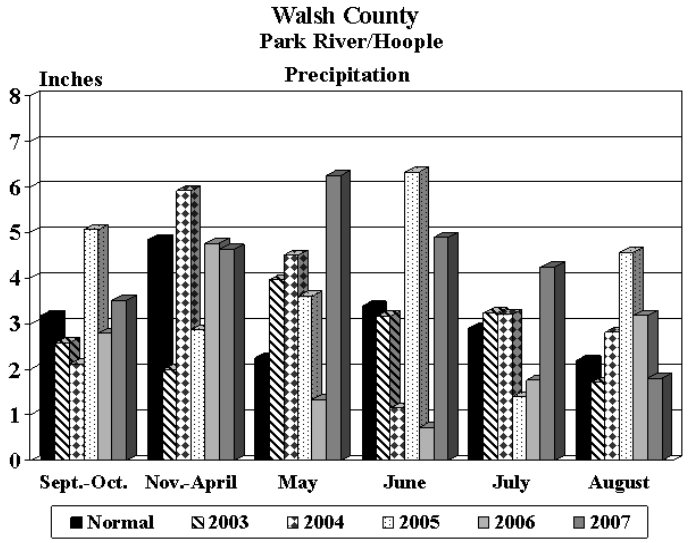






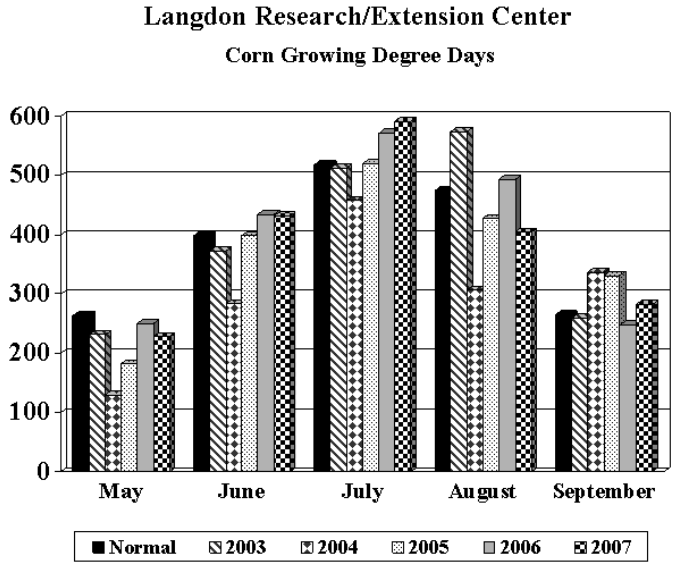


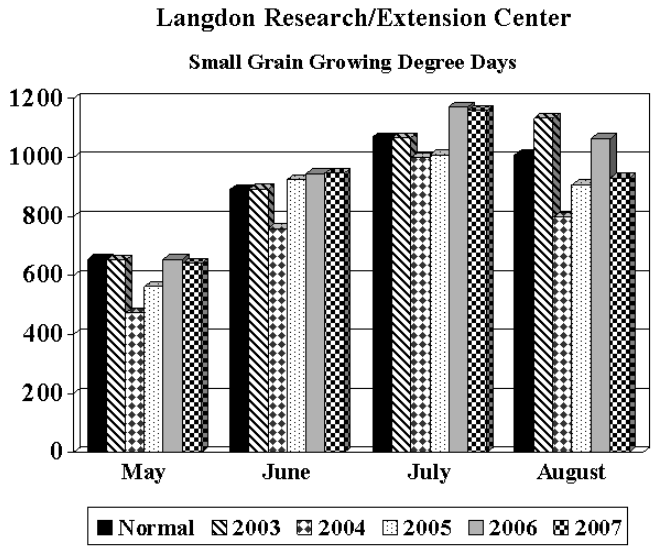




Growing Degree Days

Growing degree-days is a measure of heat units which relates plant development to air temperature. Cereal crops require a minimum temperature of 32^0 F in order for plant development to begin while corn requires a minimum temperature of 50^0 F. Plant development increases activity up to an optimum temperature of 95^0 for cereals and 86^0 for corn at which point plant development begins to retard. Corn growing degree days can be used as a general guide for plant development in other warm season crops.





Small Grain and Flax Trial Information

HRSW and Durum
Yields were generally average to above average with good quality across the region. Foliar diseases were moderate and very little or no fusarium head blight was observed. Variety trials are not sprayed with fungicides. New hrsw varieties in this report include: Faller - NDSU, RB07- MN, Hotshot – Northstar Genetics, Kuntz, AP 604CL – AgriPro, Cromwell, Normwell – Thunder Seed. New durum varieties; DG Star - Dakota Pasta Growers.

Hard Red Winter Wheat
The winter wheat trial in 2007 was planted into flax stubble in order to trap snow for increased winter survival but snowfall was variable in the trial resulting in some winterkill. There was no fusarium head blight present in the 2003 and 2006 and trials and small levels in 2004 and 2007. Fusarium head blight levels in 2005 were very high along with DON. Leaf and stem rust infections were light to moderate and 2003-2007. Newer varieties tested include: Darrell – SDSU, NuDakota and Hawken - AgriPro, Capo tested by Agriprogress.

Oats
Serious yield losses in some varieties occurred in oats in 2005 because of crown rust and/or lodging. There was low to moderate amounts in 2003-2004, 2006 and 2007. HiFi, Souris and Stallion exhibit the best resistance to the prevalent races of crown rust. A shift in the predominant rust races resulted in some of the varieties that had exhibited resistance in past years to be susceptible to the more predominant rust race. New varieties included: Stallion -SDSU.

Barley
Off-station barley variety trials were conducted in Pembina, Ramsey and Towner counties in 2007. Barley trials are rotated between Pembina and Walsh Counties. Robust, Lacey, Drummond, Legacy, Tradition, Stellar-ND, AC Metcalfe, Conrad and Conlon have been approved by AMBA as recommended malting varieties. Lacey will only be utilized by Miller Brewing Co. Tradition and Legacy will only be utilized by Anheuser-Bush. Stellar-ND is approved by Miller Brewing Co. while Anheuser-Bush is continuing to test. Conlon is used by Miller in limited quantities.

Description of Traits Reported
Yield: bushels per acre, dockage free
Test Weight: pounds per bushel, dockage free
Height: in inches, excluding beards
Lodging: scale of 0-9, 0 equals plants standing erect, 9 equals plants lying horizontal. Years with no lodging reported indicate no lodging in the trial.
Days to Head: number of days from planting to heading
Days to flower: for flax, number of days from planting to 10% flower
Protein: grain protein percent, as is moisture basis. Percent moisture for protein is reported as the following: Hrsw and Hrww-12%, Barley and Oats-0%.
Plump: percent of sample remaining on a 6/64 screen

Special Thanks to our local cooperators for their efforts in our off-station variety testing.

Our 2007 cooperators were:

Larry Lindberg - Perth
Larry Weed - Devils Lake
Doug Stein - Pekin
Brad Brummond - Walsh County Agent
Andy Johnson - Walsh County Agent
Dave Hankey - Park River Soybeans
Kent Schluchter - Cavalier
Lesley Lubenow - Pembina County Agent
Terry Gregoire - Area Extension Agent

Average Data by Crop and Year Across Sites

Durum	Yield (bu/a)						Test Weight (lbs/bu)						Height (in)						Days to Head					
No. Sites	2	3	3	2	3	8	2	3	3	2	3	8	2	3	3	2	2	7	2	3	3	2	3	8
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
Grenora	81	76	62	60	57	60	60.8	60.3	57.7	60.1	58.3	58.7	39	39	38	34	39	37	66	71	62	54	64	60
Lebsock	79	72	59	55	59	58	61.9	61.4	59.1	61.4	59.8	60.1	39	39	38	34	40	37	65	71	62	53	63	59
Mountrail	87	78	56	61	59	59	60.9	59.8	57.5	60.5	59.0	59.0	40	41	40	35	42	39	66	72	63	55	65	61
Alkabo	--	75	55	63	66	61	--	61.4	58.4	61.1	60.2	59.9	--	40	39	36	41	39	--	71	63	55	64	61
Divide	--	75	59	58	59	59	--	60.8	58.5	60.8	58.9	59.4	--	41	41	36	42	40	--	72	64	56	64	61
Grande Doro	--	--	52	64	59	58	--	--	58.4	61.3	59.7	59.8	--	--	40	36	41	39	--	--	63	55	65	61
Primo Doro	--	--	49	54	53	52	--	--	58.2	61.4	58.7	59.4	--	--	44	40	44	43	--	--	62	53	63	59
Dilse	78	69	54	--	--	--	61.1	60.4	57.9	--	--	--	40	40	39	--	--	--	66	72	63	--	--	--
Pierce	79	68	56	--	--	--	61.9	61.1	59.0	--	--	--	42	41	40	--	--	--	66	72	63	--	--	--
Munich	80	71	--	--	--	--	60.9	60.6	--	--	--	--	39	38	--	--	--	--	65	72	--	--	--	--

Barley	Yield(bu/a)						Test Weight (lbs/bu)						Protein (%)						Plump (%)						Days to Head				
No. Sites	3	3	4	4	4	12	3	3	4	4	4	12	3	3	4	4	4	12	3	3	4	4	4	12	2	3	4	4	11
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	04	05	06	07	3yr
Drummond	111	91	69	84	78	77	47.8	46.8	46.1	46.6	47.9	46.9	12.0	12.6	11.2	13.0	12.5	12.2	93	83	86	70	84	80	66	62	54	58	58
Lacey	119	104	74	91	86	84	49.6	48.8	47.0	47.9	48.8	47.9	11.8	11.9	11.4	12.8	12.4	12.2	94	87	87	74	84	82	66	61	53	59	58
Legacy	117	87	74	89	74	79	47.9	45.7	45.4	45.1	47.2	45.9	12.0	12.0	11.1	12.3	12.2	11.9	94	80	84	67	84	78	69	61	55	61	59
Stellar-ND	118	109	78	95	78	84	48.4	46.9	46.3	47.3	47.8	47.1	11.6	11.7	11.2	12.2	12.2	11.9	96	87	89	76	89	85	67	60	53	58	57
Tradition	112	102	75	93	73	80	49.0	46.9	47.0	47.7	48.0	47.6	11.9	12.0	11.1	12.6	12.4	12.0	94	83	87	72	84	81	67	61	55	60	58
Pinnacle*	--	--	--	--	80	--	--	--	--	--	49.7	--	--	--	--	--	11.2	--	--	--	--	--	92	--	--	--	--	60	--
Robust	107	87	67	--	--	--	49.5	47.9	46.8	--	--	--	12.6	12.8	11.7	--	--	--	94	83	84	--	--	--	67	61	--	--	--

*Two row barley

Average Data by Crop and Year Across Sites

HRSW	Yield (bu/a)						Test Weight (lbs/bu)						Protein (%)						Height (in)					Days to Head				
No. Sites	5	6	6	6	6	18	5	6	6	6	6	18	5	6	6	6	6	18	6	6	6	6	18	5	5	6	5	16
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	04	05	06	07	3yr	04	05	06	07	3yr
Alsen	64	71	52	62	53	56	61.8	61.4	60.3	61.7	60.4	60.8	15.4	14.2	16.0	15.0	15.0	15.3	38	35	34	36	35	67	60	54	59	57
Briggs	68	76	53	64	65	61	61.4	61.1	59.3	61.5	60.4	60.4	15.7	14.3	15.9	14.8	15.1	15.3	39	34	35	36	35	66	59	52	57	56
Knudson	68	75	59	65	67	64	60.8	59.7	59.2	61.2	60.1	60.2	14.2	13.3	14.6	14.1	14.2	14.3	37	35	32	35	34	69	62	56	60	59
Oklee	70	72	53	60	58	57	62.3	61.5	60.2	61.5	60.9	60.9	15.6	14.5	15.6	15.3	15.0	15.3	37	34	34	36	35	65	60	54	58	57
Freyer	--	74	53	65	62	60	--	59.8	58.4	61.1	59.7	59.7	--	13.9	15.6	14.5	14.4	14.8	39	36	35	36	36	68	61	54	60	58
Glenn	--	73	57	63	66	62	--	63.6	62.0	63.6	62.9	62.8	--	14.5	15.8	15.2	15.2	15.4	41	37	36	39	37	66	59	51	57	56
Trooper	--	75	56	66	68	63	--	61.0	59.8	62.0	60.6	60.8	--	13.2	14.7	14.1	13.5	14.1	33	33	30	32	32	66	59	52	58	56
Howard	--	--	54	68	64	62	--	--	60.4	62.0	61.5	61.3	--	--	15.4	14.5	14.7	14.9	--	35	35	37	36	--	60	53	60	58
Steele-ND	69	72	51	--	62	--	62.1	61.3	59.9	--	61.2	--	15.2	14.3	15.8	--	15.1	--	39	35	--	37	--	67	59	--	59	--
Ada	--	--	--	63	62	--	--	--	--	61.9	61.0	--	--	--	--	14.6	14.4	--	--	--	32	34	--	--	--	55	60	--
Bakker Gold	--	--	--	64	56	--	--	--	--	60.4	59.6	--	--	--	--	14.0	13.7	--	--	--	34	36	--	--	--	59	65	--
Bigg Red	--	--	--	66	49	--	--	--	--	62.9	61.2	--	--	--	--	13.8	13.5	--	--	--	38	38	--	--	--	56	60	--
Faller	--	--	--	73	75	--	--	--	--	60.8	60.3	--	--	--	--	14.1	14.4	--	--	--	34	37	--	--	--	55	60	--
Fireball	--	--	--	58	55	--	--	--	--	59.6	58.2	--	--	--	--	15.7	15.6	--	--	--	31	34	--	--	--	57	63	--
Kelby	--	--	--	61	63	--	--	--	--	61.5	60.0	--	--	--	--	15.1	14.9	--	--	--	29	32	--	--	--	52	58	--
Rush	--	--	--	58	60	--	--	--	--	62.3	61.0	--	--	--	--	15.2	15.0	--	--	--	33	35	--	--	--	52	57	--
Traverse	--	--	--	71	68	--	--	--	--	59.4	58.1	--	--	--	--	13.7	14.0	--	--	--	36	39	--	--	--	52	57	--
Hotshot	--	--	--	--	52	--	--	--	--	--	59.6	--	--	--	--	--	13.2	--	--	--	--	33	--	--	--	--	64	--
Kuntz	--	--	--	--	65	--	--	--	--	--	59.9	--	--	--	--	--	14.1	--	--	--	--	33	--	--	--	--	60	--
RB07	--	--	--	--	66	--	--	--	--	--	59.6	--	--	--	--	--	14.6	--	--	--	--	35	--	--	--	--	57	--
Hanna	67	75	54	66	--	--	61.2	60.9	59.9	61.3	--	--	15.4	14.4	15.6	14.8	--	--	43	38	40	--	--	68	61	54	--	--
Granger	--	74	51	69	--	--	--	60.6	59.2	61.7	--	--	--	14.3	15.6	14.7	--	--	41	37	38	--	--	66	60	53	--	--
Polaris	--	74	55	63	--	--	--	59.8	59.5	60.0	--	--	--	12.7	14.2	14.1	--	--	39	36	34	--	--	72	67	59	--	--
Dapps	--	--	--	59	--	--	--	--	--	60.1	--	--	--	--	--	15.8	--	--	--	--	38	--	--	--	--	54	--	--
Granite	69	74	49	--	--	--	63.0	62.6	60.8	--	--	--	15.9	14.7	16.5	--	--	--	37	34	--	--	--	70	62	--	--	--
Saturn	--	72	50	--	--	--	--	58.5	56.8	--	--	--	--	14.2	15.9	--	--	--	40	36	--	--	--	71	65	--	--	--
Banton	--	--	52	--	--	--	--	--	60.4	--	--	--	--	--	15.3	--	--	--	--	37	--	--	--	--	61	--	--	--
Ulen	--	--	51	--	--	--	--	--	58.6	--	--	--	--	--	15.4	--	--	--	--	35	--	--	--	--	60	--	--	--
Norpro	69	78	--	--	--	--	59.7	59.4	--	--	--	--	14.5	13.5	--	--	--	--	36	--	--	--	--	68	--	--	--	--
Parshall	71	68	--	--	--	--	62.3	61.7	--	--	--	--	15.5	14.0	--	--	--	--	43	--	--	--	--	66	--	--	--	--
Dandy	74	--	--	--	--	--	62.3	--	--	--	--	--	14.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Keystone	66	--	--	--	--	--	61.9	--	--	--	--	--	14.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Russ	70	--	--	--	--	--	60.8	--	--	--	--	--	15.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

HRSW Summary, Langdon 2003-2007

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
AC Superb	83	63	46	54	51	50	61.3	58.0	57.5	58.0	57.6	57.7	14.7	14.0	14.5	14.0	14.8	14.4
Alsen	75	66	56	63	59	59	62.4	59.8	60.2	60.3	61.8	60.8	15.4	14.1	15.5	14.8	15.3	15.2
Bakker Gold	82	76	63	60	67	63	61.4	58.1	59.4	59.2	61.6	60.1	13.6	13.0	13.9	13.8	13.5	13.7
Briggs	79	75	56	63	65	61	62.6	59.6	59.3	60.1	60.4	59.9	15.8	14.1	15.5	15.1	14.8	15.1
Dapps	78	67	65	57	67	63	60.9	60.1	59.2	58.4	60.1	59.2	16.3	15.6	16.2	15.8	16.5	16.2
Fireball	73	60	55	58	64	59	60.4	56.6	57.4	57.6	59.5	58.2	15.7	14.5	15.9	15.3	15.8	15.7
Glenn	80	67	59	56	76	64	64.4	61.9	61.8	62.2	63.8	62.6	15.3	14.6	15.2	15.5	15.0	15.2
Granger	83	67	49	67	69	61	62.5	58.5	59.6	60.6	61.2	60.5	14.9	13.9	15.0	14.7	14.9	14.9
Granite	77	66	58	60	63	60	63.0	60.1	60.8	61.4	62.8	61.7	16.0	14.7	15.7	15.5	16.3	15.8
Gunner	71	60	48	52	50	50	62.4	60.5	60.5	60.4	61.3	60.7	15.4	14.3	16.0	14.8	15.9	15.6
Hanna	81	78	58	61	63	61	61.9	60.1	59.6	60.2	60.5	60.1	15.3	14.2	15.3	14.6	15.5	15.1
Howard	82	74	61	63	63	62	63.5	59.3	60.8	60.0	62.2	61.0	14.6	14.2	14.9	14.5	15.2	14.9
Ingot	77	62	45	52	46	48	63.9	61.8	60.9	61.1	61.3	61.1	15.4	13.5	15.0	13.6	13.8	14.1
Knudson	82	66	65	65	72	68	61.9	57.2	59.0	59.8	60.9	59.9	13.8	13.0	14.2	13.8	14.2	14.1
Norpro	76	73	56	67	71	65	59.4	56.5	57.6	60.2	60.3	59.4	15.0	13.8	15.2	14.3	14.6	14.7
Oklee	80	65	53	62	65	60	63.3	59.9	60.5	60.8	61.3	60.9	15.4	14.6	14.9	14.8	15.2	15.0
Oxen	76	60	52	59	45	52	59.5	56.0	57.0	58.6	56.1	57.2	14.3	13.5	14.3	13.8	13.8	14.0
Parshall	83	64	56	60	67	61	62.5	60.0	60.3	60.4	62.4	61.0	15.2	14.2	15.3	14.7	14.9	15.0
Polaris	81	70	67	64	71	67	60.9	56.9	59.7	59.3	61.9	60.3	13.6	13.0	13.8	13.7	13.1	13.5
Reeder	81	67	51	61	62	58	61.6	58.3	57.7	59.6	60.7	59.3	15.1	14.3	14.7	14.0	14.5	14.4
Russ	83	62	53	62	60	58	61.1	57.3	58.1	58.8	58.9	58.6	15.0	14.1	14.1	14.7	14.6	14.5
Steele-ND	79	70	56	67	63	62	62.8	59.3	60.6	60.5	61.9	61.0	15.3	14.2	15.3	14.9	15.5	15.2
Ulen	86	56	48	63	63	58	62.6	58.4	58.5	60.7	60.4	59.9	14.6	14.2	14.7	14.8	15.1	14.9
Faller	--	77	80	69	76	75	--	58.0	59.9	59.1	61.1	60.0	--	13.3	14.5	14.1	15.0	14.5
Freyr	--	68	50	63	72	62	--	58.4	57.6	60.4	60.9	59.6	--	13.8	15.2	14.5	13.9	14.5
Hotshot	--	61	54	63	62	59	--	56.5	58.6	59.6	60.4	60	--	13.1	14.0	13.4	14.0	13.8
Trooper	--	73	55	61	74	63	--	59.4	59.5	61.2	61.3	60.7	--	13.3	14.3	13.8	13.5	13.9
Ada	--	--	59	59	71	63	--	--	60.2	61.0	62.4	61.2	--	--	14.9	13.9	14.2	14.3
Bigg Red	--	--	52	62	59	57	--	--	61.6	62.0	62.5	62.3	--	--	13.3	13.6	13.6	13.6
RB07	--	--	63	67	73	68	--	--	59.1	60.1	60.4	59.9	--	--	14.8	14.9	14.7	14.8
Mercury	83	63	--	72	76	--	61.0	58.2	--	59.5	60.5	--	14.5	13.2	--	14.3	13.6	--
FBC-Dylan	--	--	--	63	60	--	--	--	--	60.2	59.5	--	--	--	--	14.1	14.9	--
Kelby	--	--	--	61	70	--	--	--	--	60.6	60.7	--	--	--	--	15.1	15.2	--
Rush	--	--	--	55	68	--	--	--	--	60.9	61.9	--	--	--	--	15.3	15.0	--
Traverse	--	--	--	66	76	--	--	--	--	57.5	58.8	--	--	--	--	14.1	13.9	--
AP 604 CL	--	--	--	--	59	--	--	--	--	--	60.6	--	--	--	--	--	14.4	--
Cromwell	--	--	--	--	73	--	--	--	--	--	62.1	--	--	--	--	--	14.7	--
Kuntz	--	--	--	--	71	--	--	--	--	--	60.5	--	--	--	--	--	14.1	--
Norwell	--	--	--	--	62	--	--	--	--	--	61.5	--	--	--	--	--	13.7	--
Pasteur	--	--	--	--	66	--	--	--	--	--	59.9	--	--	--	--	--	13.9	--
1761	--	--	--	--	66	--	--	--	--	--	59.9	--	--	--	--	--	14.0	--
ACAmazon	71	64	50	52	--	--	60.8	58.0	57.6	58.6	--	--	14.7	13.9	14.7	14.2	--	--
Burnside	82	73	48	57	--	--	60.8	59.0	56.8	56.7	--	--	16.1	14.5	16.5	15.1	--	--
Saturn	70	65	50	62	--	--	58.9	56.3	55.9	57.9	--	--	14.9	14.1	15.8	15.1	--	--
Banton	--	64	60	64	--	--	--	60.6	59.8	62.3	--	--	--	14.2	14.9	14.7	--	--
Buck Pronto	--	--	51	--	--	--	--	--	58.6	--	--	--	--	--	15.7	--	--	--
Express	--	--	53	--	--	--	--	--	57.4	--	--	--	--	--	15.6	--	--	--
Dandy	87	72	--	--	--	--	62.9	60.9	--	--	--	--	14.3	13.2	--	--	--	--
HJ98	81	76	--	--	--	--	60.6	57.9	--	--	--	--	14.1	13.0	--	--	--	--
Keystone	75	68	--	--	--	--	63.0	60.8	--	--	--	--	13.8	13.4	--	--	--	--
LSD 5%	5.5	8.6	4.9	8.1	7.7		0.8	1.3	0.6	1.4	1.0		0.4	0.4	0.6	0.7	1.0	

HRSW Summary, Langdon 2003-2007

	Days to Head						Height(in)						Lodging(0-9)					Shatter*	
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	06	07	3yr	2004	2005
AC Superb	67	72	54	53	63	57	41	33	35	38	41	38	0.8	1.0	0.7	0.8	0.8	100	1
Alsen	65	72	54	52	61	56	39	39	34	37	39	37	0.3	0.0	0.8	0.3	0.4	140	16
Bakker Gold	73	77	60	59	70	63	41	41	36	36	41	38	0.0	0.0	0.0	0.0	0.0	120	0
Briggs	63	72	53	51	60	55	38	42	35	37	37	36	1.5	0.0	1.0	3.5	1.5	80	15
Dapps	66	71	54	53	62	56	44	45	40	41	42	41	2.0	0.3	0.7	3.8	1.6	90	45
Fireball	70	76	58	56	68	61	36	38	33	33	38	35	0.3	0.0	0.5	0.0	0.2	110	39
Glenn	64	70	54	49	60	54	41	43	37	38	41	39	0.3	0.0	1.2	0.3	0.5	160	0
Granger	64	71	54	53	61	56	42	44	39	41	41	40	2.0	1.3	1.5	1.8	1.5	120	136
Granite	70	76	57	55	69	60	38	38	34	34	37	35	0.0	0.0	0.0	0.0	0.0	100	10
Gunner	69	74	56	55	67	59	41	41	37	38	41	39	1.0	1.5	1.7	1.5	1.6	130	8
Hanna	66	73	54	52	62	56	43	45	38	41	41	40	0.8	0.3	1.3	3.0	1.5	70	0
Howard	66	73	54	52	62	56	40	41	36	36	39	37	1.0	1.3	0.0	3.0	1.4	100	24
Ingot	63	70	52	50	58	53	43	45	38	39	40	39	0.8	0.3	0.7	0.5	0.5	180	70
Knudson	68	74	56	54	65	58	39	39	35	34	39	36	0.3	1.8	1.2	0.3	1.1	90	9
Norpro	67	75	55	52	63	57	37	37	32	33	35	33	1.8	0.0	1.5	2.0	1.2	140	16
Oklee	65	71	54	53	60	56	39	40	35	37	37	36	1.5	4.0	1.5	3.0	2.8	150	70
Oxen	66	72	54	51	61	55	39	40	34	35	38	36	3.0	0.3	1.5	1.3	1.0	100	46
Parshall	65	72	54	52	62	56	44	47	39	42	44	42	0.3	0.3	1.0	0.3	0.5	80	28
Polaris	73	79	60	58	70	63	41	40	36	37	40	38	0.0	0.0	0.7	0.0	0.2	80	0
Reeder	65	72	55	53	62	57	40	41	34	36	40	37	0.8	0.0	1.3	1.3	0.9	80	14
Russ	65	72	53	51	63	56	40	43	37	39	39	38	2.5	3.8	1.5	2.3	2.5	120	17
Steele-ND	66	73	53	53	62	56	41	41	35	38	38	37	2.5	2.8	2.2	2.3	2.4	80	5
Ulen	65	71	54	51	62	56	41	39	35	36	36	36	1.8	1.8	2.7	0.8	1.8	190	98
Faller	--	74	55	54	63	57	--	40	36	36	38	37	--	3.0	1.2	3.8	2.7	70	18
Freyr	--	73	54	52	62	56	--	40	35	37	37	36	--	0.3	3.2	0.0	1.2	130	8
Hotshot	--	76	57	56	68	60	--	35	30	33	36	33	--	0.0	0.5	0.0	0.2	90	8
Trooper	--	71	53	50	61	55	--	34	32	31	35	33	--	0.0	0.8	0.5	0.4	60	0
Ada	--	--	55	53	63	57	--	--	34	34	36	35	--	--	0.8	0.3	--	--	14
Bigg Red	--	--	55	55	63	58	--	--	38	41	41	40	--	--	1.4	0.8	--	--	135
RB07	--	--	53	51	59	54	--	--	34	35	36	35	--	--	0.5	1.8	--	--	2
Mercury	67	73	--	53	62	--	36	35	--	32	34	33	1.5	0.0	1.2	1.3	0.8	160	--
FBC-Dylan	--	--	--	54	62	--	--	--	--	38	35	--	--	--	2.0	5.8	--	--	--
Kelby	--	--	--	51	61	--	--	--	--	31	36	--	--	--	1.0	1.5	--	--	--
Rush	--	--	--	51	59	--	--	--	--	35	37	--	--	--	0.3	0.3	--	--	--
Traverse	--	--	--	50	61	--	--	--	--	40	40	--	--	--	1.5	0.5	--	--	--
AP 604 CL	--	--	--	--	59	--	--	--	--	--	35	--	--	--	--	3.5	--	--	--
Cromwell	--	--	--	--	65	--	--	--	--	--	38	--	--	--	--	0.3	--	--	--
Kuntz	--	--	--	--	63	--	--	--	--	--	36	--	--	--	--	1.0	--	--	--
Norwell	--	--	--	--	62	--	--	--	--	--	43	--	--	--	--	1.0	--	--	--
Pasteur	--	--	--	--	71	--	--	--	--	--	41	--	--	--	--	1.5	--	--	--
1761	--	--	--	--	69	--	--	--	--	--	38	--	--	--	--	3.3	--	--	--
AC Amazon	70	76	57	55	--	--	48	49	42	45	--	--	6.5	4.8	3.0	--	--	40	25
Burnside	69	75	58	55	--	--	45	48	41	44	--	--	1.0	2.8	2.3	--	--	30	11
Saturn	71	77	59	57	--	--	40	43	35	38	--	--	0.0	0.0	0.0	--	--	90	11
Banton	--	71	55	51	--	--	--	40	37	37	--	--	--	0.0	0.5	--	--	130	3
Buck Pronto	--	--	53	--	--	--	--	--	34	--	--	--	--	--	--	--	--	--	2
Express	--	--	56	--	--	--	--	--	29	--	--	--	--	--	--	--	--	--	57
Dandy	67	73	--	--	--	--	42	42	--	--	--	--	0.0	0.0	--	--	--	220	--
HJ98	67	74	--	--	--	--	38	38	--	--	--	--	2.8	0.0	--	--	--	140	--
Keystone	67	73	--	--	--	--	41	42	--	--	--	--	0.8	0.0	--	--	--	170	--
LSD 5%	1.1	1.0	1.1	1.0	1.0		1.3	3.0	1.8	2.1	2.0		1.5	1.9	1.4	2.0		45	43

*__2004-05__-Seeds/ft^2

Nelson County HRSW Summary 2003-2007

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging(0-9)					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	
Alsen	56	78	49	62	52	55	61.0	61.6	60.6	63.3	60.5	61.5	15.6	14.3	15.9	14.5	15.6	15.3	0	2.5	0.5	0	0	0.2
Bakker Gold	66	78	72	68	46	62	58.8	60.4	57.1	61.7	58.3	59.0	13.2	13.0	14.3	13.8	14.6	14.2	0	0.0	0.3	0	0	0.1
Briggs	59	82	51	62	62	58	60.7	61.1	60.0	62.5	60.4	61.0	15.9	14.6	16.0	15.0	15.9	15.6	0	5.3	0.5	0	0	0.2
Fireball	63	74	46	63	53	54	59.0	60.0	57.4	61.7	58.4	59.2	15.2	14.8	16.5	15.7	16.1	16.1	0	0.5	1.0	0	0	0.3
Knudson	56	82	57	64	65	62	59.8	60.3	60.0	62.9	60.8	61.2	14.9	13.2	14.8	14.2	14.7	14.6	0	6.0	0.1	0	0	0.0
Oklee	57	77	48	57	53	53	60.7	61.8	60.2	62.1	61.2	61.2	15.7	14.8	15.9	15.5	15.9	15.8	0	2.3	0.8	0	0	0.3
Freyr	--	79	48	56	55	53	--	60.1	58.1	62.1	60.2	60.1	--	14.3	15.9	14.4	15.2	15.2	--	6.0	2.8	0	0	0.9
Glenn	--	80	52	66	65	61	--	63.4	62.1	64.5	62.8	63.1	--	14.9	16.0	15.1	15.8	15.6	--	3.5	0.8	0	0	0.3
Hotshot	--	82	48	64	52	55	--	60.5	59.2	61.7	59.4	60.1	--	12.3	13.8	13.7	14.1	13.9	--	0.0	0.5	0	0	0.2
Trooper	--	82	53	64	63	60	--	61.1	59.7	62.5	60.5	60.9	--	13.0	14.7	14.3	14.2	14.4	--	0.0	0.8	0	0	0.3
Howard	--	--	56	67	66	63	--	--	61.1	62.7	61.9	61.9	--	--	15.4	14.4	15.3	15.0	--	--	4.3	0	0	1.4
Steele-ND	64	77	51	--	59	--	61.3	61.4	60.6	--	61.6	--	15.1	14.6	15.8	--	15.8	--	0	4.5	1.9	--	0	--
Ada	--	--	--	67	57	--	--	--	--	63.3	60.6	--	--	--	--	14.7	15.1	--	--	--	--	0	0	--
Bigg Red	--	--	--	66	48	--	--	--	--	63.9	61.8	--	--	--	--	14.4	13.7	--	--	--	--	0	0	--
Faller	--	--	--	68	73	--	--	--	--	61.3	60.7	--	--	--	--	14.4	14.8	--	--	--	--	0	0	--
Kelby	--	--	--	62	62	--	--	--	--	63.0	60.5	--	--	--	--	15.0	15.4	--	--	--	--	0	0	--
Rush	--	--	--	57	59	--	--	--	--	63.5	61.0	--	--	--	--	15.3	15.6	--	--	--	--	0	0	--
Traverse	--	--	--	64	57	--	--	--	--	60.5	58.1	--	--	--	--	13.6	15.0	--	--	--	--	0	0	--
Kuntz	--	--	--	--	56	--	--	--	--	--	60.5	--	--	--	--	--	14.7	--	--	--	--	--	0	--
RB07	--	--	--	--	65	--	--	--	--	--	60.6	--	--	--	--	--	15.3	--	--	--	--	--	0	--
Hanna	61	79	52	68	--	--	60.3	60.9	60.5	62.4	--	--	15.6	14.8	15.6	15.0	--	--	0	5.0	1.0	0	--	--
Polaris	66	80	47	62	--	--	59.2	60.4	58.0	61.7	--	--	13.1	12.7	14.3	14.0	--	--	0	0.0	0.8	0	--	--
Granger	--	78	50	65	--	--	--	60.6	59.3	62.3	--	--	--	14.6	15.5	14.5	--	--	--	4.8	2.5	0	--	--
Dapps	--	--	--	60	--	--	--	--	--	61.1	--	--	--	--	--	15.8	--	--	--	--	--	0	--	--
Granite	63	80	45	--	--	--	61.8	63.0	61.0	--	--	--	15.7	14.8	17.0	--	--	--	0	0.0	0.0	--	--	--
Saturn	57	76	43	--	--	--	57.8	58.3	55.1	--	--	--	14.9	14.5	16.3	--	--	--	0	0.0	0.0	--	--	--
Banton	--	--	47	--	--	--	--	--	60.4	--	--	--	--	--	15.3	--	--	--	--	--	0.0	--	--	--
Ulen	--	--	48	--	--	--	--	--	59.0	--	--	--	--	--	15.4	--	--	--	--	--	2.3	--	--	--
Norpro	71	79	--	--	--	--	60.3	59.9	--	--	--	--	14.2	13.5	--	--	--	--	0	1.0	--	--	--	--
Parshall	59	73	--	--	--	--	61.8	61.9	--	--	--	--	15.5	14.4	--	--	--	--	0	0.8	--	--	--	--
Dandy	61	--	--	--	--	--	61.0	--	--	--	--	--	14.3	--	--	--	--	--	0	--	--	--	--	--
Keystone	55	--	--	--	--	--	60.8	--	--	--	--	--	15.0	--	--	--	--	--	0	--	--	--	--	--
Russ	60	--	--	--	--	--	60.5	--	--	--	--	--	14.8	--	--	--	--	--	0	--	--	--	--	--
LSD 5%	6.5	4.2	4.0	5.9	5.2		0.9	0.5	0.7	0.7	0.5		0.4	0.4	0.4	0.5	0.3		--	1.5	1.6	1.6	--	

Pembina County HRSW Summary 2003-2007

Variety	Yield (bu/a)						Test Weight (lbs/bu)						Protein (%)						Lodging (0-9)					
	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
Briggs	67	82	57	71	68	65	62.1	61.9	59.6	62.8	61.2	61.2	14.7	13.3	15.3	12.6	14.4	14.1	0	3.0	0	0.3	0	0.1
Knudson	72	78	63	72	71	69	62.3	59.5	59.9	61.7	60.8	60.8	13.4	12.6	14.5	12.8	13.6	13.6	0	2.3	0	0	0	0.0
Freyer	--	78	60	75	62	66	--	59.6	59.0	61.6	60.7	60.4	--	13.3	15.4	12.9	13.9	14.1	--	3.0	0	0.3	0	0.1
Glenn	--	74	60	66	66	64	--	63.9	62.2	65.2	63.9	63.8	--	13.5	15.4	13.3	14.2	14.3	--	0.5	0	0	0	0.0
Trooper	--	81	63	70	74	69	--	61.1	61.2	62.8	62.0	62.0	--	12.7	14.6	12.2	13.0	13.3	--	0	0	0	0	0.0
Howard	--	--	60	76	64	67	--	--	61.4	62.5	61.7	61.9	--	--	15.1	13.0	13.6	13.9	--	--	0	0.3	0	0.1
Steele-ND	66	75	58	--	66	--	62.5	61.6	60.9	--	61.8	--	14.4	13.5	15.4	--	14.0	--	0	1.8	0	--	0	--
Ada	--	--	--	75	65	--	--	--	--	63.5	62.2	--	--	--	--	13.1	13.5	--	--	--	--	0.3	0	--
Bakker Gold	--	--	--	75	72	--	--	--	--	61.3	61.8	--	--	--	--	11.5	13.2	--	--	--	--	0	0	--
Bigg Red	--	--	--	76	60	--	--	--	--	63.5	62.5	--	--	--	--	11.9	13.3	--	--	--	--	0	0	--
Faller	--	--	--	90	78	--	--	--	--	62.1	60.7	--	--	--	--	12.2	13.2	--	--	--	--	0	0	--
Fireball	--	--	--	60	61	--	--	--	--	61.2	59.3	--	--	--	--	13.8	14.7	--	--	--	--	0	0	--
Kelby	--	--	--	73	59	--	--	--	--	63.1	59.8	--	--	--	--	13.1	14.1	--	--	--	--	0	0	--
Rush	--	--	--	68	62	--	--	--	--	63.9	61.5	--	--	--	--	13.5	14.3	--	--	--	--	0	0	--
Traverse	--	--	--	86	70	--	--	--	--	61.3	58.7	--	--	--	--	11.5	12.9	--	--	--	--	0	0	--
Hotshot	--	--	--	--	63	--	--	--	--	--	62.3	--	--	--	--	--	11.9	--	--	--	--	--	0	--
Kuntz	--	--	--	--	69	--	--	--	--	--	60.4	--	--	--	--	--	13.4	--	--	--	--	--	0	--
RB07	--	--	--	--	69	--	--	--	--	--	60.4	--	--	--	--	--	13.6	--	--	--	--	--	0	--
Hanna	63	77	57	75	--	--	62.1	60.8	60.6	61.0	--	--	14.1	13.3	15.0	13.6	--	--	0	1.5	0	0	--	--
Granger	--	80	59	82	--	--	--	60.9	59.7	62.7	--	--	--	13.0	15.4	13.5	--	--	--	2.3	0	1	--	--
Polaris	--	74	61	70	--	--	--	58.9	61.5	59.4	--	--	--	12.2	14.7	12.5	--	--	--	0	0	0	--	--
Dapps	--	--	--	67	--	--	--	--	--	62.1	--	--	--	--	--	13.2	--	--	--	--	--	0	--	--
Granite	64	74	51	--	--	--	63.9	62.4	61.3	--	--	--	15.4	14.2	16.4	--	--	--	0	0	0	--	--	--
Saturn	--	65	55	--	--	--	--	57.6	59.2	--	--	--	--	14.0	15.1	--	--	--	--	0	0	--	--	--
Banton	--	--	57	--	--	--	--	--	61.5	--	--	--	--	--	15.0	--	--	--	--	--	0	--	--	--
Ulen	--	--	58	--	--	--	--	--	59.5	--	--	--	--	--	15.0	--	--	--	--	--	0	--	--	--
Norpro	71	79	--	--	--	--	61.1	59.8	--	--	--	--	13.4	12.6	--	--	--	--	0	0.3	--	--	--	--
Parshall	69	72	--	--	--	--	63.1	61.9	--	--	--	--	15.0	12.8	--	--	--	--	0	0	--	--	--	--
Dandy	73	--	--	--	--	--	63.0	--	--	--	--	--	14.0	--	--	--	--	--	0	--	--	--	--	--
Keystone	69	--	--	--	--	--	63.0	--	--	--	--	--	13.7	--	--	--	--	--	0	--	--	--	--	--
Russ	69	--	--	--	--	--	61.4	--	--	--	--	--	14.1	--	--	--	--	--	0	--	--	--	--	--
LSD 5%	4.1	4.6	3.2	7.6	4.7		0.4	0.5	0.6	0.8	0.4		0.4	0.4	0.4	1.1	0.4		--	0.9	--	0.5	--	

Ramsey County HRSW Summary 2003-2007

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging(0-9)					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
Alsen	67	77	51	55	57	54	62.3	63.9	60.8	61.4	61.0	--	15.7	14.8	16.1	15.0	14.7	15.3	0	0	0	0	0	0
Briggs	71	82	56	62	74	64	61.3	62.9	59.8	61.0	60.9	60.6	15.8	15.1	15.8	15.1	14.6	15.2	0	0	1.3	0	0	0.4
Freyr	--	76	54	60	77	64	--	62.5	59.7	61.7	60.3	60.6	--	14.0	15.5	14.6	14.2	14.8	--	0	0	0	0	0
Glenn	--	75	55	60	69	61	--	64.8	62.4	62.8	63.4	62.9	--	15.3	16.0	15.4	15.0	15.5	--	0	0	0	0	0
Knudson	72	78	58	59	76	64	61.1	62.4	59.7	61.2	60.5	60.5	14.3	14.4	15.0	14.1	13.9	14.3	0	0	0	0	0	0
Oklee	71	73	51	55	65	57	62.5	63.0	60.3	60.7	61.5	60.8	15.6	15.1	16.1	15.1	14.5	15.2	0	0	1.8	0	0	0.6
Trooper	--	76	55	63	79	66	--	64.3	60.0	62.5	61.6	61.4	--	13.6	14.9	14.8	13.3	14.3	--	0	0	0	0	0
Howard	--	--	49	67	72	63	--	--	59.2	62.2	62.4	61.3	--	--	15.5	14.6	14.5	14.9	--	--	1.0	0	0	0.3
Steele-ND	72	76	49	--	73	--	62.4	63.8	59.3	--	61.9	--	15.3	15.3	15.7	--	14.7	--	0	0	1.0	--	0	--
Ada	--	--	--	56	69	--	--	--	--	61.5	61.2	--	--	--	--	15.0	14.2	--	--	--	--	0	0	--
Bakker Gold	--	--	--	56	52	--	--	--	--	60.0	59.6	--	--	--	--	13.7	13.7	--	--	--	--	0	0	--
Bigg Red	--	--	--	65	47	--	--	--	--	62.6	61.6	--	--	--	--	13.7	13.2	--	--	--	--	0	0	--
Faller	--	--	--	64	81	--	--	--	--	60.4	61.0	--	--	--	--	14.3	14.1	--	--	--	--	0	0	--
Fireball	--	--	--	54	53	--	--	--	--	59.7	58.5	--	--	--	--	15.0	15.6	--	--	--	--	0	0	--
Kelby	--	--	--	48	71	--	--	--	--	61.0	60.8	--	--	--	--	16.1	14.7	--	--	--	--	0	0	--
Rush	--	--	--	50	64	--	--	--	--	61.4	61.6	--	--	--	--	15.8	14.7	--	--	--	--	0	0	--
Traverse	--	--	--	62	76	--	--	--	--	59.4	59.2	--	--	--	--	13.6	13.7	--	--	--	--	0	0	--
Hotshot	--	--	--	--	50	--	--	--	--	--	59.7	--	--	--	--	--	13.3	--	--	--	--	--	0	--
Kuntz	--	--	--	--	77	--	--	--	--	--	61.0	--	--	--	--	--	14.0	--	--	--	--	--	0	--
RB07	--	--	--	--	72	--	--	--	--	--	60.6	--	--	--	--	--	14.4	--	--	--	--	--	0	--
Hanna	71	81	55	65	--	--	61.6	62.9	60.7	61.4	--	--	15.6	14.8	15.4	14.7	--	--	0	0	0.3	0	--	--
Granger	--	76	51	62	--	--	--	62.4	59.4	61.3	--	--	--	15.2	15.6	14.7	--	--	--	0	0.5	0	--	--
Polaris	--	78	54	64	--	--	--	62.3	60.2	60.8	--	--	--	12.7	14.2	13.1	--	--	--	0	0	0	--	--
Dapps	--	--	--	48	--	--	--	--	--	60.0	--	--	--	--	--	16.3	--	--	--	--	--	0	--	--
Granite	66	75	52	--	--	--	62.8	64.3	62.0	--	--	--	15.8	14.8	16.7	--	--	--	0	0	0	--	--	--
Saturn	--	81	57	--	--	--	--	61.6	58.7	--	--	--	--	14.4	16.0	--	--	--	--	0	0	--	--	--
Banton	--	--	48	--	--	--	--	--	60.9	--	--	--	--	--	15.6	--	--	--	--	--	0	--	--	--
Ulen	--	--	48	--	--	--	--	--	58.2	--	--	--	--	--	15.6	--	--	--	--	--	0	--	--	--
Norpro	80	85	--	--	--	--	61.5	62.3	--	--	--	--	14.1	13.7	--	--	--	--	0	0	--	--	--	--
Parshall	76	66	--	--	--	--	62.5	63.4	--	--	--	--	15.4	14.1	--	--	--	--	0	0	--	--	--	--
Dandy	70	--	--	--	--	--	62.0	--	--	--	--	--	14.6	--	--	--	--	--	0	--	--	--	--	--
Keystone	69	--	--	--	--	--	61.9	--	--	--	--	--	14.6	--	--	--	--	--	0	--	--	--	--	--
Russ	76	--	--	--	--	--	61.8	--	--	--	--	--	14.9	--	--	--	--	--	0	--	--	--	--	--
LSD 5%	4.9	4.6	3.9	8.1	6.6		0.5	0.4	0.7	0.5	0.5		0.2	0.2	0.2	0.4	0.3		--	--	1.0	--	--	

Towner County HRSW Summary 2003-2007

	Yield(bu/a)					Test Weight(lbs/bu)					Protein(%)					Lodging (0-9)				
Variety	04	05	06	07	3yr	04	05	06	07	3yr	04	05	06	07	3yr	04	05	06	07	3yr
Alsen	54	48	47	45	47	60.8	60.1	60.3	60.1	60.2	13.3	16.0	15.3	14.7	15.3	0.3	0	0	0	0.0
Briggs	62	51	57	62	57	60.2	59.5	60.8	60.8	60.4	13.3	15.6	15.1	15.0	15.2	3.0	3.0	0	0	1.0
Freyr	61	48	54	55	53	58.8	57.8	59.2	59.9	59.0	13.3	15.7	14.9	14.1	14.9	2.3	0	0	0	0.0
Glenn	62	51	56	60	56	63.3	61.8	63.2	62.4	62.5	13.4	15.7	15.5	14.9	15.4	0.8	0	0	0	0.0
Knudson	74	54	49	60	54	59.8	58.8	59.6	59.9	59.4	12.6	14.2	15.2	14.3	14.6	0.3	0	0	0	0.0
Oklee	51	49	46	52	49	60.4	60.1	59.9	60.9	60.3	13.6	15.4	16.4	14.8	15.5	1.8	2.5	0	0	0.8
Trooper	56	51	50	55	52	59.6	59.7	59.8	59.2	59.6	12.5	14.5	14.7	13.2	14.1	1.5	0	0	0	0.0
Howard	--	49	60	60	56	--	60.3	61.4	61.1	60.9	--	15.3	14.7	14.6	14.9	--	0.3	0	0	0.1
Steele-ND	59	45	--	58	--	60.1	59.0	--	60.7	--	13.4	15.6	--	15.0	--	2.0	0.8	--	0	--
Ada	--	--	38	54	--	--	--	59.0	61.0	--	--	--	16.3	14.4	--	--	--	0	0	--
Bakker Gold	--	--	38	45	--	--	--	57.8	58.9	--	--	--	16.4	13.7	--	--	--	0	0	--
Bigg Red	--	--	48	40	--	--	--	61.4	60.5	--	--	--	14.6	12.8	--	--	--	0	0	--
Faller	--	--	60	68	--	--	--	60.0	59.8	--	--	--	14.6	14.3	--	--	--	0	0	--
Fireball	--	--	39	46	--	--	--	57.2	57.8	--	--	--	17.8	15.5	--	--	--	0	0	--
Kelby	--	--	49	56	--	--	--	59.9	60.3	--	--	--	15.7	14.9	--	--	--	0	0	--
Rush	--	--	46	50	--	--	--	60.7	60.5	--	--	--	16.2	14.9	--	--	--	0	0	--
Traverse	--	--	55	64	--	--	--	57.1	59.0	--	--	--	14.3	13.8	--	--	--	0	0	--
Hotshot	--	--	--	45	--	--	--	--	59.0	--	--	--	--	13.3	--	--	--	--	0	--
Kuntz	--	--	--	56	--	--	--	--	59.5	--	--	--	--	13.7	--	--	--	--	0	--
RB07	--	--	--	62	--	--	--	--	59.8	--	--	--	--	14.3	--	--	--	--	0	--
Hanna	57	51	56	--	--	59.6	59.8	60.7	--	--	13.8	15.4	14.8	--	--	2.0	0	0	--	--
Granger	65	48	57	--	--	59.8	58.8	61.0	--	--	13.3	15.5	15.0	--	--	4.5	0.8	0	--	--
Polaris	58	49	35	--	--	59.6	58.1	56.7	--	--	12.0	14.3	16.7	--	--	0	0	0	--	--
Dapps	--	--	46	--	--	--	--	58.0	--	--	--	--	16.5	--	--	--	--	0	--	--
Granite	62	42	--	--	--	62.4	59.9	--	--	--	14.1	16.1	--	--	--	0	0	--	--	--
Saturn	59	42	--	--	--	57.9	54.3	--	--	--	13.7	15.9	--	--	--	0	0	--	--	--
Banton	--	45	--	--	--	--	59.8	--	--	--	--	15.0	--	--	--	--	0	--	--	--
Ulen	--	47	--	--	--	--	58.4	--	--	--	--	15.1	--	--	--	--	0	--	--	--
Norpro	68	--	--	--	--	59.0	--	--	--	--	12.7	--	--	--	--	0	--	--	--	--
Parshall	58	--	--	--	--	61.1	--	--	--	--	13.2	--	--	--	--	1.0	--	--	--	--
LSD 5%	6.8	2.9	10.7	4.4		0.6	0.5	2.0	0.6		0.6	0.2	1.1	0.3		--	1.4	1.1	--	

Walsh County HRSW Summary 2003-2007

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging (0-9)					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
Alsen	59	73	51	71	47	56	60.3	61.0	59.2	62.6	57.6	59.8	15.8	15.1	16.7	16.3	15.5	16.2	5.8	6.0	1.3	0	6.8	2.7
Bakker Gold	78	86	53	89	54	65	61.8	61.3	59.0	62.1	57.1	59.4	13.9	13.6	14.3	14.7	13.2	14.1	0.4	0	0	0	0.3	0.1
Briggs	64	75	48	72	59	60	60.3	60.9	57.4	61.7	58.6	59.2	16.3	15.3	17.3	15.9	16.0	16.4	5.6	7.3	6.8	0	4.0	3.6
Fireball	60	74	50	72	51	57	60.3	60.0	57.5	60.3	55.5	57.8	16.0	15.1	16.5	16.4	15.7	16.2	1.5	0	0	0	0.5	0.2
Knudson	60	72	59	79	59	66	58.9	58.9	57.8	61.8	57.8	59.1	14.4	13.8	14.7	14.6	14.3	14.5	5.6	6.8	0.3	0	3.8	1.4
Oklee	71	73	53	73	52	59	62.0	61.5	59.2	62.4	59.3	60.3	16.0	15.3	16.1	16.3	15.4	15.9	4.8	6.8	5.5	0	3.3	2.9
Freyr	--	84	56	79	52	62	--	59.5	57.9	61.6	55.9	58.5	--	14.9	16.0	15.6	15.0	15.5	--	6.5	0	0	4.8	1.6
Glenn	--	80	62	72	57	64	--	64.0	61.4	63.9	60.9	62.1	--	15.1	16.5	16.6	16.0	16.4	--	5.0	3.0	0	2.0	1.7
Hotshot	--	78	35.9	86	42	54	--	60.3	56.8	63.1	56.8	58.9	--	13.1	15.0	13.4	12.7	13.7	--	0	0	0	3.3	1.1
Trooper	--	83	60	85	59	68	--	60.5	58.5	63.0	59.2	60.2	--	14.2	15.2	14.8	13.9	14.6	--	2.8	0	0	5.0	1.7
Howard	--	--	51	76	60	62	--	--	59.4	62.9	59.4	60.6	--	--	16.3	15.6	15.2	15.7	--	--	4.3	0	3.3	2.5
Steele-ND	64	74	45	--	56	--	61.5	61.6	58.7	--	59.3	--	16.0	14.9	16.8	--	15.8	--	4.8	7.0	4.8	--	3.3	--
Ada	--	--	--	86	55	--	--	--	--	62.9	58.7	--	--	--	--	14.7	14.7	--	--	--	--	0	6.5	--
Bigg Red	--	--	--	79	39	--	--	--	--	63.8	58.5	--	--	--	--	14.7	14.1	--	--	--	--	0	6.5	--
Faller	--	--	--	90	74	--	--	--	--	61.7	58.5	--	--	--	--	15.0	14.7	--	--	--	--	0	3.0	--
Kelby	--	--	--	72	58	--	--	--	--	61.5	57.8	--	--	--	--	15.8	15.2	--	--	--	--	0	3.5	--
Rush	--	--	--	70	58	--	--	--	--	63.1	59.3	--	--	--	--	15.2	15.3	--	--	--	--	0	0.0	--
Traverse	--	--	--	90	64	--	--	--	--	60.3	55.0	--	--	--	--	15.2	14.8	--	--	--	--	0	4.3	--
Kuntz	--	--	--	--	58	--	--	--	--	--	57.2	--	--	--	--	--	14.4		--	--	--	--	4.0	--
RB07	--	--	--	--	54	--	--	--	--	--	55.9	--	--	--	--	--	15.1	--	--	--	--	--	5.8	--
Hanna	60	78	49	72	--	--	60.0	60.8	58.4	62.1	--	--	16.3	15.5	16.9	16.0	--	--	5.5	4.5	4.5	0	--	--
Polaris	78	86	52	84	--	--	61.6	60.8	59.3	62.3	--	--	13.7	13.5	14.1	14.6	--	--	0.3	0	0	0	--	--
Granger	--	75	51	80	--	--	--	61.4	58.3	62.1	--	--	--	15.5	16.7	15.9	--	--	--	7.0	5.8	0	--	--
Dapps	--	--	--	72	--	--	--	--	--	60.7	--	--	--	--	--	16.9	--	--	--	--	--	0	--	--
Granite	75	87	46	--	--	--	63.6	63.3	59.9	--	--	--	16.6	15.5	17.2	--	--	--	0	0	0	--	--	--
Saturn	72	85	51	--	--	--	59.4	59.0	57.8	--	--	--	15.4	14.7	16.2	--	--	--	0	0	0	--	--	--
Banton	--	--	54	--	--	--	--	--	60.2	--	--	--	--	--	16.1	--	--	--	--	--	1.8	--	--	--
Ulen	--	--	57	--	--	--	--	--	58.1	--	--	--	--	--	16.5	--	--	--	--	--	2.8	--	--	--
Norpro	48	82	--	--	--	--	56.4	58.9	--	--	--	--	15.8	14.7	--	--	--	--	6.4	6.0	--	--	--	--
Parshall	67	74	--	--	--	--	61.8	62.1	--	--	--	--	16.2	15.2	--	--	--	--	4.0	5.0	--	--	--	--
Dandy	78	--	--	--	--	--	62.4	--	--	--	--	--	14.3	--	--	--	--	--	1.1	--	--	--	--	--
Keystone	62	--	--	--	--	--	61.0	--	--	--	--	--	15.1	--	--	--	--	--	5.4	--	--	--	--	--
Russ	63	--	--	--	--	--	59.0	--	--	--	--	--	16.0	--	--	--	--	--	6.5	--	--	--	--	--
LSD 5%	7.0	6.7	4.8	5.9	6.4		0.7	0.8	0.7	0.5	0.9		0.4	0.2	0.5	0.3	0.3		1.4	1.7	1.2	--	2.4	

HRSW Foliar Disease by Location, Year and Variety

Location	Foliar Necrosis - % of Flag at Soft Dough																Leaf Rust - % of Flag at Soft Dough																Bacterial % upper 3 leaves					
	6 site	LV	W	N	T	P	R	LV	R	LV	P	W	N	R	T		6site	LV	W	N	T	P	R	LV	W	T	R	LV	W	N	R		5 site	LV	P	W	N	T
Year	Ave.	07	07	07	07	07	07	06	06	05	05	05	05	05	05		Ave.	07	07	07	07	07	07	06	06	06	06	05	05	05	05		Ave.	05	05	05	05	05
Variety:																																						
Ada	24	27	17	57	20	5	17	4	1	20	--	--	--	--	--		3	4	2	5	2	0	4	0	0	0	0	0	--	--	--		--	2	--	--	--	--
Alsen	37	30	33	57	33	5	65	2	5	30	15	21	40	63	62		2	1	0	0	0	0	12	2	0	1	1	1	1	0	0		0	0	1	0	0	1
Bakker Gold	29	13	10	70	28	1	50	2	1	13	--	11	23	--	--		9	1	2	5	2	0	42	0	3	0	0	0	4	2	--		--	0	--	0	4	--
Bigg Red	67	88	30	96	90	10	90	4	1	30	--	--	--	--	--		25	6	18	12	23	2	87	3	14	1	2	5	--	--	--		--	0	--	--	--	--
Briggs	14	20	13	30	13	3	7	2	3	20	23	8	25	60	13		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		5	3	3	0	7	10
Faller	9	13	7	10	20	1	5	1	1	35	--	--	--	--	--		0	0	0	0	0	0	0	0	0	0	0	--	--	--	--		--	1	--	--	--	--
Fireball	20	10	8	53	20	1	25	3	3	20	--	5	10	--	--		1	0	1	2	0	0	3	0	0	0	0	0	1	0	--		--	2	--	0	2	--
Freyr	27	30	23	57	20	2	33	1	1	48	26	6	28	55	58		3	0	2	1	0	0	14	0	1	1	1	0	3	0	0		8	19	8	0	1	10
Glenn	15	20	8	23	20	5	15	2	8	23	16	11	28	65	17		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1	1	0	0	2	2
Hotshot	57	85	30	87	40	20	80	--	--	--	--	--	--	--	--		13	4	10	8	6	1	50	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Howard	13	27	8	13	18	5	7	1	1	33	23	6	30	70	27		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		2	1	2	0	2	5
Kelby	33	40	23	67	20	3	42	4	1	--	--	--	--	--	--		1	0	1	1	0	0	7	0	0	0	0	--	--	--	--		--	--	--	--	--	--
Knudson	11	10	10	23	13	3	4	2	1	15	4	4	15	50	15		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		1	1	0	0	1	1
Kuntz	25	23	27	43	25	5	25	--	--	--	--	--	--	--	--		0	0	1	0	0	0	1	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Oklee	50	83	27	88	33	3	68	1	3	35	16	33	53	88	77		8	1	3	4	5	0	32	0	1	0	0	3	3	1	0		0	1	1	0	0	1
RB07	19	23	25	30	13	3	22										0	0	0	0	0	0	0	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Rush	40	37	27	73	33	3	67	4	8	--	--	--	--	--	--		4	1	1	2	1	0	18	0	0	1	0	--	--	--	--		--	--	--	--	--	--
Steele-ND	14	30	10	10	23	5	5	1	--	29	18	8	38	93	57		0	0	0	0	0	0	0	0	--	--	--	0	0	0	0		2	1	0	0	7	4
Traverse	25	33	23	37	23	5	30	4	3	--	--	--	--	--	--		2	0	0	0	0	0	8	0	0	0	0	--	--	--	--		--	--	--	--	--	--
Trooper	59	67	30	98	85	6	67	7	1	40	14	9	55	79	38		12	2	2	12	20	0	37	7	1	1	3	0	0	0	1		5	3	2	0	8	12
1761	--	20	--	--	--	--	--	--	--	--	--	--	--	--	--		--	0	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
AC Superb	--	98	--	--	--	--	--	7	--	78	--	--	--	--	--		--	8	--	--	--	--	--	15	--	--	--	30	--	--	--		--	0	--	--	--	--
AP 604 CL	--	99	--	--	--	--	--	--	--	--	--	--	--	--	--		--	7	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Cromwell	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--		--	0	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Dapps	--	20	--	--	--	--	--	1	1	10	--	--	--	--	--		--	0	--	--	--	--	--	0	0	0	0	0	--	--	--		--	0	--	--	--	--
FBC-Dylan	--	85	--	--	--	--	--	3	--	--	--	--	--	--	--		--	6	--	--	--	--	--	1	--	--	--	--	--	--	--		--	--	--	--	--	--
Granger	--	20	--	--	--	--	--	1	5	25	20	16	25	80	18		--	1	--	--	--	--	--	0	0	0	0	0	2	0	0		1	2	2	0	1	1
Granite	--	30	--	--	--	--	--	3	--	40	24	10	35	60	72		--	0	--	--	--	--	--	0	--	--	--	0	2	3	1		9	16	6	2	4	16
Gunner	--	91	--	--	--	--	--	7	--	50	--	--	--	--	--		--	8	--	--	--	--	--	7	--	--	--	8	--	--	--		--	0	--	--	--	--
Hanna	--	47	--	--	--	--	--	3	1	33	33	20	68	83	57		--	2	--	--	--	--	--	2	1	0	0	1	5	2	1		2	4	2	0	1	2
Ingot	--	99	--	--	--	--	--	20	--	75	--	--	--	--	--		--	10	--	--	--	--	--	17	--	--	--	25	--	--	--		--	0	--	--	--	--
Mercury	--	23	--	--	--	--	--	--	--	--	--	--	--	--	--		--	0	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Norpro	--	27	--	--	--	--	--	4	--	33	--	--	--	--	--		--	0	--	--	--	--	--	0	--	--	--	0	--	--	--		--	9	--	--	--	--
Norwell	--	93	--	--	--	--	--	--	--	--	--	--	--	--	--		--	8	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Oxen	--	99	--	--	--	--	--	15	--	58	--	--	--	--	--		--	8	--	--	--	--	--	5	--	--	--	8	--	--	--		--	1	--	--	--	--
Parshall	--	67	--	--	--	--	--	6	--	30	--	--	--	--	--		--	3	--	--	--	--	--	1	--	--	--	4	--	--	--		--	3	--	--	--	--
Pasteur	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--		--	0	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Polaris	--	17	--	--	--	--	--	1	1	15	5	13	23	43	18		--	2	--	--	--	--	--	1	4	0	0	2	6	1	4		1	0	0	1	2	1
Reeder	--	80	--	--	--	--	--	5	--	33	--	--	--	--	--		--	5	--	--	--	--	--	4	--	--	--	4	--	--	--		--	2	--	--	--	--
Russ	--	92	--	--	--	--	--	5	--	60	--	--	--	--	--		--	7	--	--	--	--	--	1	--	--	--	5	--	--	--		--	2	--	--	--	--
Ulen	--	33	--	--	--	--	--	2	--	23	35	31	68	88	45		--	1	--	--	--	--	--	0	--	--	--	0	0	0	0		2	0	1	0	5	3

LV=Langdon Variety Trial, LI=Langdon Irrigated, P=Pembina, W=Walsh, T=Towner, R=Ramsey, N=Nelson

HRSW Fusarium Head Blight by Location, Year and Variety

	DON - ppm									Fusarium Damage Kernels (Tombstones)- %								FHB Field Severity (Incidence x head severity) - %										Root Rot (%)
Location	**8 site**	**LV**	**W**	**LV**	**P**	**W**	**N**	**R**	**T**	**7 site**	**LV**	**LV**	**P**	**W**	**N**	**R**	**T**	**9 site**	**LV**	**P**	**W**	**LV**	**P**	**W**	**N**	**R**	**T**	**N**
Year	**Ave.**	**07**	**07**	**05**	**05**	**05**	**05**	**05**	**05**	**Ave.**	**07**	**05**	**05**	**05**	**05**	**05**	**05**	**Ave.**	**07**	**07**	**07**	**05**	**05**	**05**	**05**	**05**	**05**	**07**
Variety:																												
Ada	--	0	0	--	--	--	--	--	--	--	0	1	--	--	--	--	--	--	1	1	0	1	--	--	--	--	--	1
Alsen	1.3	0	0	2	2	1	2	2	2	1.2	0	1	1	1	1	3	2	1.5	0	0	0	1	2	3	4	2	1	2
Bakker Gold	--	1	0	--	--	--	--	--	--	--	0	2	--	4	4	--	--	--	0	0	0	0	--	3	10	--	--	0
Bigg Red	--	0	0	1	--	--	--	--	--	--	0	1	--	--	--	--	--	--	0	0	0	0	--	--	--	--	--	3
Briggs	2.1	1	0	3	2	2	2	4	3	3.0	1	3	2	2	4	5	5	3.4	1	1	1	9	3	5	4	4	3	1
Faller	--	0	0	1	--	--	--	--	--	--	0	1	--	--	--	--	--	--	0	0	0	1	--	--	--	--	--	0
Fireball	--	0	0	--	--	--	--	--	--	--	0	1	--	1	3	--	--	--	0	0	1	0	--	2	7	--	--	0
Freyr	1.7	0	0	2	2	1	3	3	3	1.3	0	1	0	2	1	2	4	1.8	0	0	0	1	4	3	3	4	2	1
Glenn	1.3	0	0	2	2	1	1	2	2	1.1	0	1	1	1	2	2	3	1.7	0	1	0	1	3	3	4	3	1	1
Hotshot	--	1	0	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	0	0	0	--	--	--	--	--	--	0
Howard	1.7	1	0	2	1	2	2	3	3	3.0	1	2	1	2	4	7	4	--	1	2	1	4	2	5	10	7	6	0
Kelby	--	1	0	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	0	1	0	--	--	--	--	--	--	0
Knudson	1.5	0	1	2	2	2	3	2	3	1.9	0	1	1	2	2	3	4	1.2	0	0	0	0	2	2	3	2	1	1
Kuntz	--	0	0	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	0	0	1	--	--	--	--	--	--	1
Oklee	1.9	0	0	4	1	3	2	2	3	1.8	1	2	0	1	3	2	4	2.2	1	1	0	2	3	3	5	3	1	1
RB07	--	1	0	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	0	1	1	--	--	--	--	--	--	0
Rush	--	0	0	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	2	0	--	--	--	--	--	--	0
Steele-ND	2.4	1	1	4	1	2	2	4	4	3.0	0	2	2	3	3	5	6	3.9	0	1	1	8	3	4	8	5	6	1
Traverse	--	0	0	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	0	1	1	--	--	--	--	--	--	1
Trooper	2.8	1	0	3	4	3	3	4	5	3.9	1	4	1	3	5	8	5	3.8	1	2	1	8	3	2	6	6	7	0
1761	--	1	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
AC Superb	--	0	--	4	--	--	--	--	--	--	1	2	--	--	--	--	--	--	1	--	--	1	--	--	--	--	--	--
AP 604 CL	--	1	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Cromwell	--	0	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Dapps	--	1	--	2	--	--	--	--	--	--	0	1	--	--	--	--	--	--	0	--	--	1	--	--	--	--	--	--
FBC-Dylan	--	0	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Granger	--	0	--	2	1	2	2	2	4	--	0	2	1	3	2	5	7	--	0	--	--	4	2	4	4	4	2	--
Granite	--	1	--	3	4	5	3	3	3	--	0	4	2	9	4	4	6	--	0	--	--	1	2	3	3	4	7	--
Gunner	--	0	--	2	--	--	--	--	--	--	0	1	--	--	--	--	--	--	0	--	--	1	--	--	--	--	--	--
Hanna	--	0	--	2	1	1	2	1	2	--	0	1	0	1	1	1	3	--	0	--	--	2	2	3	6	1	1	--
Ingot	--	1	--	3	--	--	--	--	--	--	0	2	--	--	--	--	--	--	1	--	--	5	--	--	--	--	--	--
Mercury	--	0	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Norpro	--	0	--	3	--	--	--	--	--	--	2	2	--	--	--	--	--	--	1	--	--	2	--	--	--	--	--	--
Norwell	--	0	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Oxen	--	0	--	2	--	--	--	--	--	--	2	2	--	--	--	--	--	--	1	--	--	5	--	--	--	--	--	--
Parshall	--	1	--	5	--	--	--	--	--	--	1	1	--	--	--	--	--	--	1	--	--	2	--	--	--	--	--	--
Pasteur	--	1	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Polaris	--	1	--	3	2	3	3	2	3	--	0	2	1	3	4	4	7	--	0	--	--	1	1	2	4	1	3	--
Reeder	--	1	--	5	--	--	--	--	--	--	1	4	--	--	--	--	--	--	1	--	--	2	--	--	--	--	--	--
Russ	--	0	--	4	--	--	--	--	--	--	0	4	--	--	--	--	--	--	1	--	--	4	--	--	--	--	--	--
Ulen	--	0	--	4	3	4	4	8	7	--	0	2	3	4	6	5	7	--	0	--	--	10	5	7	8	4	10	--

LV=Langdon Variety Trial, LI=Langdon Irrigated, P=Pembina, W=Walsh, T=Towner, R=Ramsey, N=Nelson.

Durum Summary, Langdon 2003-2007

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)					Height (in)					Days to Head				
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	04	05	06	07	3yr	04	05	06	07	3yr	04	05	06	07	3yr
Alkabo	87	78	70	69	80	73	62.1	60.9	58.8	61.5	60.6	60.3	0.0	0.5	1.5	0.3	0.8	43	40	42	42	41	74	58	57	66	60
Ben	81	71	62	65	64	64	62.0	61.8	58.2	61.4	59.5	59.7	0.3	1.8	2.7	0.0	1.5	46	42	44	43	43	74	59	58	66	61
Dilse	81	69	66	65	66	66	61.3	59.1	58.1	60.7	58.6	59.1	1.3	2.0	1.4	2.5	2.0	46	42	43	42	42	75	59	59	67	62
Divide	88	77	69	64	65	66	61.4	60.4	58.6	61.4	58.4	59.5	0.5	4.5	2.5	3.5	3.5	46	43	42	42	43	74	60	59	67	62
Grenora	85	75	77	69	67	71	60.9	59.0	57.4	60.2	58.2	58.6	1.3	3.3	1.2	2.3	2.3	44	40	41	40	41	75	57	57	66	60
Lebsock	82	72	70	64	69	68	62.3	61.0	58.6	61.9	59.9	60.1	0.3	0.3	1.4	0.8	0.8	44	40	41	41	41	74	56	56	65	59
Maier	80	68	59	61	66	62	61.0	59.4	57.0	60.8	57.8	58.5	1.5	0.3	2.1	2.3	1.6	44	41	42	40	41	75	58	58	65	60
Mountrail	90	71	69	71	68	69	61.0	57.0	56.9	60.7	58.6	58.7	0.5	0.8	1.8	4.3	2.3	46	42	43	43	43	76	59	59	68	62
Pierce	82	72	67	57	61	62	62.3	60.0	58.5	60.7	59.5	59.6	0.8	1.8	2.1	1.8	1.9	46	42	41	43	42	75	59	61	66	62
AC Navigator	--	65	42	65	50	52	--	56.4	52.8	60.4	55.8	56.3	0.0	4.3	1.4	3.5	3.1	37	36	35	37	36	76	58	59	66	61
Grande Doro	--	76	67	71	62	67	--	60.4	58.6	61.5	59.0	59.7	0.8	0.0	2.2	3.8	2.0	46	42	43	42	42	75	58	58	67	61
Primo Doro	--	60	65	58	55	59	--	59.6	59.1	61.4	57.2	59.2	2.8	1.3	1.9	7.8	3.7	52	46	47	43	45	74	57	56	65	59
DG Star	--	--	--	67	51	--	--	--	--	61.1	55.5	--	--	--	0.8	1.3	--	--	--	33	41	--	--	--	54	64	--
Strongfield	--	--	--	64	56	--	--	--	--	60.3	56.9	--	--	--	3.6	4.0	--	--	--	42	41	--	--	--	57	68	--
AC Commander	--	--	--	--	60	--	--	--	--	--	56.1	--	--	--	--	2.3	--	--	--	--	35	--	--	--	--	66	--
AC Napoleon	--	--	--	--	61	--	--	--	--	--	56.4	--	--	--	--	3.0	--	--	--	--	44	--	--	--	--	67	--
Alzada	--	--	--	--	52	--	--	--	--	--	54.3	--	--	--	--	0.0	--	--	--	--	33	--	--	--	--	60	--
Belzer	81	72	65	68	--	--	58.7	57.4	56.1	60.3	--	--	3.5	6.8	2.2	--	--	48	43	45	--	--	75	59	58	--	--
Munich	81	74	65	71	--	--	60.6	60.4	56.3	61.1	--	--	0.0	0.0	1.9	--	--	42	37	41	--	--	75	59	57	--	--
Plaza	73	74	70	66	--	--	57.7	57.4	56.9	60.3	--	--	0.0	0.3	0.8	--	--	35	36	34	--	--	75	59	59	--	--
Rugby	81	66	--	57	--	--	61.8	60.5	--	61.3	--	--	2.3	--	2.9	--	--	49	--	47	--	--	74	--	59	--	--
AC Avonlea	78	71	65	--	--	--	58.9	58.5	56.3	--	--	--	1.3	0.8	--	--	--	48	42	--	--	--	74	57	--	--	--
Renville	76	77	62	--	--	--	60.5	59.5	57.1	--	--	--	3.3	2.5	--	--	--	49	46	--	--	--	74	58	--	--	--
Monroe	81	70	--	--	--	--	61.3	60.8	--	--	--	--	2.3	--	--	--	--	48	--	--	--	--	71	--	--	--	--
AC Pathfinder	--	68	--	--	--	--	--	57.4	--	--	--	--	4.3	--	--	--	--	45	--	--	--	--	74	--	--	--	--
LSD 5%	6.7	8.1	4.6	6.8	10.0		1.0	1.7	0.7	0.9	1.4		2.4	2.1	1.9	3.3		3.0	1.4	4.6	1.6		1.0	0.9	1.0	1.1	

Durum Summary, Towner County 2003-2007

	Yield (bu/a)					Test Weight (lbs/bu)					Lodging (0-9)					Height (in)				Days to Head				
Variety	03	04	05	07	3yr	03	04	05	07	3yr	03	04	05	07	3yr	03	04	05	2yr	03	04	05	07	3yr
Alkabo	--	64	43	51	53	--	60.1	57.1	59.1	58.8	--	0.0	0.0	0	0.0	--	36	40	38	--	75	68	63	69
Divide	--	58	49	51	53	--	58.9	56.7	57.9	57.8	--	0.0	0.8	0	0.3	--	36	41	39	--	76	69	64	70
Grande Doro	--	--	38	49	--	--	--	55.9	58.9	--	--	--	0.0	0	--	--	--	40	--	--	--	70	65	--
Grenora	--	64	50	45	53	--	59.0	56.2	57.4	57.5	--	0.0	0.0	0	0.0	--	34	39	37	--	74	67	63	68
Lebsock	--	58	50	48	52	--	60.1	57.8	58.6	58.8	--	0.5	0.3	0	0.3	--	35	38	37	--	75	68	63	69
Mountrail	--	68	40	49	52	--	59.4	55.8	58.3	57.8	--	0.0	0.0	0	0.0	--	36	40	38	--	76	68	65	70
Primo Doro	--	--	39	49	--	--	--	56.2	58.8	--	--	--	3.0	0	--	--	--	45	--	--	--	68	62	--
Dilse	--	53	41	--	--	--	59.4	56.0	--	--	--	0.5	0.0	--	--	--	33	39	--	--	76	69	--	--
Pierce	--	50	47	--	--	--	59.4	58.4	--	--	--	0.5	0.0	--	--	--	36	40	--	--	76	69	--	--
Munich	--	58	--	--	--	--	59.1	--	--	--	--	0.3	--	--	--	--	33	--	--	--	75	--	--	--
LSD 5%	--	6.1	4.5	NS		--	0.5	0.8	0.7		--	NS	0.9	--		--	2.2	1.2		--	0.9	1.0	0.9	

Trial was hailed out in 2003. Data was too variable to report in 2006.

Durum Summary, Ramsey County 2003-2007

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Height (in)						Days to Head					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
Grenora	76	90	58	52	60	56	60.6	62.8	59.4	59.9	59.4	59.6	0	0.3	0	0	0	0	37	39	34	26	38	33	63	64	62	51	62	58
Lebsock	76	85	58	46	61	55	61.5	63.2	60.8	60.8	60.8	60.8	0	0.3	0	0	0	0	38	39	36	26	39	34	62	64	62	51	62	58
Mountrail	84	95	58	51	61	57	60.8	63.0	59.8	60.2	60.1	60.0	0	1.0	0.5	0	0	0.2	38	42	37	28	40	35	63	65	63	51	62	59
Alkabo	--	84	52	58	67	59	--	63.2	59.4	60.7	61.0	60.4	--	0	0	0	0	0	--	42	36	29	40	35	--	65	62	52	62	59
Divide	--	91	59	53	61	58	--	63.0	60.2	60.1	60.5	60.3	--	0.3	0	0	0	0	--	41	38	29	41	36	--	65	62	53	62	59
Grande Doro	--	--	52	57	65	58	--	--	60.6	61.0	61.2	60.9	--	--	0	0	0	0	--	--	38	29	41	36	--	--	62	52	63	59
Primo Doro	--	--	44	50	54	50	--	--	59.4	61.3	60.1	60.3	--	--	3.5	0	0	1.2	--	--	40	32	45	39	--	--	62	50	61	58
Dilse	75	84	54	--	--	--	60.9	62.8	59.6	--	--	--	0	0.3	0	--	--	--	38	40	37	--	--	--	63	65	62	--	--	--
Pierce	75	81	55	--	--	--	61.5	63.8	60.1	--	--	--	0	0	0.5	--	--	--	40	40	37	--	--	--	64	65	62	--	--	--
Munich	78	82	--	--	--	--	61.1	62.2	--	--	--	--	0	0	--	--	--	--	37	38	--	--	--	--	62	65	--	--	--	--
LSD 5%	4.4	NS	5.1	NS	5.2		0.4	0.6	0.8	0.4	0.5		--	NS	1.0	--	--		1.3	2.3	1.5	3.1	1.8		NS	0.6	NS	0.9	0.7	

Durum Diseases by Location, Year and Variety

Location Year	Foliar Necrosis % of Flag at Soft Dough						Fusarium Damage Kernels (Tombstones) %						DON ppm						FHB Field Severity - % (Incidence x Head Severity)					
	7 Site Ave.	LV 07	T 07	L 06	R 05	T 05	7 Site Ave.	LV 07	T 07	LV 05	R 05	T 05	5 Site Ave.	LV 07	T 07	LV 05	R 05	T 05	5 Site Ave.	LV 07	T 07	LV 05	R 05	T 05
Variety:																								
Alkabo	38	27	15	2	73	73	2	0	2	3	3	3	2.9	1	2	7	1	3	2	1	0	1	7	4
Divide	22	17	15	3	63	13	2	0	2	2	2	5	2.1	1	3	3	1	3	2	0	0	0	3	6
Grande Doro	44	33	20	6	86	73	3	0	1	6	4	6	3.0	1	3	6	2	4	2	1	0	1	6	4
Grenora	21	13	18	2	58	13	2	0	2	2	3	6	3.6	2	3	6	3	5	3	1	0	1	6	4
Lebsock	27	20	23	3	60	32	2	0	1	2	2	4	3.1	2	4	4	3	3	1	0	0	1	4	1
Mountrail	35	27	20	3	70	58	3	1	3	4	3	4	3.4	2	2	9	1	3	3	1	1	1	3	9
Primo Doro	48	63	20	4	91	60	2	0	1	3	2	4	2.7	1	1	4	4	4	3	1	1	1	9	2
AC Commander	--	73	--	--	--	--	--	3	--	--	--	--	--	2	--	--	--	--	--	5	--	--	--	--
AC Napoleon	--	33	--	--	--	--	--	0	--	--	--	--	--	2	--	--	--	--	--	1	--	--	--	--
AC Navigator	--	67	--	3	--	--	--	1	--	6	--	--	--	3	--	13	--	--	--	6	--	3	--	--
Alzada	--	83	--	--	--	--	--	3	--	--	--	--	--	3	--	--	--	--	--	5	--	--	--	--
Ben	--	10	--	2	--	--	--	1	--	3	--	--	--	2	--	7	--	--	--	1	--	2	--	--
Dilse	--	27	--	2	63	77	--	0	--	3	3	5	--	2	--	5	2	5	--	1	--	1	6	8
DG Star	--	77	--	--	--	--	--	0	--	--	--	--	--	1	--	--	--	--	--	1	--	--	--	--
Maier	--	40	--	1	--	--	--	0	--	3	--	--	--	2	--	5	--	--	--	1	--	1	--	--
Pierce	--	23	--	2	68	33	--	0	--	1	2	3	--	1	--	6	2	3	--	0	--	1	6	7
Strongfield	--	20	--	3	--	--	--	1	--	--	--	--	--	2	--	--	--	--	--	2	--	--	--	--

LV=Langdon Variety Trial, LI=Langdon Irrigated, R=Ramsey, T=Towner.

HRWW Disease Summary, Langdon 2004-2006

Variety	Foliar Necrosis % Flag Leaf				Leaf Rust % Flag Leaf				FHB Field Severity %			FDK %	DON ppm
	06	05	04	3yr	06	05	04	3yr	05	04	2yr	05	05
Alice	18	--	--	--	2	--	--	--	--	--	--	--	--
Atrium	2	--	--	--	0	--	--	--	--	--	--	7	15.3
CDC Buteo	23	34	--	--	2	3	--	--	3	--	--	11	32.0
CDC Falcon	20	38	72	43	1	2	0	1	5	4	5	11	31.2
Dunai	2	--	--	--	1	--	--	--	--	--	--	--	--
Expedition	30	60	57	49	7	8	2	6	2	1	1	4	8.2
Fridolin	1	19	--	--	1	1	--	--	5	--	--	7	17.3
Goodstreak	28	--	--	--	26	--	--	--	--	--	--	--	--
Harding	20	13	23	19	5	1	0	2	5	1	3	10	26.3
Jagalene	15	81	70	55	24	4	4	11	7	4	6	19	35.0
Jerry	8	12	30	17	3	1	0	1	5	0	3	9	22.1

Variety	Foliar Necrosis % Flag Leaf				Leaf Rust % Flag Leaf				FHB Field % Severity			FDK %	DON ppm
	06	05	04	3yr	06	05	04	3yr	05	04	2yr	05	05
Josef	3	34	--	--	0	6	--	--	8	--	--	8	17.9
McClintock	1	4	37	14	0	2	4	2	5	2	4	11	19.2
Millennium	5	15	27	16	4	1	0	2	4	0	2	10	20.1
Paul	38	--	--	--	29	--	--	--	--	--	--	--	--
Radiant	10	--	--	--	9	--	--	--	--	--	--	--	--
Ransom	4	40	60	35	0	0	0	0	4	1	2	7	22.9
Roughrider	50	27	96	58	6	6	18	10	3	1	2	6	12.6
Wendy	33	50	--	--	5	5	--	--	9	--	--	6	10.3
Wesley	8	14	57	26	1	3	0	1	9	4	7	8	18.0
Yellowstone	8	46	--	--	40	4	--	--	13	--	--	14	38.1

Foliar necrosis and leaf rust - % of flag at soft dough. Field Severity=(Incidence x Head Severity). FDK=Fusarium damaged kernels, tombstones.

Barley Summary, Langdon 2003-2007

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Plump (%)					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
Drummond	117	93	70	107	97	91	47.6	44.8	47.6	47.0	49.0	47.9	0.3	7.8	0	0.8	2.0	0.9	93	76	90	66	86	81
Lacey	131	117	73	116	106	98	49.6	47.8	48.3	49.6	49.8	49.2	1.0	6.8	0	1.8	2.8	1.5	95	84	92	81	86	86
Legacy	128	88	71	109	90	90	47.4	44.3	46.4	46.2	47.9	46.8	2.8	7.5	0	5.0	4.5	3.2	94	76	92	68	81	80
Robust	116	94	69	106	93	89	49.3	46.6	48.2	49.1	50.2	49.2	1.0	8.0	0	2.8	3.8	2.2	95	79	91	71	88	83
Stellar-ND	129	115	70	120	94	95	48.3	46.1	47.8	48.8	48.6	48.4	0.0	6.8	0	1.0	4.8	1.9	97	84	94	89	89	90
Tradition	123	106	71	115	90	92	48.9	45.5	48.8	48.5	48.7	48.7	0.3	8.0	0	2.3	3.8	2.0	95	78	94	78	84	86
MNBrite	112	93	72	88	--	--	48.4	46.5	47.0	48.0	--	--	1.3	6.3	0	6.5	--	--	94	86	92	66	--	--
Excel	119	105	77	--	--	--	47.5	44.5	47.1	--	--	--	2.5	7.3	0	--	--	--	91	76	84	--	--	--
Foster	119	97	--	--	--	--	48.0	43.9	--	--	--	--	1.0	8.5	--	--	--	--	94	80	--	--	--	--
Morex	103	89	--	--	--	--	47.5	45.9	--	--	--	--	3.0	8.3	--	--	--	--	90	71	--	--	--	--
Stander	121	108	--	--	--	--	48.3	44.6	--	--	--	--	0.8	7.5	--	--	--	--	95	80	--	--	--	--
Bowman*	105	96	79	110	78	89	48.8	48.4	50.5	51.7	48.6	50.3	5.8	9.0	0	2.8	7.0	3.3	91	81	92	91	81	88
Conlon*	114	109	76	107	90	91	50.5	51.0	51.3	52.1	50.2	51.2	2.5	7.8	0	2.8	6.5	3.1	94	92	97	95	91	94
Rawson*	99	80	70	111	93	91	47.6	45.3	47.9	49.5	49.4	48.9	2.5	7.8	0	2.3	6.0	2.8	94	92	98	96	93	96
AC Metcalfe*	--	81	77	104	81	87	--	45.8	50.2	49.0	49.2	49.5	--	8.8	0	2.3	7.3	3.2	--	76	91	82	78	84
Pinnacle*	--	--	76	116	83	91	--	--	51.4	51.0	48.8	50.4	--	--	0	1.0	6.8	2.6	--	--	96	96	85	92
CDC Copeland*	--	--	--	--	85	--	--	--	--	--	48.5	--	--	--	--	--	7.5	--	--	--	--	--	81	--
Conrad*	--	--	--	--	73	--	--	--	--	--	49.2	--	--	--	--	--	7.8	--	--	--	--	--	81	--
Scarlett*	--	--	--	--	73	--	--	--	--	--	47.3	--	--	--	--	--	6.0	--	--	--	--	--	83	--
Harrington*	97	62	77	95	--	--	47.6	44.0	49.9	45.9	--	--	5.0	8.0	0	6.5	--	--	87	72	89	65	--	--
Eslick*	--	75	86	119	--	--	--	47.0	51.4	49.8	--	--	--	7.8	0	5.0	--	--	--	78	87	81	--	--
Haxby*	--	--	83	118	--	--	--	--	53.4	52.4	--	--	--	--	0	0.3	--	--	--	--	92	88	--	--
Logan*	112	97	74	--	--	--	49.3	48.1	50.2	--	--	--	2.3	8.3	0	--	--	--	88	83	91	--	--	--
Stark*	116	96	82	--	--	--	50.3	48.5	51.8	--	--	--	3.5	8.8	0	--	--	--	91	79	94	--	--	--
LSD 5%	11.1	14	10	9.4	11.6		0.9	1.0	0.8	1.6	1.0		1.8	NS	--	2.7	3.1		3.0	5.0	2.4	11.2	5.4	

*2-row

Barley Summary, Langdon 2003-2007

	Height (in)						Protein (%)						Days to Head					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
Drummond	40	46	31	38	37	35	11.7	11.8	10.8	12.3	12.6	11.9	63	70	62	54	59	58
Lacey	38	44	30	36	35	34	11.5	11.0	10.5	12.0	12.5	11.7	60	69	60	53	58	57
Legacy	39	44	32	39	35	35	11.6	11.6	12.0	11.2	12.9	12.0	63	72	62	55	61	59
Robust	40	45	32	40	36	36	12.6	12.2	11.3	12.6	13.4	12.4	62	70	61	54	59	58
Stellar-ND	38	45	30	37	36	34	11.5	11.2	10.8	11.1	13.0	11.6	60	70	59	52	59	57
Tradition	39	44	32	38	36	35	11.6	11.8	11.0	11.7	13.0	11.9	64	71	61	55	61	59
MNBrite	39	45	33	39	--	--	13.0	12.3	12.4	13.8	--	--	64	73	64	57	--	--
Excel	37	45	30	--	--	--	11.5	11.2	9.8	--	--	--	61	70	61	--	--	--
Foster	38	44	--	--	--	--	11.4	11.4	--	--	--	--	61	70	--	--	--	--
Morex	40	45	--	--	--	--	12.6	12.4	--	--	--	--	61	69	--	--	--	--
Stander	37	46	--	--	--	--	11.5	10.9	--	--	--	--	62	70	--	--	--	--
Bowman*	36	42	31	35	34	33	12.3	12.5	10.6	12.4	13.9	12.3	59	66	58	52	57	56
Conlon*	34	43	29	35	34	33	12.0	11.4	10.5	11.6	13.2	11.8	57	66	57	51	55	54
Rawson*	35	46	28	37	35	33	10.5	11.0	9.3	10.6	12.2	10.7	60	67	58	49	57	55
AC Metcalfe*	--	42	30	36	33	33	--	11.9	10.7	12.7	13.5	12.3	--	73	62	56	61	59
Pinnacle*	--	--	31	37	34	34	--	--	8.4	10.6	12.1	10.4	--	--	60	54	61	58
CDC Copeland*	--	--	--	--	34	--	--	--	--	--	12.8	--	--	--	--	--	63	--
Conrad*	--	--	--	--	32	--	--	--	--	--	14.4	--	--	--	--	--	64	--
Scarlett*	--	--	--	--	30	--	--	--	--	--	13.4	--	--	--	--	--	66	--
Harrington*	38	42	33	38	--	--	11.7	12.2	9.5	13.0	--	--	65	74	63	57	--	--
Eslick*	--	40	29	37	--	--	--	11.8	8.5	11.6	--	--	--	73	61	55	--	--
Haxby*	--	--	30	35	--	--	--	--	8.8	11.5	--	--	--	--	60	53	--	--
Logan*	34	42	29	--	--	--	12.2	12.7	9.8	--	--	--	60	69	59	--	--	--
Stark*	37	43	32	--	--	--	12.6	12.3	10.4	--	--	--	61	69	59	--	--	--
LSD 5%	2.2	2.0	2.4	1.6	1.9		0.5	0.8	1.1	1.0	0.6		1.0	1.0	0.8	1.7	1.1	

*2-row

Barley Summary 2003-2007, Ramsey County

Variety	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Protein (%)						Plump (%)					
	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
Drummond	105	97	81	79	62	74	47.5	49.5	45.1	46.9	46.7	46.2	0	0	0	0	0	0	12.4	12.2	11.1	12.3	12.4	11.9	91	90	89	83	83	85
Lacey	107	90	81	86	73	80	48.8	50.4	46.2	49.7	47.6	47.8	0	0	0	0	0	0	12.0	11.6	11.2	12.3	12.6	12.0	94	91	88	91	82	87
Legacy	101	100	84	86	63	78	47.4	47.6	44.2	45.5	46.4	45.4	0	0	0	0	0	0	12.4	11.2	10.4	11.3	12.3	11.3	92	85	78	81	83	81
Stellar-ND	106	105	87	88	65	80	47.3	48.5	45.8	49.0	46.5	47.1	0	0	0	0	0	0	11.8	11.2	11.1	11.4	12.4	11.6	95	93	91	92	87	90
Tradition	102	111	85	87	62	78	48.0	49.6	46.3	47.5	46.8	46.9	0	0	0	0	0	0	12.0	11.6	10.7	11.8	12.3	11.6	93	92	87	84	81	84
Pinnacle*	--	--	--	--	75	--	--	--	--	--	49.6	--	--	--	--	--	0	--	--	--	--	--	11.2	--	--	--	--	--	94	--
Robust	100	78	75	--	--	--	49.0	50.3	45.8	--	--	--	0	0	0	--	--	--	12.9	12.2	11.2	--	--	--	93	89	85	--	--	--
LSD 5%	NS	14.5	7.5	5.0	7.5		0.6	0.5	0.8	0.6	0.5		--	--	--	--	--		0.4	0.3	0.4	0.4	0.5		NS	2	3	5	2	

*Two row barley

Barley Summary 2003-2007, Towner County

Variety	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Protein (%)						Plump (%)					
	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
Drummond	--	--	64	50	76	63	--	--	44.5	40.3	46.7	43.8	--	--	0	0	0	0.0	--	--	12.4	14.6	12.7	13.2	--	--	72	34	75	60
Lacey	--	--	70	51	77	66	--	--	45.6	39.8	47.5	44.3	--	--	1.3	0	0	0.4	--	--	12.6	14.9	12.7	13.4	--	--	75	25	76	59
Legacy	--	--	69	47	63	60	--	--	44.4	38.0	45.2	42.5	--	--	0.5	0	0	0.2	--	--	12.1	14.6	12.6	13.1	--	--	76	23	78	59
Stellar-ND	--	--	79	57	80	72	--	--	44.5	39.0	47.2	43.6	--	--	0.3	0	0	0.1	--	--	12.7	14.3	12.2	13.1	--	--	76	27	86	63
Tradition	--	--	74	67	72	71	--	--	45.5	42.0	46.6	44.7	--	--	0.8	0	0	0.3	--	--	12.2	14.5	12.5	13.1	--	--	76	31	76	61
Pinnacle*	--	--	--	--	80	--	--	--	--	--	49.4	--	--	--	--	--	0	--	--	--	--	--	11.0	--	--	--	--	--	92	--
Robust	--	--	66	--	--	--	--	--	45.5	--	--	--	--	--	1.0	--	--	--	--	--	13.3	--	--	--	--	--	68	--	--	--
LSD 5%	--	--	5.8	10.2	4.1		--	--	0.9	1.7	0.5		--	--	NS	--	--		--	--	0.4	NS	0.3		--	--	NS	NS	5.3	

*Two row barley

Barley Summary 2003-2007, Pembina County

Variety	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Protein (%)						Plump (%)					
	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
Drummond	111	--	62	--	79	84	48.3	--	47.0	--	49.3	48.2	0	--	0	--	0	0	11.9	--	10.6	--	12.1	11.5	94	--	93	--	93	93
Lacey	120	--	71	--	87	93	50.4	--	47.9	--	50.3	49.5	0	--	0	--	0	0	11.8	--	11.1	--	11.8	11.6	93	--	91	--	94	93
Legacy	122	--	73	--	81	92	49.0	--	46.7	--	49.3	48.3	0	--	0	--	0	0	12.0	--	10.0	--	11.1	11.0	95	--	88	--	93	92
Stellar-ND	119	--	77	--	74	90	49.6	--	47.0	--	48.9	48.5	0	--	0	--	0	0	11.6	--	10.2	--	11.3	11.0	96	--	95	--	94	95
Tradition	112	--	71	--	70	84	50.0	--	47.4	--	49.9	49.1	0	--	0	--	0	0	12.0	--	10.4	--	11.9	11.4	95	--	92	--	93	93
Pinnacle*	--	--	--	--	80	--	--	--	--	--	51.0	--	--	--	--	--	0	--	--	--	--	--	10.3	--	--	--	--	--	97	--
Robust	106	--	59	--	--	--	50.1	--	47.5	--	--	--	0	--	0	--	--	--	12.4	--	10.8	--	--	--	93	--	90	--	--	--
LSD 5%	9.0	--	9.4	--	10.3		0.6	--	0.5	--	0.5		--	--	--	--	--		0.4	--	0.6	--	0.6		NS	--	3.8	--	1.5	

*Two row barley

Barley Disease by Location, Year and Variety

	Foliar Necrosis - % of Flag						DON - ppm								FHB Field Severity - %				
Location	**4 Site**	**L**	**Lnl**	**Llo**	**L**	**P**	**7 Site**	**LV**	**LI**	**L**	**T**	**R**	**P**	**L**	**4 Site**	**LV**	**L**	**Lnl**	**Llo**
Year	**Ave.**	**06**	**04**	**04**	**03**	**03**	**Ave.**	**07**	**07**	**05**	**05**	**05**	**05**	**04**	**Ave.**	**07**	**05**	**04**	**04**
Variety:																			
Six-Rowed																			
Robust	40	15	50	70	23	5	4.7	1	7	5	9	6	5	1	3	2	1	1	7
Drummond	19	3	25	35	14	3	4.9	1	8	4	9	8	4	1	--	--	1	0	1
Lacey	34	14	33	65	24	8	4.0	1	4	7	5	6	5	1	--	--	2	0	3
Legacy	34	17	40	60	20	5	3.9	1	6	5	7	4	2	2	2	1	2	1	5
Tradition	26	2	30	55	16	3	3.3	1	5	3	7	6	1	1	1	1	1	0	2
Stellar-ND	43	6	55	85	27	--	4.5	1	7	7	13	3	2	1	1	2	1	0	0
Two-Rowed																			
Pinnacle	--	--	--	--	--		--	1	3	--	--	--	--	--	--	--	--	--	--
Bowman	75	8	100	100	91	--	--	1	--	2	--	--	--	1	--	--	1	1	2
Conlon	51	18	70	40	75	--	--	0	2	3	--	--	--	0	1	2	2	0	1
CDC Copeland	--	--	--	--	--		--	0	--	--	--	--	--	--	--	--	--	--	--
Scarlett	--	--	--	--	--		--	0	--	--	--	--	--	--	--	--	--	--	--
Rawson	26	13	10	60	22	--	--	1	--	4	--	--	--	0	--	--	1	0	1
AC Metcalfe	--	4	20	70	--	--	--	0	--	2	--	--	--	1	--	--	0	0	3

L=Langdon, Lnl=Langdon not lodged, Llo=Langdon badly lodged, LI=Langdon Irrigated, P=Pembina, W=Walsh, T=Towner, R=Ramsey, N=Nelson

Field Severity = (Incidence x Head Severity) 2007 ratings on selected varieties.

HRWW Summary, Langdon 2003-2007

	Yield (bu/a)						Test Weight (lbs/bu)						Heading Date (June)						Lodging (0-9)					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
CDC Falcon	98	82	26	75	53	51	59.5	58.2	51.2	59.2	56.9	55.8	17	30	22	10	14	15	0	0.5	0	0	0.0	0.0
Expedition	101	91	40	81	42	54	61.6	59.1	55.5	61.3	57.0	57.9	14	27	18	4	9	11	0	0.1	0	0.3	0.0	0.1
Harding	93	87	33	64	58	52	60.1	56.9	55.4	58.9	58.8	57.7	16	31	22	11	14	16	1.5	3.5	0	0	1.3	0.4
Jagalene	99	79	17	67	23	36	61.4	58.3	49.6	58.9	54.2	54.2	15	30	21	6	13	13	0	1.1	0	0	0.0	0.0
Jerry	96	90	34	71	66	57	59.8	57.4	55.0	59.3	58.1	57.5	18	32	23	11	15	16	0.8	4.4	0	0	1.3	0.4
McClintock	98	68	27	78	33	46	61.3	56.0	54.8	62.0	56.7	57.8	17	31	17	9	16	14	0	0.6	0	0	0.0	0.0
Millennium	101	92	31	74	67	57	60.9	59.2	55.9	60.3	59.4	58.5	16	29	21	9	14	14	0	0.7	0	0.3	0.0	0.1
Ransom	93	75	34	82	60	59	59.4	56.2	54.8	60.5	56.9	57.4	18	32	22	11	15	16	2.0	3.0	0	1.5	2.8	1.4
Roughrider	90	64	26	51	40	39	62.0	58.0	55.6	59.9	57.8	57.8	19	32	24	12	16	17	0.3	3.2	0	0.5	1.8	0.8
Wesley	101	80	38	75	44	52	59.8	58.3	54.8	59.4	55.0	56.4	15	26	19	5	10	11	0	0.5	0	0	0.0	0.0
Wendy*	--	79	29	73	40	47	--	58.6	54.7	60.3	56.2	57.1	--	26	18	4	10	11	--	0.7	0	0	0.0	0.0
Yellowstone	--	56	17	51	34	34	--	51.3	47.8	53.7	51.0	50.8	--	33	24	12	15	17	--	0	0	0	0.0	0.0
CDC Buteo	--	--	28	76	50	51	--	--	55.1	61.0	59.0	58.4	--	--	23	10	15	16	--	--	0	0	0.3	0.1
Fridolin	--	--	21	82	28	44	--	--	49.1	59.2	52.3	53.5	--	--	25	11	18	18	--	--	0	0	0.0	0.0
Josef	--	--	21	68	15	35	--	--	53.2	58.6	52.8	54.9	--	--	24	11	19	18	--	--	0	0	0.0	0.0
Goodstreak	105	93	--	65	48	--	62.0	58.4	--	53.8	52.2	--	16	30	--	7	13	--	0.8	3.3	--	0.5	0.5	--
Paul	91	49	--	50	31	--	58.1	51.4	--	55.7	52.9	--	18	33	--	11	16	--	0	6.9	--	0.3	0.3	--
Alice	--	--	--	76	40	--	--	--	--	59.2	55.0	--	--	--	--	4	11	--	--	--	--	0	0.0	--
Atrium	--	--	--	80	43	--	--	--	--	60.2	54.8	--	--	--	--	11	15	--	--	--	--	0	0.0	--
Dunai	--	--	--	74	30	--	--	--	--	57.5	52.2	--	--	--	--	13	18	--	--	--	--	0	0.0	--
Radiant	--	--	--	65	39	--	--	--	--	56.6	54.0	--	--	--	--	12	15	--	--	--	--	0	0.0	--
Capo	--	--	20	--	27	--	--	--	49.7	--	53.8	--	--	--	25	--	18	--	--	--	0	--	0.0	--
Darrel	--	--	--	--	45	--	--	--	--	--	56.0	--	--	--	--	--	13	--	--	--	--	--	0.5	--
Hawken	--	--	--	--	48	--	--	--	--	--	57.9	--	--	--	--	--	11	--	--	--	--	--	0.0	--
Nudakota	--	--	--	--	42	--					52.4	--	--	--	--	--	13	--	--	--	--	--	0.0	--
Arapahoe	96	76	33	--	--	--	59.5	56.5	55.2	--	--	--	17	31	22	--	--	--	1.0	3.3	0	--	--	--
Wahoo	100	85	37	--	--	--	58.4	55.4	53.7	--	--	--	16	28	20	--	--	--	0.5	4.6	0	--	--	--
NuSky*	--	39	17	--	--	--	--	51.1	51.3	--	--	--	--	32	23	--	--	--	--	1.8	0	--	--	--
CDC Raptor	92	71	--	--	--	--	59.6	55.3	--	--	--	--	18	33	--	--	--	--	0	1.9	--	--	--	--
Elkhorn	89	66	--	--	--	--	60.8	55.6	--	--	--	--	19	34	--	--	--	--	1.5	4.3	--	--	--	--
Morgan	97	60	--	--	--	--	59.9	53.4	--	--	--	--	20	34	--	--	--	--	0.8	6.5	--	--	--	--
Nekota	95	79	--	--	--	--	61.0	60.3	--	--	--	--	14	25	--	--	--	--	0	0.2	--	--	--	--
Norstar	89	57	--	--	--	--	60.9	55.3	--	--	--	--	22	35	--	--	--	--	3.3	4.7	--	--	--	--
Seward	87	67	--	--	--	--	61.1	55.5	--	--	--	--	21	35	--	--	--	--	2.5	5.2	--	--	--	--
Nuplains*	--	74	--	--	--	--	--	58.8	--	--	--	--	--	30	--	--	--	--	--	1.5	--	--	--	--
Harry	--	96	--	--	--	--	--	56.6	--	--	--	--	--	29	--	--	--	--	--	4.4	--	--	--	--
Agassiz	83	--	--	--	--	--	60.4	--	--	--	--	--	19	--	--	--	--	--	5.0	--	--	--	--	--
Alliance	105	--	--	--	--	--	60.4	--	--	--	--	--	15	--	--	--	--	--	0	--	--	--	--	--
CDC Kestrel	93	--	--	--	--	--	59.1	--	--	--	--	--	19	--	--	--	--	--	0.5	--	--	--	--	--
Crimson	94	--	--	--	--	--	62.0	--	--	--	--	--	17	--	--	--	--	--	0.5	--	--	--	--	--
Tandem	94	--	--	--	--	--	61.3	--	--	--	--	--	15	--	--	--	--	--	0.3	--	--	--	--	--
Windstar	89	--	--	--	--	--	61.0	--	--	--	--	--	16	--	--	--	--	--	4.0	--	--	--	--	--
LSD 5%	9.1	8.9	4.1	7.6	14.5		0.7	1.3	1.3	1.3	1.8		1.2	1.1	4.1	1.6	1.4		1.3	2.3	--	0.6	1.3	

*Hard white winter wheat.

HRWW Summary, Langdon 2003-2007

	Winter Survival (%)						Protein(%)						Height (in)					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
CDC Falcon	100	96	97	100	84	94	11.8	12.0	13.0	10.8	10.4	11.4	35	41	33	39	30	34
Expedition	100	96	96	100	78	91	12.1	11.9	11.8	11.2	10.1	11.0	37	44	37	44	29	37
Harding	100	95	99	100	70	90	13.0	13.1	13.8	11.5	11.3	12.2	40	47	40	46	34	40
Jagalene	100	94	95	100	56	84	12.7	12.4	13.4	11.0	11.3	11.9	35	41	34	41	28	35
Jerry	100	94	94	100	86	93	12.4	12.7	13.2	11.1	11.0	11.8	41	49	40	49	36	42
McClintock	100	90	97	100	58	85	12.3	11.5	13.2	11.8	11.5	12.2	42	48	40	47	36	41
Millennium	100	95	97	100	70	89	12.1	12.0	12.4	10.4	11.3	11.4	38	46	38	46	32	39
Ransom	100	94	97	100	79	92	12.2	12.1	13.3	11.9	10.4	11.9	40	49	41	48	37	42
Roughrider	100	94	98	100	71	90	13.0	12.3	14.4	12.4	11.2	12.7	46	56	44	48	38	44
Wesley	100	95	95	100	75	90	13.0	13.0	12.8	12.3	11.3	12.1	35	37	32	37	27	32
Wendy*	--	93	93	100	56	83	--	12.8	13.4	11.5	11.3	12.1	--	39	33	37	27	32
Yellowstone	--	94	93	100	84	92	--	12.1	13.5	11.4	10.9	11.9	--	44	35	44	33	37
CDC Buteo	--	--	97	100	76	91	--	--	12.1	10.7	10.2	11.0	--	--	40	47	35	41
Fridolin	--	--	75	100	35	70	--	--	14.5	11.7	12.5	12.9	--	--	38	45	32	38
Josef	--	--	84	100	20	68	--	--	15.5	12.9	14.2	14.2	--	--	33	40	27	33
Goodstreak	100	96	--	100	76	--	12.6	12.5	--	9.5	10.1	--	43	51	--	43	31	--
Paul	100	95	--	100	69	--	12.4	12.4	--	11.5	9.9	--	38	44	--	43	31	--
Alice	--	--	--	100	71	--	--	--	--	11.5	11.3	--	--	--	--	38	28	--
Atrium	--	--	--	100	69	--	--	--	--	11.8	11.4	--	--	--	--	41	31	--
Dunai	--	--	--	100	51	--	--	--	--	12.3	13.0	--	--	--	--	41	31	--
Radiant	--	--	--	100	78	--	--	--	--	11.1	10.4	--	--	--	--	45	36	--
Capo	--	--	74	--	50	--	--	--	14.6	--	12.1	--	--	--	37	--	33	--
Darrel	--	--	--	--	74	--	--	--	--	--	11.1	--	--	--	--	--	32	--
Hawken	--	--	--	--	64	--	--	--	--	--	12.5	--	--	--	--	--	27	--
Nudakota	--	--	--	--	55	--	--	--	--	--	12.2	--	--	--	--	--	26	--
Arapahoe	100	96	98	--	--	--	12.8	12.7	13.4	--	--	--	45	54	44	--	--	--
Wahoo	100	95	95	--	--	--	12.0	11.9	12.8	--	--	--	38	42	34	--	--	--
NuSky*	--	96	97	--	--	--	--	12.9	13.3	--	--	--	--	47	38	--	--	--
CDC Raptor	100	98	--	--	--	--	11.6	11.5	--	--	--	--	38	46	--	--	--	--
Elkhorn	100	96	--	--	--	--	12.6	12.7	--	--	--	--	45	55	--	--	--	--
Morgan	100	96	--	--	--	--	11.8	11.9	--	--	--	--	40	46	--	--	--	--
Nekota	100	94	--	--	--	--	12.7	12.2	--	--	--	--	35	39	--	--	--	--
Norstar	100	97	--	--	--	--	12.5	11.6	--	--	--	--	49	56	--	--	--	--
Seward	100	96	--	--	--	--	12.5	11.6	--	--	--	--	47	57	--	--	--	--
Nuplains*	--	95	--	--	--	--	--	12.5	--	--	--	--	--	42	--	--	--	--
Harry	--	97	--	--	--	--	--	11.4	--	--	--	--	--	42	--	--	--	--
Agassiz	100	--	--	--	--	--	13.6	--	--	--	--	--	46	--	--	--	--	--
Alliance	100	--	--	--	--	--	11.4	--	--	--	--	--	38	--	--	--	--	--
CDC Kestrel	100	--	--	--	--	--	11.3	--	--	--	--	--	43	--	--	--	--	--
Crimson	100	--	--	--	--	--	12.8	--	--	--	--	--	40	--	--	--	--	--
Tandem	100	--	--	--	--	--	13.2	--	--	--	--	--	41	--	--	--	--	--
Windstar	100	--	--	--	--	--	13.7	--	--	--	--	--	42	--	--	--	--	--
LSD 5%	--	NS	8.0	--	25		0.5	0.4	0.6	0.6	1.1		2.4	2.3	1.9	2.1	2	

*Hard white winter wheat.

Oats Summary, Langdon 2003-2007

	Yield (bu/a)						Test Weight (lbs/bu)						Days to Head					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
AC Assiniboia	169	119	26	114	105	81	36.6	36.5	19.1	32.2	35.1	28.8	69	77	67	60	68	65
AC Pinnacle	169	138	108	152	149	136	33.3	35.0	32.8	33.2	37.8	34.6	70	77	67	59	68	65
AC Ronald	145	142	24	104	99	75	38.9	35.8	22.2	32.5	33.7	29.5	62	78	68	60	70	66
Beach	163	134	94	148	133	125	38.6	37.9	34.6	36.8	39.6	37.0	67	74	65	56	65	62
Buff*	117	99	72	102	93	89	45.9	46.0	45.5	46.8	46.0	46.1	62	70	59	53	59	57
HiFi	159	137	168	159	161	163	36.6	37.9	39.2	37.7	40.0	39.0	69	75	65	57	66	63
Hytest	131	118	76	123	118	106	40.5	40.4	37.3	40.2	40.3	39.3	66	74	62	54	62	59
Jerry	141	127	53	134	122	103	40.0	40.0	29.6	37.5	39.3	35.5	66	73	63	54	61	59
Killdeer	176	146	87	135	135	119	36.0	36.4	29.9	34.6	36.9	33.8	67	74	64	55	63	61
Morton	161	126	136	159	141	145	38.1	38.9	39.5	39.1	40.4	39.7	68	75	65	56	64	62
Otana	122	108	39	113	105	86	31.6	35.0	25.0	32.6	32.8	30.1	70	75	66	57	66	63
Paul*	122	96	72	98	101	90	42.8	43.3	44.0	42.3	44.7	43.7	70	77	67	59	68	65
Souris	160	136	142	161	150	151	37.0	37.8	37.9	36.9	40.2	38.3	68	75	66	57	65	62
Stark	119	99	96	105	116	106	40.8	41.3	43.3	40.8	43.8	42.6	70	77	67	59	68	65
Youngs	167	113	94	138	143	125	34.9	35.8	32.8	35.0	37.9	35.2	69	76	67	59	68	64
CDC Dancer	--	126	111	148	135	131	--	38.3	38.7	36.8	40.2	38.6	--	77	67	58	67	64
Maida	--	138	65	141	131	112	--	37.8	30.9	37.2	38.9	35.7	--	74	65	56	62	61
CDC Weaver	--	--	57	121	126	101	--	--	27.5	32.1	35.8	31.8	--	--	68	60	68	65
Stallion	--	--	--	--	153	--	--	--	--	--	39.6	--	--	--	--	--	65	--
AC Kaufman	164	121	57	126	--	--	36.0	36.5	27.5	33.8	--	--	69	74	67	57	--	--
Ebeltoft	177	134	98	146	--	--	36.0	35.6	32.8	33.2	--	--	70	77	67	60	--	--
Leonard	--	149	108	138	--	--	--	36.8	34.6	35.5	--	--	--	74	66	57	--	--
AC Furlong	152	140	46	--	--	--	35.0	37.4	25.8	--	--	--	70	77	67	--	--	--
Sesqui	159	132	108	--	--	--	36.8	38.4	37.3	--	--	--	70	73	65	--	--	--
AC Gwen	--	93	40	--	--	--	--	40.5	36.6	--	--	--	--	75	67	--	--	--
AC Medallion	158	132	--	--	--	--	33.8	35.1	--	--	--	--	70	75	--	--	--	--
Reeves	151	116	--	--	--	--	39.0	37.9	--	--	--	--	62	69	--	--	--	--
LSD 5%	15.8	17.9	7.4	13.8	15.3		1.4	1.2	1.2	1.1	1.1		0.9	1.0	0.9	0.9	1.7	

*Naked-hull variety

Oat Disease Summary, 2005-07

	Crown Rust %					Crown Rust %					Crown Rust %				
Variety	**05**	**06**	**07**	**3 yr**	**Variety**	**05**	**06**	**07**	**3 yr**	**Variety**	**05**	**06**	**07**	**3 yr**
AC Assiniboia	92	63	8	54	HiFi	0	0	0	0	Otana	91	70	22	61
AC Pinnacle	26	15	1	14	Hytest	51	43	4	32	Paul*	11	2	0	4
AC Ronald	92	57	10	53	Jerry	85	43	4	44	Souris	--	1	0	--
Beach	49	17	4	23	Killdeer	85	32	2	40	Stallion	--	--	0	--
Buff*	26	13	1	13	Maida	73	20	14	36	Stark*	8	8	0	5
CDC Dancer	16	12	1	10	Morton	0	0	10	3	Youngs	40	33	19	31
CDC Weaver	82	47	4	44						LSD 5%	7	20	10	

Crown Rust - % flag leaf * Naked-hull variety

Oats Summary, Langdon 2003-2007

	Height (in)						Protein(%)						Lodging (0-9)					
Variety	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
AC Assiniboia	46	48	40	49	47	45	17.6	11.6	6.7	9.7	13.1	9.8	2.3	7.5	8.6	5.3	3.0	5.6
AC Pinnacle	46	50	35	49	46	43	12.5	9.2	6.2	8.9	12.3	9.1	7.8	8.8	3.5	7.8	4.0	5.1
AC Ronald	47	45	37	46	42	41	14.8	9.8	6.7	9.8	10.8	9.1	1.8	7.5	8.8	8.3	0.8	6.0
Beach	50	51	46	51	51	49	13.2	10.2	7.1	10.8	13.3	10.4	4.5	8.3	7.7	5.3	3.5	5.5
Buff*	42	46	41	45	41	42	15.6	11.9	10.2	14.4	14.8	13.1	3.0	8.8	2.2	3.0	4.8	3.3
HiFi	51	52	47	49	44	47	13.6	10.1	9.9	11.5	13.1	11.5	6.0	8.5	0.7	6.3	3.8	3.6
Hytest	50	54	46	50	47	48	16.3	12.7	10.5	14.5	15.4	13.5	6.5	7.8	6.9	7.3	6.0	6.7
Jerry	49	52	46	48	44	46	14.4	10.4	6.8	12.1	12.6	10.5	1.3	8.3	8.5	5.8	4.8	6.4
Killdeer	44	45	40	41	41	41	12.6	9.3	6.3	10.0	12.1	9.5	7.5	8.8	6.2	3.8	6.0	5.3
Morton	50	53	49	53	51	51	14.7	11.0	10.8	13.4	13.9	12.7	2.8	7.0	0.0	5.0	4.3	3.1
Otana	50	51	47	49	46	47	11.7	9.4	6.4	10.0	11.7	9.4	8.5	8.8	7.7	7.0	5.5	6.7
Paul*	49	51	47	51	48	49	16.8	13.8	12.4	15.2	16.0	14.5	3.3	8.0	0.0	7.0	4.5	3.8
Souris	46	48	43	47	45	45	13.0	9.6	10.3	11.5	13.5	11.8	5.8	8.0	0.1	7.3	3.8	3.7
Stark	49	49	45	50	47	47	14.7	11.3	10.0	13.4	14.8	12.7	4.5	9.0	0.8	5.8	4.5	3.7
Youngs	50	50	46	50	46	47	14.1	11.3	8.3	11.4	14.2	11.3	7.5	7.5	6.1	6.3	5.8	6.1
CDC Dancer	--	52	46	49	47	47	--	8.6	7.3	10.6	11.7	9.9	--	8.5	0.5	4.0	3.5	2.7
Maida	--	50	43	50	44	46	--	11.0	7.6	12.1	12.9	10.9	--	8.5	8.3	6.3	3.3	6.0
CDC Weaver	--	--	42	50	46	46	--	--	6.3	9.8	10.1	8.7	--	--	6.8	3.8	2.3	4.3
Stallion	--	--	--	--	47	--	--	--	--	--	13.6	--	--	--	--	--	7.0	--
AC Kaufman	48	49	44	50	--	--	11.2	9.4	6.0	9.6	--	--	6.5	8.8	8.0	4.8	--	--
Ebeltoft	45	46	40	45	--	--	12.8	9.8	6.5	10.5	--	--	5.5	8.0	4.5	5.5	--	--
Leonard	--	50	43	48	--	--	--	10.2	8.0	12.0	--	--	--	8.0	6.5	4.3	--	--
AC Furlong	50	49	41	--	--	--	13.8	10.9	7.1	--	--	--	7.3	8.8	8.6	--	--	--
Sesqui	43	50	42	--	--	--	13.4	11.9	9.5	--	--	--	0.5	8.5	5.5	--	--	--
AC Gwen	--	48	42	--	--	--	--	10.4	7.0	--	--	--	--	8.0	4.7	--	--	--
AC Medallion	48	49	--	--	--	--	12.3	9.8	--	--	--	--	8.3	8.3	--	--	--	--
Reeves	47	51	--	--	--	--	15.7	11.7	--	--	--	--	2.3	8.8	--	--	--	--
LSD 5%	2.2	2.0	5.1	2.4	2.5		2.0	0.7	0.9	0.8	1.1		3.1	NS	1.8	3.2	2.2	

*Naked-hull variety

Flax Summary, Langdon 2003-2007

Variety	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Height (in)						Days to Flower					
	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
AC Lightning	23	25	34	36	33	34	51.0	51.5	52.1	52.4	53.4	52.6	0.5	4.8	0	0	0.5	0.2	20	30	28	24	25	26	56	72	54	50	58	54
AC Watson	26	29	36	36	29	34	51.3	52.4	53.0	52.3	52.7	52.7	1.3	2.0	0	0	1.8	0.6	20	30	27	26	26	26	52	71	50	50	57	52
Bison	20	19	35	37	17	30	51.6	51.4	53.1	52.6	52.1	52.6	2.0	5.3	0	0	5.5	1.8	21	32	29	27	26	27	54	72	52	51	59	54
Carter*	27	27	39	37	36	37	52.1	52.8	53.2	52.8	53.6	53.2	0.5	3.0	0	0	0.5	0.2	20	29	28	25	27	27	56	73	56	53	60	56
CDC Arras	23	23	44	42	23	36	50.8	50.6	52.6	51.9	51.6	52.0	1.0	5.3	0	0	2.5	0.8	19	31	29	26	26	27	55	71	54	51	59	55
CDC Bethune	33	28	40	38	29	36	51.9	52.4	53.3	52.8	52.7	52.9	0	2.5	0	0	1.5	0.5	20	29	29	26	27	27	55	71	55	52	59	55
Hanley	30	30	41	42	29	37	52.0	53.0	53.9	52.6	53.0	53.2	0.3	0.5	0	0	2.8	0.9	19	28	25	24	26	25	55	71	52	51	57	54
Linott	26	21	40	37	23	33	52.3	51.9	53.5	52.7	52.2	52.8	0.8	4.5	0	0	5.3	1.8	21	32	29	26	26	27	54	72	52	51	59	54
McGregor	23	28	45	36	30	37	51.8	52.5	53.8	52.8	52.8	53.1	0	2.0	0	0	1.0	0.3	20	30	28	23	27	26	55	72	55	52	61	56
Neche	24	26	40	35	19	31	52.6	52.9	53.5	53.2	51.9	52.9	0	2.8	0	0	6.3	2.1	20	31	30	26	26	28	54	71	53	50	59	54
Nekoma	27	23	36	38	30	35	52.5	53.4	53.8	53.5	53.5	53.6	0	2.8	0	0	2.0	0.7	20	30	27	25	27	26	54	71	54	50	58	54
Omega*	26	17	36	36	28	33	51.8	50.9	53.2	52.6	52.9	52.9	0.8	5.8	0	0	1.3	0.4	21	30	27	24	26	26	58	74	56	53	60	56
Pembina	26	27	39	35	35	36	52.0	53.1	53.4	52.9	53.1	53.1	0	1.0	0	0	1.0	0.3	21	30	29	26	27	27	54	71	55	51	59	55
Prairie Blue	29	34	43	40	32	38	51.8	52.5	53.2	52.4	52.8	52.8	0	0.5	0	0	0.0	0.0	19	29	28	23	25	25	55	73	55	52	61	56
Rahab 94	28	32	39	40	32	37	52.6	53.1	53.4	52.6	53.2	53.1	0	0.3	0	0	1.3	0.4	19	29	28	25	26	27	53	71	53	49	58	54
Webster	22	27	44	37	33	38	52.3	51.9	53.9	52.9	52.7	53.2	0	2.3	0	0	2.5	0.8	21	29	30	27	27	28	56	72	55	53	59	56
York	30	24	44	39	30	38	53.0	53.1	54.4	53.4	53.6	53.8	0.3	1.8	0	0	3.3	1.1	19	30	27	23	27	25	56	73	55	52	60	56
Prairie Thunder	--	--	--	--	35	--	--	--	--	--	53.1	--	--	--	--	--	0.5	--	--	--	--	--	26	--	--	--	--	--	58	--
Scorpion*	--	--	--	--	29	--	--	--	--	--	52.7	--	--	--	--	--	0.5	--	--	--	--	--	23	--	--	--	--	--	58	--
Cathay	25	24	42	35	--	--	52.0	52.6	53.6	52.8	--	--	0.3	1.8	0	0	--	--	21	31	30	26	--	--	54	71	54	52	--	--
Selby	31	17	44	--	--	--	52.8	51.9	54.1	--	--	--	0.3	6.0	0	--	--	--	22	32	29	--	--	--	55	72	55	--	--	--
AC CarnDuff	27	26	--	--	--	--	52.1	53.0	--	--	--	--	0.3	1.8	--	--	--	--	19	29	--	--	--	--	54	70	--	--	--	--
CDC Mons	29	22	--	--	--	--	51.6	51.3	--	--	--	--	0	5.3	--	--	--	--	18	29	--	--	--	--	56	72	--	--	--	--
AC Nugget	30	--	--	--	--	--	52.4	--	--	--	--	--	0	--	--	--	--	--	19	--	--	--	--	--	52	--	--	--	--	--
LSD 5%	5.3	5.8	5.5	4.1	5.7		0.5	1.0	0.3	0.5	0.6		1.1	2.3	--	--	1.9		1.3	1.4	1.8	1.9	1.1		1.5	0.6	0.9	0.8	1.0	

*Yellow seeded.

Row, Oil and Specialty Crops Trial Information

Corn

Entries for the corn grain trial are solicited from corn companies on a yearly basis. In 2007 corn growing degree days were 1671, normal is 1557. The corn trials are overplanted and hand thinned to the correct population. Ears are picked and placed in the corn sheller by hand.

Description of traits:

Grain Yield: bushels per acre at 15.5 percent moisture, dockage free.
Test Weight: pounds per bushel, dockage free.
Days to Silk: days from planting to 50 percent of ears beginning to silk.
Harvest Moisture: percent seed moisture at harvest.
Height: inches, to top of tassel.

Sunflower

The first killing frost for sunflowers in 2007 was on October 22 (28 F.). Our normal killing frost date is September 21(28 F.). Sunflower growing degree-days from May 16 to October 22 was 2611. Normal is 2447. All hybrids matured before the first killing frost. Entries for sunflower trials are solicited from sunflower companies on a yearly basis.

Description of Traits

Yield: pounds per acre at 10 percent moisture, dockage free
Test Weight: pounds per bushel, dockage free
Harvest Moisture: percent seed moisture at harvest
Bloom: Days from planting to 10 percent bloom
Height: inches, taken at harvest
Oil: percent oil of seed, 10% moisture basis. Oil percentages of Tradition and NuSun hybrids were adjusted for oil type.
Seed Size: percent of seed that remains over the stated sieve size.
Days to Mature: a visual rating of plant maturity at the R-9 growth stage (bracts become yellow and brown).

Soybeans

Soybean trials were conducted at Langdon and off-station locations at Cavalier, Park River and Pekin. There were two variety trials conducted at each of the four locations, conventional and Roundup Ready. Entries for soybean trials are solicited from soybean companies on a yearly basis.

Soybeans respond to day length so the actual calendar maturity date is highly influenced by latitude location. Each variety therefore 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 it physiological maturity. Days to maturity are listed in the tables and indicate when the plants for a variety are observed and estimated to be physiologically mature. Relative maturity ratings are also provided by each company. These ratings consist of a number for the maturity group designation (00, 0) and is followed by a decimal and another number, ranging from 0-9, which indicates maturity ranking within each maturity group. For example, the variety Jim is indicated as 00.6 making it a medium maturing variety in the 00 group. Walsh would be a 0.0 making it one of the earliest variety in the 0 group where as Barnes is a 0.3 making it a early medium in the 0 group.

Soybean variety resistance to iron chlorosis results can be found in extension bulletin A-843 or at www.soilsci.ndsu.nodak.edu/yellowsoybeans.

Description of Traits:

Yield: bushels per acre, dockage free, 13% moisture.
Test Weight: pounds per bushel, dockage free
Height: inches
Days to mature: days to physiological maturity at R7 reproductive stage (one normal pod on the main stem obtains mature brown or tan color). Days to mature listed as NA or -- had not achieved maturity on at least three replicates prior to the first killing frost.
Lodging: scale of 0-9, 0 equals plants standing erect, 9 equals plants laying horizontal. Years with no lodging reported indicate no lodging in the trial.
Protein and Oil: reported on 13% moisture basis

Drybean

Drybean trials were conducted at Langdon and Cavalier.

Description of Traits
Yield: pounds per acre, dockage free
Days to mature: period from planting to 90 percent mature pods (pods change color and texture - termed "buckskin")
100 KWT: weight of 100 seeds in grams

Canola

The canola trials are composed of solicited entries from various companies. There are two canola trials. A Roundup Ready trial and a conventional trial which includes Clearfield and Liberty Link varieties along with the traditional varieties. In 2004, the very wet weather in May resulted in some sulfur leaching and/or denitrification in the Roundup Ready trial area. Two applications of foliar AMS were applied to the trial. This along with plant root growth into the leached sulfur zones brought the plants out of the deficiency and very good yields were still achieved. Some hail damage occurred on August 29. The earliest maturing plots generally received the most damage. Hail damage also occurred in 2006 on August 19 just prior to harvest. Notes were taken in the conventional trial because of the large difference in maturities between some of the varieties. Damage in the Roundup Ready trial appeared uniform in the swaths between varieties and no damage rating were taken. No adjustments to yield were made in either 2004 or 2006. Two Roundup Ready check varieties were included in the conventional trial for comparison to conventional and other herbicide tolerant varieties under conventional production practices.

Percent cover notes were taken to help determine differences in stand and vigor between varieties The trials are sprayed for white mold. Seed is treated with an insecticide and fungicide package and an additional foliar spray treatment is applied for flea beetle control if warranted.

Description of traits:
1st flower: days after planting when 10% of plants have at least one open flower
End flower: days after planting when 90% of plants have completed flowering
Days to mature: days after planting when seeds on lower third of main raceme are dark brown to black, seeds on middle third of main raceme are turning brown to black and seed on top third of main raceme are green but firm and pliable
Plant height: height in inches from soil surface to top of main raceme
Yield: pounds of seed/acre
Lodging: scale of 0-9, 0 equals plants standing erect, 9 equals plants laying horizontal
Oil: percent oil, 8.5% moisture.
%Cover: Visual rating of percent area of plot covered by plant growth. This is a measure of stand and vigor. Plants were at 4-5 leaf stage at time of rating.
Hail damage: 0=no damage, 10=the most. The rating is a relative rating between plots and not an estimate of yield loss. No adjustments to yield have been made.

Specialty Crops
Description of Traits
Yield: pounds per acre, dockage free.
Test Weight: pounds per bushel, dockage free
Days to Flower: days after planting when 10 percent of plants have at least one open flower
Days to Head: days from planting to heading
Lodging(Harvest Ease): scale of 0-9, 0 equals plants standing erect, 9 equals plants laying horizontal.
Height: in inches, from base of plant to top, excluding beards if present
Oil: percent oil, "as is" moisture basis

Forage Trial

Description of Traits:
Yield: tons per acre
Height: in inches, from base of plant to top, excluding beards if present
Dry Matter: percent dry matter
Crude Protein: is calculated by taking the Nitrogen content of the forage x 6.25
Total Digestible Nutrients: This is an estimate of the digestibility of the forage.
Acid Detergent Fiber: This value refers to the cell wall portions of the forage that are made up of cellulose and lignin. These values relate to the ability of an animal to digest the forage. As ADF increases, digestibility of a forage usually decreases.
Neutral Detergent Fiber: This value refers to the total cell wall, which is comprised of the ADF fraction plus hemicellulose. NDF values are important in ration formulation because they reflect the amount of forage the animal can consume.

Oil Sunflowers

Brand	Hybrid	Yield(lbs/a)			Days to Bloom			Days to Mature	Height (in.)			Test Wt. (lbs/bu)			Oil (%)[1]			% Harvest Moisture
		06	07	2yr	06	07	2yr	07	06	07	2yr	06	07	2yr	06	07	2yr	06
Advanta Pacific	F30236 NS/DM	2500	2300	2400	64	70	67	120	40	50	45	30.7	30.2	30.4	42.1	45.4	43.8	7.2
Advanta Pacific	F51122 NS/DM	--	2652	--	--	75	--	122	--	68	--	--	32.4	--	--	45.7	--	--
Advanta Pacific	F51179 NS/DM	--	2774	--	--	76	--	124	--	68	--	--	34.7	--	--	48.2	--	--
Advanta Pacific	F51231 NS/DM	3002	2363	2683	67	70	69	121	53	61	57	30.8	34.1	32.4	41.6	47.1	44.4	10.1
Advanta Pacific	F51289 NS/DM	--	2963	--	--	70	--	121	--	56	--	--	33.9	--	--	48.3	--	--
Advanta Pacific	F51321 NS/DM	--	2487	--	--	72	--	125	--	63	--	--	32.6	--	--	43.8	--	--
Croplan Genetics	3080 DMR NS	3005	2794	2899	68	75	72	124	53	64	58	31.3	31.7	31.5	47.8	50.7	49.2	7.9
Croplan Genetics	356 NS	--	2846	--	--	78	--	126	--	69	--	--	32.5	--	--	47.6	--	--
Croplan Genetics	378 DMR NS	--	3290	--	--	76	--	124	--	71	--	--	33.0	--	--	48.5	--	--
Croplan Genetics	528CL NS	--	2941	--	--	76	--	123	--	68	--	--	34.1	--	--	46.6	--	--
Croplan Genetics	564CL NS	--	2989	--	--	79	--	125	--	73	--	--	33.8	--	--	46.6	--	--
Croplan Genetics	584CL NS	--	2292	--	--	80	--	127	--	82	--	--	31.2	--	--	42.4	--	--
Croplan Genetics	803 DMR NS	--	2533	--	--	73	--	122	--	61	--	--	33.8	--	--	47.9	--	--
Dahlgren	4421NS	3212	3014	3113	68	73	70	122	57	70	63	30.2	30.2	30.2	39.2	45.4	42.3	8.5
Dahlgren	EX4370	--	2661	--	--	72	--	123	--	58	--	--	32.9	--	--	48.4	--	--
Dahlgren	EX4377NS	--	2741	--	--	73	--	123	--	55	--	--	32.4	--	--	47.7	--	--
DEKALB	DKF29-30	--	2431	--	--	73	--	122	--	67	--	--	34.0	--	--	47.2	--	--
DEKALB	DKF34-33	--	2593	--	--	77	--	124	--	70	--	--	44.4	--	--	48.6	--	--
DEKALB	DKF34-80CL	--	2927	--	--	77	--	124	--	70	--	--	32.9	--	--	50.8	--	--
DEKALB	DKF35-10	3107	2877	2992	70	76	73	125	57	73	65	33.5	34.2	33.9	41.3	42.7	42.0	9.8
DEKALB	DKF37-31	--	2972	--	--	77	--	125	--	72	--	--	32.6	--	--	48.4	--	--
Dyna-Gro	92N53DM	--	2621	--	--	74	--	123	--	67	--	--	32.5	--	--	51.0	--	--
Integra Seed	Int. 536NSDM	3066	2855	2961	67	73	70	123	49	61	55	31.2	31.9	31.5	42.5	44.3	43.4	9.9
Integra Seed	Int.735NSCLDM	2749	2396	2573	71	75	73	123	55	69	62	32.6	33.2	32.9	42.6	44.4	43.5	8.9
Interstate Seed	IS4575 NS/CL	2512	2535	2524	71	77	74	125	54	66	60	33.4	32.2	32.8	43.4	43.9	43.7	8.0
Interstate Seed	IS4668 NS/CL	2780	2288	2534	73	78	76	125	64	77	71	31.6	31.4	31.5	40.3	42.0	41.2	9.3
Interstate Seed	IS4704 NS	2851	2600	2726	69	75	72	123	54	64	59	32.8	32.8	32.8	43.3	45.4	44.4	8.2
Interstate Seed	IS5770 NS/DM	--	3321	--	--	76	--	125	--	71	--	--	33.3	--	--	46.1	--	--
Interstate Seed	IS5880 NS/CL	2712	2804	2758	72	77	75	125	58	70	64	31.2	32.0	31.6	42.7	42.6	42.7	9.8
Interstate Seed	IS6131 NS/DM	--	2502	--	--	73	--	121	--	61	--	--	34.5	--	--	47.2	--	--
Interstate Seed	IS7120 HO/DM	--	2494	--	--	73	--	124	--	61	--	--	32.9	--	--	45.0	--	--
Monsanto	MH6641	--	3417	--	--	78	--	124	--	68	--	--	33.0	--	--	48.0	--	--
Monsanto	MH6642	--	2905	--	--	74	--	124	--	64	--	--	33.1	--	--	48.1	--	--
Monsanto	MH6643	--	2802	--	--	76	--	124	--	69	--	--	33.2	--	--	47.1	--	--

Oil Sunflowers (continued)

Brand	Hybrid	Yield(lbs/a)			Days to Bloom			Days to Mature	Height (in.)			Test Wt. (lbs/bu)			Oil (%)[1]			% Harvest Moisture
		06	07	2yr	06	07	2yr	07	06	07	2yr	06	07	2yr	06	07	2yr	06
Mycogen Seeds	8H350DM	2531	2617	2574	69	74	72	122	58	70	64	32.2	32.3	32.3	45.8	46.6	46.2	8.7
Mycogen Seeds	8N270	--	2623	--	--	73	--	123	--	59	--	--	33.0	--	--	48.8	--	--
Mycogen Seeds	8N337DM	3096	2830	2963	68	74	71	123	52	66	59	32.4	32.2	32.3	48.5	51.3	49.9	7.7
Mycogen Seeds	8N358CL	2843	2858	2851	72	76	74	124	57	68	62	32.3	31.1	31.7	47.6	48.8	48.2	8.2
Mycogen Seeds	8N453DM	2794	2853	2823	70	77	73	124	57	72	64	34.0	34.8	34.4	48.8	50.9	49.9	9.7
Pioneer Brand	3622	--	3080	--	--	76	--	124	--	73	--	--	35.2	--	--	48.3	--	--
Pioneer Brand	4635	--	2981	--	--	78	--	126	--	75	--	--	36.9	--	--	43.3	--	--
Pioneer Brand	63M80	3724	2931	3328	67	74	71	124	55	70	62	33.1	34.0	33.5	46.5	51.3	48.9	7.7
Pioneer Brand	63N81	--	2479	--	--	76	--	124	--	71	--	--	35.5	--	--	47.9	--	--
Pioneer Brand	64H41	3210	2541	2876	70	77	74	124	60	76	68	35.8	37.3	36.5	42.5	45.6	44.1	9.1
Proseed	6004	--	2768	--	--	79	--	124	--	81	--	--	36.3	--	--	46.2	--	--
Proseed	6294	--	2675	--	--	80	--	125	--	75	--	--	34.4	--	--	44.6	--	--
Proseed	6481	--	3277	--	--	77	--	124	--	75	--	--	32.2	--	--	46.8	--	--
Proseed	A-1	--	2708	--	--	75	--	123	--	66	--	--	35.6	--	--	51.1	--	--
Proseed	CL7001	--	2527	--	--	79	--	126	--	78	--	--	31.3	--	--	42.8	--	--
Proseed	E-3	--	2389	--	--	75	--	122	--	67	--	--	33.1	--	--	45.4	--	--
Proseed	E-4	--	2655	--	--	75	--	122	--	68	--	--	32.5	--	--	45.3	--	--
Proseed	E-5	--	2805	--	--	77	--	125	--	75	--	--	32.4	--	--	45.3	--	--
Proseed	E-85	2765	2560	2662	71	76	73	124	58	74	66	30.8	31.1	30.9	41.8	44.5	43.2	7.9
Proseed	EE-1	--	3122	--	--	77	--	123	--	73	--	--	33.0	--	--	39.1	--	--
Proseed	EE-2	--	3327	--	--	78	--	124	--	79	--	--	32.2	--	--	41.0	--	--
Proseed	EE-3	--	3035	--	--	77	--	122	--	67	--	--	31.9	--	--	41.1	--	--
Seeds 2000	DEFENDER HO	2966	2814	2890	66	73	70	122	52	64	58	32.3	33.7	33.0	41.1	41.5	41.3	7.5
Seeds 2000	DEFENDER PLUS	3191	2732	2962	67	74	71	123	51	68	59	32.5	32.6	32.5	42.2	45.6	43.9	7.8
Seeds 2000	Teton HO-DMR	3020	2721	2871	71	76	73	124	55	67	61	31.1	30.6	30.8	45.4	46.7	46.1	8.5
Triumph	TRX 7449	--	3012	--	--	80	--	127	--	79	--	--	31.5	--	--	46.4	--	--
USDA	894	3301	2691	2996	69	76	73	124	56	70	63	33.7	34.4	34.1	42.3	49.6	46.0	8.4
LSD 5%		439	563		7.4	1.4		1.8	5.7	5		1.2	3.6		1.4	3.2		1.0

[1]Oils were adjusted to 10% moisture. Oil % of NuSun and Traditional hybrids were adjusted for oil type.

Confectionery (non-oil) Sunflower

Brand	Hybrid	Yield(lbs/a)			Days to Bloom			Days to Mature	Height (in.)			Test Wt. (lbs/bu)			Seed over Screen (% over)			% Harvest Moisture
		06	07	2yr	06	07	2yr	07	06	07	2yr	06	07	2yr	22/64	20/64	18/64	07
CHS	07EXP01	--	1760	--	--	76	--	124	--	70	--	--	26.3	--	59	15	16	22.4
CHS	07EXP02	--	2472	--	--	76	--	125	--	74	--	--	24.8	--	85	9	3	19.7
CHS Royal Hybrid	RH 1121	--	2440	--	--	78	--	126	--	76	--	--	25.4	--	64	15	10	20.7
CHS Royal Hybrid	RH1122	2814	2123	2469	69	76	73	124	52	72	62	22.9	24.8	23.9	81	7	6	19.7
Dahlgren	9530	2911	2914	2912	69	74	72	124	50	70	60	26.2	24.5	25.4	73	16	6	20.7
Dahlgren	9532	2625	2325	2475	66	70	68	119	49	64	56	25.3	23.0	24.2	39	39	14	14.6
Dahlgren	9583CL	--	2358	--	--	78	--	126	--	77	--	--	24.9	--	36	34	18	20.7
Mycogen	8C482	2342	2658	2500	70	76	73	126	53	79	66	22.9	22.8	22.9	72	17	6	21.9
Red River Comm.	2215	3628	2398	3013	70	76	73	125	59	75	67	25.0	24.6	24.8	53	27	10	18.7
Red River Comm.	2216	2827	2740	2784	69	75	72	123	52	75	63	26.1	24.3	25.2	63	21	8	18.2
Seeds 2000	Jaguar[1]	2444	2612	2528	69	74	71	122	48	74	61	24.6	24.1	24.4	63	23	8	16.3
Seeds 2000	Panther	--	2569	--	--	72	--	121	--	66	--	--	25.6	--	52	34	9	17.1
Seeds 2000	Panther DMR[2]	--	2465	--	--	72	--	120	--	71	--	--	26.3	--	37	42	14	16.8
Triumph	767C	2681	2478	2580	70	76	73	126	52	69	60	24.2	23.7	24.0	70	16	6	22.5
USDA	924	2576	2388	2482	67	71	69	122	51	65	58	26.8	25.8	26.3	34	35	19	18.0
LSD 5%		678	538		1.4	2.1			NS	4.1		1.4	0.9		--	--	--	2.8

Days to mature hybrid check: Hysun 311=123, SF270=124, PI6451=124.

[1]Clearfield hybrid

[2]Downy mildew resistant

Corn Grain

Brand	Hybrid	Company RM	Yield bu/a			Perf. Index[1]	Test Weight lbs/bu			Days to Silk			Harvest Moisture (%)			Height in		
		07	06	07	2yr	07	06	07	2yr	06	07	2yr	06	07	2yr	06	07	2yr
NuTech	3C-484 RR/YGCB	82	--	158	--	117	--	52.5	--	--	82	--	--	37	--	--	96	--
NuTech	3C-779 RR/YGCB	80	--	158	--	119	--	57.2	--	--	79	--	--	36	--	--	100	--
Mustang Seeds	2081RR	81	--	143	--	107	--	51.4	--	--	81	--	--	36	--	--	94	--
Wensman	W6082BtRR	80	--	142	--	109	--	53.9	--	--	80	--	--	35	--	--	101	--
Pioneer Brand	39D97	78	--	141	--	110	--	56.6	--	--	79	--	--	35	--	--	99	--
Pioneer Brand	39B94	78	--	139	--	117	--	59.5	--	--	80	--	--	32	--	--	105	--
Seeds 2000	x2810RR	81	--	139	--	105	--	51.7	--	--	82	--	--	36	--	--	96	--
Mustang Seeds	2944RRYGCB	83	--	138	--	97	--	52.4	--	--	82	--	--	39	--	--	104	--
Pioneer Brand	39F60	78	--	138	--	125	--	58.0	--	--	78	--	--	30	--	--	102	--
NK Brand	N06-C1	72	--	137	--	118	--	55.1	--	--	77	--	--	32	--	--	88	--
DEKALB	DKC33-11 (RR2/YGCB)	83	--	137	--	100	--	55.5	--	--	81	--	--	37	--	--	98	--
NuTech	3W-484 RR/YGRW)	82	--	137	--	104	--	53.0	--	--	82	--	--	36	--	--	96	--
Proseed	781	81	--	136	--	101	--	51.9	--	--	81	--	--	37	--	--	95	--
Mycogen Seeds	2K154	83	--	135	--	101	--	56.1	--	--	82	--	--	36	--	--	99	--
NuTech	3A-181RR	80	--	135	--	95	--	51.7	--	--	82	--	--	39	--	--	93	--
Legend Seeds	LR9780RB	80	--	133	--	92	--	52.8	--	--	82	--	--	39	--	--	110	--
Wensman	W6084BtRR	83	--	132	--	97	--	55.6	--	--	81	--	--	37	--	--	103	--
Hyland Seeds	HLRX 753	80	--	131	--	95	--	51.5	--	--	82	--	--	37	--	--	93	--
Integra Seed	Int.6683R	83	--	131	--	89	--	54.1	--	--	82	--	--	40	--	--	102	--
PFS	27T79	79	--	131	--	101	--	56.3	--	--	80	--	--	35	--	--	94	--
PFS	34M83	83	--	130	--	90	--	53.9	--	--	82	--	--	39	--	--	99	--
NuTech	3C-882 RR/YGCB	82	--	129	--	95	--	53.5	--	--	81	--	--	37	--	--	98	--
Seeds 2000	x2811	81	--	129	--	99	--	57.3	--	--	82	--	--	35	--	--	94	--
DEKALB	DKC29-98 (RR2/YGCB)	79	132	129	130	110	59.2	57.9	58.5	69	77	73	26	32	29	89	96	93
Integra Seed	Int.6378R	78	136	128	132	107	60.1	59.7	59.9	72	81	77	27	32	30	96	94	95
Mycogen Seeds	2J086	80	--	128	--	89	--	53.8	--	--	79	--	--	39	--	--	97	--
Integra Seed	Int.6780R	80	139	127	133	90	57.8	54.5	56.2	72	81	76	28	38	33	94	100	97
AgSource	3A-383RR	82	--	127	--	92	--	52.1	--	--	82	--	--	37	--	--	100	--
Garst Seed Co.	8925CB/LL	80	--	126	--	98	--	56.1	--	--	80	--	--	35	--	--	99	--
Wensman	W6081RR	81	--	126	--	96	--	53.8	--	--	81	--	--	36	--	--	96	--
Hyland Seeds	HL B16R	76	--	126	--	99	--	59.1	--	--	77	--	--	35	--	--	107	--
Hyland Seeds	HL R208	75	--	126	--	117	--	59.5	--	--	76	--	--	29	--	--	91	--
Hyland Seeds	HL B256	79	145	125	135	101	57.6	57.3	57.5	73	81	77	24	34	29	97	103	100
Mycogen Seeds	2K152	82	--	121	--	82	--	53.7	--	--	83	--	--	40	--	--	97	--
Legend Seeds	LR9483RRYG+	83	--	118	--	75	--	50.7	--	--	83	--	--	43	--	--	100	--
Proseed	678	78	151	118	134	91	56.1	55.8	56.0	72	80	76	27	35	31	96	96	96
Mustang Seeds	7844 RR	--	--	115	--	92	--	55.9	--	--	80	--	--	34	--	--	96	--
NK Brand	N03-D8	72	--	110	--	97	--	58.8	--	--	77	--	--	31	--	--	92	--
LSD 5%			NS	19.9		--	1.6	1.4		2.0	1.3		6.7	3.0		9.8	3.6	

[1]Performance index identifies hybrids that are outstanding for grain yield and moisture. This index helps identify early hybrids with high productivity. High ratings (greater than 100) suggest better than average performance.

Drybean Summary, Langdon 2003-2007

Variety	Type	Yield (lbs/a)					Days to Mature				100 Seed Wt. (gms)				
		03	05	06	07	3yr	03	05	06	3yr	03	05	06	07	3yr
Buster	Pinto	2444	2741	3758	3895	3465	96	104	96	99	33	40	44	40	41
Maverick	Pinto	2396	2691	3706	3843	3413	95	104	94	98	34	38	40	40	39
Othello	Pinto	1976	2391	3698	3200	3096	92	101	93	95	36	38	42	39	39
GTS 900	Pinto	--	2145	3610	3643	3133	--	109	95	--	--	37	40	38	38
Topaz R	Pinto	--	--	3210	3113	--	--	--	86	--	--	--	41	39	--
Lariat	Pinto	--	--	4250	3933	--	--	--	97	--	--	--	46	46	--
Stampede	Pinto	--	--	4190	3846	--	--	--	94	--	--	--	42	41	--
Vista	Navy	2184	2598	3817	3531	3315	103	109	98	103	18	18	20	19	19
Seahawk	Navy	--	1970	3343	3696	3003	--	114	99	107	--	23	23	24	23
Norstar	Navy	1740	--	3103	3384	--	100	--	99	--	16	--	21	20	--
Mayflower	Navy	--	--	--	3298	--	--	--	86	--	--	--	41	20	--
Eclipse	Black	--	2379	3610	3428	3139	--	112	96	--	--	19	22	22	21
T-39	Black	2496	2159	3094	3174	2809	101	112	96	103	18	20	21	22	21
Jaguar	Black	--	--	--	3429	--	--	--	--	--	--	--	--	20	--
Merlot	Small Red	--	--	--	3527	--	--	--	--	--	--	--	--	36	--
Sedona	Pink	--	--	--	3275	--	--	--	--	--	--	--	--	40	--
Matterhorn	Great Northern	--	--	--	4012	--	--	--	--	--	--	--	--	39	--
LSD 5%		386	627	613	535		--	3.0	3.8		--	2.1	2.2	--	

Drybean Summary, Pembina County 2003-2007

Variety	Type	Yield (lbs/a)						100 Seed Wt. (grams)					
		03	04	05	06	07	3yr	03	04	05	06	07	3yr
Buster	Pinto	2540	1280	2023	3322	3752	3032	33	37	41	45	48	45
Maverick	Pinto	1964	1209	2019	2523	3373	2638	31	34	40	39	47	42
Othello	Pinto	2248	1706	2162	2678	2839	2560	29	40	38	36	43	39
GTS 900	Pinto	--	1053	2217	3018	3305	2847	--	31	41	42	51	45
Topaz R	Pinto	--	--	--	2510	2737	--	--	--	--	38	46	--
Stampede	Pinto	--	--	--	--	3418	--	--	--	--	--	48	--
Lariat	Pinto	--	--	--	--	3561	--	--	--	--	--	52	--
Norstar	Navy	1803	1321	1859	2007	2895	2254	15	19	18	23	21	21
Vista	Navy	2116	1851	2526	3226	2982	2911	15	18	20	22	23	22
Seahawk	Navy	--	1934	1651	3182	2760	2531	--	24	23	26	26	25
Mayflower	Navy	1933	--	--	--	3012	--	17	--	--	--	24	--
T-39	Black Turtle	1992	1105	2103	2850	2888	2614	16	18	21	22	25	22
Eclipse	Black Turtle	--	1400	2448	2786	3316	2850	--	17	23	25	24	24
Jaguar	Black Turtle	2056	--	--	--	2940	--	14	--	--	--	25	--
Sedona	Pink	--	--	--	--	2918	--	--	--	--	--	48	--
LSD 5%		198	194	321	767	308		--	2.6	2.5	2.6	--	

Langdon - Conventional Soybeans - 2005-2007

Brand	Variety	Maturity Group*	Plant Height	PM	Oil	Protein	Test Weight	Cover[1]	Yield 2005	Yield 2006	Yield 2007	Yield 2 yr avg.	Yield 3 yr avg.
			in		%	%	lbs/bu	%	bu/a	bu/a	bu/a	bu/a	bu/a
Gowan Seeds	GS1001	00.0	30	107	16.1	37.0	55.1	51	36.3	50.0	52.9	51.5	46.4
Gowan Seeds	GS3514	00.0	32	109	16.4	35.9	55.0	46	--	--	55.2	--	--
NDSU	Pembina	00.5	34	113	17.4	33.8	56.5	36	38.8	48.9	48.7	48.8	45.5
NDSU	Jim	00.7	35	117	16.8	34.6	53.9	48	47.2	58.4	57.9	58.2	54.5
NDSU	Traill	0.0	34	117	16.3	35.0	54.5	41	45.3	57.0	54.3	55.7	52.2
Proseed	40-09	00.9	34	118	17.4	33.0	53.3	29	52.2	48.0	48.3	48.2	49.5
LSD 5%			2.1	2.3	0.7	1.7	2.0	NS	4.0	6.5	6.1		

*Maturity Group provided by company

1-Visual rating of percent area of plot covered by plant growth. This is a measure of stand and vigor. Rainfall of 4.54 inches fell within 10 days after planting. This along with cold soil temperatures resulted in reduced emergence.

Pembina - Conventional Soybeans - 2005-2007

Brand	Variety	Maturity Group*	Plant Height	PM	Oil	Protein	Lodging	Test Weight	Yield 2005	Yield 2006	Yield 2007	Yield 2 yr avg.	Yield 3 yr avg.
			in		%	%	0-9	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
NDSU	Pembina	00.5	35	101	18.7	31.7	2.5	58.5	49.9	35.1	56.7	45.9	47.2
NDSU	Jim	00.7	35	105	17.8	33.1	2.8	55.4	43.9	39.2	61.0	50.1	48.0
Proseed	40-09	00.9	34	108	18.1	32.1	4.0	56.3	40.2	34.9	67.6	51.3	47.6
NDSU	Traill	0.0	37	109	17.0	34.4	3.5	57.6	47.4	35.8	58.8	47.3	47.3
LSD 5%			NS	2.8	0.5	0.8	0.8	1.7	6.4	3.1	3.7		

*Maturity Group provided by company

Walsh County - Conventional Soybean - 2005-2007

Brand	Variety	Maturity Group*	Plant Height	PM	Lodging	Oil	Protein	Test Weight	Yield 2005	Yield 2006	Yield 2007	Yield 2 yr avg.	Yield 3 yr avg.
			in		0-9	%	%	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
NDSU	Pembina	00.5	38	105	1.0	19.1	31.8	57.9	36.5	36.8	61.5	49.2	44.9
NDSU	Jim	00.7	39	109	6.5	18.0	33.0	54.8	44.2	47.7	62.3	55.0	51.4
NDSU	Traill	0.0	43	112	6.5	17.6	34.1	56.2	43.3	44.5	58.9	51.7	48.9
NDSU	Walsh	0.3	43	115	4.0	17.8	33.3	56.0	40.3	48.6	57.4	53.0	48.8
Proseed	9038	0.3	47	120	7.3	17.9	33.6	55.4	40.0	46.1	52.2	49.2	46.1
NDSU	Barnes	0.3	48	121	5.8	18.6	32.3	56.3	44.1	45.6	55.4	50.5	48.4
LSD 5%			3.0	3.4	2.1	0.5	NS	1.9	5.1	4.5	6.2		

*Maturity Group provided by company

Nelson County - Conventional Soybeans - 2005-2007

Brand	Variety	Maturity Group*	Plant Height	PM	Oil	Protein	Lodging	Test Weight	Yield 2005	Yield 2006	Yield 2007	Yield 2 yr avg.[1]	Yield 3 yr avg.[2]
			in		%	%	0-9	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
NDSU	Pembina	00.5	33	103	18.4	33.8	0.0	56.5	43.0	18.6	59.9	39.3	40.5
NDSU	Jim	00.7	36	108	17.1	35.2	1.3	53.3	48.2	25.0	61.5	43.3	44.9
NDSU	Traill	0.0	35	108	17.4	35.4	0.0	55.5	49.4	23.2	62.5	42.9	45.0
NDSU	Walsh	0.3	38	114	17.2	34.5	1.8	55.2	46.8	26.4	68.7	47.6	47.3
Proseed	9038	0.3	36	114	17.4	34.7	2.3	54.8	45.4	27.7	66.8	47.3	46.6
NDSU	Barnes	0.3	40	116	18.0	34.3	2.8	55.4	49.9	28.6	69.6	49.1	49.4
LSD 5%			2.4	3.2	0.3	0.8	1.7	1.4	4.9	3.9	8.5		

*Maturity Group provided by company

[1] 2 year average includes Pekin 2007 and Devils Lake 2006.

[2] 3 year average includes Pekin 2007, Devils Lake 2006 and Pekin 2005.

Langdon - Roundup Ready 2005-2007

Brand	Variety	Mat-urity Group*	Plant Ht.	PM	Lod-ging	Oil	Pro-tein	Test Wt.	Cover[1]	Yield 2005	Yield 2006	Yield 2007	Yield 2 yr avg.	Yield 3 yr avg.
			in		0-9	%	%	lbs/bu	%	bu/a	bu/a	bu/a	bu/a	bu/a
NorthStar Genetics	NS 0022RR	00.3	38	109	0.0	18.1	33.5	52.8	54	--	--	51.1	--	--
Hyland Seeds	RR Rosco	00.5	35	110	1.0	16.6	34.4	54.1	44	--	--	52.6	--	--
NK Brand	S00-W3	00.3	40	111	0.0	16.9	34.4	52.4	74	--	--	58.0	--	--
Roughrider Genetics	RG6008RR	00.8	37	112	0.0	16.4	34.7	55.7	70	44.0	47.5	54.6	51.1	48.7
Pioneer Brand	90A05	00.5	34	112	1.0	17.4	33.5	53.5	46	--	--	47.2	--	--
NorthStar Genetics	NS 0011RR	00.3	36	113	0.0	17.8	33.8	52.8	78	--	60.2	68.2	64.2	--
Kruger	KX0067R	00.6	37	113	0.0	17.7	33.1	53.1	79	--	--	66.6	--	--
Proseed	50-04	00.4	37	113	0.0	17.2	35.3	53.9	65	51.6	52.3	60.6	56.5	54.8
Proseed	50-045	00.4	35	113	0.5	17.8	34.0	52.7	70	--	--	63.9	--	--
Kruger	K-006RR	00.6	38	113	0.0	17.8	33.4	53.5	66	--	58.5	64.5	61.5	--
Roughrider Genetics	RG600RR	0.0	40	113	0.5	17.4	33.5	53.2	68	45.1	53.4	56.4	54.9	51.6
Thunder Seed	26006RR	00.6	35	113	0.0	17.8	33.4	52.7	60	--	55.9	61.6	58.8	--
PFS	06004RR	00.4	37	114	0.3	17.5	33.6	53.8	66	51.8	56.0	60.1	58.1	56.0
Stine Seed	0056-4	00.5	33	114	0.0	17.7	33.7	53.3	50	--	--	60.6	--	--
Dyna-Gro	30B04	00.4	36	114	0.3	17.4	34.2	53.0	71	--	58.5	60.9	59.7	--
NuTech	NT-0055RR	00.5	35	114	0.0	17.8	33.0	53.0	75	--	65.6	64.2	64.9	--
Roughrider Genetics	RG7008RR	00.8	37	114	0.0	15.8	35.8	55.1	48	42.1	50.1	51.9	51.0	48.0
BioGene	BG0046RR	00.4	37	115	0.0	17.2	35.3	53.1	45	49.4	51.9	54.2	53.1	51.8
Hyland Seeds	RR Ramsey	00.5	39	115	0.0	16.5	35.1	54.9	63	42.4	51.6	54.7	53.2	49.6
Prairie Brand	PB-00425RR	00.4	37	115	0.5	17.8	33.3	53.4	64	48.3	56.1	62.2	59.2	55.5
Roughrider Genetics	RG200RR	0.0	37	115	0.3	16.1	35.2	53.6	64	46.6	55.5	53.2	54.4	51.8
Asgrow	AG00603	00.6	38	115	0.0	17.1	34.0	53.7	63	53.9	60.4	61.4	60.9	58.6
Asgrow	AG00901	00.9	41	115	0.0	16.1	34.1	52.9	90	--	--	65.6	--	--
Kruger	K-009+RR	00.9	37	115	0.0	17.4	34.6	54.1	79	--	58.2	66.5	62.4	--
Legend Seeds	LS0065RR	00.6	36	115	0.0	17.5	33.6	54.2	46	50.6	60.1	57.1	58.6	55.9
Proseed	50-07	00.7	38	115	0.0	17.1	32.7	53.4	63	52.7	61.7	62.6	62.2	59.0
Hefty	0086R	00.8	37	115	0.3	17.4	34.0	52.8	61	50.4	59.7	58.4	59.1	56.2
NorthStar Genetics	NS 0091RR	00.9	37	115	0.0	17.1	35.0	53.5	80	--	61.3	60.0	60.7	--
NorthStar Genetics	NS 0092RR	00.9	36	116	1.3	17.5	32.9	53.9	79	--	--	58.4	--	--
Thunder Seed	27005RR	00.5	38	116	0.0	17.4	33.4	52.3	56	--	57.2	59.7	58.5	--
Hefty	0046R	00.4	37	116	0.0	16.9	35.7	53.0	31	46.8	52.3	50.0	51.2	49.7
Wensman	W 20074RR	00.7	37	116	1.3	17.3	33.9	52.6	64	--	63.4	59.7	61.6	--
AgSource	NT-6005	00.5	39	116	0.0	18.2	35.4	52.6	69	--	--	60.6	--	--
Mustang Seeds	M-0087ERR	00.8	37	116	0.0	17.1	34.2	54.6	70	--	--	61.1	--	--
Wensman	W 20084RR	00.8	38	116	0.0	17.3	34.3	53.7	74	--	59.2	61.1	60.2	--
IntegraSeed	97009R	00.9	37	117	0.3	17.5	33.2	53.4	70	--	--	63.6	--	--
Thunder Seed	26004RR	00.4	37	117	0.0	16.9	35.6	53.9	34	--	--	49.7	--	--
AgSource	NT-0066RR	00.6	34	117	0.5	17.4	34.2	53.1	26	--	--	49.5	--	--
Wensman	W 20051RR	00.5	36	117	0.0	17.6	33.6	52.8	48	52.8	59.1	58.7	58.9	56.9
Dyna-Gro	30M09	00.9	38	117	0.3	16.9	35.9	52.8	55	55.5	58.4	62.0	60.2	58.6
BioGene	BG0077RS	00.7	39	118	0.0	16.5	34.5	53.2	69	--	--	58.2	--	--
Kruger	K-011RR	0.1	36	118	0.0	17.4	33.6	51.7	54	--	--	55.9	--	--
NuTech	NT-6015	0.1	38	118	0.0	17.1	34.2	53.0	79	--	--	67.7	--	--
PFS	07008RR	00.8	39	118	1.8	17.4	33.7	52.6	49	--	58.0	60.6	59.3	--
Pioneer Brand	90M02	0.0	37	118	0.0	16.6	35.8	53.6	41	44.3	53.7	54.8	54.3	50.9

Langdon - Roundup Ready (continued)

Brand	Variety	Maturity Group*	Plant Ht.	PM	Lodging	Oil	Protein	Test Wt.	Cover[1]	Yield 2005	Yield 2006	Yield 2007	Yield 2 yr avg.	Yield 3 yr avg.
			in		0-9	%	%	lbs/bu	%	bu/a	bu/a	bu/a	bu/a	bu/a
Kruger	K-008RR	00.8	35	118	0.0	17.4	33.6	53.8	43	--	58.4	59.9	59.2	--
Mustang Seeds	M-0096ERR	00.9	38	118	0.3	17.2	35.0	52.3	65	--	--	60.3	--	--
Pioneer Brand	90M01	0.0	34	118	0.0	17.3	34.1	53.5	50	49.4	58.0	50.6	54.3	52.7
Prairie Brand	PB-00645RR	00.6	36	118	0.0	16.8	34.5	53.8	41	50.4	56.8	55.7	56.3	54.3
Dairyland	DSR-C700/RRSTS	00.7	39	118	0.0	16.4	34.2	53.6	81	--	55.9	60.1	58.0	--
Dyna-Gro	SX07101	0.1	37	118	0.5	16.8	34.8	53.1	36	--	--	52.4	--	--
Hefty	0067R	00.6	40	118	0.0	15.9	36.3	52.1	33	--	52.3	44.7	48.5	--
Prairie Brand	PB-00965RR	00.9	39	118	0.0	17.4	34.5	52.9	63	54.1	59.7	59.5	59.6	57.8
Thunder Seed	26009RR	00.9	38	118	0.0	17.2	35.0	53.9	49	--	--	58.5	--	--
IntegraSeed	97007RS	00.8	37	118	0.0	16.5	34.2	53.6	70	--	--	58.3	--	--
NuTech	NT-0090RR	00.9	40	118	0.5	17.1	35.1	53.1	80	56.2	60.3	62.0	61.2	59.5
NK Brand	S01-T5	0.1	36	119	0.0	15.6	36.3	52.6	76	47.9	62.3	66.4	64.4	58.9
Prairie Brand	PB-0107RR	0.1	38	119	0.5	17.2	33.5	52.2	50	--	--	56.7	--	--
AgSource	NT-6006	00.6	40	119	3.3	17.1	33.7	53.0	91	--	--	67.3	--	--
Hyland Seeds	RR Ridgeway	0.2	39	119	0.3	17.1	34.1	52.3	43	--	--	54.2	--	--
Mustang Seeds	T-018RR	0.1	38	119	0.8	17.1	34.2	52.7	48	--	--	59.0	--	--
Wensman	W 2010RR	0.1	39	119	0.0	17.3	33.4	51.5	69	--	--	60.1	--	--
Hyland Seeds	RR Royal	00.9	40	119	0.0	17.0	33.4	52.2	59	38.3	56.2	51.9	54.1	48.8
Proseed	60-06	00.6	38	119	0.0	16.8	33.8	52.8	61	--	56.7	61.2	59.0	--
PFS	07006RR	00.6	41	119	0.0	16.0	35.8	51.9	36	--	55.6	45.1	50.4	--
Roughrider Genetics	RG601NRR	0.1	40	119	1.3	15.1	35.8	53.0	54	--	52.8	51.1	52.0	--
Dairyland	DSR-C750/RR	00.7	38	120	0.3	16.7	34.0	51.0	68	--	--	61.9	--	--
Hefty	0097R	00.9	38	120	0.0	17.2	35.3	53.6	58	--	59.5	61.8	60.7	--
Hefty	026R	0.2	41	120	0.0	16.5	34.7	52.1	59	--	--	57.5	--	--
Hyland Seeds	T54028RR	0.2	38	120	2.8	16.1	33.1	56.2	71	--	--	58.1	--	--
Asgrow	AG0202	0.2	41	120	0.0	16.7	33.6	52.7	81	--	--	58.8	--	--
PFS	0901RR	0.1	35	120	0.0	16.8	34.4	54.5	25	--	--	45.6	--	--
Prairie Brand	PB-00707RR	00.7	32	120	0.0	16.2	34.1	48.6	6	--	--	24.3	--	--
Proseed	60-07	00.7	40	120	0.0	16.0	35.1	54.2	54	--	50.8	53.6	52.2	--
NorthStar Genetics	NS 0021RR	00.8	39	120	0.0	16.6	33.9	53.3	74	--	58.9	55.8	57.4	--
Legend Seeds	LS0057RR	00.5	37	121	0.0	16.7	34.2	51.9	39	--	51.6	54.8	53.2	--
NuTech	NT-0220RR	00.4	37	121	0.3	16.4	34.1	52.9	39	--	--	51.5	--	--
IntegraSeed	97006R	00.6	40	121	0.0	16.6	34.7	52.1	70	--	--	57.0	--	--
LSD 5%			2.8	2.1	0.9	0.7	1.4	1.6	17	4.9	4.7	5.0		

*Maturity Group provided by company

1-Visual rating of percent area of plot covered by plant growth. This is a measure of stand and vigor. Rainfall of 4.54 inches fell within 10 days after planting. This along with cold soil temperatures resulted in reduced emergence.

Yield, test weight, oil and protein reported at 13% moisture.

Pembina County - Roundup Ready Soybeans 2005-2007

Brand	Variety	Maturity Group*	Plant Ht.	PM	Oil	Pro-tein	Lod-ging	Test Wt.	Yield 2005	Yield 2006	Yield 2007	Yield 2 yr avg.	Yield 3 yr avg.
			in		%	%	0-9	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
NorthStar Genetics	NS 0022RR	00.3	40	96	19.3	31.0	0.3	53.9	--	--	60.5	--	--
Hyland Seeds	RR Rosco	00.5	36	97	18.0	32.5	3.3	55.2	--	37.7	58.8	48.3	--
NK Brand	S00-W3	00.3	42	97	18.0	32.6	1.8	55.5	--	--	57.3	--	--
NorthStar Genetics	NS 0011RR	00.3	36	100	19.1	31.1	0.8	53.9	--	48.5	71.4	60.0	--
Proseed	50-045	00.4	36	100	19.1	31.9	0.5	55.2	--	--	75.1	--	--
Legend Seeds	LS0036RR	00.3	36	100	19.0	31.4	1.0	53.8	--	43.1	67.2	55.2	--
Asgrow	AG00603	00.6	38	101	18.0	32.0	0.8	54.9	43.2	38.2	63.4	50.8	48.3
Roughrider Genetics	RG7008RR	00.8	39	101	17.1	33.4	1.8	56.8	40.2	39.9	61.2	50.6	47.1
Proseed	50-04	00.4	39	102	18.3	33.5	0.8	54.4	--	38.8	65.9	52.4	--
Asgrow	AG 00603 150K	00.8	38	102	17.9	32.2	1.8	56.2	--	--	64.1	--	--
Kruger	K-006RR	00.6	39	103	19.1	30.9	1.5	54.6	--	47.8	65.0	56.4	--
Thunder Seed	27005RR	00.5	37	103	18.8	31.2	1.3	53.6	--	--	68.7	--	--
PFS	06004RR	00.4	39	103	18.7	31.4	1.5	54.2	43.8	43.2	65.6	54.4	50.9
Thunder Seed	26006RR	00.6	37	103	18.3	32.4	0.8	55.5	42.1	44.4	64.7	54.6	50.4
Prairie Brand	PB-00425RR	00.4	38	104	19.0	30.7	1.8	54.5	46.1	48.2	64.9	56.6	53.1
Thunder Seed	26004RR	00.4	38	104	18.0	33.5	0.5	55.4	45.4	39.8	52.3	46.1	45.8
NuTech	NT-0055RR	00.5	38	104	18.6	31.5	1.5	54.3	--	44.1	69.7	56.9	--
Roughrider Genetics	RG6008RR	00.8	39	104	17.5	34.0	1.8	56.4	43.2	39.5	61.6	50.6	48.1
Dairyland	DSR-C700/RRSTS	00.7	39	104	17.7	32.1	1.3	54.4	--	35.0	60.7	47.9	--
Stine Seed	0070-64	00.7	36	104	18.5	32.3	0.5	54.8	--	--	61.4	--	--
Wensman	W 20051RR	00.5	38	104	19.1	30.9	2.0	54.6	47.7	45.3	67.6	56.5	53.5
Dyna-Gro	30B04	00.4	38	105	18.9	31.2	1.8	54.9	--	--	67.1	--	--
AgSource	NT-0066RR	00.6	39	105	18.9	31.3	1.5	54.2	--	--	63.2	--	--
Prairie Brand	PB-00707RR	00.7	38	105	17.7	32.0	0.5	54.7	--	--	58.6	--	--
Proseed	60-07	00.7	40	105	18.0	31.9	1.0	54.7	--	36.6	60.1	48.4	--
Roughrider Genetics	RG200RR	0.0	39	105	17.2	33.8	5.0	55.8	42.1	39.1	59.3	49.2	46.8
Asgrow	AG00901	00.9	40	105	17.5	32.4	1.8	54.7	--	--	63.1	--	--
Hefty	0046R	00.4	39	105	18.0	33.6	0.5	54.8	44.3	38.4	58.9	48.7	47.2
Hefty	0086R	00.8	40	105	18.9	31.1	3.0	53.7	50.4	42.7	68.0	55.4	53.7
Roughrider Genetics	RG600RR	0.0	40	105	18.2	32.7	3.8	54.9	46.1	42.5	63.5	53.0	50.7
PFS	07008RR	00.8	41	106	18.5	30.7	3.3	55.6	--	45.8	64.3	55.1	--
Pioneer Brand	90M01	0.0	37	106	18.7	32.1	2.5	53.3	51.3	44.0	60.8	52.4	52.0
Proseed	50-07	00.7	40	106	19.0	30.6	4.3	54.9	49.5	43.1	69.1	56.1	53.9
IntegraSeed	97009R	00.9	41	107	18.7	31.0	2.3	54.5	--	--	61.0	--	--
Dairyland	DSR-C750/RR	00.7	38	107	18.4	32.1	1.0	54.5	--	--	65.4	--	--
Kruger	K-008RR	00.8	39	107	18.0	32.8	0.5	54.9	--	45.5	66.1	55.8	--
Kruger	KX0067R	00.6	35	107	18.8	31.3	2.0	54.6	--	--	66.7	--	--
NK Brand	S01-T5	0.1	38	107	17.9	33.4	1.0	53.9	52.3	44.1	67.3	55.7	54.6
PFS	07006RR	00.6	42	107	17.5	33.5	0.8	54.8	--	39.1	55.8	47.5	--
Kruger	K-011RR	0.1	40	107	18.4	32.1	2.0	53.9	--	--	61.4	--	--

Pembina County - Roundup Ready Soybeans (continued)

Brand	Variety	Maturity Group*	Plant Ht.	PM	Oil	Pro-tein	Lod-ging	Test Wt.	Yield 2005	Yield 2006	Yield 2007	Yield 2 yr avg.	Yield 3 yr avg.
			in		%	%	0-9	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
Prairie Brand	PB-00645RR	00.6	38	107	17.9	32.8	0.3	54.2	42.9	41.1	62.4	51.8	48.8
Wensman	W 20074RR	00.7	39	107	18.6	31.1	2.3	54.1	--	47.3	64.3	55.8	--
Wensman	W 20084RR	00.8	37	107	18.1	32.6	0.0	54.2	--	--	65.7	--	--
Wensman	W 2010RR	0.1	39	107	18.5	32.0	2.3	54.2	--	--	67.1	--	--
AgSource	NT-6005	00.5	38	108	18.4	33.2	3.3	54.4	--	--	66.2	--	--
Dyna-Gro	SX07101	0.1	40	108	18.3	31.8	1.8	54.7	--	--	64.1	--	--
Hefty	0097R	00.9	39	108	18.6	32.6	1.8	54.7	--	42.3	62.4	52.4	--
Hefty	026R	0.2	40	108	18.4	30.6	0.0	54.6	--	--	59.6	--	--
Kruger	K-009+RR	00.9	39	108	18.7	32.4	3.5	53.9	--	44.2	66.0	55.1	--
NuTech	NT-0090RR	00.9	37	108	18.7	33.5	2.3	54.6	46.4	44.0	68.1	56.1	52.8
PFS	0901RR	0.1	39	108	18.4	31.4	3.5	54.3	--	--	63.0	--	--
Pioneer Brand	90M02	0.0	40	108	18.1	32.8	3.0	56.3	--	--	63.1	--	--
Prairie Brand	PB-00965RR	00.9	39	108	18.3	32.4	2.5	53.6	46.8	43.1	62.4	52.8	50.8
NuTech	NT-6015	0.1	39	108	18.4	31.8	2.8	53.7	--	--	66.1	--	--
Thunder Seed	26009RR	00.9	39	108	18.4	33.1	3.0	54.9	--	--	67.1	--	--
AgSource	NT-6006	00.6	36	108	19.0	30.6	5.3	54.0	--	--	69.3	--	--
Hyland Seeds	RR Royal	00.9	41	109	18.1	32.3	1.8	54.5	40.2	39.0	62.0	50.5	47.1
Pioneer Brand	90M20	0.2	37	109	18.0	31.7	1.0	53.7	51.8	44.1	60.0	52.1	52.0
Dyna-Gro	30M09	00.9	40	109	18.6	32.7	3.3	54.8	--	--	66.7	--	--
Hefty	0067R	00.6	42	109	17.4	33.7	0.8	54.9	--	37.1	56.9	47.0	--
Hyland Seeds	RR Ridgeway	0.2	42	109	18.3	30.4	0.0	55.3	--	--	58.0	--	--
Proseed	60-06	00.6	39	109	18.0	30.9	0.5	53.8	--	35.9	61.0	48.5	--
Asgrow	AG0202	0.2	41	109	17.8	31.6	0.8	54.8	54.2	41.9	63.0	52.5	53.0
Prairie Brand	PB-0107RR	0.1	39	109	18.5	32.1	3.3	54.0	--	--	65.3	--	--
Legend Seeds	LS0057RR	00.5	38	110	18.3	30.5	1.3	55.8	--	37.3	61.3	49.3	--
NuTech	NT-0220RR	00.4	40	110	18.1	30.9	1.3	54.6	--	--	66.4	--	--
Roughrider Genetics	RG601NRR	0.1	41	110	17.0	32.5	2.8	55.3	--	43.3	56.0	49.7	--
IntegraSeed	97006R	00.6	40	112	17.4	32.6	3.0	55.0	--	--	58.3	--	--
Hyland Seeds	T54028RR	0.2	40	112	17.1	30.9	5.5	57.8	--	--	60.7	--	--
LSD 5%			2.3	3.5	NS	0.9	1.2	1.6	3.4	5.7	5.2		

*Maturity Group provided by company

Walsh County - Roundup Ready Soybeans 2005-2007

Brand	Variety	Maturity Group*	Plant Ht.	PM	Oil	Pro-tein	Test Wt.	Yield				
								2005	2006	2007	2 yr avg.	3 yr avg.
			in		%	%	lbs/bu	bu/a				
NorthStar Genetics	NS 0022RR	00.3	41	104	18.8	32.2	53.3	--	--	58.6	--	--
NK Brand	S00-W3	00.3	42	106	17.8	33.3	53.6	--	--	59.7	--	--
Asgrow	AG00603	00.6	40	108	17.6	33.2	54.4	49.5	49.7	64.3	57.0	54.5
NorthStar Genetics	NS 0011RR	00.3	38	108	18.1	32.8	53.1	--	48.0	67.8	57.9	--
Roughrider Genetics	RG600RR	0.0	45	109	18.4	32.9	53.0	51.1	49.1	64.8	57.0	55.0
Kruger	KX0067R	00.6	39	110	18.3	32.7	53.5	--	--	69.5	--	--
Stine Seed	0070-64	00.7	36	110	18.2	32.7	52.8	--	--	64.4	--	--
Thunder Seed	26006RR	00.6	37	110	18.4	32.1	52.4	--	53.6	64.1	58.8	--
BioGene	BG0046RR	00.4	40	110	17.5	34.5	52.4	--	46.3	60.9	53.6	--
Kruger	K-006RR	00.6	40	110	18.2	32.4	53.1	--	47.5	63.9	55.7	--
Roughrider Genetics	RG6008RR	00.8	41	111	17.4	33.8	55.0	40.8	44.1	59.3	51.7	48.1
Thunder Seed	27005RR	00.5	40	111	18.2	32.1	53.9	--	53.4	64.3	58.8	--
PFS	06004RR	00.4	38	111	18.1	32.9	52.6	55.2	49.5	60.9	55.2	55.2
Thunder Seed	26004RR	00.4	39	111	17.5	34.5	54.0	--	--	59.1	--	--
Roughrider Genetics	RG7008RR	00.8	40	112	16.7	34.7	54.3	42.5	46.3	56.4	51.4	48.4
Prairie Brand	PB-00965RR	00.9	40	112	18.2	33.8	53.8	54.5	48.2	60.6	54.4	54.4
Wensman	W 20051RR	00.5	40	112	18.3	31.5	53.7	--	--	62.9	--	--
Prairie Brand	PB-00425RR	00.4	39	112	18.3	32.8	53.5	55.2	50.2	60.5	55.3	55.3
Hefty	0086R	00.8	43	112	18.1	32.3	53.2	54.9	50.3	62.7	56.5	56.0
NorthStar Genetics	NS 0092RR	00.9	42	112	17.9	32.4	52.6	--	--	60.3	--	--
Roughrider Genetics	RG200RR	0.0	44	112	17.2	34.2	54.9	44.9	46.0	57.8	51.9	49.6
Asgrow	AG00901	00.9	42	112	17.3	33.2	56.3	--	--	63.7	--	--
Kruger	K-008RR	00.8	39	112	17.8	32.8	53.9	--	52.6	65.0	58.8	--
AgSource	NT-6006	00.6	45	113	18.5	32.1	51.9	--	--	70.5	--	--
BioGene	BG0077RS	00.7	39	113	17.9	32.3	52.9	--	44.0	65.6	54.8	--
Wensman	W 20084RR	00.8	38	113	18.0	32.8	53.0	--	50.2	66.4	58.3	--
Thunder Seed	26009RR	00.9	42	113	18.4	33.1	52.7	--	49.6	59.2	54.4	--
IntegraSeed	97009R	00.9	43	113	18.1	32.0	53.1	--	52.7	60.9	56.8	--
Hefty	0067R	00.6	44	113	16.9	34.6	53.6	--	46.9	52.8	49.9	--
PFS	07008RR	00.8	43	113	18.1	32.4	53.5	--	54.3	61.9	58.1	--
PFS	07006RR	00.6	44	113	17.4	33.9	54.1	--	43.2	56.6	49.9	--
Wensman	W 20074RR	00.7	43	114	18.1	32.9	52.8	--	--	62.2	--	--
IntegraSeed	97014R	0.1	42	114	18.2	33.4	53.6	--	49.3	63.3	56.3	--
NorthStar Genetics	NS 0091RR	00.9	41	114	18.3	33.0	53.5	--	47.2	64.8	56.0	--
Stine Seed	0090-64	00.9	41	114	18.2	33.9	53.5	--	--	60.7	--	--
Hyland Seeds	RR Royal	00.9	42	115	17.8	33.1	53.7	50.9	58.2	58.0	58.1	55.7
Hefty	0097R	00.9	41	115	18.3	33.9	52.9	--	49.0	58.3	53.7	--
Kruger	K-009+RR	00.9	42	115	18.0	34.2	53.5	--	48.7	69.3	59.0	--

Walsh County - Roundup Ready Soybeans (continued)

Brand	Variety	Maturity Group*	Plant Ht.	PM	Oil	Pro-tein	Test Wt.	Yield 2005	Yield 2006	Yield 2007	Yield 2 yr avg.	Yield 3 yr avg.
			in		%	%	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
Proseed	50-00	0.0	41	115	18.3	33.7	54.4	52.4	50.4	64.5	57.4	55.8
NK Brand	S01-T5	0.1	41	115	17.5	34.7	52.2	49.8	51.5	63.5	57.5	54.9
NuTech	NT-0090RR	00.9	43	115	18.5	33.6	52.6	51.5	50.9	68.7	59.8	57.0
Pioneer Brand	90M20	0.2	39	115	18.0	32.3	54.9	--	--	62.2	--	--
Hyland Seeds	RR Ridgeway	0.2	42	116	17.8	31.4	53.6	--	44.7	59.5	52.1	--
Pioneer Brand	90M02	0.0	44	116	17.6	34.7	53.7	--	48.9	54.8	51.9	--
Hyland Seeds	RR Rugged	00.3	47	116	18.4	31.9	55.0	--	--	55.7	--	--
Proseed	40-20	0.2	43	116	17.6	32.0	53.5	--	--	67.4	--	--
BioGene	BG0106RR	0.1	44	116	18.1	32.5	54.2	--	--	60.8	--	--
Wensman	W 2010RR	0.1	42	116	17.7	33.5	53.1	--	--	66.9	--	--
AgSource	NT-0090+	00.9	42	116	18.4	33.7	52.5	--	--	66.0	--	--
NuTech	NT-6015	0.1	41	116	18.3	32.6	52.6	--	--	68.7	--	--
Kruger	K-011RR	0.1	41	117	18.1	32.9	52.5	--	--	63.5	--	--
Proseed	70-10	0.1	41	117	18.4	32.6	52.7	--	--	70.4	--	--
Pioneer Brand	90M01	0.0	40	117	18.2	33.5	53.6	--	49.8	63.6	56.7	--
Asgrow	AG0202	0.2	42	117	17.4	32.5	54.9	56.9	52.6	66.3	59.5	58.6
Dairyland	DSR-0303/RR	0.3	41	118	17.0	33.9	54.6	--	--	63.7	--	--
PFS	0901RR	0.1	40	118	17.9	33.4	53.6	--	--	60.8	--	--
IntegraSeed	97006R	00.6	43	118	17.3	33.4	54.7	--	--	53.8	--	--
Prairie Brand	PB-0107RR	0.1	40	118	18.2	32.9	51.8	--	--	63.9	--	--
Hefty	026R	0.2	42	118	17.7	31.9	54.2	--	--	58.9	--	--
Proseed	70-30	0.3	39	119	16.9	34.1	55.7	--	--	61.8	--	--
Roughrider Genetics	RG601NRR	0.1	44	119	17.0	33.6	54.3	49.4	53.9	56.6	55.3	53.3
AgSource	NT-6042	0.3	40	119	17.1	33.7	54.7	--	--	62.8	--	--
PFS	0702RR	0.2	40	120	18.0	31.7	54.7	--	--	59.9	--	--
NorthStar Genetics	NS 0021RR	00.8	41	120	17.5	33.8	54.6	--	52.6	60.0	56.3	--
Roughrider Genetics	RG603RR	0.3	44	121	17.1	33.4	55.4	45.7	44.8	55.4	50.1	48.6
NuTech	NT-0220RR	0.2	41	121	17.7	32.5	54.4	--	--	63.9	--	--
Roughrider Genetics	RG604RR	0.4	48	121	17.2	33.5	55.6	--	--	55.0	--	--
Prairie Brand	PB-0356RR	0.3	41	122	18.2	32.3	53.2	--	53.8	62.3	58.0	--
Dairyland	DSR-0401/RR	0.4	41	122	17.7	33.1	52.9	--	44.0	57.8	50.9	--
Proseed	60-40	0.4	42	123	18.0	32.9	55.2	--	51.1	59.7	55.4	--
Prairie Brand	PB-X037RR	0.3	40	124	17.7	32.5	56.0	--	--	55.0	--	--
NuTech	NT-0330	0.3	41	124	17.8	32.7	53.7	--	--	62.6	--	--
Hefty	037R	0.3	41	124	18.0	32.8	54.2	--	--	57.4	--	--
LSD 5%			2.7	2.4	0.4	1.0	1.6	6.4	6.6	5.3		

*Maturity Group provided by company

Nelson County - Roundup Ready Soybeans 2005-2007

Brand	Variety	Mat-urtity Group*	Plant Ht.	PM	Oil	Pro-tein	Lod-ging	Test Wt.	Yield				
									2005	2006	2007	2 yr avg.[1]	3 yr avg.[2]
			in		%	%	0-9	lbs/bu	bu/a				
NorthStar Genetics	NS 0011RR	00.3	30	106	18.2	32.3	0.3	52.4	--	34.7	64.4	49.6	--
Roughrider Genetics	RG7008RR	00.8	34	107	16.6	34.5	1.0	55.3	--	--	57.0	--	--
Thunder Seed	26006RR	00.6	30	108	18.1	32.7	0.0	53.0	--	35.4	65.5	50.5	--
Kruger	KX0067R	00.6	32	108	18.3	32.8	0.5	53.5	--	--	64.0	--	--
Kruger	K-006RR	00.6	32	108	18.5	32.6	0.4	52.3	--	34.0	63.5	48.8	--
Roughrider Genetics	RG6008RR	00.8	33	108	17.2	33.8	0.4	53.3	45.4	22.2	57.5	39.9	41.7
Prairie Brand	PB-00425RR	00.4	35	109	18.4	33.0	1.1	52.8	51.4	32.8	62.5	47.7	48.9
Asgrow	AG00603	00.6	33	109	17.7	33.3	0.0	54.4	53.0	37.7	64.7	51.2	51.8
Thunder Seed	27005RR	00.5	33	109	18.1	32.0	0.2	52.3	--	--	66.9	--	--
Mycogen Seeds[3]	5B004	00.4	34	110	18.1	32.5	0.3	53.2	--	--	67.7	--	--
Thunder Seed	26004RR	00.4	33	110	17.6	33.9	0.2	53.0	--	30.4	58.5	44.5	--
Wensman	W 20051RR	00.5	32	110	18.2	32.6	1.1	52.7	--	29.4	65.0	47.2	--
Hefty	0086R	00.8	35	110	18.4	32.6	0.5	52.7	50.7	35.8	63.7	49.8	50.1
Legend Seeds	LS0065RR	00.6	35	110	17.6	32.6	0.3	52.8	--	35.2	64.5	49.8	--
Wensman	W 20074RR	00.7	36	111	18.1	31.8	0.1	52.7	--	36.5	65.0	50.7	--
PFS	07008RR	00.8	35	111	18.3	32.3	0.3	53.1	--	--	65.4	--	--
Pioneer Brand	90M01	0.0	31	111	18.3	33.3	0.7	53.9	--	36.4	65.4	50.9	--
Roughrider Genetics	RG600RR	0.0	35	111	17.7	33.9	1.4	53.5	46.2	32.2	62.5	47.3	47.0
IntegraSeed	97009R	00.9	36	111	18.0	32.5	0.8	53.3	--	37.5	58.5	48.0	--
AgSource	NT-0090+	00.9	34	111	18.1	34.4	1.2	53.7	--	--	72.1	--	--
IntegraSeed	97014R	0.1	35	111	18.3	33.5	1.2	53.0	--	28.3	64.9	46.6	--
IntegraSeed	97007RS	00.8	34	112	17.6	33.9	0.6	53.8	--	--	62.6	--	--
Kruger	K-009+RR	00.9	35	112	18.1	34.5	0.7	53.2	--	35.4	69.7	52.6	--
Mycogen Seeds[3]	5A009	00.9	34	112	18.0	33.6	0.1	53.2	--	--	66.2	--	--
NuTech	NT-0090RR	00.9	36	112	17.8	34.1	1.1	52.8	50.1	39.2	69.9	54.6	53.1
Prairie Brand	PB-00965RR	00.9	34	112	18.1	33.8	1.4	53.3	50.0	30.2	67.3	48.7	49.2
Dairyland	DSR-C750/RR	00.7	34	112	17.9	33.2	0.3	52.3	--	--	65.8	--	--
Proseed	70-10	0.1	33	112	17.9	33.2	0.5	52.7	--	--	67.1	--	--
Roughrider Genetics	RG200RR	0.0	35	112	16.3	35.5	1.5	55.0	43.3	35.4	58.7	47.0	45.8
Hefty	0097R	00.9	35	112	18.4	33.8	0.7	53.1	--	37.8	67.3	52.6	--
NuTech	NT-6015	0.1	33	112	18.2	32.9	0.4	52.6	--	--	66.3	--	--
Pioneer Brand	90M02	0.0	36	112	17.5	35.3	0.7	53.8	--	--	66.8	--	--
Asgrow	AG00901	00.9	36	112	17.3	33.9	0.0	54.1	--	--	67.2	--	--
NK Brand	S01-T5	0.1	34	112	17.4	34.4	0.0	52.1	53.2	37.0	69.7	53.3	53.3
Hyland Seeds	T54033RR	0.3	35	112	18.5	32.3	0.7	53.3	--	--	67.1	--	--
Legend Seeds	LS0087RR	00.8	33	112	18.1	32.0	0.0	53.0	--	--	65.5	--	--
PFS	0901RR	0.1	34	113	18.2	32.6	1.0	53.4	--	--	67.9	--	--
PFS	07006RR	00.6	38	113	17.2	34.8	0.0	53.4	--	29.5	62.0	45.7	--
Hefty	0067R	00.6	38	113	17.3	35.0	0.0	53.3	--	34.7	60.1	47.4	--
Kruger	K-011RR	0.1	35	113	17.9	33.1	1.1	52.5	--	--	66.9	--	--

Nelson County - Roundup Ready Soybeans (continued)

Brand	Variety	Mat-urtity Group*	Plant Ht.	PM	Oil	Pro-tein	Lod-ging	Test Wt.	Yield 2005	Yield 2006	Yield 2007	Yield 2 yr avg.[1]	Yield 3 yr avg.[2]
			in		%	%	0-9	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
Prairie Brand	PB-0107RR	0.1	35	113	17.8	33.2	0.8	53.1	--	--	63.9	--	--
Roughrider Genetics	RG603RR	0.3	38	113	16.5	33.9	2.0	55.2	45.8	33.7	58.8	46.2	46.1
Thunder Seed	26009RR	00.9	34	113	17.5	34.4	2.2	53.0	51.8	34.4	69.3	51.9	51.8
Dairyland	DSR-C700/RRSTS	00.7	36	113	17.5	33.6	0.5	53.7	--	36.2	63.8	50.0	--
Kruger	K-008RR	00.8	33	113	18.2	32.9	0.2	53.3	--	39.8	65.2	52.5	--
Roughrider Genetics	RG601NRR	0.1	36	113	16.6	34.1	1.3	54.7	46.8	31.6	62.5	47.0	47.0
Pioneer Brand	90M20	0.2	33	114	18.1	33.1	0.2	53.3	--	38.2	63.9	51.1	--
Wensman	W 20084RR	00.8	34	114	18.2	32.8	0.3	52.7	--	36.4	67.4	51.9	--
Wensman	W 2010RR	0.1	35	114	18.0	32.7	1.5	52.8	--	--	68.1	--	--
Hyland Seeds	RR Ridgeway	0.2	33	114	18.0	32.4	0.2	53.2	--	34.1	60.8	47.5	--
NK Brand	S02-M9	0.2	36	114	18.1	34.4	0.3	53.9	48.2	34.4	65.1	49.8	49.2
AgSource	NT-6006	00.6	34	114	18.1	33.1	2.9	53.1	--	--	76.6	--	--
Proseed	40-20	0.2	35	114	17.7	32.8	0.4	52.7	48.0	30.3	64.7	47.5	47.7
Hyland Seeds	RR Royal	00.9	37	114	17.9	33.5	1.6	53.4	--	--	62.5	--	--
NuTech	NT-0220RR	00.4	37	115	17.3	33.9	0.6	54.1	--	--	69.1	--	--
PFS	0702RR	0.2	35	115	17.8	32.7	0.6	54.5	--	--	68.7	--	--
Mycogen Seeds[3]	5B023	0.2	33	115	17.9	32.7	1.3	53.6	--	--	64.0	--	--
Asgrow	AG0202	0.2	36	115	17.6	33.4	0.0	53.9	54.5	37.8	68.7	53.2	53.7
Roughrider Genetics	RG604RR	0.4	42	115	16.7	34.0	2.7	53.2	47.9	38.5	62.9	50.7	49.8
Hefty	026R	0.2	34	116	17.8	32.7	0.4	53.4	--	--	63.1	--	--
Proseed	70-30	0.3	35	116	16.8	34.4	1.1	55.2	--	--	69.1	--	--
Proseed	0069	0.4	35	116	17.4	32.8	1.2	53.4	50.9	39.0	65.2	52.1	51.7
NK Brand	S04-Z9	0.4	38	117	17.2	34.4	0.9	54.8	--	--	68.4	--	--
AgSource	NT-6042	0.3	35	117	17.0	34.4	1.9	54.7	--	--	72.6	--	--
Asgrow	AG0401	0.4	35	119	17.4	33.8	1.9	52.4	--	--	70.5	--	--
PFS	EX03RR	0.3	39	121	17.3	32.7	2.2	53.7	--	--	69.4	--	--
NuTech	NT-0330	0.3	36	123	17.1	34.2	2.3	52.7	--	--	69.4	--	--
Stine Seed	0306-4	0.3	36	124	17.1	34.0	1.5	52.1	--	--	67.5	--	--
Hefty	037R	0.3	37	124	17.3	34.0	2.2	53.4	--	--	65.9	--	--
Proseed	60-40	0.4	38	124	17.2	34.4	2.2	54.0	--	39.4	71.6	55.5	--
Prairie Brand	PB-0356RR	0.3	36	124	17.6	33.2	2.5	53.3	--	--	69.0	--	--
Prairie Brand	PB-X307RR	0.3	36	125	17.3	33.0	0.4	54.3	--	--	67.8	--	--
LSD 5%			2.3	2.7	0.4	1.0	1.4	1.1	4.1	7.6	4.9		

*Maturity Group provided by company

[1] 2 year average includes Pekin 2007 and Devils Lake 2006.

[2] 3 year average includes Pekin 2007, Devils Lake 2006, and Pekin 2005.

3 Mycogen Seeds/Atlas Brand

Canola - Conventional - 2004-2007

Company/Brand	Variety	Type	* Blackleg Rating	Days to Mature					Days to End Flower					% Cover					Hail Shatter (0-10)
				04	05	06	07	2yr	04	05	06	07	2yr	04	05	06	07	2yr	06
Agriprogress/Lembke	AP 30120-B6	H-CL	R	--	--	--	94	--	--	--	--	72	--	--	--	--	71	--	--
Agriprogress/Lembke	AP 30812-A5	H-CL	R	--	--	91	95	93	--	--	71	74	73	--	--	48	66	57	--
Bayer CropScience	InVigor 5440	H-LL	R	--	--	--	93	--	--	--	--	71	--	--	--	--	78	--	--
Bayer CropScience	InVigor 5550	H-LL	R	--	90	85	94	89	--	65	66	71	68	--	70	68	84	76	--
Bayer CropScience	InVigor 5630	H-LL	R	113	90	87	93	90	79	65	67	72	69	76	58	58	81	70	5.2
Bayer CropScience	InVigor 8440	H-LL	R	--	--	--	94	--	--	--	--	70	--	--	--	--	81	--	--
Cibus	Roper	OP	R	--	--	90	96	93	--	--	90	73	82	--	--	43	70	57	3.5
Croplan Genetics	Python CL	H-CL	R	--	--	--	95	--	--	--	--	73	--	--	--	--	79	--	--
Croplan Genetics	Freedom 84501 LL	Syn-LL	MR	--	--	--	94	--	--	--	--	71	--	--	--	--	70	--	--
Dow AgroSciences	CNX 06	OP-CL-HO	MR	--	--	89	93	91	--	--	69	70	69	--	--	31	91	61	5.7
Dow AgroSciences	CNX 11	OP-CL-HO	MR	--	--	--	94	--	--	--	--	70	--	--	--	--	76	--	--
Dow AgroSciences	Nexera 845 CL	OP-CL-HO	MR	--	--	--	93	--	--	--	--	70	--	--	--	--	86	--	--
Dow AgroSciences	Nexera 828 CL	OP-CL-HO	R	--	92	91	97	94	--	69	72	75	73		56	36	85	61	6.2
Dow AgroSciences	Nexera 830 CL	OP-CL-HO	R	120	93	--	95	--	83	69	--	73	--	54	40	--	80	--	--
Meridian Seeds	1671H	H-CL	MR	--	--	90	95	93	--	--	72	73	73	--	--	51	89	89	--
Pioneer Brand	45H73	H-CL	R	--	--	87	91	89	--	--	64	68	66	--	--	59	76	68	4.5
Croplan Genetics	HyClass 905**	H-RR	R	--	--	--	94	--	--	--	--	73	--	--	--	--	89	--	--
Interstate Seed	IS 7145**	H-RR	MR	--	--	--	92	--	--	--	--	69	--	--	--	--	90	--	--
Agriprogress/Lembke	AP 30316-A5	H-CL	MR	--	--	90	--	--	--	--	72	--	--	--	--	51	--	--	5.4
Agriprogress/Lembke	AP 30321-A5	H-CL	MR	--	--	90	--	--	--	--	70	--	--	--	--	47	--	--	--
Bonis & Co. Ltd	BC74P00 LL	OP-LL	MR	--	--	89	--	--	--	--	68	--	--	--	--	43	--	--	5.0
Bonis & Co. Ltd	BC84S00 LL	Syn-LL	MR	--	--	88	--	--	--	--	71	--	--	--	--	40	--	--	5.7
Bonis & Co. Ltd	BCS309L	Syn-LL	MR	--	--	90	--	--	--	--	71	--	--	--	--	41	--	--	5.0
Bonis & Co. Ltd	BCS314L	Syn-LL	MR	--	--	88	--	--	--	--	69	--	--	--	--	36	--	--	5.5
Dow Agro Sciences	Nexera 828 CL	OP-CL	R	--	92	91	--	--	--	69	72	--	--	--	56	36	--	--	6.2
Dow Agro Sciences	CNX03	OP-CL	R	--	--	91	--	--	--	--	71	--	--	--	--	27	--	--	5.5
Dow Agro Sciences	CNX19	OP-CL	R	--	--	92	--	--	--	--	71	--	--	--	--	27	--	--	5.5
Interstate Seed	Hylite 618 CL	H-CL	R	107	91	87	--	--	75	66	69	--	--	80	65	31	--	--	5.8
Proseed	Manor	OP-CL	MR	--	--	90	--	--	--	--	69	--	--	--	--	45	--	--	3.5
Proseed	WinSpr	OP	R	--	--	100	--	--	--	--	81	--	--	--	--	51	--	--	0.2
LSD 5%				2.4	1.5	2.2	1.7		1.4	1.8	1.6	1.6		12	9	10	11		1.2

*Blackleg Rating: S=Susceptible, MS=Moderately Susceptible, MR=Moderately Resistant, R=Resistant. Ratings are provided by the companies.

**Roundup ready check varieties. OP-Open Pollinated, H-Hybrid, SYN-Synthetic, LL-Liberty Link, CL-Clearfield System, HO-High Oleic Oil.

Canola - Conventional - 2004-2007

	Yield (lbs/a)					Days to first flower					Lodging (0-9)					Oil (%)					Height (in)				
Variety	04	05	06	07	2yr	04	05	06	07	2yr	04	05	06	07	2yr	04	05	06	07	2yr	04	05	06	07	2yr
AP 30120-B6	--	--	--	2724	--	--	--	--	51	--	--	--	--	1.8	--	--	--	--	41.3	--	--	--	--	43	--
AP 30812-A5	--	--	1919	2646	2283	--	--	47	50	48	--	--	1.2	0.5	0.9	--	--	46.1	42.1	44.1	--	--	55	44	49
InVigor 5440	--	--	--	2347	--	--	--	--	49	--	--	--	--	2.5	--	--	--	--	41.0	--	--	--	--	43	--
InVigor 5550	--	2945	2202	2236	2219	--	44	43	50	46	--	2.8	1.3	1.0	1.2		43.8	44.0	43.5	43.7	--	44	51	39	45
InVigor 5630	3192	2988	2061	2480	2270	57	43	44	48	46	1.0	3.5	1.1	0.5	0.8	49.6	43.2	46.4	45.3	45.8	48	41	51	42	46
InVigor 8440	--	--	--	2279	--	--	--	--	48	--	--	--	--	0.5	--	--	--	--	45.0	--	--	--	--	39	--
Roper	--	--	1702	2292	1997	--	--	47	50	48	--	--	2.5	0.3	1.4	--	--	44.5	39.7	42.1	--	--	51	47	49
Python CL	--	--	--	2375	--	--	--	--	49	--	--	--	--	2.5	--	--	--	--	41.6	--	--	--	--	42	--
Freedom 84501 LL	--	--	--	2472	--	--	--	--	49	--	--	--	--	0.8	--	--	--	--	40.0	--	--	--	--	43	--
CNX 06	--	--	1303	2754	2028	--	--	46	48	47	--	--	2.5	2.8	2.7	--	--	43.6	42.3	42.9	--	--	45	40	43
CNX 11	--	--	--	2333	--	--	--	--	49	--	--	--	--	4.8	--	--	--	--	40.5	--	--	--	--	39	--
Nexera 845 CL	--	--	--	3178	--	--	--	--	48	--	--	--	--	1.0	--	--	--	--	41.6	--	--	--	--	42	--
Nexera 828 CL	--	2485	1301	2601	1951	--	49	51	52	51	--	1.3	0.7	2.5	1.6	--	38.4	43.0	44.5	43.7	--	48	54	42	48
Nexera 830 CL	3009	2280	--	2667	--	63	50	--	50	--	0.8	3.0	--	3.0	--	50.5	42.3	--	43.3	--	56	48	--	41	--
1671H	--	--	1731	3179	2455	--	--	48	50	49	--	--	0.7	3.5	2.1	--	--	44.7	41.5	43.1	--	--	56	41	48
45H73	--	--	2094	1972	2033	--	--	43	47	--	--	--	2.1	3.5	2.8	--	--	46.0	43.8	44.9	--	--	50	42	46
HyClass 905*	--	--	--	2597	--	--	--	--	51	--	--	--	--	3.8	--	--	--	--	42.3	--	--	--	--	43	--
IS 7145*	--	--	--	2596	--	--	--	--	47	--	--	--	--	5.5	--	--	--	--	43.5	--	--	--	--	41	--
AP 30316-A5	--	--	1731	--	--	--	--	48	--	--	--	--	0.7	--	--	--	--	44.7	--	--	--	--	56	--	--
AP 30321-A5	--	--	1831	--	--	--	--	47	--	--	--	--	0.9	--	--	--	--	45.4	--	--	--	--	56	--	--
BC74P00 LL	--	--	1498	--	--	--	--	44	--	--	--	--	2.6	--	--	--	--	45.4	--	--	--	--	46	--	--
BC84S00 LL	--	--	1359	--	--	--	--	45	--	--	--	--	2.8	--	--	--	--	42.7	--	--	--	--	51	--	--
BCS309L	--	--	1573	--	--	--	--	46	--	--	--	--	2.1	--	--	--	--	44.0	--	--	--	--	53	--	--
BCS314L	--	--	1473	--	--	--	--	46	--	--	--	--	2.7	--	--	--	--	44.6	--	--	--	--	52	--	--
CNX03	--	--	1507	--	--	--	--	47	--	--	--	--	0.5	--	--	--	--	45.4	--	--	--	--	49	--	--
CNX19	--	--	1137	--	--	--	--	49	--	--	--	--	1.8	--	--	--	--	45.3	--	--	--	--	45	--	--
Hylite 618 CL	2850	2372	1473	--	1923	56	43	46	--	45	1.0	4.3	2.7	--	3.5	48.5	41.9	43.0	--	42.4	47	38	50	--	44
Manor	--	--	1309	--	--	--	--	46	--	--	--	--	3.6	--	--	--	--	44.1	--	--	--	--	51	--	--
WinSpr	--	--	1695	--	--	--	--	55	--	--	--	--	0.1	--	--	--	--	43.4	--	--	--	--	67	--	--
LSD 5%	422	343	377	259		0.8	1.3	1.6	1.0		0.5	1.8	1.8	2.2		1.2	1.7	2.6	2.1		3.5	3.0	2.7	2.5	

*Roundup ready check varieties.

Canola - Roundup Ready - 2005-2007

Company/Brand	Variety	Type	* Blackleg Rating	Days to Mature				Day to End Flower				% Cover			
				05	06	07	2yr	05	06	07	2yr	05	06	07	2yr
Agriprogress/Lembke	AP 30310-A5	H	R	--	92	95	94	--	70	73	71	--	69	91	80
Agriprogress/Lembke	AP 30412-B6	H	R	--	--	93	--	--	--	69	--	--	--	85	--
Agriprogress/Lembke	AP 30416-B6	H	R	--	--	93	--	--	--	70	--	--	--	80	--
Agriprogress/Lembke	AP 30503-B6	H	R	--	--	93	--	--	--	70	--	--	--	79	--
Agriprogress/Lembke	AP 30507-B6	H	R	--	--	92	--	--	--	69	--	--	--	83	--
Agriprogress/Lembke	AP 30516-A5	Syn	R	--	87	92	89	--	66	70	68	--	59	88	73
Agriprogress/Lembke	AP 30609-B6	Syn	R	--	--	91	--	--	--	67	--	--	--	85	--
Agriprogress/Lembke	AP 30611-B6	Syn	R	--	--	92	--	--	--	68	--	--	--	80	--
BrettYoung	4362RR	H	R	--	--	92	--	--	--	69	--	--	--	93	--
BrettYoung	4414RR	H	R	--	--	92	--	--	--	69	--	--	--	90	--
BrettYoung	997RR	OP	R	--	--	94	--	--	--	71	--	--	--	78	--
Cargill	v1031	H-HO	MR	87	89	93	91	61	65	71	68	84	85	98	91
Cargill	v1035	H-HO	R	--	87	92	89	--	64	68	66	--	71	88	79
Cargill	v2010	H-HO	MR	87	85	93	89	62	63	70	66	91	89	96	93
Cargill	v2018	H-HO	MR	--	--	93	--	--	--	70	--	--	--	84	--
Croplan Genetics	HYCLASS 410	Syn	R	--	--	94	--	--	--	71	--	--	--	83	--
Croplan Genetics	HYCLASS 431	Syn	MR	86	91	93	92	62	69	71	70	74	55	78	66
Croplan Genetics	HYCLASS 712	H	MR	86	90	95	92	63	69	72	70	80	73	84	78
Croplan Genetics	HYCLASS 778	Syn	MR	--	--	91	--	--	--	69	--	--	--	83	--
Croplan Genetics	HYCLASS 905	H	R	86	91	94	92	62	69	70	70	70	50	93	71
Croplan Genetics	HYCLASS 906	H	R	--	90	92	91	--	68	70	--	--	78	96	87
Croplan Genetics	HYCLASS 924	H	R	--	86	91	88	--	65	69	--	--	81	89	85
Croplan Genetics	Rugby	H	R	--	--	92	--	--	--	69	--	--	--	75	--
DEKALB	DKL38-25	H	MR	84	86	91	89	62	66	69	67	78	65	83	74
DEKALB	DKL52-10	H	R	84	88	94	91	61	66	72	69	79	85	90	88
DEKALB	DKL52-41	H	R	--	--	93	--	--	--	69	--	--	--	91	--
Integra Seed	Int.3789R	H	R	--	86	91	88	--	66	69	67	--	79	89	84
Integra Seed	Int.RangerR	Syn	MR	84	86	94	90	61	65	71	68	84	80	95	88
Interstate Seed	IS3057 RR	H	R	--	--	90	--	--	--	66	--	--	--	88	--
Interstate Seed	IS7145 RR	H	MR	83	86	89	88	60	63	67	65	82	79	95	87
Meridian Seeds	1818	O	R	86	88	96	92	60	65	70	67	64	53	45	49
Meridian Seeds	1759S	Syn	R	--	85	90	87	--	63	67	--	--	80	88	84
Meridian Seeds	1768S	Syn	R	--	88	94	91	--	67	71	--	--	60	91	76
Meridian Seeds	1852H	H	R	85	84	93	88	62	64	72	68	90	83	86	84
Meridian Seeds	SW H5263RR	OP	R	87	90	95	92	64	70	73	71	75	69	80	74
Monsanto	MB52140	H	R	--	--	90	--	--	--	67	--	--	--	94	--
Monsanto	MB52142	H	R	--	--	87	--	--	--	66	--	--	--	93	--
Monsanto	MB52155	H	R	--	--	91	--	--	--	68	--	--	--	93	--

Canola - Roundup Ready - 2005-2007 (continued)

Company/Brand	Variety	Type	* Blackleg Rating	Days to Mature				Day to End Flower				% Cover			
				05	06	07	2yr	05	06	07	2yr	05	06	07	2yr
Monsanto	Z5395	H	R	--	--	89	--	--	--	67	--	--	--	84	--
Pioneer Brand	45H21	H	R	87	86	93	90	61	63	69	66	81	83	84	83
Pioneer Brand	45H26	H	R	--	84	95	89	--	63	68	65	--	85	94	89
Proseed	2066	H	MR	86	90	91	91	61	70	70	70	82	39	83	61
Proseed	30 Caliber	Syn	R	--	--	94	--	--	--	72	--	--	--	78	--
Proseed	50 Caliber	H	R	--	--	89	--	--	--	69	--	--	--	88	--
Agriprogress/Lembke	AP 30111-A5	H	R	--	88	--	--	--	66	--	--	--	51	--	--
Agriprogress/Lembke	AP 30213-A5	H	R	--	89	--	--	--	67	--	--	--	61	--	--
Agriprogress/Lembke	AP 30306-A5	H	R	--	87	--	--	--	67	--	--	--	69	--	--
Agriprogress/Lembke	AP 30326-A5	Syn	R	--	88	--	--	--	67	--	--	--	60	--	--
Agriprogress/Lembke	AP 30608-A5	OP	R	--	88	--	--	--	67	--	--	--	43	--	--
Agriprogress/Lembke	AP 30623-A5	OP	R	--	91	--	--	--	70	--	--	--	58	--	--
Croplan Genetics	HYCLASS 910	H	R	87	90	--	--	63	68	--	--	76	74	--	--
Croplan Genetics	HYCLASS 767	Syn	R	84	88	--	--	62	68	--	--	72	69	--	--
Croplan Genetics	Crosby	OP	R	86	90	--	--	63	69	--	--	57	45	--	--
Cargill Specialty Canola Oils	V1030	H	MR	86	88	--	--	61	66	--	--	92	75	--	--
Cargill Specialty Canola Oils	03H580	H	R	--	89	--	--	--	67	--	--	--	60	--	--
Dekalb	DKL34-55	OP	MR	84	87	--	--	62	67	--	--	68	60	--	--
Dekalb	DKL35-85	OP	R	87	90	--	--	64	68	--	--	67	50	--	--
FarmPure Seeds Inc.	Reaper	OP	MR	--	89	--	--	--	67	--	--	--	51	--	--
Interstate Seed	Hyola 357 Magnum	H	MR	85	86	--	--	59	61	--	--	91	75	--	--
Interstate Seed	Hyola 514 RR	H	R	85	87	--	--	62	67	--	--	85	69	--	--
Interstate Seed	SW Patriot	Syn	MR	84	86	--	--	61	66	--	--	84	79	--	--
Interstate Seed	SW Marksman	H	MR	85	89	--	--	63	68	--	--	91	71	--	--
Interstate Seed	SW Titan RR	H	R	85	87	--	--	60	65	--	--	87	85	--	--
Interstate Seed	IS 3465RR	OP	R	85	87	--	--	62	67	--	--	69	66	--	--
Monsanto	MB52141	H	R	--	86	--	--	--	62	--	--	--	76	--	--
Monsanto	MB52143	H	R	--	86	--	--	--	63	--	--	--	84	--	--
Monsanto	Z5052	H	R	--	85	--	--	--	63	--	--	--	88	--	--
Monsanto	SW-PF-02-3902	H	R	--	88	--	--	--	68	--	--	--	79	--	--
Monsanto	SW-PF-02-3910	H	R	--	86	--	--	--	67	--	--	--	84	--	--
Monsanto	MB51105	OP	R	--	89	--	--	--	68	--	--	--	84	--	--
Pioneer	45H26	H	R	--	84	--	--	--	63	--	--	--	85	--	--
Proseed	RR E 30518	H	R	--	86	--	--	--	65	--	--	--	73	--	--
SW Seed Ltd.	SW-PI-02-1212	H	R	--	86	--	--	--	65	--	--	--	90	--	--
LSD 5%				1.4	2.1	2.3		1.2	1.5	1.7		8.0	15.0	6.4	

*Blackleg Rating: S=Susceptible, MS=Moderately Susceptible, MR=Moderately Resistant, R=Resistant. Ratings are provided by the companies.
OP-Open Pollinated, H-Hybrid, SYN-Synthetic, HO-High Oleic.

Canola - Roundup Ready - 2004-2007

Company/Brand	Variety	Yield					Days to First Flower				Lodging (0-9)				Oil (%)				Height (in)			
		04	05	06[1]	07	2yr	05	06	07	2yr	05	06	07	2yr	05	06	07	2yr	05	06	07	2yr
Agriprogress/Lembke	AP 30310-A5	--	--	2188	2882	2535	--	48	48	48	--	0.3	2.0	1.2	--	48.3	43.1	45.7	--	54	46	50
Agriprogress/Lembke	AP 30412-B6	--	--	--	2660	--	--	--	47	--	--	--	1.8	--	--	--	43.7	--	--	--	41	--
Agriprogress/Lembke	AP 30416-B6	--	--	--	2380	--	--	--	47	--	--	--	2.5	--	--	--	43.1	--	--	--	42	--
Agriprogress/Lembke	AP 30503-B6	--	--	--	2291	--	--	--	47	--	--	--	2.0	--	--	--	41.9	--	--	--	42	--
Agriprogress/Lembke	AP 30507-B6	--	--	--	2640	--	--	--	49	--	--	--	3.3	--	--	--	42.2	--	--	--	43	--
Agriprogress/Lembke	AP 30516-A5	--	--	2135	2467	2301	--	46	47	46	--	1.0	4.5	2.8	--	47.0	40.9	44.0	--	50	41	46
Agriprogress/Lembke	AP 30609-B6	--	--	--	2588	--	--	--	46	--	--	--	3.8	--	--	--	44.0	--	--	--	39	--
Agriprogress/Lembke	AP 30611-B6	--	--	--	2443	--	--	--	46	--	--	--	1.8	--	--	--	43.0	--	--	--	38	--
BrettYoung	4362RR	--	--	--	2611	--	--	--	47	--	--	--	5.0	--	--	--	41.2	--	--	--	45	--
BrettYoung	4414RR	--	--	--	2718	--	--	--	47	--	--	--	2.8	--	--	--	43.0	--	--	--	44	--
BrettYoung	997RR	--	--	--	2534	--	--	--	49	--	--	--	3.8	--	--	--	41.6	--	--	--	43	--
Cargill	v1031	--	2193	2198	2576	2387	43	46	48	47	3.7	3.0	3.8	3.4	44.8	46.7	41.4	44.1	46	49	45	47
Cargill	v1035	--		2394	2606	2500	--	46	46	46	--	1.0	4.0	2.5	--	50.4	42.9	46.7	--	46	39	43
Cargill	v2010	--	2326	2158	2866	2512	44	44	49	46	2.5	1.0	2.0	1.5	43.9	47.1	41.8	44.5	44	46	42	44
Cargill	v2018	--	--	--	2679	--	--	--	49	--	--	--	1.3	--	--	--	42.8	--	--	--	41	--
Croplan Genetics	HYCLASS 410	--	--	--	2527	--	--	--	49	--	--	--	3.3	--	--	--	43.2	--	--	--	47	--
Croplan Genetics	HYCLASS 431	--	2132	2078	2226	2152	42	46	48	47	1.8	1.0	1.0	1.0	44.4	47.5	41.3	44.4	43	50	43	46
Croplan Genetics	HYCLASS 712	2895	2213	1969	2942	2455	47	48	50	49	0.8	0.0	2.5	1.3	44.9	50.3	41.7	46.0	48	53	46	49
Croplan Genetics	HYCLASS 778	--	--	--	2640	--	--	--	47	--	--	--	0.5	--	--	--	42.5	--	--	--	41	--
Croplan Genetics	HYCLASS 905	2991	2222	2065	2890	2478	46	49	49	49	1.7	0.0	1.5	0.8	46.4	50.2	42.5	46.4	47	55	46	50
Croplan Genetics	HYCLASS 906	--	--	2274	2523	2398	--	48	47	47	--	0.0	0.8	0.4	--	50.2	42.0	46.1	--	52	44	48
Croplan Genetics	HYCLASS 924	--	--	2331	2953	2642	--	41	46	43	--	1.3	0.8	1.1	--	47.0	42.6	44.8	--	48	42	45
Croplan Genetics	Rugby	--	--	--	2464	--	--	--	47	--	--	--	3.3	--	--	--	44.3	--	--	--	40	--
DEKALB	DKL38-25	3026	2326	2015	2811	2413	42	44	47	46	1.1	0.0	0.5	0.3	45.4	49.7	43.3	46.5	43	47	43	45
DEKALB	DKL52-10	--	2075	2298	2675	2486	42	44	47	46	1.7	0.3	3.3	1.8	44.1	46.9	40.1	43.5	43	49	42	46
DEKALB	DKL52-41	--	--	--	3016	--	--	--	46	--	--	--	3.5	--	--	--	43.3	--	--	--	43	--
Integra Seed	Int.3789R	--	--	2025	2292	2158	--	42	47	44	--	2.5	2.3	2.4	--	45.9	40.4	43.2	--	47	39	43
Integra Seed	Int.RangerR	--	1850	1962	2515	2239	40	43	47	45	3.6	1.3	6.0	3.7	43.9	48.3	40.5	44.4	41	47	40	44
Interstate Seed	IS3057 RR	--	--	--	2668	--	--	--	45	--	--	--	2.0	--	--	--	43.8	--	--	--	41	--
Interstate Seed	IS7145 RR	3023	2174	2168	2728	2448	41	45	46	45	3.4	2.8	2.8	2.8	46.9	49.1	45.4	47.3	42	47	41	44
Meridian Seeds	1818	--	2179	1693	2240	1967	41	46	48	47	2.2	0.0	2.5	1.3	44.7	47.9	42.5	45.2	39	43	38	40
Meridian Seeds	1759S	--	--	2048	2529	2289	--	42	45	43	--	1.3	1.3	1.3	--	48.7	44.4	46.6	--	44	41	43
Meridian Seeds	1768S	--	--	2015	2372	2194	--	46	49	48	--	0.8	2.3	1.6	--	47.1	43.7	45.4	--	52	42	47
Meridian Seeds	1852H	--	2314	2152	2698	2425	45	43	48	45	1.7	0.5	4.3	2.4	43.6	45.3	40.5	42.9	47	48	43	45
Meridian Seeds	SW H5263RR	--	2217	1845	2448	2147	46	49	51	50	0.0	0.0	4.5	2.3	48.1	50.7	43.7	47.2	44	50	44	47
Monsanto	MB52140	--	--	--	2870	--	--	--	46	--	--	--	1.8	--	--	--	43.2	--	--	--	42	--
Monsanto	MB52142	--	--	--	2794	--	--	--	45	--	--	--	0.5	--	--	--	44.6	--	--	--	38	--
Monsanto	MB52155	--	--	--	2921	--	--	--	45	--	--	--	3.0	--	--	--	41.8	--	--	--	39	--

Canola - Roundup Ready - 2004-2007 (continued)

Company/Brand	Variety	Yield					Days to First Flower				Lodging (0-9)				Oil (%)				Height (in)			
		04	05	06[1]	07	2yr	05	06	07	2yr	05	06	07	2yr	05	06	07	2yr	05	06	07	2yr
Monsanto	Z5395	--	--	--	2359	--	--	--	46	--	--	--	3.3	--	--	--	42.8	--	--	--	39	--
Pioneer Brand	45H21	2958	2329	2188	2593	2391	45	45	47	46	3.2	1.5	4.5	3.0	44.7	47.7	42.2	45.0	43	47	39	43
Pioneer Brand	45H26	--	--	2577	2959	2768	--	44	46	45	--	1.5	4.3	2.9	--	46.4	43.4	44.9	--	47	42	44
Proseed	2066	2770	1983	1826	2351	2088	42	49	47	48	3.6	0.0	3.0	1.5	44.8	47.7	41.4	44.6	41	55	40	47
Proseed	30 Caliber	--	--	--	2598	--	--	--	50	--	--	--	1.3	--	--	--	42.3	--	--	--	48	--
Proseed	50 Caliber	--	--	--	2465	--	--	--	46	--	--	--	0.8	--	--	--	42.6	--	--	--	40	--
Agriprogress/Lembke	AP 30111-A5	--	--	1845	--	--	--	45	--	--	--	0.3	--	--	--	50.1	--	--	--	47	--	--
Agriprogress/Lembke	AP 30213-A5	--	--	2198	--	--	--	47	--	--	--	0.0	--	--	--	48.5	--	--	--	46	--	--
Agriprogress/Lembke	AP 30306-A5	--	--	1791	--	--	--	43	--	--	--	0.5	--	--	--	46.4	--	--	--	50	--	--
Agriprogress/Lembke	AP 30326-A5	--	--	2015	--	--	--	46	--	--	--	0.8	--	--	--	47.1	--	--	--	52	--	--
Agriprogress/Lembke	AP 30608-A5	--	--	1925	--	--	--	47	--	--	--	0.3	--	--	--	48.3	--	--	--	49	--	--
Agriprogress/Lembke	AP 30623-A5	--	--	1769	--	--	--	49	--	--	--	0.0	--	--	--	49.0	--	--	--	53	--	--
Croplan Genetics	HYCLASS 910	3133	2321	2135	--	--	47	48	--	--	1.6	0.0	--	--	45.5	48.1	--	--	50	57	--	--
Croplan Genetics	HYCLASS 767	2928	2151	1942	--	--	41	45	--	--	1.9	0.8	--	--	44.7	47.1	--	--	41	50	--	--
Croplan Genetics	Crosby	2655	1934	1713	--	--	43	47	--	--	3.0	0.5	--	--	44.8	47.7	--	--	44	50	--	--
Cargill Specialty Canola Oils	V1030	--	2105	2125	--	--	43	47	--	--	3.4	1.3	--	--	43.8	46.4	--	--	46	49	--	--
Cargill Specialty Canola Oils	03H580	--	--	1560	--	--	--	47	--	--	--	0.3	--	--	--	50.3	--	--	--	47	--	--
Dekalb	DKL34-55	2933	2087	1782	--	--	44	46	--	--	1.2	0.0	--	--	46.0	49.9	--	--	44	45	--	--
Dekalb	DKL35-85	2888	1914	1739	--	--	46	48	--	--	1.8	0.0	--	--	43.4	47.9	--	--	47	50	--	--
FarmPure Seeds Inc.	Reaper	--	--	1752	--	--	--	47	--	--	--	0.5	--	--	--	49.8	--	--	--	45	--	--
Interstate Seed	Hyola 357 Magnum	2676	2243	2005	--	--	39	41	--	--	2.3	0.5	--	--	43.2	45.0	--	--	39	40	--	--
Interstate Seed	Hyola 514 RR	--	2270	2088	--	--	47	47	--	--	1.6	2.0	--	--	44.4	48.4	--	--	47	50	--	--
Interstate Seed	SW Patriot	2628	1858	2161	--	--	40	42	--	--	3.3	2.3	--	--	43.9	46.5	--	--	41	48	--	--
Interstate Seed	SW Marksman	2750	2336	1842	--	--	43	44	--	--	1.5	0.3	--	--	44.8	48.4	--	--	44	48	--	--
Interstate Seed	SW Titan RR	2636	1999	2122	--	--	40	42	--	--	2.0	1.5	--	--	43.7	45.7	--	--	43	51	--	--
Interstate Seed	IS 3465 RR	--	1945	1729	--	--	41	44	--	--	2.3	1.3	--	--	43.6	45.8	--	--	44	49	--	--
Monsanto	MB52141	--	--	1829	--	--	--	43	--	--	--	0.8	--	--	--	48.8	--	--	--	45	--	--
Monsanto	MB52143	--	--	2341	--	--	--	44	--	--	--	3.5	--	--	--	48.6	--	--	--	48	--	--
Monsanto	Z5052	--	--	1992	--	--	--	41	--	--	--	1.3	--	--	--	49.2	--	--	--	46	--	--
Monsanto	SW-PF-02-3902	--	--	2068	--	--	--	45	--	--	--	0.5	--	--	--	48.3	--	--	--	50	--	--
Monsanto	SW-PF-02-3910	--	--	1885	--	--	--	44	--	--	--	0.5	--	--	--	45.4	--	--	--	46	--	--
Monsanto	MB51105	--	--	2035	--	--	--	46	--	--	--	1.3	--	--	--	45.0	--	--	--	51	--	--
Proseed	RR E 30518	--	--	2128	--	--	--	44	--	--	--	0.8	--	--	--	47.5	--	--	--	48	--	--
SW Seed Ltd.	SW-PI-02-1212	--	--	1919	--	--	--	43	--	--	--	1.0	--	--	--	46.0	--	--	--	49	--	--
LSD 5%		336	254	323	346		1.2	1.1	1.1		1.3	1.2	2.6		1.3	2.3	2.1		2.3	3.9	3.1	

[1] Some hail damage occurred on August 19 just prior to harvest. Damage in the swaths appeared uniform between varieties and no damage ratings were taken. No adjustments to yield were made.

Field Peas - Langdon 2004-2007

Variety	Yield bu/a					Test Weight (lbs/bu)					1000 Kernel wt. grams				Days to Flower				Days to Mature				Harvest Ease 0-9				Vine Length Inches				Protein %
Yellow	04	05	06	07	2yr	04	05	06	07	2yr	05	06	07	2yr	05	06	07	2yr	05	06	07	2yr	05	06	07	2 yr	05	06	07	2yr	07
APCM 714202	--	--	63	50	56	--	--	62.5	62.7	62.6	--	324	256	290	--	57	64	61	--	89	98	93	--	3.8	3.8	3.8	--	46	41	44	25.3
CDC Golden	--	--	--	51	--	--	--	--	62.1	--	--	--	200	--	--	--	57	--	--	--	95	--	--	--	5.3	--	--	--	34	--	26.4
CDC Meadow	--	--	--	56	--	--	--	--	62.1	--	--	--	184	--	--	--	57	--	--	--	95	--	--	--	4.3	--	--	--	36	--	24.8
CDC Mozart	64	56	71	53	62	56.5	62.3	62.2	61.7	62.0	220	244	208	226	52	48	56	52	93	88	98	93	8.3	8.3	6.8	7.6	32	36	35	35	24.4
Ceb 4152	--	66	74	65	69	--	62.4	61.9	61.6	61.8	275	261	264	263	50	46	56	51	93	88	101	95	7.5	5.5	3.8	4.7	38	44	41	43	24.4
Ceb 4159	--	--	73	71	72	--	--	62.1	62.0	62.1	--	262	244	253	--	50	57	54	--	87	95	91	--	6.8	6.8	6.8	--	43	35	39	26.1
Ceb 4163	--	--	68	57	63	--	--	61.6	60.9	61.3	--	255	204	230	--	49	57	53	--	89	94	91	--	7.5	5.5	6.5	--	40	32	36	27.5
DS Admiral	69	64	73	56	65	58.4	62.6	61.8	61.6	61.7	253	272	224	248	53	50	57	53	92	86	98	92	7.3	7.3	5.5	6.4	37	43	37	40	24.0
Eclipse	81	65	69	59	64	58.6	62.2	61.8	61.9	61.9	271	197	224	211	53	48	56	52	94	87	96	91	8.0	8.3	5.8	7.1	36	39	34	37	26.0
Fusion	--	--	72	53	62	--	--	61.6	61.5	61.6	--	206	260	233	--	48	56	52	--	88	94	91	--	7.5	5.3	6.4	--	42	33	37	24.6
IN 4176	--	--	--	47	--	--	--	--	61.5	--	--	--	240	--	--	--	56	--	--	--	99	--	--	--	3.3	--	--	--	38	--	27.1
IN 4179	--	--	--	68	--	--	--	--	61.1	--	--	--	240	--	--	--	54	--	--	--	93	--	--	--	3.5	--	--	--	35	--	25.4
Miami	--	--	71	59	65	--	--	61.9	61.1	61.5	--	286	220	253	--	50	57	54	--	87	94	91	--	7.0	6.5	6.8	--	41	31	36	25.5
Noble	--	--	--	59	--	--	--	--	61.4	--	--	--	208	--	--	--	58	--	--	--	102	--	--	--	3.5	--	--	--	39	--	27.1
Polstead	--	--	--	65	--	--	--	--	61.2	--	--	--	272	--	--	--	57	--	--	--	98	--	--	--	4.8	--	--	--	32	--	24.4
PS01102958	--	--	62	48	55	--	--	61.5	61.5	61.5	--	255	208	232	--	52	59	55	--	89	97	93	--	8.3	6.8	7.6	--	38	33	35	24.9
SW Capri	65	65	74	53	64	59.7	61.0	62.1	61.4	61.8	203	230	196	213	52	49	57	53	87	84	94	89	7.8	8.5	6.0	7.3	35	39	32	36	26.1
SW Circus	--	71	66	47	57	--	62.3	62.0	61.3	61.7	238	249	192	221	52	49	58	53	87	88	96	92	8.0	6.5	5.5	6.0	35	39	34	37	25.1
SW Marquee	--	68	70	54	62	--	62.5	62.0	61.8	61.9	193	264	184	224	52	50	57	54	91	86	99	92	6.8	6.0	3.3	4.7	36	43	38	40	26.2
SW Midas	--	61	69	54	61	--	62.4	62.2	61.8	62.0	253	250	198	224	54	50	58	54	91	87	92	90	8.5	7.0	7.0	7.0	32	39	32	35	25.5
Tudor	80	67	--	59	--	57.7	62.1	--	61.3	--	314	--	228	--	56	--	61	--	93	--	98	--	7.0	--	5.3	--	36	--	35	--	25.8
APCM 714204	--	--	57	--	--	--	--	62.1	--	--	--	254	--	--	--	57	--	--	--	90	--	--	--	2.8	--	--	--	45	--	--	--
APCM 8302	--	--	55	--	--	--	--	62.5	--	--	--	233	--	--	--	51	--	--	--	88	--	--	--	6.5	--	--	--	47	--	--	--
Ceb 4148	--	70	73	--	--	--	62.3	61.9	--	--	204	288	--	--	52	51	--	--	88	87	--	--	7.8	7.3	--	--	37	41	--	--	--
Ceb 4160	--	--	65	--	--	--	--	62.7	--	--	--	244	--	--	--	50	--	--	--	88	--	--	--	5.3	--	--	--	42	--	--	--
Carneval	70	64	--	--	--	60.4	62.2	--	--	--	202	--	--	--	53	--	--	--	91	--	--	--	7.3	--	--	--	36	--	--	--	--
Topeka	51	50	--	--	--	58.6	61.6	--	--	--	243	--	--	--	51	--	--	--	89	--	--	--	6.8	--	--	--	30	--	--	--	--
CDC Bronco	59	51	--	--	--	57.1	61.8	--	--	--	190	--	--	--	56	--	--	--	96	--	--	--	7.5	--	--	--	33	--	--	--	--
CDC Golden	77	64	--	--	--	59.1	63.0	--	--	--	221	--	--	--	52	--	--	--	91	--	--	--	7.8	--	--	--	34	--	--	--	--
Ceb 4132	87	62	--	--	--	59.4	61.9	--	--	--	326	--	--	--	51	--	--	--	94	--	--	--	6.8	--	--	--	29	--	--	--	--
Ceb 4133	86	57	--	--	--	59.9	61.6	--	--	--	246	--	--	--	50	--	--	--	92	--	--	--	7.3	--	--	--	35	--	--	--	--
Cutlass	72	66	--	--	--	57.6	62.2	--	--	--	260	--	--	--	50	--	--	--	93	--	--	--	8.0	--	--	--	33	--	--	--	--
CDC Minuet	76	--	--	--	--	59.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CDC Handel	57	--	--	--	--	58.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CDC Sonata	29	--	--	--	--	55.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SW Cabot	58	--	--	--	--	59.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Field Peas (continued)

Variety	Yield bu/a					Test Weight (lbs/bu)					1000 Kernel wt. grams				Days to Flower				Days to Mature				Harvest Ease 0-9				Vine Length Inches				Protein %
	04	05	06	07	3yr	04	05	06	07	3yr	05	06	07	3yr	05	06	07	3yr	05	06	07	3yr	05	06	07	3yr	05	06	07	3yr	07
Green																															
Camry	73	58	--	56	--	58.8	62.1	--	61.5	--	294	--	232		52	--	57	--	95	--	97	--	8.0	--	6.5	--	27	--	33	--	25.1
CDC Sage	--	--	--	52	--	--	--	--	61.7	--	--	--	188	--	--	--	59	--	--	--	98	--	--	--	5.5	--	--	--	36	--	24.3
CDC Striker	--	--	--	59	--	--	--	--	62.3	--	--	--	212	--	--	--	58	--	--	--	98	--	--	--	5.5	--	--	--	35	--	26.4
Ceb 1093	92	69	74	66	70	59.5	61.9	62.0	61.3	61.7	276	204	252	244	55	53	59	55	92	88	96	92	8.0	5.3	6.5	6.6	33	37	34	35	22.7
Cooper	90	68	71	58	66	58.9	62.3	61.6	61.3	61.7	294	218	264	259	56	56	61	58	96	90	97	94	6.8	5.5	4.8	5.7	35	40	35	37	24.1
Cruiser	57	51	65	54	57	58.3	62.1	61.8	61.6	61.8	185	246	196	209	52	48	56	52	93	87	94	91	7.3	7.3	5.3	6.6	34	42	33	36	25.5
Majoret	67	66	62	61	63	60.1	63.2	61.5	61.8	62.2	250	245	200	232	53	49	58	53	89	87	95	91	8.0	7.8	5.5	7.1	34	38	34	35	26.8
Medora	--	--	--	32	--	--	--	--	60.7	--	--	--	152	--	--	--	60	--	--	--	97	--			4.5	--	--	--	34	--	27.6
Nitouche	65	60	69	63	64	59.4	61.6	60.9	61.2	61.2	254	194	268	239	52	49	58	53	92	88	96	92	7.8	6.5	3.3	5.9	37	44	36	39	26.0
Pro 031-7029	--	--	--	44	--	--	--	--	60.8	--	--	--	212	--	--	--	56	--	--	--	97	--	--	--	6.8	--	--	--	35	--	23.4
Tamora	--	--	--	53	--	--	--	--	60.9	--	--	--	260	--	--	--	61	--	--	--	95	--	--	--	4.0	--	--	--	32	--	25.5
IN 1097	--	--	70	--	--	--	--	61.4	--	--	--	206	--	--	--	46	--	--	--	87	--	--	--	6.5	--	--	--	39	--	--	--
PS99102238	--	--	57	--	--	--	--	61.2	--	--	--	186	--	--	--	53	--	--	--	88	--	--	--	6.3	--	--	--	43	--	--	--
Striker	69	64	--	--	--	60.9	63.2	--	--	--	254	--	--	--	53	--	--	--	90	--	--	--	7.0	--	--	--	35	--	--	--	--
Ceb 1090	84	60	--	--	--	59.7	61.8	--	--	--	305	--	--	--	56	--	--	--	95	--	--	--	7.3	--	--	--	34	--	--	--	--
Stirling	48	46	--	--	--	58.7	62.4	--	--	--	229	--	--	--	50	--	--	--	95	--	--	--	8.5	--	--	--	28	--	--	--	--
Stratus	68	55	--	--	--	58.1	60.9	--	--	--	298	--	--	--	52	--	--	--	93	--	--	--	8.8	--	--	--	30	--	--	--	--
K-2	--	61	--	--	--	--	62.5	--	--	--	236	--	--	--	51	--	--	--	91	--	--	--	6.8	--	--	--	33	--	--	--	--
SWC 6198	--	56	--	--	--	--	62.8	--	--	--	242	--	--	--	54	--	--	--	94	--	--	--	7.5	--	--	--	37	--	--	--	--
Toledo	79	--	--	--	--	59.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CDC Montero	62	--	--	--	--	58.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Misc. Type																															
UK2	--	--	64	--	--	--	--	60.8	--	--	--	202	--	--	--	50	--	--	--	88	--	--	--	6.8	--	--	--	47	--	--	--
LSD 5%	18	7.4	6.0	8.0		1.6	0.6	0.4	0.5		--	--	--		0.7	0.8	0.8		3.0	1.8	5.0		NS	1.7	1.8		2.2	2.3	3		1.6

Mustard

Variety	Yield (lbs/a)						Days to Flower						Lodging (0-9)						Height (in)					
Yellow	03	04	05	06	07	4yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr	03	04	05	06	07	3yr
AC Pennant	2477	2278	1574	1952	1753	1760	39	32	23	40	42	35	3.3	1.3	0	0	2.3	0.8	46	54	43	42	46	44
Ace	2531	2608	1416	1928	1659	1668	39	31	24	41	41	35	1.8	2.0	0	0	3.8	1.3	48	56	44	45	47	45
Andante	2471	2796	1689	2086	1766	1847	39	30	23	40	41	35	2.3	1.0	0	0	3.3	1.1	47	53	44	46	44	45
Tilney	2517	2389	1074	1851	1836	1587	39	31	23	40	40	34	2.8	1.3	0	0	2.8	0.9	51	55	44	44	44	44
Comm.Brown	--	--	--	--	1486	--	--	--	--	--	48	--	--	--	--	--	7.3	--	--	--	--	--	44	--
Duchess	--	--	--	--	2089	--	--	--	--	--	47	--	--	--	--	--	8.0	--	--	--	--	--	49	--
AC Base	2660	2514	--	--	--	--	39	30	--	--	--	--	2.5	2.0	--	--	--	--	49	52	--	--	--	--
Viscount	2281	2201	--	--	--	--	40	32	--	--	--	--	2.5	1.7	--	--	--	--	49	57	--	--	--	--
Oriental																								
Forge	--	2094	2803	--	2514	--	--	36	27	--	46	--	--	2.0	0	--	4.0	--	--	57	52	--	49	--
LSD 5%	283	NS	300	NS	381		0.6	1.5	0.7	NS	0.9		NS	NS	--	NS	2.2		2.8	NS	2.2	2.5	NS	

Buckwheat

Variety	Yield (lbs/a)					Test Weight (lbs/bu)					Height (in)					Lodging (0-9)				
	03	05	06	07	3yr	03	05	06	07	3yr	03	05	06	07	3yr	03	05	06	07	3yr
Koma	--	2704	3083	2386	2724	--	50.2	47.4	49.1	48.9	--	42	51	41	45	--	6.0	7.8	1.3	5.0
Mancan	1383	2895	3169	2282	2782	40.8	47.8	46.3	48.8	47.6	51	40	51	41	44	6.8	3.7	8.0	1.0	4.2
Manor	--	2873	2710	2342	2642	--	47.1	45.8	48.1	47.0	--	40	52	42	45	--	4.7	7.3	0.8	4.3
Koto	1350	2824	2637	--	--	41.8	49.6	46.8	--	--	51	43	54	--	--	5	2.7	6.3	--	--
AC Springfield	1393	2771	--	--	--	38.3	44.9	--	--	--	52	41	--	--	--	5.8	3.3	--	--	--
AC Manisoba	1221	3307	--	--	--	38.9	46.5	--	--	--	51	44	--	--	--	7.5	6.7	--	--	--
Koban	1619	--	--	--	--	40	--	--	--	--	49	--	--	--	--	7	--	--	--	--
LSD 5%	NS	NS	758	NS		1.1	1.0	NS	0.7		NS	NS	3.2	NS		2.0	NS	1.4	NS	

2007 Annual Forage Trials - Langdon Research Extension Center

Crop (Variety)	Yield DM Basis	Yield 15% Moisture	Yield 70% Moisture	Height	Harvest Moisture	Harvest Date	Crude Protein	Total Digestible Nutrients	Acid Detergent Fiber	Neutral Detergent Fiber
Cool Season Forage	----------tons/a----------			in	%	d/m	----------% DM basis----------			
Stark (Oat)	4.7	5.5	15.6	47.7	72.4	23-Jul	8.7	56	41	58
Paul (Oat)	4.6	5.4	15.1	49.6	71.4	23-Jul	8.2	50	46	65
Haybet (Barley)	3.4	4	11.3	33.4	51.7	23-Jul	6.4	51	45	64
Hayes (Barley)	4.1	4.8	13.7	33.5	58.2	23-Jul	7.6	62	35	51
Souris (Oat)	4.7	5.6	15.8	46.5	70	23-Jul	8.1	58	39	55
Paul+Arvika (Oat+Pea)	3.9	4.6	13	48.6	73.8	23-Jul	9.6	53	44	61
Mean	4.2	5.0	14.1	43.2	66.2					
C.V. %	10.2	10.5	10.4	2.4	4.7					
LSD 5%	0.7	0.8	2.2	1.6	4.7					

Planting Date: May 27. Harvest date was according to growth stage of approximately late milk/early dough. Barley was in the hard dough stage.
Previous Crop: Fallow

Crop (Variety)	Yield DM Basis	Yield 15% Moisture	Yield 70% Moisture	Height	Harvest Moisture	Harvest Date	Crude Protein	Total Digestible Nutrients	Acid Detergent Fiber	Neutral Detergent Fiber
Warm Season Forage	----------tons/a----------			in	%	d/m	----------% DM basis----------			
PP102M (Pearl Millet)	2.5	2.9	8.2	58	76	20-Aug	5.3	57	40	61
Golden German (German Millet)	3.0	3.6	10.1	49	73	20-Aug	4.2	49	47	69
Piper (Sudan Grass)	2.5	2.9	8.2	71	71	20-Aug	4.9	56	41	63
Nutri+BMR (Sorghum+Sudan)	5.0	5.9	16.8	67	69	20-Aug	4.8	60	38	56
Cerise (Red Proso Millet)	1.7	2.1	5.8	36	65	20-Aug	3.3	56	41	60
Mean	2.9	3.5	9.8	56	71					
C.V. %	22.1	21.3	21.4	5.0	4.0					
LSD 5%	1.0	1.1	3.2	4.3	4.4					

Planting Date: June 1. Harvest date was according to growth stage of approximately early heading to headed.
Previous Crop: Wheat

Evaluation of Foliar Fungicide on several HRSW cultivars, Devils Lake, ND 2007.

Bryan Hanson, Agronomist, NDSU Langdon Research Extension Center
Terry Gregoire, Area Extension Specialist, NDSU Extension Service, Devils Lake

A field experiment was planted on 30 April near Devils Lake, ND. The previous crop was soybeans. Twenty HRSW cultivars were planted at a rate of 1.5 million pure live seeds/a. Seed was treated with Dividend. Plot size consisted of seven 6 inch rows 16 ft long. Barley FHB spawn was applied to the plots on June 11. Quadris fungicide at 6.2 fl oz/a was applied with a backpack sprayer June 4 at the 5 leaf stage to fungicide treated plots. Nozzels were oriented straight down and 8.5 gal/a was applied at 40 psi. At the first flowering treatment, a combination tankmix of 3 oz/a tebuconazole and 3 oz/a of Prothiconazole was applied to all fully headed and early flowering cultivars on June 25. The 7 cultivars not treated June 25 received the same tankmix combination June 29. The nozzels were oriented forward and angled 30 deg from horizontal. Ten gal/a of the fungicide solution was applied at 45 psi. Untreated plots were evaluated for FHB July 13 and 20. Leaf necrosis was evaluated on just untreated plots on July 13 and on both treated and untreated plots July 20. Leaf rust was evaluated on just the untreated plots on July 13 and 20. The experimental design was a split-block with four replications.

Disease pressure for FHB was light with only trace amounts observed. No detectable DON levels were seen. No FHB data is presented. Leaf rust and septoria were observed in moderate amounts. Fungicide and its interaction with cultivars were significant for yield, test weight, protein, and leaf necrosis. Cultivar yield response to fungicide applications ranged from -0.3 to 18.9 bu/a. Cultivars that were more susceptible to leaf rust and foliar diseases had the greatest reponse to a fungicide

Ramsey HRSW Variety * Fungicide Trial

ANOVA	Yield	DH	Height	Test Weight	Protein	Leaf Necrosis
Cultivar	**	**	**	**	**	**
Fungicide	**	NS	NS	**	**	**
C * F	**	NS	NS	**	**	**

P < 0.05** NS=non-significant

Table 2. Cultivar response to fungicide averaged over cultivars.

Fungicide	YIELD	Days	HT	TW	PROT	Leaf Necrosis
	bu/a	to head	in	lbs/bu	%	%
No Fungicide	67.7	56.1	35.1	60.9	14.2	36.2
Fungicide	73.7	56.1	34.9	61.4	14.4	7.2
LSD 5%	1.2	NA	NA	0.1	0.1	3.5
LSD 1%	1.5	NA	NA	0.1	0.1	4.7
C.V. %	5.2	1.3	2.6	0.5	1.6	43.7

NA - non- appliciable because ANOVA for Fungicide was NS

Table 3. Cultivar response to fungicide treatments.						
Treatment	**YIELD**	**Day**	**HT**	**TW**	**PROT**	**Leaf Necrosis**
	bu/a	**to head**	**in**	**lbs/bu**	**%**	**%**
Ada	68.6	56.8	34.3	61.2	14.2	16.7
Ada+F	**69.7**	**57.3**	**34.0**	**61.8**	**14.3**	**2.0**
Alsen	57.1	55.8	36.5	61.0	14.7	65.3
Alsen+F	**62.4**	**55.5**	**34.3**	**61.4**	**14.7**	**16.7**
Bakker Gold	52.1	61.5	34.8	59.6	13.7	50.0
Bakker Gold+F	**67.0**	**61.8**	**35.5**	**60.8**	**14.3**	**2.3**
Bigg Red	46.7	57.3	37.8	61.6	13.2	90.0
Bigg Red+F	**64.2**	**57.3**	**37.3**	**62.0**	**14.6**	**8.3**
Briggs	73.8	52.8	35.5	60.9	14.6	6.7
Briggs+F	**76.3**	**53.3**	**35.0**	**61.2**	**14.6**	**6.3**
Faller	81.0	57.5	35.5	61.0	14.1	5.0
Faller+F	**85.7**	**57.5**	**36.3**	**61.2**	**13.7**	**3.0**
Fireball	52.7	59.8	32.8	58.5	15.6	25.0
Fireball+F	**62.5**	**60.3**	**32.8**	**59.3**	**15.5**	**2.7**
Freyr	77.1	56.3	36.3	60.3	14.2	33.3
Freyr+F	**76.8**	**56.3**	**35.5**	**60.8**	**14.5**	**5.0**
Glenn	69.3	54.5	38.3	63.4	15.0	15.0
Glenn+F	**73.3**	**54.5**	**37.8**	**63.9**	**14.8**	**5.0**
Hotshot	50.2	60.8	33.3	59.7	13.3	80.0
Hotshot+F	**69.1**	**60.8**	**32.8**	**61.7**	**13.3**	**7.3**
Howard	71.7	56.3	36.5	62.4	14.5	6.7
Howard+F	**72.5**	**56.0**	**36.8**	**62.2**	**14.6**	**3.0**
Kelby	71.0	54.8	32.0	60.8	14.7	41.7
Kelby+F	**75.6**	**55.5**	**31.3**	**61.3**	**14.6**	**5.0**
Knudson	76.3	57.3	35.0	60.5	13.9	4.3
Knudson+F	**79.2**	**57.8**	**35.0**	**60.7**	**13.9**	**2.3**
Kuntz	77.1	57.3	33.8	61.0	14.0	25.0
Kuntz+F	**79.5**	**57.3**	**34.3**	**61.1**	**13.9**	**7.0**
Oklee	64.5	53.8	36.3	61.5	14.5	68.3
Oklee+F	**71.3**	**53.0**	**35.0**	**62.2**	**14.8**	**15.0**
RB07	72.1	55.8	34.0	60.6	14.4	21.7
RB07+F	**73.1**	**54.3**	**34.0**	**60.5**	**14.5**	**33.3**
Rush	63.9	52.5	33.8	61.6	14.7	66.7
Rush+F	**71.3**	**52.0**	**34.5**	**61.9**	**14.7**	**6.0**
Steele-ND	72.8	56.0	36.8	61.9	14.7	5.0
Steele-ND+F	**72.8**	**56.0**	**36.8**	**62.1**	**14.9**	**2.7**
Traverse	75.9	53.0	37.3	59.2	13.7	30.0
Traverse+F	**81.5**	**53.0**	**37.3**	**59.2**	**13.8**	**1.3**
Trooper	79.4	53.5	31.5	61.6	13.3	66.7
Trooper+F	**90.6**	**53.5**	**32.0**	**62.8**	**14.0**	**8.7**
LSD 5%	5.2	NA	NA	0.4	0.3	15.7
LSD 1%	6.9	NA	NA	0.6	0.4	21.0

NA - non- appliciable because ANOVA for Fungicide * V was NS

Benefits of Prosaro* Fungicide as a Management Strategy to Control Foliar and Fusarium Head Blight Diseases on Winter Wheat Cultivars in Northeast North Dakota.

S. Halley and K. Misek.

Table 1. Source of variation and confidence levels for significant differences among leaf disease severity, Fusarium head blight incidence, field severity and head severity yield, test weight, protein and deoxynivalenol (DON) on winter wheat Langdon, 2007.

Source of Variation	Early Leaf Severity	Leaf Severity	FHB Incidence	FHB Field Severity	FHB Head Severity	Yield	Test Weight	Protein	DON
Cultivar	<0.0001	0.3729	<0.0001	<0.0001	0.0763	<0.0001	<0.0001	0.0029	<0.0001
Rep*Cult	0.3191	0.4456	0.5138	0.0049	0.0404	0.6167	0.7342	0.0011	0.7577
Fungicide	0.1637	<0.0001	0.0001	<0.0001	0.0031	<0.0001	<0.0001	0.4442	<0.0001
Cult*Fung	0.0303	0.1313	0.9529	0.0107	0.0349	0.0012	<0.0001	0.0023	0.0134
% C.V.	9	31	27	53	12	10	1	2	37

Table 2. Leaf severity and FHB incidence averaged across winter cultivars and fungicide treatments Langdon, 2007.

Cultivar	Treatment	% Leaf Severity	%FHB Incidence
CDC Falcon			35.0
Jagalene			58.8
Jerry			48.1
Ransom			31.5
Wesley			78.1
LSD			14.5
	Prosaro	74.2	39.3
	Untreated	94.3	61.3

Table 3. Leaf severity, FHB field and head severity, yield, test weight, protein and DON by winter wheat cultivar and fungicide treatments Langdon, 2007.

Cultivar	Treatment	Early Leaf Severity (%)	FHB Field Severity (%)	FHB Head Severity (%)	Yield (Bu /acre)	Test Weight (Lb/ bu)	Protein (%)	DON ppm
CDC Falcon	Prosaro	69.8	69.8	0.4	101.5	60.0	11.3	1.1
	Untreated	73.3	73.3	2.6	77.9	57.1	11.0	1.2
Jagalene	Prosaro	89.0	89.0	3.0	80.7	59.1	11.7	1.3
	Untreated	98.2	98.2	11.4	37.5	52.3	12.1	3.6
Jerry	Prosaro	55.1	55.1	1.5	102.5	59.3	12.4	0.3
	Untreated	50.6	50.6	3.7	88.8	58.3	12.0	1.8
Ransom	Prosaro	69.1	69.1	0.4	90.2	59.7	11.3	0.1
	Untreated	62.4	62.4	1.6	88.8	59.0	11.8	0.7
Wesley	Prosaro	61.3	61.3	6.1	90.2	58.1	13.0	2.1
	Untreated	74.5	74.5	14.9	60.4	53.9	12.5	2.4
LSD		4.8	4.8	1.8	6.0	0.6	0.2	0.4

- Winter wheat was planted in mid September into flax stubble in 6-in rows.
- Fungicide was applied at early flowering growth stage with a CO_2 pressurized backpack sprayer equipped with XR8002 nozzles oriented forward and backward and angled 30º downward from horizontal at 18.4 GPA..
- Prosaro fungicide (Bayer CropScience) and Induce adjuvant (Helena Chemical Co.) were applied at 6.5 fl oz/ acre and 0.125% v/v.
- Jagalene was infected with leaf rust (*Puccinia triticina*) at very early flag emergence and may have benefited from a foliar fungicide to the flag leaf at an earlier application timing.

*Prosaro is a 50:50 blend of tebuconazole and prothioconazole and is expected to receive a federal label after June 2008.

Foundation Seed Increase Program

The Langdon Research Extension Center produces, conditions, and sells Foundation grade seed for growers in the region. The varieties of crops that are available for the 2007 growing season are listed below:

HRSW – Glenn, Faller
Durum – Divide, Lebsock
Barley – Stellar-ND, Robust, Lacey
Flax – Nekoma and Rahab 94

Growers who have grown seed for certification in one of the last four years who request seed prior to December 1 will be guaranteed an allocation. Any seed inventories available after December 1 will be sold on a first come, first serve basis. Seed availability and prices may be obtained by calling the Langdon Research Extension Center.

Visit our web site at www.ag.ndsu.nodak.edu/langdon

NDSU Research and Extension faculty and staff involved with the Langdon Research Extension Center

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Scott Halley	Crop Protection
Rodney Armstrong	Adult Farm Business Management Instructor, LRSC
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