Langdon Research Extension Center

North Dakota State University

2008 Annual Research Report

NDSU

Langdon Research Extension Center
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Use of this Report

The 2008 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.

2004-2008 Growing Season Summaries

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.

2008

Precipitation levels in September-October 2007 were near normal in the RRV while below normal else where. November-April precipitation was mostly below normal. May rainfall was generally 25-50% of normal with temperatures 4-5 degrees below normal. June brought rainfall 100-150% of normal with temperatures 2-3 degrees below normal. July and August rainfall was variable across the region ranging from 50 to 200% of normal. July temperatures were below normal while August was near normal. The cool temperatures with adequate moisture resulted in excellent small grain yields. The row crops matured because of the late frost but harvest was difficult with wet field conditions.

2008 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 2008. Trial locations were 1 mile west of Michigan, 2 miles north of the Perth, Walsh small grains at the Walsh County Farm at Park River, Walsh soybeans 3 miles east and 1 mile north 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 Devils Lake. 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
2008	5/27	10/10	136	5/27	10/14	140
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
Cavalier						
Normal	5/18	9/23	127	5/5	10/2	149
2008	5/27	10/3	129	5/11	10/16	158
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
Park River						
Normal	5/16	9/25	132	5/5	10/3	151
2008	5/11	10/20	162	5/11	10/27	169
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
Devils Lake						
Normal	5/17	9/21	127	5/6	10/1	148
2008	5/27	10/14	140	5/5	10/20	168
2006	5/11	9/28	140	4/8	9/28	173

2008 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	wheat	1.50 million pls	60 bu	5/1	8/25	6
Soybeans	wheat	200,000 pls	60 bu	5/22	10/17	6
Drybeans	wheat	70,000-90,000 pls	2000 lb	5/22	9/30	30
Park River (Walsh)						
HRSW	fallow	1.50 million pls	60 bu	5/2	8/26	6
Barley	fallow	1.25 million pls	110 bu	5/2	8/15	6
Soybean	wheat	200,000 pls	60 bu	5/16	10/16	6
Michigan (Nelson)						
HRSW	barley	1.50 million pls	60 bu	5/2	8/26	6
Devils Lake (Ramsey)						
HRSW	wheat	1.50 million pls	60 bu	5/5	8/28	6
Durum	wheat	1.50 million pls	60 bu	5/5	8/28	6
Barley	wheat	1.25 million pls	120 bu	5/5	--	6
Soybean	wheat	200,000 pls	50 bu	5/21	11/2 Conv	6
			RR trial not harvest, wet field conditions			
Perth (Towner)						
HRSW	wheat	1.50 million pls	60 bu	5/5	8/19	6
Durum	wheat	1.50 million pls	60 bu	5/5	8/19	6
Barley	wheat	1.25 million pls	100 bu	5/5	8/14	6

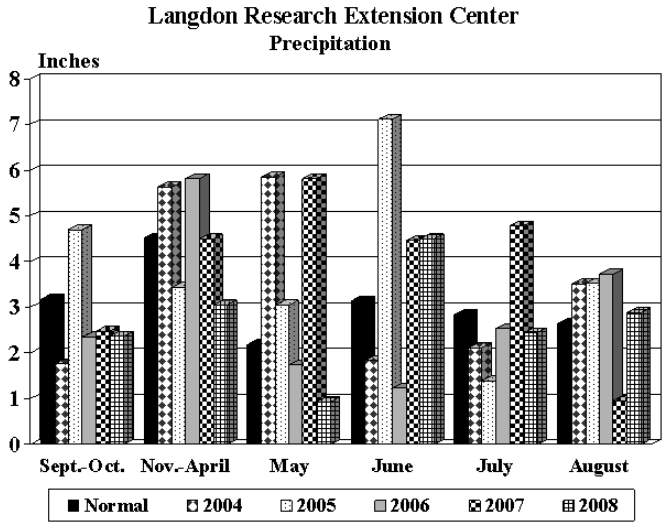
Location	**Soil Type**
Cavalier	Dovray silty clay loam
Park River	Wheat-Glyndon silt loam, Soybean-Fairdale silt loam
Michigan	Hamerly loam
Devils Lake	Overly silty clay loam
Perth	Hamerly-Barnes

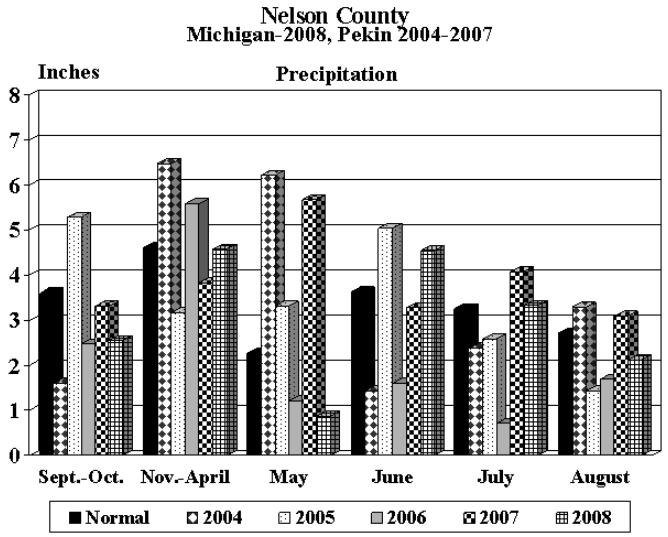
pls=pure live seeds

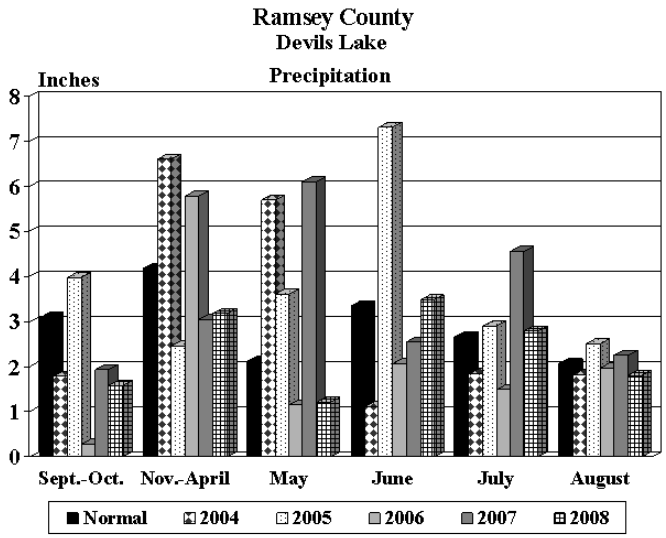
2008 Crop Management - Langdon						
Field Trial	**Previous Crop**	**Seeding Rate Unit/Acre**	**Yield Goal**	**Planting Date**	**Harvest Date**	**Row Spacing**
Barley	Soybean	1.25 million pls	120 bu	4/29	8/19	6
Buckwheat	Soybean	700,000 pls	1700 lb	5/28	10/1	6
Canola - Conv, LL, CL	Soybean	610,000 pls	2500 lb	5/8	9/10	6
Canola - RR	Soybean	610,000 pls	2500 lb	5/8	9/10	6
Corn	Soybean	28,000 thinned	110 bu	5/15	10/31	30
Durum	Soybean	1.50 million pls	60 bu	4/29	9/8,9	6
Drybean	Soybean	70-90,000 pls	2500 lb	5/23	10/1	30
Field Pea	Soybean	300,000 pls	60 bu	4/30	9/9	6
Flax	Soybean	2.8 million pls	40 bu	4/30	9/17	6
Forage (Cool Season)	Soybean	varied	varied	5/8	8/5	6
Forage (Warm Season)	Soybean	varied	varied	6/4	9/3	6
HRSW	Soybean	1.50 million pls	60 bu	4/29	8/29	6
HRWW	Soybean	1.0 million pls	60 bu	9/12/07	8/21,25	6
Mustard	Soybean	610,000 pls	2000 lb	5/8	8/19	6
Oats	Soybean	1.0 million pls	120 bu	4/29	9/19	6
Soybean - Conventional	Soybean	200,000 pls	60 bu	5/20	10/8	6
Soybean - RR	Soybean	200,000 pls	60 bu	5/20	10/9	6
Sunflower - Confection	Wheat	17,000 thinned	2500 lb	5/15	10/24	30
Sunflower-Oil	Wheat	20,000 thinned	2500 lb	5/15	10/24,27	30
Soil Type - Svea-Barnes loam						

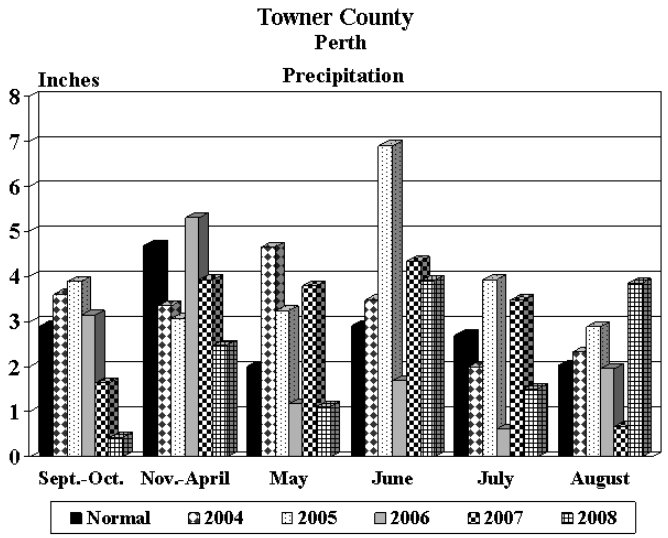
Langdon Research Extension Center and Off-Station
2004-2008 Precipitation Summaries

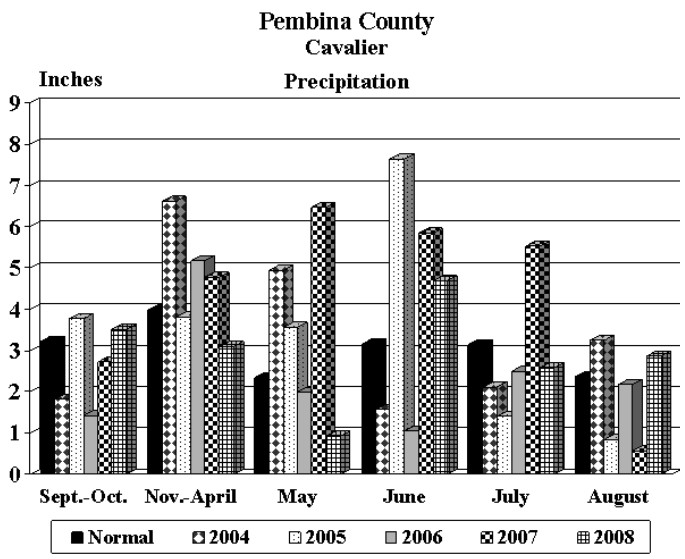
The graphs shown below indicate precipitation amounts from Langdon and each off-station location. Precipitation totals from the Langdon Research Extension Center are recorded on site while precipitations amounts from off-station locations are gathered from the nearest reporting weather station(s) to the trial. Normal precipitation totals are from 1961-1990 except Langdon, which is from 1896-2007. Normal precipitation totals from Michigan 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; 2004-2008 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.

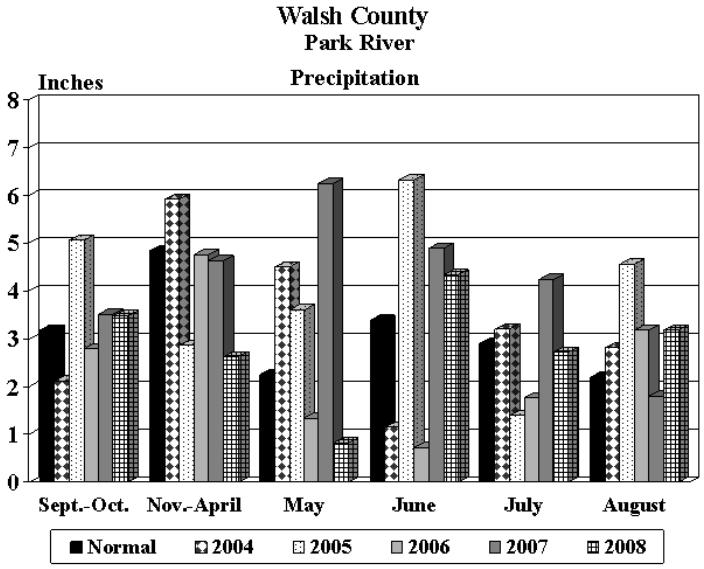






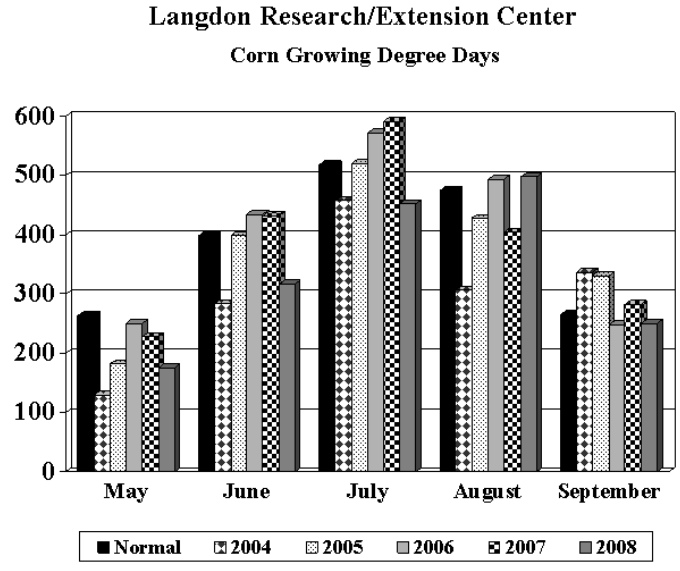


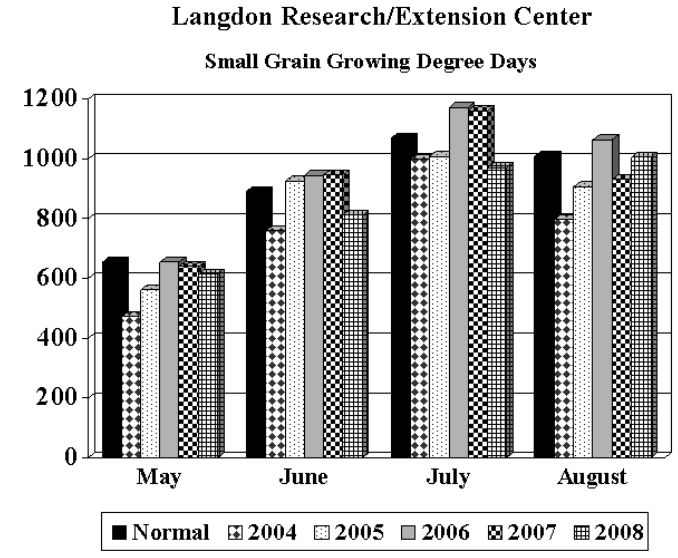




Growing Degree Days

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 above average with mostly good quality across the region. Foliar diseases were low and there was some fusarium head blight on more susceptible varieties not sprayed with fungicide. Variety trials are not sprayed with fungicides. New hrsw varieties in this report include: Albany, Hat Trick - Trigen, Blade, Breaker, Samson and Vantage - Westbred, Choteau - Montana sawfly resistant, Lolo - Idaho white wheat, Diamond - white wheat. New durum varieties: Wales - Westbred.

Hard Red Winter Wheat
The winter wheat trial in 2008 was planted into canola stubble in order to trap snow for increased winter survival. There was no fusarium head blight present in the 2006 trials and small levels in 2004, 2007 and 2008. Fusarium head blight levels in 2005 were very high along with DON. Leaf and stem rust infections were light to moderate and 2004-2007. Newer varieties tested include: Lyman - SDSU, Overland - NE/SDSU, Accipiter and Peregrine - Canada.

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 2004 - 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: Minstrel CDC - Canada.

Barley
Off-station barley variety trials were conducted in Walsh, Ramsey and Towner counties in 2008. Barley trials are rotated between Pembina and Walsh Counties. The trial at Ramsey County was destroyed by birds before harvest. Robust, Lacey, Drummond, Legacy, Tradition, Stellar-ND, AC Metcalfe, Conrad and Conlon have been approved by AMBA as recommended malting varieties. Contact you local elevator to determine which varieties are being contracted in your area.

Flax
New varieties tested include: CDC Sorrel - Canada

Description of Traits Reported
Yield: bushels per acre
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. 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 2008 cooperators were:

Larry Lindberg - Perth
Larry Weed - Devils Lake
John Steffan - Michigan
Brad Brummond - Walsh County Agent
Andy Johnson - Walsh County Agent
Dave Hankey - Park River Soybeans
Kent Schluchter - Cavalier
Lesley Lubenow - Pembina County Agent

Average Data by Crop and Year Across Sites

Durum	Yield (bu/a)						Test Weight (lbs/bu)						Height (in)						Days to Head					
No. Sites	3	3	2	3	3	8	3	3	2	3	3	8	3	3	2	2	3	7	3	3	2	3	2	7
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Alkabo	75	55	63	66	62	64	61.4	58.4	61.1	60.2	59.2	60.2	40	39	36	41	34	37	71	63	55	64	66	62
Divide	75	59	58	59	63	60	60.8	58.5	60.8	58.9	58.7	59.5	41	41	36	42	35	38	72	64	56	64	67	62
Grenora	76	62	60	57	67	61	60.3	57.7	60.1	58.3	58.0	58.8	39	38	34	39	34	36	71	62	54	64	65	61
Lebsock	72	59	55	59	65	60	61.4	59.1	61.4	59.8	60.0	60.4	39	38	34	40	35	36	71	62	53	63	65	60
Grande D'oro	--	52	64	59	65	63	--	58.4	61.3	59.7	60.0	60.3	--	40	36	41	34	37	--	63	55	65	65	62
DG Star	--	--	--	--	61	--	--	--	--	--	57.8	--	--	--	--	--	35	--	--	--	--	--	62	--
Wales	--	--	--	--	63	--	--	--	--	--	57.9	--	--	--	--	--	35	--	--	--	--	--	64	--
Mountrail	78	56	61	59	--	--	59.8	57.5	60.5	59.0	--	--	41	40	35	42	--	--	72	63	55	65	--	--
Primo Doro	--	49	54	53	--	--	--	58.2	61.4	58.7	--	--	--	44	40	44	--	--	--	62	53	63	--	--
Dilse	69	54	--	--	--	--	60.4	57.9	--	--	--	--	40	39	--	--	--	--	72	63	--	--	--	--
Pierce	68	56	--	--	--	--	61.1	59.0	--	--	--	--	41	40	--	--	--	--	72	63	--	--	--	--
Munich	71	--	--	--	--	--	60.6	--	--	--	--	--	38	--	--	--	--	--	72	--	--	--	--	--

Barley	Yield(bu/a)						Test Weight (lbs/bu)						Protein (%)						Plump (%)						Days to Head				
No. Sites	3	4	4	4	3	11	3	4	4	4	3	11	3	4	4	4	3	11	3	4	4	4	3	11	3	4	4	1	9
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	05	06	07	08	3yr
Lacey	104	74	91	86	120	99	48.8	47.0	47.9	48.8	48.8	48.5	11.9	11.4	12.8	12.4	13.4	12.9	87	87	74	84	88	82	61	53	59	65	59
Stellar-ND	109	78	95	78	116	96	46.9	46.3	47.3	47.8	47.5	47.5	11.7	11.2	12.2	12.2	13.1	12.5	87	89	76	89	92	86	60	53	58	65	59
Tradition	102	75	93	73	113	93	46.9	47.0	47.7	48.0	49.0	48.2	12.0	11.1	12.6	12.4	13.2	12.7	83	87	72	84	94	83	61	55	60	66	60
Pinnacle*	--	--	--	80	120	--	--	--	--	49.7	49.9	--	--	--	--	11.2	12.0	--	--	--	--	92	96	--	--	--	60	65	--
Rasmusson	--	--	--	--	123	--	--	--	--	--	48.6	--	--	--	--	--	13.0	--	--	--	--	--	88	--	--	--	--	64	--
Drummond	91	69	84	78	--	--	46.8	46.1	46.6	47.9	--	--	12.6	11.2	13.0	12.5	--	--	83	86	70	84	--	--	62	54	58	--	--
Legacy	87	74	89	74	--	--	45.7	45.4	45.1	47.2	--	--	12.0	11.1	12.3	12.2	--	--	80	84	67	84	--	--	61	55	61	--	--
Robust	87	67	--	--	--	--	47.9	46.8	--	--	--	--	12.8	11.7	--	--	--	--	83	84	--	--	--	--	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	6	6	6	6	6	18	6	6	6	6	6	18	6	6	6	6	6	18	6	6	6	5	17	5	6	5	4	15
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	05	06	07	08	3yr	05	06	07	08	3yr
Alsen	71	52	62	53	73	63	61.4	60.3	61.7	60.4	60.9	61.0	14.2	16.0	15.0	15.0	14.9	15.0	35	34	36	35	35	60	54	59	63	58
Briggs	76	53	64	65	77	69	61.1	59.3	61.5	60.4	60.5	60.8	14.3	15.9	14.8	15.1	14.7	14.9	34	35	36	35	35	59	52	57	61	57
Freyr	74	53	65	62	75	67	59.8	58.4	61.1	59.7	60.0	60.3	13.9	15.6	14.5	14.4	14.5	14.5	36	35	36	36	35	61	54	60	64	59
Glenn	73	57	63	66	74	67	63.6	62.0	63.6	62.9	62.7	63.1	14.5	15.8	15.2	15.2	15.3	15.2	37	36	39	38	38	59	51	57	61	56
Knudson	75	59	65	67	78	70	59.7	59.2	61.2	60.1	60.1	60.5	13.3	14.6	14.1	14.2	14.1	14.1	35	32	35	34	34	62	56	60	64	60
Howard	--	54	68	64	80	71	--	60.4	62.0	61.5	61.1	61.5	--	15.4	14.5	14.7	14.4	14.5	35	35	37	37	36	60	53	60	63	59
Ada	--	--	63	62	77	67	--	--	61.9	61.0	61.4	61.4	--	--	14.6	14.4	14.3	14.4	--	32	34	33	33	--	55	60	64	60
Faller	--	--	73	75	89	79	--	--	60.8	60.3	60.5	60.5	--	--	14.1	14.4	14.1	14.2	--	34	37	35	35	--	55	60	65	60
Kelby	--	--	61	63	73	66	--	--	61.5	60.0	60.5	60.7	--	--	15.1	14.9	14.9	15.0	--	29	32	30	31	--	52	58	63	58
Traverse	--	--	71	68	83	74	--	--	59.4	58.1	58.7	58.7	--	--	13.7	14.0	13.9	13.9	--	36	39	37	37	--	52	57	62	57
Steele-ND	72	51	--	62	76	--	61.3	59.9	--	61.2	61.0	--	14.3	15.8	--	15.1	14.7	--	35	--	37	37	--	59	--	59	64	--
Kuntz	--	--	--	65	80	--	--	--	--	59.9	60.0	--	--	--	--	14.1	13.8	--	--	--	33	32	--	--	--	60	65	--
RB07	--	--	--	66	79	--	--	--	--	59.6	60.3	--	--	--	--	14.6	14.6	--	--	--	35	32	--	--	--	57	61	--
Albany	--	--	--	--	82	--	--	--	--	--	59.9	--	--	--	--	--	13.4	--	--	--	--	33	--	--	--	--	68	--
Breaker	--	--	--	--	80	--	--	--	--	--	61.8	--	--	--	--	--	14.4	--	--	--	--	35	--	--	--	--	65	--
Hat Trick	--	--	--	--	80	--	--	--	--	--	61.2	--	--	--	--	--	14.5	--	--	--	--	34	--	--	--	--	63	--
Samson	--	--	--	--	82	--	--	--	--	--	59.5	--	--	--	--	--	14.1	--	--	--	--	32	--	--	--	--	65	--
Tom	--	--	--	--	80	--	--	--	--	--	60.7	--	--	--	--	--	14.4	--	--	--	--	35	--	--	--	--	63	--
Oklee	72	53	60	58	--	--	61.5	60.2	61.5	60.9	--	--	14.5	15.6	15.3	15.0	--	--	34	34	36	--	--	60	54	58	--	--
Trooper	75	56	66	68	--	--	61.0	59.8	62.0	60.6	--	--	13.2	14.7	14.1	13.5	--	--	33	30	32	--	--	59	52	58	--	--
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	--	--
Fireball	--	--	58	55	--	--	--	--	59.6	58.2	--	--	--	--	15.7	15.6	--	--	--	31	34	--	--	--	57	63	--	--
Rush	--	--	58	60	--	--	--	--	62.3	61.0	--	--	--	--	15.2	15.0	--	--	--	33	35	--	--	--	52	57	--	--
Hotshot	--	--	--	52	--	--	--	--	--	59.6	--	--	--	--	--	13.2	--	--	--	--	33	--	--	--	--	64	--	--
Hanna	75	54	66	--	--	--	60.9	59.9	61.3	--	--	--	14.4	15.6	14.8	--	--	--	38	40	--	--	--	61	54	--	--	--
Granger	74	51	69	--	--	--	60.6	59.2	61.7	--	--	--	14.3	15.6	14.7	--	--	--	37	38	--	--	--	60	53	--	--	--
Polaris	74	55	63	--	--	--	59.8	59.5	60.0	--	--	--	12.7	14.2	14.1	--	--	--	36	34	--	--	--	67	59	--	--	--
Dapps	--	--	59	--	--	--	--	--	60.1	--	--	--	--	--	15.8	--	--	--	--	38	--	--	--	--	54	--	--	--
Granite	74	49	--	--	--	--	62.6	60.8	--	--	--	--	14.7	16.5	--	--	--	--	34	--	--	--	--	62	--	--	--	--
Saturn	72	50	--	--	--	--	58.5	56.8	--	--	--	--	14.2	15.9	--	--	--	--	36	--	--	--	--	65	--	--	--	--
Banton	--	52	--	--	--	--	--	60.4	--	--	--	--	--	15.3	--	--	--	--	37	--	--	--	--	61	--	--	--	--
Ulen	--	51	--	--	--	--	--	58.6	--	--	--	--	--	15.4	--	--	--	--	35	--	--	--	--	60	--	--	--	--

HRSW Summary, Langdon 2004-2008

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Alsen	66	56	63	59	80	67	59.8	60.2	60.3	61.8	61.0	61.0	14.1	15.5	14.8	15.3	14.8	14.9
Briggs	75	56	63	65	87	71	59.6	59.3	60.1	60.4	61.0	60.5	14.1	15.5	15.1	14.8	14.5	14.8
Dapps	67	65	57	67	77	67	60.1	59.2	58.4	60.1	59.9	59.5	15.6	16.2	15.8	16.5	15.8	16.0
Faller	77	80	69	76	94	80	58.0	59.9	59.1	61.1	60.5	60.2	13.3	14.5	14.1	15.0	13.5	14.2
Freyr	68	50	63	72	79	72	58.4	57.6	60.4	60.9	60.4	60.6	13.8	15.2	14.5	13.9	14.2	14.2
Glenn	67	59	56	76	80	71	61.9	61.8	62.2	63.8	62.8	62.9	14.6	15.2	15.5	15.0	15.3	15.3
Granger	67	49	67	69	78	71	58.5	59.6	60.6	61.2	60.6	60.8	13.9	15.0	14.7	14.9	13.8	14.5
Granite	66	58	60	63	78	67	60.1	60.8	61.4	62.8	62.9	62.4	14.7	15.7	15.5	16.3	15.0	15.6
Hanna	78	58	61	63	78	67	60.1	59.6	60.2	60.5	60.8	60.5	14.2	15.3	14.6	15.5	14.4	14.8
Howard	74	61	63	63	85	70	59.3	60.8	60.0	62.2	61.5	61.2	14.2	14.9	14.5	15.2	14.4	14.7
Knudson	66	65	65	72	85	74	57.2	59.0	59.8	60.9	59.8	60.2	13.0	14.2	13.8	14.2	13.7	13.9
Norpro	73	56	67	71	81	73	56.5	57.6	60.2	60.3	59.6	60.0	13.8	15.2	14.3	14.6	13.6	14.2
Oklee	65	53	62	65	77	68	59.9	60.5	60.8	61.3	61.1	61.1	14.6	14.9	14.8	15.2	14.1	14.7
Parshall	64	56	60	67	80	69	60.0	60.3	60.4	62.4	61.5	61.4	14.2	15.3	14.7	14.9	14.5	14.7
Reeder	67	51	61	62	85	69	58.3	57.7	59.6	60.7	60.2	60.2	14.3	14.7	14.0	14.5	15.4	14.7
Russ	62	53	62	60	73	65	57.3	58.1	58.8	58.9	61.6	59.8	14.1	14.1	14.7	14.6	15.2	14.8
Steele-ND	70	56	67	63	79	70	59.3	60.6	60.5	61.9	61.6	61.3	14.2	15.3	14.9	15.5	14.4	14.9
Trooper	73	55	61	74	85	73	59.4	59.5	61.2	61.3	62.2	61.6	13.3	14.3	13.8	13.5	13.0	13.4
Ada	--	59	59	71	83	71	--	60.2	61.0	62.4	61.8	61.7	--	14.9	13.9	14.2	13.1	13.7
Bigg Red	--	52	62	59	72	64	--	61.6	62.0	62.5	62.9	62.5	--	13.3	13.6	13.6	13.6	13.6
RB07	--	63	67	73	83	75	--	59.1	60.1	60.4	60.0	60.2	--	14.8	14.9	14.7	14.5	14.7
Kelby	--	--	61	70	74	69	--	--	60.6	60.7	60.4	60.6	--	--	15.1	15.2	14.3	14.9
Traverse	--	--	66	76	89	77	--	--	57.5	58.8	59.0	58.4	--	--	14.1	13.9	13.2	13.7
AP 604CL	--	--	--	59	80	--	--	--	--	60.6	61.0	--	--	--	--	14.4	14.2	--
Cromwell	--	--	--	73	84	--	--	--	--	62.1	61.8	--	--	--	--	14.7	14.1	--
Kuntz	--	--	--	71	86	--	--	--	--	60.5	59.9	--	--	--	--	14.1	13.6	--
ND 901CL	--	--	--	68	82	--	--	--	--	60.7	60.1	--	--	--	--	15.6	15.7	--
Tom	--	--	--	71	86	--	--	--	--	60.9	60.7	--	--	--	--	14.3	13.7	--
Albany	--	--	--	--	88	--	--	--	--	--	60.1	--	--	--	--	--	12.6	--
Banton	64	60	64	--	76	--	60.6	59.8	62.3	--	60.4	--	14.2	14.9	14.7	--	14.2	--
Blade	--	--	--	--	83	--	--	--	--	--	61.7	--	--	--	--	--	14.3	--
Breaker	--	--	--	--	83	--	--	--	--	--	61.4	--	--	--	--	--	13.9	--
Choteau	--	--	--	--	76	--	--	--	--	--	59.5	--	--	--	--	--	13.4	--
Diamond	--	--	--	--	44	--	--	--	--	--	58.4	--	--	--	--	--	14.2	--
Hat Trick	--	--	--	--	89	--	--	--	--	--	61.5	--	--	--	--	--	14.8	--
Lolo	--	--	--	--	84	--	--	--	--	--	60.3	--	--	--	--	--	12.9	--
Samson	--	--	--	--	86	--	--	--	--	--	59.4	--	--	--	--	--	13.7	--
Vantage	--	--	--	--	81	--	--	--	--	--	62.8	--	--	--	--	--	15.5	--
AC Superb	63	46	54	51	--	--	58.0	57.5	58.0	57.6	--	--	14.0	14.5	14.0	14.8	--	--
Bakker Gold	76	63	60	67	--	--	58.1	59.4	59.2	61.6	--	--	13.0	13.9	13.8	13.5	--	--
Fireball	60	55	58	64	--	--	56.6	57.4	57.6	59.5	--	--	14.5	15.9	15.3	15.8	--	--
Gunner	60	48	52	50	--	--	60.5	60.5	60.4	61.3	--	--	14.3	16.0	14.8	15.9	--	--
Ingot	62	45	52	46	--	--	61.8	60.9	61.1	61.3	--	--	13.5	15.0	13.6	13.8	--	--
Oxen	60	52	59	45	--	--	56.0	57.0	58.6	56.1	--	--	13.5	14.3	13.8	13.8	--	--
Polaris	70	67	64	71	--	--	56.9	59.7	59.3	61.9	--	--	13.0	13.8	13.7	13.1	--	--
Ulen	56	48	63	63	--	--	58.4	58.5	60.7	60.4	--	--	14.2	14.7	14.8	15.1	--	--
Hotshot	61	54	63	62	--	--	56.5	58.6	59.6	60.4	--	--	13.1	14.0	13.4	14.0	--	--
Mercury	63	--	72	76	--	--	58.2	--	59.5	60.5	--	--	13.2	--	14.3	13.6	--	--
Rush	--	--	55	68	--	--	--	--	60.9	61.9	--	--	--	--	15.3	15.0	--	--
LSD 5%	8.6	4.9	8.1	7.7	5.8		1.3	0.6	1.4	1.0	0.8		0.4	0.6	0.7	1.0	0.7	

HRSW Summary, Langdon 2004-2008

	Days to Head						Height(in)						Lodging(0-9)					Shatter*		
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	06	07	08	3yr	2004	2005	2008
Alsen	72	54	52	61	67	60	39	34	37	39	39	38	0.0	0.8	0.3	2.0	1.0	140	16	40
Briggs	72	53	51	60	64	58	42	35	37	37	39	38	0.0	1.0	3.5	2.5	2.3	80	15	0
Dapps	71	54	53	62	67	60	45	40	41	42	44	42	0.3	0.7	3.8	1.9	2.1	90	45	14
Faller	74	55	54	63	69	62	40	36	36	38	38	38	3.0	1.2	3.8	1.9	2.3	70	18	0
Freyr	73	54	52	62	67	60	40	35	37	37	38	37	0.3	3.2	0.0	0.6	1.3	130	8	58
Glenn	70	54	49	60	64	58	43	37	38	41	41	40	0.0	1.2	0.3	1.2	0.9	160	0	2
Granger	71	54	53	61	66	60	44	39	41	41	42	41	1.3	1.5	1.8	2.1	1.8	120	136	96
Granite	76	57	55	69	71	65	38	34	34	37	35	35	0.0	0.0	0.0	0.2	0.1	100	10	26
Hanna	73	54	52	62	66	60	45	38	41	41	44	42	0.3	1.3	3.0	1.7	2.0	70	0	0
Howard	73	54	52	62	67	60	41	36	36	39	40	38	1.3	0.0	3.0	3.4	2.1	100	24	0
Knudson	74	56	54	65	68	62	39	35	34	39	36	36	1.8	1.2	0.3	0.6	0.7	90	9	14
Norpro	75	55	52	63	67	61	37	32	33	35	35	34	0.0	1.5	2.0	0.8	1.4	140	16	0
Oklee	71	54	53	60	66	60	40	35	37	37	39	38	4.0	1.5	3.0	0.8	1.8	150	70	14
Parshall	72	54	52	62	67	60	47	39	42	44	44	43	0.3	1.0	0.3	0.6	0.6	80	28	2
Reeder	72	55	53	62	66	60	41	34	36	40	40	39	0.0	1.3	1.3	1.2	1.3	80	14	2
Russ	72	53	51	63	65	60	43	37	39	39	37	38	3.8	1.5	2.3	0.7	1.5	120	17	52
Steele-ND	73	53	53	62	67	61	41	35	38	38	41	39	2.8	2.2	2.3	1.7	2.1	80	5	8
Trooper	71	53	50	61	66	59	34	32	31	35	33	33	0.0	0.8	0.5	0.2	0.5	60	0	0
Ada	--	55	53	63	67	61	--	34	34	36	35	35	--	0.8	0.3	0.3	0.5	--	14	0
Bigg Red	--	55	55	63	68	62	--	38	41	41	41	41	--	1.4	0.8	0.7	1.0	--	135	202
RB07	--	53	51	59	64	58	--	34	35	36	35	35	--	0.5	1.8	0.3	0.9	--	2	2
Kelby	--	--	51	61	67	60	--	--	31	36	34	34	--	1.0	1.5	0.1	0.9	--	--	6
Traverse	--	--	50	61	65	--	--	--	40	40	40	40	--	1.5	0.5	1.5	1.2	--	--	102
AP 604CL	--	--	--	59	64	--	--	--	--	35	38	--	--	--	3.5	1.8	--	--	--	2
Cromwell	--	--	--	65	70	--	--	--	--	38	37	--	--	--	0.3	1.6	--	--	--	2
Kuntz	--	--	--	63	69	--	--	--	--	36	34	--	--	--	1.0	0.1	--	--	--	10
ND 901CL	--	--	--	62	67	--	--	--	--	41	40	--	--	--	0.0	0.2	--	--	--	8
Tom	--	--	--	62	66	--	--	--	--	38	38	--	--	--	2.5	2.7	--	--	--	0
Albany	--	--	--	--	70	--	--	--	--	--	36	--	--	--	--	0.8	--	--	--	76
Banton	71	55	51	--	65	--	40	37	37	--	38	--	0.0	0.5	--	0.2	--	130	3	0
Blade	--	--	--	--	69	--	--	--	--	--	37	--	--	--	--	0.5	--	--	--	0
Breaker	--	--	--	--	70	--	--	--	--	--	38	--	--	--	--	0.1	--	--	--	6
Choteau	--	--	--	--	67	--	--	--	--	--	36	--	--	--	--	0.0	--	--	--	2
Diamond	--	--	--	--	69	--	--	--	--	--	43	--	--	--	--	1.9	--	--	--	480
Hat Trick	--	--	--	--	66	--	--	--	--	--	38	--	--	--	--	0.1	--	--	--	20
Lolo	--	--	--	--	70	--	--	--	--	--	39	--	--	--	--	2.3	--	--	--	4
Samson	--	--	--	--	69	--	--	--	--	--	34	--	--	--	--	0.2	--	--	--	0
Vantage	--	--	--	--	73	--	--	--	--	--	37	--	--	--	--	0.0	--	--	--	10
AC Superb	72	54	53	63	--	--	33	35	38	41	--	--	1.0	0.7	0.8	--	--	100	1	--
Bakker Gold	77	60	59	70	--	--	41	36	36	41	--	--	0.0	0.0	0.0	--	--	120	0	--
Fireball	76	58	56	68	--	--	38	33	33	38	--	--	0.0	0.5	0.0	--	--	110	39	--
Gunner	74	56	55	67	--	--	41	37	38	41	--	--	1.5	1.7	1.5	--	--	130	8	--
Ingot	70	52	50	58	--	--	45	38	39	40	--	--	0.3	0.7	0.5	--	--	180	70	--
Oxen	72	54	51	61	--	--	40	34	35	38	--	--	0.3	1.5	1.3	--	--	100	46	--
Polaris	79	60	58	70	--	--	40	36	37	40	--	--	0.0	0.7	0.0	--	--	80	0	--
Ulen	71	54	51	62	--	--	39	35	36	36	--	--	1.8	2.7	0.8	--	--	190	98	--
Hotshot	76	57	56	68	--	--	35	30	33	36	--	--	0.0	0.5	0.0	--	--	90	8	--
Mercury	73	--	53	62	--	--	35	--	32	34	--	--	0.0	1.2	1.3	--	--	160	--	--
Rush	--	--	51	59	--	--	--	--	35	37	--	--	--	0.3	0.3	--	--	--	--	--
LSD 5%	1.0	1.1	1.0	1.0	1.2		3.0	1.8	2.1	2.0	2.0		1.9	1.4	2.0	2.1		45	43	55

*__2004-05-08__-Seeds/ft^2

Nelson County HRSW Summary 2004-2008

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging(0-9)					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Alsen	78	49	62	52	72	62	61.6	60.6	63.3	60.5	61.0	61.6	14.3	15.9	14.5	15.6	13.9	14.7	2.5	0.5	0	0	0	0
Briggs	82	51	62	62	80	68	61.1	60.0	62.5	60.4	60.5	61.1	14.6	16.0	15.0	15.9	13.8	14.9	5.3	0.5	0	0	0	0
Freyr	79	48	56	55	74	62	60.1	58.1	62.1	60.2	58.8	60.4	14.3	15.9	14.4	15.2	13.9	14.5	6.0	2.8	0	0	0	0
Glenn	80	52	66	65	72	68	63.4	62.1	64.5	62.8	62.4	63.2	14.9	16.0	15.1	15.8	14.4	15.1	3.5	0.8	0	0	0	0
Knudson	82	57	64	65	82	70	60.3	60.0	62.9	60.8	59.6	61.1	13.2	14.8	14.2	14.7	13.2	14.0	6.0	0.1	0	0	0	0
Howard	--	56	67	66	74	69	--	61.1	62.7	61.9	60.4	61.7	--	15.4	14.4	15.3	13.7	14.5	--	4.3	0	0	0	0
Ada	--	--	67	57	77	67	--	--	63.3	60.6	61.2	61.7	--	--	14.7	15.1	13.8	14.5	--	--	0	0	0	0
Faller	--	--	68	73	91	77	--	--	61.3	60.7	60.7	60.9	--	--	14.4	14.8	13.2	14.1	--	--	0	0	0	0
Kelby	--	--	62	62	74	66	--	--	63.0	60.5	61.1	61.5	--	--	15.0	15.4	14.2	14.9	--	--	0	0	0	0
Traverse	--	--	64	57	85	69	--	--	60.5	58.1	58.8	59.1	--	--	13.6	15.0	13.0	13.9	--	--	0	0	0	0
Steele-ND	77	51	--	59	75	--	61.4	60.6	--	61.6	60.6	--	14.6	15.8	--	15.8	14.1	--	4.5	1.9	--	0	0	--
Kuntz	--	--	--	56	84	--	--	--	--	60.5	60.3	--	--	--	--	14.7	13.4	--	--	--	--	0	0	--
RB07	--	--	--	65	82	--	--	--	--	60.6	60.2	--	--	--	--	15.3	13.4	--	--	--	--	0	0	--
Albany	--	--	--	--	85	--	--	--	--	--	60.0	--	--	--	--	--	12.8	--	--	--	--	--	0	--
Breaker	--	--	--	--	81	--	--	--	--	--	61.4	--	--	--	--	--	13.7	--	--	--	--	--	0	--
Hat Trick	--	--	--	--	86	--	--	--	--	--	61.6	--	--	--	--	--	13.3	--	--	--	--	--	0	--
Samson	--	--	--	--	82	--	--	--	--	--	59.2	--	--	--	--	--	13.7	--	--	--	--	--	0	--
Tom	--	--	--	--	81	--	--	--	--	--	61.1	--	--	--	--	--	14.0	--	--	--	--	--	0	--
Bakker Gold	78	72	68	46	--	--	60.4	57.1	61.7	58.3	--	--	13.0	14.3	13.8	14.6	--	--	0.0	0.3	0	0	--	--
Fireball	74	46	63	53	--	--	60.0	57.4	61.7	58.4	--	--	14.8	16.5	15.7	16.1	--	--	0.5	1.0	0	0	--	--
Oklee	77	48	57	53	--	--	61.8	60.2	62.1	61.2	--	--	14.8	15.9	15.5	15.9	--	--	2.3	0.8	0	0	--	--
Hotshot	82	48	64	52	--	--	60.5	59.2	61.7	59.4	--	--	12.3	13.8	13.7	14.1	--	--	0.0	0.5	0	0	--	--
Trooper	82	53	64	63	--	--	61.1	59.7	62.5	60.5	--	--	13.0	14.7	14.3	14.2	--	--	0.0	0.8	0	0	--	--
Bigg Red	--	--	66	48	--	--	--	--	63.9	61.8	--	--	--	--	14.4	13.7	--	--	--	--	0	0	--	--
Rush	--	--	57	59	--	--	--	--	63.5	61.0	--	--	--	--	15.3	15.6	--	--	--	--	0	0	--	--
Hanna	79	52	68	--	--	--	60.9	60.5	62.4	--	--	--	14.8	15.6	15.0	--	--	--	5.0	1.0	0	--	--	--
Polaris	80	47	62	--	--	--	60.4	58.0	61.7	--	--	--	12.7	14.3	14.0	--	--	--	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	80	45	--	--	--	--	63.0	61.0	--	--	--	--	14.8	17.0	--	--	--	--	0.0	0.0	--	--	--	--
Saturn	76	43	--	--	--	--	58.3	55.1	--	--	--	--	14.5	16.3	--	--	--	--	0.0	0.0	--	--	--	--
Banton	--	47	--	--	--	--	--	60.4	--	--	--	--	--	15.3	--	--	--	--	--	0.0	--	--	--	--
Ulen	--	48	--	--	--	--	--	59.0	--	--	--	--	--	15.4	--	--	--	--	--	2.3	--	--	--	--
LSD 5%	4.2	4.0	5.9	5.2	5.5		0.5	0.7	0.7	0.5	0.7		0.4	0.4	0.5	0.3	0.5		1.5	1.6	1.6	--	--	

Pembina County HRSW Summary 2004-2008

Variety	Yield (bu/a)						Test Weight (lbs/bu)						Protein (%)						Lodging (0-9)					
	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Alsen	75	59	71	59	77	69	61.5	60.7	62.4	61.6	61.3	61.8	13.5	15.5	13.9	14.0	14.9	14.3	0.5	0	0	0	0	0.0
Briggs	82	57	71	68	79	73	61.9	59.6	62.8	61.2	61.0	61.7	13.3	15.3	12.6	14.4	15.5	14.2	3.0	0	0.3	0	0	0.1
Freyr	78	60	75	62	81	73	59.6	59.0	61.6	60.7	59.9	60.7	13.3	15.4	12.9	13.9	14.9	13.9	3.0	0	0.3	0	0	0.1
Glenn	74	60	66	66	80	71	63.9	62.2	65.2	63.9	63.1	64.1	13.5	15.4	13.3	14.2	16.1	14.5	0.5	0	0	0	0	0.0
Knudson	78	63	72	71	81	75	59.5	59.9	61.7	60.8	59.9	60.8	12.6	14.5	12.8	13.6	14.1	13.5	2.3	0	0	0	0	0.0
Howard	--	60	76	64	85	75	--	61.4	62.5	61.7	61.7	62.0	--	15.1	13.0	13.6	14.6	13.7	--	0	0.3	0	0	0.1
Ada	--	--	75	65	82	74	--	--	63.5	62.2	61.9	62.5	--	--	13.1	13.5	14.7	13.8	--	--	0.3	0	0	0.1
Faller	--	--	90	78	98	89	--	--	62.1	60.7	62.1	61.6	--	--	12.2	13.2	14.4	13.3	--	--	0	0	0	0.0
Kelby	--	--	73	59	77	70	--	--	63.1	59.8	61.0	61.3	--	--	13.1	14.1	15.2	14.1	--	--	0	0	0	0.0
Traverse	--	--	86	70	87	81	--	--	61.3	58.7	59.1	59.7	--	--	11.5	12.9	14.5	13.0	--	--	0	0	0	0.0
Steele-ND	75	58	--	66	82	--	61.6	60.9	--	61.8	61.2	--	13.5	15.4	--	14.0	15.0	--	1.8	0	--	0	0	--
Kuntz	--	--	--	69	84	--	--	--	--	60.4	60.5	--	--	--	--	13.4	14.0	--	--	--	--	0	0	--
RB07	--	--	--	69	82	--	--	--	--	60.4	61.0	--	--	--	--	13.6	15.3	--	--	--	--	0	0	--
Albany	--	--	--	--	85	--	--	--	--	--	60.5	--	--	--	--	--	13.7	--	--	--	--	--	0	--
Breaker	--	--	--	--	88	--	--	--	--	--	61.9	--	--	--	--	--	14.8	--	--	--	--	--	0	--
Hat Trick	--	--	--	--	87	--	--	--	--	--	61.9	--	--	--	--	--	14.7	--	--	--	--	--	0	--
Samson	--	--	--	--	86	--	--	--	--	--	59.0	--	--	--	--	--	14.5	--	--	--	--	--	0	--
Tom	--	--	--	--	83	--	--	--	--	--	60.8	--	--	--	--	--	14.7	--	--	--	--	--	0	--
Trooper	81	63	70	74	--	--	61.1	61.2	62.8	62.0	--	--	12.7	14.6	12.2	13.0	--	--	0	0	0	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	--	--
Fireball	--	--	60	61	--	--	--	--	61.2	59.3	--	--	--	--	13.8	14.7	--	--	--	--	0	0	--	--
Rush	--	--	68	62	--	--	--	--	63.9	61.5	--	--	--	--	13.5	14.3	--	--	--	--	0	0	--	--
Hotshot	--	--	--	63	--	--	--	--	--	62.3	--	--	--	--	--	11.9	--	--	--	--	--	0	--	--
Hanna	77	57	75	--	--	--	60.8	60.6	61.0	--	--	--	13.3	15.0	13.6	--	--	--	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	74	51	--	--	--	--	62.4	61.3	--	--	--	--	14.2	16.4	--	--	--	--	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	79	--	--	--	--	--	59.8	--	--	--	--	--	12.6	--	--	--	--	--	0.3	--	--	--	--	--
Parshall	72	--	--	--	--	--	61.9	--	--	--	--	--	12.8	--	--	--	--	--	0	--	--	--	--	--
LSD 5%	4.6	3.2	7.6	4.7	3.6		0.5	0.6	0.8	0.4	0.7		0.4	0.4	1.1	0.4	0.3		0.9	--	0.5	--	--	

Ramsey County HRSW Summary 2004-2008

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging(0-9)					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Alsen	77	51	55	57	73	62	63.9	60.8	61.4	61.0	60.0	60.8	14.8	16.1	15.0	14.7	14.8	14.8	0	0	0	0	0	0
Briggs	82	56	62	74	77	71	62.9	59.8	61.0	60.9	59.7	60.5	15.1	15.8	15.1	14.6	14.6	14.8	0	1.3	0	0	0	0
Freyr	76	54	60	77	75	71	62.5	59.7	61.7	60.3	59.7	60.6	14.0	15.5	14.6	14.2	14.6	14.5	0	0	0	0	0	0
Glenn	75	55	60	69	71	67	64.8	62.4	62.8	63.4	61.9	62.7	15.3	16.0	15.4	15.0	15.7	15.4	0	0	0	0	0	0
Knudson	78	58	59	76	78	71	62.4	59.7	61.2	60.5	59.4	60.4	14.4	15.0	14.1	13.9	14.3	14.1	0	0	0	0	0	0
Howard	--	49	67	72	83	74	--	59.2	62.2	62.4	60.3	61.6	--	15.5	14.6	14.5	14.4	14.5	--	1.0	0	0	0	0
Ada	--	--	56	69	79	68	--	--	61.5	61.2	60.5	61.1	--	--	15.0	14.2	14.6	14.6	--	--	0	0	0	0
Faller	--	--	64	81	90	78	--	--	60.4	61.0	59.4	60.3	--	--	14.3	14.1	14.3	14.2	--	--	0	0	0	0
Kelby	--	--	48	71	74	64	--	--	61.0	60.8	59.6	60.5	--	--	16.1	14.7	15.3	15.4	--	--	0	0	0	0
Traverse	--	--	62	76	76	72	--	--	59.4	59.2	57.0	58.5	--	--	13.6	13.7	14.2	13.8	--	--	0	0	0	0
Kuntz	--	--	--	77	79	--	--	--	--	61.0	59.0	--	--	--	--	14.0	13.7	--	--	--	--	0	0	--
RB07	--	--	--	72	79	--	--	--	--	60.6	59.6	--	--	--	--	14.4	14.8	--	--	--	--	0	0	--
Steele-ND	76	49	--	73	77	--	63.8	59.3	--	61.9	60.0	--	15.3	15.7	--	14.7	15.1	--	0	1.0	--	0	0	--
Albany	--	--	--	--	83	--	--	--	--	--	58.9	--	--	--	--	--	12.8	--	--	--	--	--	0	--
Breaker	--	--	--	--	80	--	--	--	--	--	61.6	--	--	--	--	--	14.5	--	--	--	--	--	0	--
Cromwell	--	--	--	--	76	--	--	--	--	--	61.0	--	--	--	--	--	14.4	--	--	--	--	--	0	--
Hat Trick	--	--	--	--	72	--	--	--	--	--	60.0	--	--	--	--	--	14.2	--	--	--	--	--	0	--
Samson	--	--	--	--	79	--	--	--	--	--	58.6	--	--	--	--	--	13.9	--	--	--	--	--	0	--
Tom	--	--	--	--	81	--	--	--	--	--	60.3	--	--	--	--	--	14.8	--	--	--	--	--	0	--
Oklee	73	51	55	65	--	--	63.0	60.3	60.7	61.5	--	--	15.1	16.1	15.1	14.5	--	--	0	1.8	0	0	--	--
Trooper	76	55	63	79	--	--	64.3	60.0	62.5	61.6	--	--	13.6	14.9	14.8	13.3	--	--	0	0	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	--	--
Fireball	--	--	54	53	--	--	--	--	59.7	58.5	--	--	--	--	15.0	15.6	--	--	--	--	0	0	--	--
Rush	--	--	50	64	--	--	--	--	61.4	61.6	--	--	--	--	15.8	14.7	--	--	--	--	0	0	--	--
Hotshot	--	--	--	50	--	--	--	--	--	59.7	--	--	--	--	--	13.3	--	--	--	--	--	0	--	--
Hanna	81	55	65	--	--	--	62.9	60.7	61.4	--	--	--	14.8	15.4	14.7	--	--	--	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	75	52	--	--	--	--	64.3	62.0	--	--	--	--	14.8	16.7	--	--	--	--	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	85	--	--	--	--	--	62.3	--	--	--	--	--	13.7	--	--	--	--	--	0	--	--	--	--	--
Parshall	66	--	--	--	--	--	63.4	--	--	--	--	--	14.1	--	--	--	--	--	0	--	--	--	--	--
LSD 5%	4.6	3.9	8.1	6.6	5.7		0.4	0.7	0.5	0.5	0.5		0.2	0.2	0.4	0.3	0.6		--	1.0	--	--	--	

Towner County HRSW Summary 2004-2008

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging (0-9)					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Alsen	54	48	47	45	52	48	60.8	60.1	60.3	60.1	60.8	60.4	13.3	16.0	15.3	14.7	15.8	15.3	0.3	0	0	0	0	0
Briggs	62	51	57	62	50	56	60.2	59.5	60.8	60.8	60.4	60.7	13.3	15.6	15.1	15.0	15.2	15.1	3.0	3.0	0	0	0	0
Freyr	61	48	54	55	53	54	58.8	57.8	59.2	59.9	61.0	60.0	13.3	15.7	14.9	14.1	14.6	14.5	2.3	0	0	0	0	0
Glenn	62	51	56	60	58	58	63.3	61.8	63.2	62.4	63.3	63.0	13.4	15.7	15.5	14.9	15.2	15.2	0.8	0	0	0	0	0
Knudson	74	54	49	60	54	54	59.8	58.8	59.6	59.9	61.4	60.3	12.6	14.2	15.2	14.3	15.0	14.8	0.3	0	0	0	0	0
Howard	--	49	60	60	60	60	--	60.3	61.4	61.1	61.6	61.4	--	15.3	14.7	14.6	14.8	14.7	--	0.3	0	0	0	0
Ada	--	--	38	54	54	48	--	--	59.0	61.0	61.6	60.5	--	--	16.3	14.4	15.3	15.3	--	--	0	0	0	0
Faller	--	--	60	68	57	62	--	--	60.0	59.8	59.7	59.8	--	--	14.6	14.3	14.7	14.5	--	--	0	0	0	0
Kelby	--	--	49	56	53	53	--	--	59.9	60.3	60.3	60.2	--	--	15.7	14.9	15.4	15.3	--	--	0	0	0	0
Traverse	--	--	55	64	59	59	--	--	57.1	59.0	59.0	58.4	--	--	14.3	13.8	13.9	14.0	--	--	0	0	0	0
Kuntz	--	--	--	56	55	--	--	--	--	59.5	60.4	--	--	--	--	13.7	13.9	--	--	--	--	0	0	--
RB07	--	--	--	62	55	--	--	--	--	59.8	61.2	--	--	--	--	14.3	14.9	--	--	--	--	0	0	--
Steele-ND	59	45	--	58	56	--	60.1	59.0	--	60.7	61.2	--	13.4	15.6	--	15.0	14.9	--	2.0	0.8	--	0	0	--
Albany	--	--	--	--	51	--	--	--	--	--	59.4	--	--	--	--	--	14.7	--	--	--	--	--	0	--
Breaker	--	--	--	--	59	--	--	--	--	--	62.0	--	--	--	--	--	15.0	--	--	--	--	--	0	--
Cromwell	--	--	--	--	51	--	--	--	--	--	61.7	--	--	--	--	--	15.5	--	--	--	--	--	0	--
Hat Trick	--	--	--	--	46	--	--	--	--	--	60.4	--	--	--	--	--	15.9	--	--	--	--	--	0	--
Samson	--	--	--	--	60	--	--	--	--	--	60.6	--	--	--	--	--	14.5	--	--	--	--	--	0	--
Tom	--	--	--	--	54	--	--	--	--	--	60.9	--	--	--	--	--	14.6	--	--	--	--	--	0	--
Oklee	51	49	46	52	--	--	60.4	60.1	59.9	60.9	--	--	13.6	15.4	16.4	14.8	--	--	1.8	2.5	0	0	--	--
Trooper	56	51	50	55	--	--	59.6	59.7	59.8	59.2	--	--	12.5	14.5	14.7	13.2	--	--	1.5	0	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	--	--
Fireball	--	--	39	46	--	--	--	--	57.2	57.8	--	--	--	--	17.8	15.5	--	--	--	--	0	0	--	--
Rush	--	--	46	50	--	--	--	--	60.7	60.5	--	--	--	--	16.2	14.9	--	--	--	--	0	0	--	--
Hotshot	--	--	--	45	--	--	--	--	--	59.0	--	--	--	--	--	13.3	--	--	--	--	--	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	NS		0.6	0.5	2.0	0.6	0.9		0.6	0.2	1.1	0.3	0.8		--	1.4	1.1	--	--	

Walsh County HRSW Summary 2004-2008

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging (0-9)					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Alsen	73	51	71	47	83	67	61.0	59.2	62.6	57.6	61.0	60.4	15.1	16.7	16.3	15.5	15.1	15.6	6.0	1.3	0	6.8	0.0	2.3
Briggs	75	48	72	59	87	73	60.9	57.4	61.7	58.6	60.5	60.3	15.3	17.3	15.9	16.0	14.8	15.6	7.3	6.8	0	4.0	4.0	2.7
Freyr	84	56	79	52	89	73	59.5	57.9	61.6	55.9	60.3	59.3	14.9	16.0	15.6	15.0	14.7	15.1	6.5	0	0	4.8	0.0	1.6
Glenn	80	62	72	57	82	70	64.0	61.4	63.9	60.9	62.9	62.6	15.1	16.5	16.6	16.0	15.0	15.9	5.0	3.0	0	2.0	1.5	1.2
Knudson	72	59	79	59	88	76	58.9	57.8	61.8	57.8	60.2	59.9	13.8	14.7	14.6	14.3	14.0	14.3	6.8	0.3	0	3.8	0.5	1.4
Howard	--	51	76	60	91	76	--	59.4	62.9	59.4	61.1	61.1	--	16.3	15.6	15.2	14.6	15.1	--	4.3	0	3.3	2.0	1.8
Ada	--	--	86	55	88	76	--	--	62.9	58.7	61.6	61.1	--	--	14.7	14.7	14.2	14.5	--	--	0	6.5	0.8	2.4
Faller	--	--	90	74	103	89	--	--	61.7	58.5	60.5	60.2	--	--	15.0	14.7	14.7	14.8	--	--	0	3.0	1.5	1.5
Kelby	--	--	72	58	86	72	--	--	61.5	57.8	60.7	60.0	--	--	15.8	15.2	14.8	15.3	--	--	0	3.5	0.0	1.2
Traverse	--	--	90	64	99	84	--	--	60.3	55.0	59.0	58.1	--	--	15.2	14.8	14.7	14.9	--	--	0	4.3	4.5	2.9
Steele-ND	74	45	--	56	87	--	61.6	58.7	--	59.3	61.3	--	14.9	16.8	--	15.8	14.7	--	7.0	4.8	--	3.3	0.5	--
Kuntz	--	--	--	58	90	--	--	--	--	57.2	59.9	--	--	--	--	14.4	14.4	--	--	--	--	4.0	0.0	--
RB07	--	--	--	54	95	--	--	--	--	55.9	59.8	--	--	--	--	15.1	14.4	--	--	--	--	5.8	0.0	--
Albany	--	--	--	--	99	--	--	--	--	--	60.6	--	--	--	--	--	13.5	--	--	--	--	--	0.8	--
Breaker	--	--	--	--	87	--	--	--	--	--	62.3	--	--	--	--	--	14.5	--	--	--	--	--	0.0	--
Hat Trick	--	--	--	--	98	--	--	--	--	--	61.9	--	--	--	--	--	14.0	--	--	--	--	--	0.0	--
Samson	--	--	--	--	98	--	--	--	--	--	60.0	--	--	--	--	--	14.1	--	--	--	--	--	0.0	--
Tom	--	--	--	--	93	--	--	--	--	--	60.1	--	--	--	--	--	14.8	--	--	--	--	--	3.8	--
Bakker Gold	86	53	89	54	--	--	61.3	59.0	62.1	57.1	--	--	13.6	14.3	14.7	13.2	--	--	0	0	0	0.3	--	--
Fireball	74	50	72	51	--	--	60.0	57.5	60.3	55.5	--	--	15.1	16.5	16.4	15.7	--	--	0	0	0	0.5	--	--
Oklee	73	53	73	52	--	--	61.5	59.2	62.4	59.3	--	--	15.3	16.1	16.3	15.4	--	--	6.8	5.5	0	3.3	--	--
Hotshot	78	36	86	42	--	--	60.3	56.8	63.1	56.8	--	--	13.1	15.0	13.4	12.7	--	--	0	0	0	3.3	--	--
Trooper	83	60	85	59	--	--	60.5	58.5	63.0	59.2	--	--	14.2	15.2	14.8	13.9	--	--	2.8	0	0	5.0	--	--
Bigg Red	--	--	79	39	--	--	--	--	63.8	58.5	--	--	--	--	14.7	14.1	--	--	--	--	0	6.5	--	--
Rush	--	--	70	58	--	--	--	--	63.1	59.3	--	--	--	--	15.2	15.3	--	--	--	--	0	0.0	--	--
Hanna	78	49	72	--	--	--	60.8	58.4	62.1	--	--	--	15.5	16.9	16.0	--	--	--	4.5	4.5	0	--	--	--
Polaris	86	52	84	--	--	--	60.8	59.3	62.3	--	--	--	13.5	14.1	14.6	--	--	--	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	87	46	--	--	--	--	63.3	59.9	--	--	--	--	15.5	17.2	--	--	--	--	0	0	--	--	--	--
Saturn	85	51	--	--	--	--	59.0	57.8	--	--	--	--	14.7	16.2	--	--	--	--	0	0	--	--	--	--
Banton	--	54	--	--	--	--	--	60.2	--	--	--	--	--	16.1	--	--	--	--	--	1.8	--	--	--	--
Ulen	--	57	--	--	--	--	--	58.1	--	--	--	--	--	16.5	--	--	--	--	--	2.8	--	--	--	--
Norpro	82	--	--	--	--	--	58.9	--	--	--	--	--	14.7	--	--	--	--	--	6.0	--	--	--	--	--
Parshall	74	--	--	--	--	--	62.1	--	--	--	--	--	15.2	--	--	--	--	--	5.0	--	--	--	--	--
LSD 5%	6.7	4.8	5.9	6.4	5.9		0.8	0.7	0.5	0.9	0.5		0.2	0.5	0.3	0.3	0.4		1.7	1.2	--	2.4	1.8	

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					
	7 site	LV	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.	08	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	22	11	27	17	57	20	5	17	4	1	20	--	--	--	--	--	3	4	2	5	2	0	4	0	0	0	0	0	--	--	--	--	2	--	--	--	--
Alsen	34	13	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
Bigg Red	59	10	88	30	96	90	10	90	4	1	30	--	--	--	--	--	25	6	18	12	23	2	87	3	14	1	2	5	--	--	--	--	0	--	--	--	--
Briggs	13	7	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	5	13	7	10	20	1	5	1	1	35	--	--	--	--	--	0	0	0	0	0	0	0	0	0	0	0	--	--	--	--	--	1	--	--	--	--
Freyr	24	7	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	14	7	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
Howard	12	7	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	29	10	40	23	67	20	3	42	4	1	--	--	--	--	--	--	1	0	1	1	0	0	7	0	0	0	0	--	--	--	--	--	--	--	--	--	--
Knudson	10	10	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	23	12	23	27	43	25	5	25	--	--	--	--	--	--	--	--	0	0	1	0	0	0	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Oklee	44	6	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	18	7	23	25	30	13	3	22	--	--	--	--	--	--	--	--	0	0	0	0	0	0	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Rush	36	10	37	27	73	33	3	67	4	8	--	--	--	--	--	--	4	1	1	2	1	0	18	0	0	1	0	--	--	--	--	--	--	--	--	--	--
Steele-ND	13	8	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	23	8	33	23	37	23	5	30	4	3	--	--	--	--	--	--	2	0	0	0	0	0	8	0	0	0	0	--	--	--	--	--	--	--	--	--	--
Trooper	51	8	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
Albany	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AP 604 CL	--	13	99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Banton	--	13	--	--	--	--	--	--	2	--	20	25	18	38	60	58	--	--	--	--	--	--	--	0	--	--	--	0	0	0	0	--	0	0	0	4	3
Blade	--	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Breaker	--	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Choteau	--	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cromwell	--	7	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dapps	--	7	20	--	--	--	--	--	1	1	10	--	--	--	--	--	--	0	--	--	--	--	--	0	0	0	0	0	--	--	--	--	0	--	--	--	--
Diamond	--	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Granger	--	5	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	--	5	30	--	--	--	--	--	3	--	40	24	10	35	60	72	--	0	--	--	--	--	--	0	--	--	--	0	2	3	1	9	16	6	2	4	16
Hanna	--	7	47	--	--	--	--	--	3	1	33	33	20	68	83	57	--	2	--	--	--	--	--	2	1	0	0	1	5	2	1	2	4	2	0	1	2
Hat Trick	--	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Lolo	--	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
ND901CL	--	8	40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Norpro	--	7	27	--	--	--	--	--	4	--	33	--	--	--	--	--	--	0	--	--	--	--	--	0	--	--	--	0	--	--	--	--	9	--	--	--	--
Parshall	--	8	67	--	--	--	--	--	6	--	30	--	--	--	--	--	--	3	--	--	--	--	--	1	--	--	--	4	--	--	--	--	3	--	--	--	--
Reeder	--	7	80	--	--	--	--	--	5	--	33	--	--	--	--	--	--	5	--	--	--	--	--	4	--	--	--	4	--	--	--	--	2	--	--	--	--
Samson	--	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Tom	--	7	43	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Vantage	--	10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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**	**LV**	**P**	**W**	**N**	**R**	**T**	**10 site**	**LV**	**LV**	**P**	**W**	**LV**	**P**	**W**	**N**	**R**	**T**	**N**
Year	**Ave.**	**07**	**07**	**05**	**05**	**05**	**05**	**05**	**05**	**Ave.**	**08**	**07**	**05**	**05**	**05**	**05**	**05**	**05**	**Ave.**	**08**	**07**	**07**	**07**	**05**	**05**	**05**	**05**	**05**	**05**	**07**
Variety:																													
Ada	--	0	0	--	--	--	--	--	--	--	0	0	1	--	--	--	--	--	--	0	1	1	0	1	--	--	--	--	--	1
Alsen	1	0	0	2	2	1	2	2	2	1.2	1	0	1	1	1	1	3	2	2	2	0	0	0	1	2	3	4	2	1	2
Bigg Red	--	0	0	1	--	--	--	--	--	--	0	0	1	--	--	--	--	--	--	0	0	0	0	0	--	--	--	--	--	3
Briggs	2	1	0	3	2	2	2	4	3	3.0	2	1	3	2	2	4	5	5	3	3	1	1	1	9	3	5	4	4	3	1
Faller	--	0	0	1	--	--	--	--	--	--	0	0	1	--	--	--	--	--	--	0	0	0	0	1	--	--	--	--	--	0
Freyr	2	0	0	2	2	1	3	3	3	1.3	0	0	1	0	2	1	2	4	1	0	0	0	0	1	4	3	3	4	2	1
Glenn	1	0	0	2	2	1	1	2	2	1.1	0	0	1	1	1	2	2	3	1	0	0	1	0	1	3	3	4	3	1	1
Howard	2	1	0	2	1	2	2	3	3	3.0	3	1	2	1	2	4	7	4	3	0	1	2	1	4	2	5	10	7	6	0
Kelby	--	1	0	--	--	--	--	--	--	--	1	0	--	--	--	--	--	--	--	0	0	1	0	--	--	--	--	--	--	0
Knudson	2	0	1	2	2	2	3	2	3	1.9	1	0	1	1	2	2	3	4	1	0	0	0	0	0	2	2	3	2	1	1
Kuntz	--	0	0	--	--	--	--	--	--	--	1	0	--	--	--	--	--	--	--	0	0	0	1	--	--	--	--	--	--	1
Oklee	2	0	0	4	1	3	2	2	3	1.8	0	1	2	0	1	3	2	4	2	0	1	1	0	2	3	3	5	3	1	1
RB07	--	1	0	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	1	0	1	1	--	--	--	--	--	--	0
Rush	--	0	0	--	--	--	--	--	--	--	1	1	--	--	--	--	--	--	--	1	1	2	0	--	--	--	--	--	--	0
Steele-ND	2	1	1	4	1	2	2	4	4	3.0	3	0	2	2	3	3	5	6	3	0	0	1	1	8	3	4	8	5	6	1
Traverse	--	0	0	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	0	0	1	1	--	--	--	--	--	--	1
Trooper	3	1	0	3	4	3	3	4	5	3.9	2	1	4	1	3	5	8	5	3	0	1	2	1	8	3	2	6	6	7	0
Albany	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--
AP 604 CL	--	1	--	--	--	--	--	--	--	--	2	0	--	--	--	--	--	--	--	2	1	--	--	--	--	--	--	--	--	--
Banton	--	--	--	5	3	3	4	6	2	--	4	--	3	3	3	4	7	9	--	0	--	--	--	1	5	4	4	1	1	--
Blade	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--
Breaker	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--
Choteau	--	--	--	--	--	--	--	--	--	--	5	--	--	--	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--
Cromwell	--	0	--	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	--	--
Dapps	--	1	--	2	--	--	--	--	--	--	3	0	1	--	--	--	--	--	--	0	0	--	--	1	--	--	--	--	--	--
Diamond	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--
Granger	--	0	--	2	1	2	2	2	4	--	0	0	2	1	3	2	5	7	--	0	0	--	--	4	2	4	4	4	2	--
Granite	--	1	--	3	4	5	3	3	3	--	3	0	4	2	9	4	4	6	--	0	0	--	--	1	2	3	3	4	7	--
Hanna	--	0	--	2	1	1	2	1	2	--	0	0	1	0	1	1	1	3	--	0	0	--	--	2	2	3	6	1	1	--
Hat Trick	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--
Lolo	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--
ND901CL	--	0	--	--	--	--	--	--	--	--	1	0	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	--	--
Norpro	--	0	--	3	--	--	--	--	--	--	6	2	2	--	--	--	--	--	--	0	1	--	--	2	--	--	--	--	--	--
Parshall	--	1	--	5	--	--	--	--	--	--	3	1	1	--	--	--	--	--	--	1	1	--	--	2	--	--	--	--	--	--
Reeder	--	1	--	5	--	--	--	--	--	--	5	1	4	--	--	--	--	--	--	1	1	--	--	2	--	--	--	--	--	--
Samson	--	--	--	--	--	--	--	--	--	--	8	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--
Tom	--	0	--	--	--	--	--	--	--	--	1	0	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	--	--
Vantage	--	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--

LV=Langdon Variety Trial, LI=Langdon Irrigated, P=Pembina, W=Walsh, T=Towner, R=Ramsey, N=Nelson. DON data for 2008 not available at press.

Durum Summary, Langdon 2004-2008

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)					Height (in)					Days to Head				
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	05	06	07	08	3yr	05	06	07	08	3yr	05	06	07	08	3yr
AC Navigator	65	42	65	50	78	64	56.4	52.8	60.4	55.8	57.2	57.8	4.3	1.4	3.5	3.3	2.7	36	35	37	37	36	58	59	66	70	65
Alkabo	78	70	69	80	77	75	60.9	58.8	61.5	60.6	59.5	60.5	0.5	1.5	0.3	0.8	0.9	40	42	42	41	41	58	57	66	70	64
Ben	71	62	65	64	80	70	61.8	58.2	61.4	59.5	59.5	60.1	1.8	2.7	0.0	1.5	1.4	42	44	43	43	43	59	58	66	68	64
Dilse	69	66	65	66	83	71	59.1	58.1	60.7	58.6	58.6	59.3	2.0	1.4	2.5	3.3	2.4	42	43	42	42	42	59	59	67	71	65
Divide	77	69	64	65	84	71	60.4	58.6	61.4	58.4	58.4	59.4	4.5	2.5	3.5	1.8	2.6	43	42	42	42	42	60	59	67	71	66
Grande D'oro	76	67	71	62	86	73	60.4	58.6	61.5	59.0	59.9	60.1	0.0	2.2	3.8	2.0	2.7	42	43	42	42	42	58	58	67	69	65
Grenora	75	77	69	67	87	74	59.0	57.4	60.2	58.2	58.2	58.9	3.3	1.2	2.3	1.5	1.7	40	41	40	41	41	57	57	66	69	64
Lebsock	72	70	64	69	88	74	61.0	58.6	61.9	59.9	60.2	60.7	0.3	1.4	0.8	2.0	1.4	40	41	41	42	41	56	56	65	70	64
Maier	68	59	61	66	82	70	59.4	57.0	60.8	57.8	57.8	58.8	0.3	2.1	2.3	3.8	2.7	41	42	40	40	41	58	58	65	69	64
Mountrail	71	69	71	68	85	74	57.0	56.9	60.7	58.6	59.4	59.6	0.8	1.8	4.3	3.8	3.3	42	43	43	42	43	59	59	68	71	66
Pierce	72	67	57	61	80	66	60.0	58.5	60.7	59.5	59.6	59.9	1.8	2.1	1.8	3.3	2.4	42	41	43	43	42	59	61	66	69	65
DG Star	--	--	67	51	78	65	--	--	61.1	55.5	57.4	58.0	--	0.8	1.3	0.0	0.7	--	33	41	41	38	--	54	64	66	61
Strongfield	--	--	64	56	83	68	--	--	60.3	56.9	57.3	58.2	--	3.6	4.0	2.3	3.3	--	42	41	40	41	--	57	68	69	65
AC Commander	--	--	--	60	76	--	--	--	--	56.1	54.3	--	--	--	2.3	6.0	--	--	--	35	35	--	--	--	66	70	--
AC Napoleon	--	--	--	61	86	--	--	--	--	56.4	57.9	--	--	--	3.0	2.5	--	--	--	44	44	--	--	--	67	69	--
Alzada	--	--	--	52	60	--	--	--	--	54.3	56.7	--	--	--	0.0	0.0	--	--	--	33	33	--	--	--	60	66	--
Wales	--	--	--	--	76	--	--	--	--	--	56.1	--	--	--	--	1.0	--	--	--	--	40	--	--	--	--	69	--
Primo Doro	60	65	58	55	--	--	59.6	59.1	61.4	57.2	--	--	1.3	1.9	7.8	--	--	46	47	43	--	--	57	56	65	--	--
Belzer	72	65	68	--	--	--	57.4	56.1	60.3	--	--	--	6.8	2.2	--	--	--	43	45	--	--	--	59	58	--	--	--
Munich	74	65	71	--	--	--	60.4	56.3	61.1	--	--	--	0.0	1.9	--	--	--	37	41	--	--	--	59	57	--	--	--
Plaza	74	70	66	--	--	--	57.4	56.9	60.3	--	--	--	0.3	0.8	--	--	--	36	34	--	--	--	59	59	--	--	--
Rugby	66	--	57	--	--	--	60.5	--	61.3	--	--	--	--	2.9	--	--	--	--	47	--	--	--	--	59	--	--	--
AC Avonlea	71	65	--	--	--	--	58.5	56.3	--	--	--	--	0.8	--	--	--	--	42	--	--	--	--	57	--	--	--	--
Renville	77	62	--	--	--	--	59.5	57.1	--	--	--	--	2.5	--	--	--	--	46	--	--	--	--	58	--	--	--	--
Monroe	70	--	--	--	--	--	60.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
AC Pathfinder	68	--	--	--	--	--	57.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LSD 5%	8.1	4.6	6.8	10.0	4.9		1.7	0.7	0.9	1.4	1.3		2.1	1.9	3.3	NS		1.4	4.6	1.6	1.7		0.9	1.0	1.1	1.4	

Durum Summary, Towner County 2004-2008

	Yield (bu/a)					Test Weight (lbs/bu)					Lodging (0-9)					Height (in)				Days to Head			
Variety	04	05	07	08	3yr	04	05	07	08	3yr	04	05	07	08	3yr	04	05	08	3yr	04	05	07	3yr
Alkabo	64	43	51	42	45	60.1	57.1	59.1	59.1	58.4	0.0	0.0	0	0	0	36	40	27	34	75	68	63	69
Divide	58	49	51	40	46	58.9	56.7	57.9	59.1	57.9	0.0	0.8	0	0	0	36	41	29	35	76	69	64	70
Grenora	64	50	45	44	46	59.0	56.2	57.4	58.2	57.3	0.0	0.0	0	0	0	34	39	27	33	74	67	63	68
Lebsock	58	50	48	40	46	60.1	57.8	58.6	59.7	58.7	0.5	0.3	0	0	0	35	38	29	34	75	68	63	69
Grande D'oro	--	38	49	41	43	--	55.9	58.9	59.8	58.2	--	0.0	0	0	0	--	40	27	--	--	70	65	--
DG Star	--	--	--	41	--	--	--	--	58.4	--	--	--	--	0	--	--	--	29	--	--	--	--	--
Wales	--	--	--	45	--	--	--	--	59.3	--	--	--	--	0	--	--	--	29	--	--	--	--	--
Mountrail	68	40	49	--	--	59.4	55.8	58.3	--	--	0.0	0.0	0	--	--	36	40	--	--	76	68	65	--
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	3.2		0.5	0.8	0.7	0.5		NS	0.9	--	--		2.2	1.2	NS		0.9	1.0	0.9	

Durum Summary, Ramsey County 2004-2008

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Height (in)						Days to Head					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Alkabo	84	52	58	67	66	64	63.2	59.4	60.7	61.0	59.0	60.2	0	0	0	0	0	0	42	36	29	40	35	35	65	62	52	62	61	58
Divide	91	59	53	61	64	59	63.0	60.2	60.1	60.5	58.7	59.8	0.3	0	0	0	0	0	41	38	29	41	35	35	65	62	53	62	62	59
Grenora	90	58	52	60	69	60	62.8	59.4	59.9	59.4	57.7	59.0	0.3	0	0	0	0	0	39	34	26	38	33	32	64	62	51	62	61	58
Lebsock	85	58	46	61	66	58	63.2	60.8	60.8	60.8	60.0	60.5	0.3	0	0	0	0	0	39	36	26	39	33	33	64	62	51	62	60	58
Grande D'oro	--	52	57	65	69	64	--	60.6	61.0	61.2	60.2	60.8	--	0	0	0	0	0	--	38	29	41	34	35	--	62	52	63	60	58
DG Star	--	--	--	--	64	--	--	--	--	--	57.5	--	--	--	--	--	0	--	--	--	--	--	34	--	--	--	--	--	58	--
Wales	--	--	--	--	68	--	--	--	--	--	58.4	--	--	--	--	--	0	--	--	--	--	--	35	--	--	--	--	--	59	--
Mountrail	95	58	51	61	--	--	63.0	59.8	60.2	60.1	--	--	1.0	0.5	0	0	--	--	42	37	28	40	--	--	65	63	51	62	--	--
Primo Doro	--	44	50	54	--	--	--	59.4	61.3	60.1	--	--	--	3.5	0	0	--	--	--	40	32	45	--	--	--	62	50	61	--	--
Dilse	84	54	--	--	--	--	62.8	59.6	--	--	--	--	0.3	0	--	--	--	--	40	37	--	--	--	--	65	62	--	--	--	--
Pierce	81	55	--	--	--	--	63.8	60.1	--	--	--	--	0	0.5	--	--	--	--	40	37	--	--	--	--	65	62	--	--	--	--
Munich	82	--	--	--	--	--	62.2	--	--	--	--	--	0	--	--	--	--	--	38	--	--	--	--	--	65	--	--	--	--	--
LSD 5%	NS	5.1	NS	5.2	NS		0.6	0.8	0.4	0.5	0.9		NS	1.0	--	--	--		2.3	1.5	3.1	1.8	NS		0.6	NS	0.9	0.7	2.1	

Durum Diseases by Location, Year and Variety

Location Year	Foliar Necrosis % of Flag at Soft Dough: 2 Site Ave.	LV 08	LV 07	T 07	L 06	R 05	T 05	Fusarium Damage Kernels (Tombstones) %: 2 Site Ave.	LV 08	LV 07	T 07	LV 05	R 05	T 05	DON ppm: 5 Site Ave.	LV 07	T 07	LV 05	R 05	T 05	FHB Field Severity - % (Incidence x Head Severity): 2 Site Ave.	LV 08	LV 07	T 07	LV 05	R 05	T 05
Variety:																											
Alkabo	21	15	27	15	2	73	73	1	2	0	2	3	3	3	2.9	1	2	7	1	3	0	0	1	0	1	7	4
Divide	19	22	17	15	3	63	13	1	2	0	2	2	2	5	2.1	1	3	3	1	3	0	0	0	0	0	3	6
Grande Doro	28	23	33	20	6	86	73	2	4	0	1	6	4	6	3.0	1	3	6	2	4	2	4	1	0	1	6	4
Grenora	13	12	13	18	2	58	13	2	3	0	2	2	3	6	3.6	2	3	6	3	5	1	0	1	0	1	6	4
Lebsock	18	17	20	23	3	60	32	1	1	0	1	2	2	4	3.1	2	4	4	3	3	0	0	0	0	1	4	1
Mountrail	22	17	27	20	3	70	58	2	3	1	3	4	3	4	3.4	2	2	9	1	3	1	0	1	1	1	3	9
AC Commander	47	20	73	--	--	--	--	4	6	3	--	--	--	--	--	2	--	--	--	--	3	1	5	--	--	--	--
AC Napoleon	28	23	33	--	--	--	--	1	1	0	--	--	--	--	--	2	--	--	--	--	1	1	1	--	--	--	--
AC Navigator	45	23	67	--	3	--	--	6	6	1	--	6	--	--	--	3	--	13	--	--	3	1	6	--	3	--	--
Alzada	53	23	83	--	--	--	--	6	10	3	--	--	--	--	--	3	--	--	--	--	4	3	5	--	--	--	--
Ben	15	20	10	--	2	--	--	1	1	1	--	3	--	--	--	2	--	7	--	--	1	0	1	--	2	--	--
Dilse	25	23	27	--	2	63	77	1	3	0	--	3	3	5	--	2	--	5	2	5	0	0	1	--	1	6	8
DG Star	52	27	77	--	--	--	--	0	1	0	--	--	--	--	--	1	--	--	--	--	1	0	1	--	--	--	--
Maier	30	20	40	--	1	--	--	2	3	0	--	3	--	--	--	2	--	5	--	--	1	0	1	--	1	--	--
Pierce	23	23	23	--	2	68	33	1	2	0	--	1	2	3	--	1	--	6	2	3	0	0	0	--	1	6	7
Strongfield	15	10	20	--	3	--	--	2	3	1	--	--	--	--	--	2	--	--	--	--	1	0	2	--	--	--	--
Wales	--	33	--	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--
Primo Doro	--	--	63	20	4	91	60	--	--	0	1	3	2	4	2.7	1	1	4	4	4	--	--	1	1	1	9	2

LV=Langdon Variety Trial, LI=Langdon Irrigated, R=Ramsey, T=Towner. DON data for 2008 not available at press.

HRWW Disease Summary, Langdon 2006-2008

Variety	Foliar Necrosis % Flag Leaf 06	07	08	3yr	Leaf Rust % Flag Leaf 06	07	2yr	FHB Field % Severity 07	08	FDK % 07	08
Accipiter	--	--	30	--	--	--	--	--	0	--	2
Alice	18	82	45	48	2	18	10	5	0	1	0
CDC Buteo	23	85	25	44	2	30	16	6	0	2	2
CDC Falcon	20	91	35	49	1	24	12	4	0	2	0
Darrell	--	77	23	--	--	35	--	5	0	2	0
Expedition	30	49	30	36	7	25	16	6	0	2	1
Hawken	--	--	25	--	--	--	--	--	0	--	1
Jagalene	15	87	43	48	24	25	24	12	2	6	5
Jerry	8	48	24	27	3	5	4	2	0	1	1
Lyman	--	--	28	--	--	--	--	--	0	--	0
Millennium	5	54	25	28	4	15	10	3	0	1	1
NuDakota	--	69	28	--	--	18	--	9	1	4	1
Overland	--	--	23	--	--	--	--	--	0	--	1
Peregrine	--	--	15	--	--	--	--	--	0	--	0
Radiant	10	94	20	41	9	35	22	6	1	2	3
Roughrider	50	58	24	44	6	13	9	4	0	1	1
Wesley	8	86	43	46	1	18	10	6	1	4	2
Yellowstone	8	85	43	45	40	30	35	7	2	9	8

Foliar necrosis and leaf rust - % of flag at soft dough. Field Severity=(Incidence x Head Severity). FDK=Fusarium damaged kernels, tombstones.
Don data for 2008 not available at press.

Barley Summary, Langdon 2004-2008

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Plump (%)					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Drummond	93	70	107	97	128	110	44.8	47.6	47.0	49.0	49.3	48.4	7.8	0	0.8	2.0	0.3	1.0	76	90	66	86	94	82
Lacey	117	73	116	106	139	120	47.8	48.3	49.6	49.8	50.1	49.8	6.8	0	1.8	2.8	2.8	2.5	84	92	81	86	91	86
Legacy	88	71	109	90	145	114	44.3	46.4	46.2	47.9	49.3	47.8	7.5	0	5.0	4.5	2.5	4.0	76	92	68	81	91	80
Robust	94	69	106	93	123	107	46.6	48.2	49.1	50.2	50.8	50.0	8.0	0	2.8	3.8	0.3	2.3	79	91	71	88	95	85
Stellar-ND	115	70	120	94	127	114	46.1	47.8	48.8	48.6	49.1	48.8	6.8	0	1.0	4.8	1.0	2.3	84	94	89	89	96	91
Tradition	106	71	115	90	125	110	45.5	48.8	48.5	48.7	50.2	49.1	8.0	0	2.3	3.8	1.0	2.4	78	94	78	84	96	86
Rasmusson	--	--	--	105	138	--	--	--	--	49.4	50.1	--	--	--	--	2.8	1.8	--	--	--	--	87	93	--
MNBrite	93	72	88	--	--	--	46.5	47.0	48.0	--	--	--	6.3	0	6.5	--	--	--	86	92	66	--	--	--
Excel	105	77	--	--	--	--	44.5	47.1	--	--	--	--	7.3	0	--	--	--	--	76	84	--	--	--	--
Foster	97	--	--	--	--	--	43.9	--	--	--	--	--	8.5	--	--	--	--	--	80	--	--	--	--	--
Morex	89	--	--	--	--	--	45.9	--	--	--	--	--	8.3	--	--	--	--	--	71	--	--	--	--	--
Stander	108	--	--	--	--	--	44.6	--	--	--	--	--	7.5	--	--	--	--	--	80	--	--	--	--	--
AC Metcalfe*	81	77	104	81	129	105	45.8	50.2	49.0	49.2	49.2	49.1	8.8	0	2.3	7.3	3.0	4.2	76	91	82	78	88	83
Bowman*	96	79	110	78	125	105	48.4	50.5	51.7	48.6	50.5	50.3	9.0	0	2.8	7.0	4.3	4.7	81	92	91	81	91	88
Conlon*	109	76	107	90	127	108	51.0	51.3	52.1	50.2	51.0	51.1	7.8	0	2.8	6.5	2.3	3.9	92	97	95	91	95	94
Rawson*	80	70	111	93	140	115	45.3	47.9	49.5	49.4	48.9	49.3	7.8	0	2.3	6.0	3.5	3.9	92	98	96	93	94	94
Pinnacle*	--	76	116	83	134	111	--	51.4	51.0	48.8	51.1	50.3	--	0	1.0	6.8	0.3	2.7	--	96	96	85	95	92
CDC Copeland*	--	--	--	85	129	--	--	--	--	48.5	48.6	--	--	--	--	7.5	1.3	--	--	--	--	81	93	--
Conrad*	--	--	--	73	128	--	--	--	--	49.2	49.1	--	--	--	--	7.8	3.5	--	--	--	--	81	88	--
Scarlett*	--	--	--	73	120	--	--	--	--	47.3	48.8	--	--	--	--	6.0	3.8	--	--	--	--	83	90	--
Harrington*	62	77	95	--	--	--	44.0	49.9	45.9	--	--	--	8.0	0	6.5	--	--	--	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*	97	74	--	--	--	--	48.1	50.2	--	--	--	--	8.3	0	--	--	--	--	83	91	--	--	--	--
Stark*	96	82	--	--	--	--	48.5	51.8	--	--	--	--	8.8	0	--	--	--	--	79	94	--	--	--	--
LSD 5%	14	10	9.4	11.6	14.4		1.0	0.8	1.6	1.0	1.0		NS	--	2.7	3.1	NS		5.0	2.4	11.2	5.4	4.6	

*2-row

Barley Summary, Langdon 2004-2008

	Height (in)						Protein (%)						Days to Head					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Drummond	46	31	38	37	39	38	11.8	10.8	12.3	12.6	13.2	12.7	70	62	54	59	66	60
Lacey	44	30	36	35	39	37	11.0	10.5	12.0	12.5	13.4	12.6	69	60	53	58	65	59
Legacy	44	32	39	35	40	38	11.6	12.0	11.2	12.9	12.7	12.3	72	62	55	61	67	61
Robust	45	32	40	36	40	39	12.2	11.3	12.6	13.4	12.8	12.9	70	61	54	59	66	60
Stellar-ND	45	30	37	36	38	37	11.2	10.8	11.1	13.0	12.6	12.2	70	59	52	59	65	59
Tradition	44	32	38	36	37	37	11.8	11.0	11.7	13.0	12.7	12.5	71	61	55	61	66	61
Rasmusson	--	--	--	35	36	--	--	--	--	12.1	12.3	--	--	--	--	58	64	--
MNBrite	45	33	39	--	--	--	12.3	12.4	13.8	--	--	--	73	64	57	--	--	--
Excel	45	30	--	--	--	--	11.2	9.8	--	--	--	--	70	61	--	--	--	--
Foster	44	--	--	--	--	--	11.4	--	--	--	--	--	70	--	--	--	--	--
Morex	45	--	--	--	--	--	12.4	--	--	--	--	--	69	--	--	--	--	--
Stander	46	--	--	--	--	--	10.9	--	--	--	--	--	70	--	--	--	--	--
AC Metcalfe*	42	30	36	33	39	36	11.9	10.7	12.7	13.5	12.9	13.0	73	62	56	61	68	61
Bowman*	42	31	35	34	34	34	12.5	10.6	12.4	13.9	13.3	13.2	66	58	52	57	63	57
Conlon*	43	29	35	34	34	34	11.4	10.5	11.6	13.2	12.6	12.5	66	57	51	55	62	56
Rawson*	46	28	37	35	36	36	11.0	9.3	10.6	12.2	12.2	11.7	67	58	49	57	63	56
Pinnacle*	--	31	37	34	35	36	--	8.4	10.6	12.1	11.2	11.3	--	60	54	61	65	60
CDC Copeland*	--	--	--	34	38	--	--	--	--	12.8	11.6	--	--	--	--	63	68	--
Conrad*	--	--	--	32	34	--	--	--	--	14.4	13.0	--	--	--	--	64	68	--
Scarlett*	--	--	--	30	30	--	--	--	--	13.4	12.8	--	--	--	--	66	70	--
Harrington*	42	33	38	--	--	--	12.2	9.5	13.0	--	--	--	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*	42	29	--	--	--	--	12.7	9.8	--	--	--	--	69	59	--	--	--	--
Stark*	43	32	--	--	--	--	12.3	10.4	--	--	--	--	69	59	--	--	--	--
LSD 5%	2.0	2.4	1.6	1.9	2.5		0.8	1.1	1.0	0.6	1.2		1.0	0.8	1.7	1.1	0.9	

*2-row

Barley Summary 2004-2008, Towner County

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Protein (%)						Plump (%)					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Lacey	--	70	51	77	73	67	--	45.6	39.8	47.5	46.2	44.5	--	1.3	0	0	0	0	--	12.6	14.9	12.7	13.9	13.8	--	75	25	76	77	59
Stellar-ND	--	79	57	80	73	70	--	44.5	39.0	47.2	45.1	43.8	--	0.3	0	0	0	0	--	12.7	14.3	12.2	14.1	13.5	--	76	27	86	82	65
Tradition	--	74	67	72	79	72	--	45.5	42.0	46.6	47.4	45.3	--	0.8	0	0	0	0	--	12.2	14.5	12.5	14.1	13.7	--	76	31	76	87	65
Pinnacle*	--	--	--	80	86	--	--	--	--	49.4	49.8	--	--	--	--	0	0	--	--	--	--	11.0	12.9	--	--	--	--	92	97	--
Rasmusson	--	--	--	--	75	--	--	--	--	--	45.8	--	--	--	--	--	0	--	--	--	--	--	14.1	--	--	--	--	--	73	--
Drummond	--	64	50	76	--	--	--	44.5	40.3	46.7	--	--	--	0	0	0	--	--	--	12.4	14.6	12.7	--	--	--	72	34	75	--	--
Legacy	--	69	47	63	--	--	--	44.4	38.0	45.2	--	--	--	0.5	0	0	--	--	--	12.1	14.6	12.6	--	--	--	76	23	78	--	--
Robust	--	66	--	--	--	--	--	45.5	--	--	--	--	--	1.0	--	--	--	--	--	13.3	--	--	--	--	--	68	--	--	--	--
LSD 5%	--	5.8	10.2	4.1	7.2		--	0.9	1.7	0.5	0.8		--	NS	--	--	--		--	0.4	NS	0.3	0.5		--	NS	NS	5.3	9.1	

*Two row barley

Barley Summary 2004-2008, Walsh County

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Protein (%)						Plump (%)					
Variety	04	05	06	07	08	2yr	04	05	06	07	08	2yr	04	05	06	07	08	2yr	04	05	06	07	08	2yr	04	05	06	07	08	2yr
Lacey	105	--	112	--	149	131	48.1	--	52.3	--	50.1	51.2	4.0	--	0	--	0	0	13.0	--	12.0	--	12.9	12.5	85	--	97	--	97	97
Stellar-ND	106	--	113	--	148	131	46.0	--	52.5	--	48.4	50.5	4.8	--	0	--	0	0	12.6	--	11.8	--	12.6	12.2	85	--	98	--	98	98
Tradition	88	--	102	--	136	119	45.6	--	52.8	--	49.3	51.1	7.3	--	0	--	0	0	12.7	--	12.4	--	12.7	12.6	79	--	95	--	97	96
Pinnacle*	--	--	--	--	140	--	--	--	--	--	48.7	--	--	--	--	--	0	--	--	--	--	--	11.8	--	--	--	--	--	97	--
Rassmusson	--	--	--	--	155	--	--	--	--	--	49.9	--	--	--	--	--	0	--	--	--	--	--	12.5	--	--	--	--	--	98	--
Drummond	83	--	102	--	--	--	46.1	--	52.2	--	--	--	6.0	--	0	--	--	--	13.7	--	12.6	--	--	--	83	--	96	--	--	--
Legacy	74	--	113	--	--	--	45.1	--	50.8	--	--	--	6.8	--	0	--	--	--	13.1	--	12.1	--	--	--	79	--	96	--	--	--
Robust	90	--	--	--	--	--	46.8	--	--	--	--	--	7.3	--	0	--	--	--	13.9	--	--	--	--	--	80	--	--	--	--	--
LSD 5%	13.4	--	NS	--	7.6		1.1	--	0.3	--	0.5		1.6	--	--	--	--		0.8	--	0.4	--	0.6		--	--	0.9	--	NS	

*Two row barley

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)						
	2 Site Ave.	LV 08	LV 07	T 07	L 06	R 05	T 05	2 Site Ave.	LV 08	LV 07	T 07	LV 05	R 05	T 05	5 Site Ave.	LV 07	T 07	LV 05	R 05	T 05	2 Site Ave.	LV 08	LV 07	T 07	LV 05	R 05	T 05
Variety:																											
Alkabo	21	15	27	15	2	73	73	1	2	0	2	3	3	3	2.9	1	2	7	1	3	0	0	1	0	1	7	4
Divide	19	22	17	15	3	63	13	1	2	0	2	2	2	5	2.1	1	3	3	1	3	0	0	0	0	0	3	6
Grande Doro	28	23	33	20	6	86	73	2	4	0	1	6	4	6	3.0	1	3	6	2	4	2	4	1	0	1	6	4
Grenora	13	12	13	18	2	58	13	2	3	0	2	2	3	6	3.6	2	3	6	3	5	1	0	1	0	1	6	4
Lebsock	18	17	20	23	3	60	32	1	1	0	1	2	2	4	3.1	2	4	4	3	3	0	0	0	0	1	4	1
Mountrail	22	17	27	20	3	70	58	2	3	1	3	4	3	4	3.4	2	2	9	1	3	1	0	1	1	1	3	9
AC Commander	47	20	73	--	--	--	--	4	6	3	--	--	--	--	--	2	--	--	--	--	3	1	5	--	--	--	--
AC Napoleon	28	23	33	--	--	--	--	1	1	0	--	--	--	--	--	2	--	--	--	--	1	1	1	--	--	--	--
AC Navigator	45	23	67	--	3	--	--	6	6	1	--	6	--	--	--	3	--	13	--	--	3	1	6	--	3	--	--
Alzada	53	23	83	--	--	--	--	6	10	3	--	--	--	--	--	3	--	--	--	--	4	3	5	--	--	--	--
Ben	15	20	10	--	2	--	--	1	1	1	--	3	--	--	--	2	--	7	--	--	1	0	1	--	2	--	--
Dilse	25	23	27	--	2	63	77	1	3	0	--	3	3	5	--	2	--	5	2	5	0	0	1	--	1	6	8
DG Star	52	27	77	--	--	--	--	0	1	0	--	--	--	--	--	1	--	--	--	--	1	0	1	--	--	--	--
Maier	30	20	40	--	1	--	--	2	3	0	--	3	--	--	--	2	--	5	--	--	1	0	1	--	1	--	--
Pierce	23	23	23	--	2	68	33	1	2	0	--	1	2	3	--	1	--	6	2	3	0	0	0	--	1	6	7
Strongfield	15	10	20	--	3	--	--	2	3	1	--	--	--	--	--	2	--	--	--	--	1	0	2	--	--	--	--
Wales	--	33	--	--	--	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--
Primo Doro	--	--	63	20	4	91	60	--	--	0	1	3	2	4	2.7	1	1	4	4	4	--	--	1	1	1	9	2

LV=Langdon Variety Trial, LI=Langdon Irrigated, R=Ramsey, T=Towner. DON data for 2008 not available at press.

HRWW Summary, Langdon 2004-2008

Variety	Yield (bu/a)						Test Weight (lbs/bu)						Heading Date (June)						Lodging (0-9)					
	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
CDC Falcon	82	26	75	53	90	73	58.2	51.2	59.2	56.9	59.9	58.7	30	22	10	14	27	17	0.5	0	0	0.0	0.0	0.0
Expedition	91	40	81	42	85	69	59.1	55.5	61.3	57.0	60.0	59.4	27	18	4	9	23	12	0.1	0	0.3	0.0	0.0	0.1
Jagalene	79	17	67	23	80	57	58.3	49.6	58.9	54.2	59.0	57.4	30	21	6	13	27	16	1.1	0	0	0.0	0.5	0.2
Jerry	90	34	71	66	85	74	57.4	55.0	59.3	58.1	59.0	58.8	32	23	11	15	29	18	4.4	0	0	1.3	0.5	0.6
Millennium	92	31	74	67	91	77	59.2	55.9	60.3	59.4	60.7	60.1	29	21	9	14	25	16	0.7	0	0.3	0.0	0.0	0.1
Roughrider	64	26	51	40	71	54	58.0	55.6	59.9	57.8	60.8	59.5	32	24	12	16	29	19	3.2	0	0.5	1.8	3.8	2.0
Wesley	80	38	75	44	80	66	58.3	54.8	59.4	55.0	57.8	57.4	26	19	5	10	23	13	0.5	0	0	0.0	0.0	0.0
Yellowstone	56	17	51	34	85	56	51.3	47.8	53.7	51.0	57.6	54.1	33	24	12	15	30	19	0	0	0	0.0	0.0	0.0
CDC Buteo	--	28	76	50	88	71	--	55.1	61.0	59.0	61.3	60.4	--	23	10	15	27	17	--	0	0	0.3	2.3	0.9
Alice	--	--	76	40	82	66	--	--	59.2	55.0	59.1	57.8	--	--	4	11	23	13	--	--	0	0.0	0.0	0.0
Radiant	--	--	65	39	83	62	--	--	56.6	54.0	59.4	56.7	--	--	12	15	29	19	--	--	0	0.0	0.0	0.0
Darrell	--	--	--	45	92	--	--	--	--	56.0	60.2	--	--	--	--	13	25	--	--	--	--	0.5	0.3	--
Hawken	--	--	--	48	88	--	--	--	--	57.9	60.4	--	--	--	--	11	21	--	--	--	--	0.0	0.0	--
NuDakota	--	--	--	42	80	--	--	--	--	52.4	56.6	--	--	--	--	13	25	--	--	--	--	0.0	0.0	--
Accipiter	--	--	--	--	92	--	--	--	--	--	60.1	--	--	--	--	--	29	--	--	--	--	--	0.0	--
Lyman	--	--	--	--	90	--	--	--	--	--	60.7	--	--	--	--	--	24	--	--	--	--	--	0.8	--
Overland	--	--	--	--	95	--	--	--	--	--	60.4	--	--	--	--	--	24	--	--	--	--	--	0.5	--
Peregrine	--	--	--	--	91	--	--	--	--	--	60.3	--	--	--	--	--	28	--	--	--	--	--	1.5	--
Harding	87	33	64	58	--	--	56.9	55.4	58.9	58.8	--	--	31	22	11	14	--	--	3.5	0	0	1.3	--	--
McClintock	68	27	78	33	--	--	56.0	54.8	62.0	56.7	--	--	31	17	9	16	--	--	0.6	0	0	0.0	--	--
Ransom	75	34	82	60	--	--	56.2	54.8	60.5	56.9	--	--	32	22	11	15	--	--	3.0	0	1.5	2.8	--	--
Wendy*	79	29	73	40	--	--	58.6	54.7	60.3	56.2	--	--	26	18	4	10	--	--	0.7	0	0	0.0	--	--
Fridolin	--	21	82	28	--	--	--	49.1	59.2	52.3	--	--	--	25	11	18	--	--	--	0	0	0.0	--	--
Josef	--	21	68	15	--	--	--	53.2	58.6	52.8	--	--	--	24	11	19	--	--	--	0	0	0.0	--	--
Goodstreak	93	--	65	48	--	--	58.4	--	53.8	52.2	--	--	30	--	7	13	--	--	3.3	--	0.5	0.5	--	--
Paul	49	--	50	31	--	--	51.4	--	55.7	52.9	--	--	33	--	11	16	--	--	6.9	--	0.3	0.3	--	--
Atrium	--	--	80	43	--	--	--	--	60.2	54.8	--	--	--	--	11	15	--	--	--	--	0	0.0	--	--
Dunai	--	--	74	30	--	--	--	--	57.5	52.2	--	--	--	--	13	18	--	--	--	--	0	0.0	--	--
Capo	--	20	--	27	--	--	--	49.7	--	53.8	--	--	--	25	--	18	--	--	--	0	--	0.0	--	--
Arapahoe	76	33	--	--	--	--	56.5	55.2	--	--	--	--	31	22	--	--	--	--	3.3	0	--	--	--	--
NuSky*	39	17	--	--	--	--	51.1	51.3	--	--	--	--	32	23	--	--	--	--	1.8	0	--	--	--	--
Wahoo	85	37	--	--	--	--	55.4	53.7	--	--	--	--	28	20	--	--	--	--	4.6	0	--	--	--	--
CDC Raptor	71	--	--	--	--	--	55.3	--	--	--	--	--	33	--	--	--	--	--	1.9	--	--	--	--	--
Elkhorn	66	--	--	--	--	--	55.6	--	--	--	--	--	34	--	--	--	--	--	4.3	--	--	--	--	--
Harry	96	--	--	--	--	--	56.6	--	--	--	--	--	29	--	--	--	--	--	4.4	--	--	--	--	--
Morgan	60	--	--	--	--	--	53.4	--	--	--	--	--	34	--	--	--	--	--	6.5	--	--	--	--	--
Nekota	79	--	--	--	--	--	60.3	--	--	--	--	--	25	--	--	--	--	--	0.2	--	--	--	--	--
Norstar	57	--	--	--	--	--	55.3	--	--	--	--	--	35	--	--	--	--	--	4.7	--	--	--	--	--
Nuplains*	74	--	--	--	--	--	58.8	--	--	--	--	--	30	--	--	--	--	--	1.5	--	--	--	--	--
Seward	67	--	--	--	--	--	55.5	--	--	--	--	--	35	--	--	--	--	--	5.2	--	--	--	--	--
LSD 5%	8.9	4.1	7.6	14.5	7.9		1.3	1.3	1.3	1.8	1.2		1.1	4.1	1.6	1.4	2.4		2.3	--	0.6	1.3	0.9	

*Hard white winter wheat.

HRWW Summary, Langdon 2004-2008

	Winter Survival (%)						Protein(%)						Height (in)					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
CDC Falcon	96	97	100	84	98	94	12.0	13.0	10.8	10.4	11.0	10.7	41	33	39	30	34	34
Expedition	96	96	100	78	95	91	11.9	11.8	11.2	10.1	11.9	11.1	44	37	44	29	35	36
Jagalene	94	95	100	56	96	84	12.4	13.4	11.0	11.3	12.0	11.4	41	34	41	28	35	35
Jerry	94	94	100	86	93	93	12.7	13.2	11.1	11.0	11.8	11.3	49	40	49	36	43	43
Millennium	95	97	100	70	100	90	12.0	12.4	10.4	11.3	11.4	11.0	46	38	46	32	41	40
Roughrider	94	98	100	71	91	87	12.3	14.4	12.4	11.2	11.9	11.8	56	44	48	38	44	44
Wesley	95	95	100	75	97	91	13.0	12.8	12.3	11.3	12.1	11.9	37	32	37	27	30	31
Yellowstone	94	93	100	84	98	94	12.1	13.5	11.4	10.9	11.3	11.2	44	35	44	33	41	39
CDC Buteo	--	97	100	76	98	92	--	12.1	10.7	10.2	11.2	10.7	--	40	47	35	43	42
Alice	--	--	100	71	97	89	--	--	11.5	11.3	11.4	11.4	--	--	38	28	33	33
Radiant	--	--	100	78	96	91	--	--	11.1	10.4	11.7	11.1	--	--	45	36	41	41
Darrell	--	--	--	74	100	--	--	--	--	11.1	11.1	--	--	--	--	32	38	--
Hawken	--	--	--	64	98	--	--	--	--	12.5	11.8	--	--	--	--	27	32	--
NuDakota	--	--	--	55	92	--	--	--	--	12.2	12.0	--	--	--	--	26	30	--
Accipiter	--	--	--	--	98	--	--	--	--	--	11.2	--	--	--	--	--	37	--
Lyman	--	--	--	--	94	--	--	--	--	--	12.1	--	--	--	--	--	38	--
Overland	--	--	--	--	100	--	--	--	--	--	12.0	--	--	--	--	--	39	--
Peregrine	--	--	--	--	98	--	--	--	--	--	10.8	--	--	--	--	--	45	--
Harding	95	99	100	70	--	--	13.1	13.8	11.5	11.3	--	--	47	40	46	34	--	--
McClintock	90	97	100	58	--	--	11.5	13.2	11.8	11.5	--	--	48	40	47	36	--	--
Ransom	94	97	100	79	--	--	12.1	13.3	11.9	10.4	--	--	49	41	48	37	--	--
Wendy*	93	93	100	56	--	--	12.8	13.4	11.5	11.3	--	--	39	33	37	27	--	--
Fridolin	--	75	100	35	--	--	--	14.5	11.7	12.5	--	--	--	38	45	32	--	--
Josef	--	84	100	20	--	--	--	15.5	12.9	14.2	--	--	--	33	40	27	--	--
Goodstreak	96	--	100	76	--	--	12.5	--	9.5	10.1	--	--	51	--	43	31	--	--
Paul	95	--	100	69	--	--	12.4	--	11.5	9.9	--	--	44	--	43	31	--	--
Atrium	--	--	100	69	--	--	--	--	11.8	11.4	--	--	--	--	41	31	--	--
Dunai	--	--	100	51	--	--	--	--	12.3	13.0	--	--	--	--	41	31	--	--
Capo	--	74	--	50	--	--	--	14.6	--	12.1	--	--	--	37	--	33	--	--
Arapahoe	96	98	--	--	--	--	12.7	13.4	--	--	--	--	54	44	--	--	--	--
NuSky*	96	97	--	--	--	--	12.9	13.3	--	--	--	--	47	38	--	--	--	--
Wahoo	95	95	--	--	--	--	11.9	12.8	--	--	--	--	42	34	--	--	--	--
CDC Raptor	98	--	--	--	--	--	11.5	--	--	--	--	--	46	--	--	--	--	--
Elkhorn	96	--	--	--	--	--	12.7	--	--	--	--	--	55	--	--	--	--	--
Harry	97	--	--	--	--	--	11.4	--	--	--	--	--	42	--	--	--	--	--
Morgan	96	--	--	--	--	--	11.9	--	--	--	--	--	46	--	--	--	--	--
Nekota	94	--	--	--	--	--	12.2	--	--	--	--	--	39	--	--	--	--	--
Norstar	97	--	--	--	--	--	11.6	--	--	--	--	--	56	--	--	--	--	--
Nuplains*	95	--	--	--	--	--	12.5	--	--	--	--	--	42	--	--	--	--	--
Seward	96	--	--	--	--	--	11.6	--	--	--	--	--	57	--	--	--	--	--
LSD 5%	NS	8.0	--	25.0	4.3		0.4	0.6	0.6	1.1	0.8		2.3	1.9	2.1	2.4	2.1	

*Hard white winter wheat.

Oats Summary, Langdon 2004-2008

	Yield (bu/a)						Test Weight (lbs/bu)						Days to Head					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
AC Pinnacle	138	108	152	149	197	166	35.0	32.8	33.2	37.8	36.0	35.7	77	67	59	68	71	66
Beach	134	94	148	133	183	155	37.9	34.6	36.8	39.6	38.8	38.4	74	65	56	65	69	63
Buff*	99	72	102	93	129	108	46.0	45.5	46.8	46.0	44.7	45.8	70	59	53	59	65	59
CDC Dancer	126	111	148	135	186	156	38.3	38.7	36.8	40.2	38.2	38.4	77	67	58	67	70	65
HiFi	137	168	159	161	175	165	37.9	39.2	37.7	40.0	38.4	38.7	75	65	57	66	69	64
Hytest	118	76	123	118	152	131	40.4	37.3	40.2	40.3	41.6	40.7	74	62	54	62	67	61
Jerry	127	53	134	122	170	142	40.0	29.6	37.5	39.3	39.1	38.6	73	63	54	61	66	60
Killdeer	146	87	135	135	185	152	36.4	29.9	34.6	36.9	37.5	36.3	74	64	55	63	68	62
Maida	138	65	141	131	156	143	37.8	30.9	37.2	38.9	37.4	37.8	74	65	56	62	69	62
Morton	126	136	159	141	166	155	38.9	39.5	39.1	40.4	39.2	39.6	75	65	56	64	68	63
Otana	108	39	113	105	186	135	35.0	25.0	32.6	32.8	38.1	34.5	75	66	57	66	71	65
Paul*	96	72	98	101	125	108	43.3	44.0	42.3	44.7	43.7	43.6	77	67	59	68	72	66
Souris	136	142	161	150	187	166	37.8	37.9	36.9	40.2	37.6	38.2	75	66	57	65	69	64
Stark	99	96	105	116	131	117	41.3	43.3	40.8	43.8	41.7	42.1	77	67	59	68	73	67
Youngs	113	94	138	143	183	154	35.8	32.8	35.0	37.9	36.9	36.6	76	67	59	68	71	66
Stallion	--	--	--	153	171	--	--	--	--	39.6	40.3	--	--	--	--	65	69	--
CDC Minstrel	--	--	--	--	185	--	--	--	--	--	35.9	--	--	--	--	--	69	--
Furlong	140	46	--	--	177	--	37.4	25.8	--	--	36.0	--	77	67	--	--	72	--
AC Assiniboia	119	26	114	105	--	--	36.5	19.1	32.2	35.1	--	--	77	67	60	68	--	--
AC Ronald	142	24	104	99	--	--	35.8	22.2	32.5	33.7	--	--	78	68	60	70	--	--
CDC Weaver	--	57	121	126	--	--	--	27.5	32.1	35.8	--	--	--	68	60	68	--	--
AC Kaufman	121	57	126	--	--	--	36.5	27.5	33.8	--	--	--	74	67	57	--	--	--
Ebeltoft	134	98	146	--	--	--	35.6	32.8	33.2	--	--	--	77	67	60	--	--	--
Leonard	149	108	138	--	--	--	36.8	34.6	35.5	--	--	--	74	66	57	--	--	--
AC Gwen	93	40	--	--	--	--	40.5	36.6	--	--	--	--	75	67	--	--	--	--
Sesqui	132	108	--	--	--	--	38.4	37.3	--	--	--	--	73	65	--	--	--	--
AC Medallion	132	--	--	--	--	--	35.1	--	--	--	--	--	75	--	--	--	--	--
Reeves	116	--	--	--	--	--	37.9	--	--	--	--	--	69	--	--	--	--	--
LSD 5%	17.9	7.4	13.8	15.3	15.5		1.2	1.2	1.1	1.1	0.9		1.0	0.9	0.9	1.7	1.5	

*Naked-hull variety

Oats Summary, Langdon 2004-2008

	Height (in)						Protein(%)						Lodging (0-9)					
Variety	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
AC Pinnacle	50	35	49	46	43	46	9.2	6.2	8.9	12.3	12.0	11.1	8.8	3.5	7.8	4.0	0.3	4.0
Beach	51	46	51	51	46	50	10.2	7.1	10.8	13.3	13.4	12.5	8.3	7.7	5.3	3.5	0.3	3.0
Buff*	46	41	45	41	39	42	11.9	10.2	14.4	14.8	14.4	14.5	8.8	2.2	3.0	4.8	0.0	2.6
CDC Dancer	52	46	49	47	45	47	8.6	7.3	10.6	11.7	11.7	11.3	8.5	0.5	4.0	3.5	1.0	2.8
HiFi	52	47	49	44	45	46	10.1	9.9	11.5	13.1	13.1	12.6	8.5	0.7	6.3	3.8	0.0	3.4
Hytest	54	46	50	47	47	48	12.7	10.5	14.5	15.4	16.0	15.3	7.8	6.9	7.3	6.0	0.5	4.6
Jerry	52	46	48	44	44	45	10.4	6.8	12.1	12.6	14.7	13.1	8.3	8.5	5.8	4.8	0.0	3.5
Killdeer	45	40	41	41	38	40	9.3	6.3	10.0	12.1	12.5	11.5	8.8	6.2	3.8	6.0	0.0	3.3
Maida	50	43	50	44	42	45	11.0	7.6	12.1	12.9	14.2	13.1	8.5	8.3	6.3	3.3	0.0	3.2
Morton	53	49	53	51	46	50	11.0	10.8	13.4	13.9	14.2	13.8	7.0	0.0	5.0	4.3	0.0	3.1
Otana	51	47	49	46	48	48	9.4	6.4	10.0	11.7	13.6	11.8	8.8	7.7	7.0	5.5	1.8	4.8
Paul*	51	47	51	48	46	48	13.8	12.4	15.2	16.0	17.9	16.4	8.0	0.0	7.0	4.5	0.0	3.8
Souris	48	43	47	45	41	44	9.6	10.3	11.5	13.5	13.4	12.8	8.0	0.1	7.3	3.8	0.0	3.7
Stark	49	45	50	47	45	47	11.3	10.0	13.4	14.8	14.7	14.3	9.0	0.8	5.8	4.5	0.0	3.4
Youngs	50	46	50	46	48	48	11.3	8.3	11.4	14.2	14.4	13.3	7.5	6.1	6.3	5.8	1.5	4.5
Stallion	--	--	--	47	47	--	--	--	--	13.6	15.0	--	--	--	--	7.0	1.3	--
CDC Minstrel	--	--	--	--	41	--	--	--	--	--	11.3	--	--	--	--	--	0.0	--
Furlong	49	41	--	--	43	--	10.9	7.1	--	--	13.6	--	8.8	8.6	--	--	1.3	--
AC Assiniboia	48	40	49	47	--	--	11.6	6.7	9.7	13.1	--	--	7.5	8.6	5.3	3.0	--	--
AC Ronald	45	37	46	42	--	--	9.8	6.7	9.8	10.8	--	--	7.5	8.8	8.3	0.8	--	--
CDC Weaver	--	42	50	46	--	--	--	6.3	9.8	10.1	--	--	--	6.8	3.8	2.3	--	--
AC Kaufman	49	44	50	--	--	--	9.4	6.0	9.6	--	--	--	8.8	8.0	4.8	--	--	--
Ebeltoft	46	40	45	--	--	--	9.8	6.5	10.5	--	--	--	8.0	4.5	5.5	--	--	--
Leonard	50	43	48	--	--	--	10.2	8.0	12.0	--	--	--	8.0	6.5	4.3	--	--	--
AC Gwen	48	42	--	--	--	--	10.4	7.0	--	--	--	--	8.0	4.7	--	--	--	--
Sesqui	50	42	--	--	--	--	11.9	9.5	--	--	--	--	8.5	5.5	--	--	--	--
AC Medallion	49	--	--	--	--	--	9.8	--	--	--	--	--	8.3	--	--	--	--	--
Reeves	51	--	--	--	--	--	11.7	--	--	--	--	--	8.8	--	--	--	--	--
LSD 5%	2.0	5.1	2.4	2.5	2.3		0.7	0.9	0.8	1.1	0.7		NS	1.8	3.2	2.2	NS	

*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

Flax Summary, Langdon 2004-2008

Variety	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Height (in)						Days to Flower					
	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr	04	05	06	07	08	3yr
Bison	19	35	37	17	34	29	51.4	53.1	52.6	52.1	53.1	52.6	5.3	0	0	5.5	0	1.8	32	29	27	26	23	25	72	52	51	59	63	57
Carter*	27	39	37	36	34	36	52.8	53.2	52.8	53.6	53.7	53.4	3.0	0	0	0.5	0	0.2	29	28	25	27	23	25	73	56	53	60	65	59
CDC Arras	23	44	42	23	37	34	50.6	52.6	51.9	51.6	53.1	52.2	5.3	0	0	2.5	0	0.8	31	29	26	26	22	24	71	54	51	59	62	57
CDC Bethune	28	40	38	29	38	35	52.4	53.3	52.8	52.7	53.0	52.8	2.5	0	0	1.5	0	0.5	29	29	26	27	22	25	71	55	52	59	63	58
Hanley	30	41	42	29	36	35	53.0	53.9	52.6	53.0	53.6	53.1	0.5	0	0	2.8	0	0.9	28	25	24	26	21	24	71	52	51	57	63	57
Lightning	25	34	36	33	35	35	51.5	52.1	52.4	53.4	53.7	53.2	4.8	0	0	0.5	0	0.2	30	28	24	25	21	23	72	54	50	58	62	57
Linott	21	40	37	23	37	32	51.9	53.5	52.7	52.2	53.6	52.8	4.5	0	0	5.3	0	1.8	32	29	26	26	22	25	72	52	51	59	63	58
McGregor	28	45	36	30	36	34	52.5	53.8	52.8	52.8	53.7	53.1	2.0	0	0	1.0	0	0.3	30	28	23	27	22	24	72	55	52	61	65	59
Neche	26	40	35	19	37	30	52.9	53.5	53.2	51.9	53.6	52.9	2.8	0	0	6.3	0	2.1	31	30	26	26	22	25	71	53	50	59	63	57
Nekoma	23	36	38	30	36	35	53.4	53.8	53.5	53.5	53.7	53.6	2.8	0	0	2.0	0	0.7	30	27	25	27	22	25	71	54	50	58	63	57
Omega*	17	36	36	28	36	33	50.9	53.2	52.6	52.9	53.4	53.0	5.8	0	0	1.3	0	0.4	30	27	24	26	22	24	74	56	53	60	65	60
Pembina	27	39	35	35	35	35	53.1	53.4	52.9	53.1	53.6	53.2	1.0	0	0	1.0	0	0.3	30	29	26	27	22	25	71	55	51	59	63	58
Prairie Blue	34	43	40	32	38	37	52.5	53.2	52.4	52.8	52.9	52.7	0.5	0	0	0.0	0	0.0	29	28	23	25	21	23	73	55	52	61	64	59
Rahab 94	32	39	40	32	36	36	53.1	53.4	52.6	53.2	53.0	52.9	0.3	0	0	1.3	0	0.4	29	28	25	26	22	24	71	53	49	58	62	57
Webster	27	44	37	33	37	36	51.9	53.9	52.9	52.7	53.8	53.1	2.3	0	0	2.5	0	0.8	29	30	27	27	21	25	72	55	53	59	63	58
York	24	44	39	30	37	35	53.1	54.4	53.4	53.6	54.3	53.8	1.8	0	0	3.3	0	1.1	30	27	23	27	20	23	73	55	52	60	64	59
Prairie Thunder	--	--	--	35	37	--	--	--	--	53.1	53.5	--	--	--	--	0.5	0	--	--	--	--	26	21	--	--	--	--	58	64	--
CDC Sorrel	--	--	--	--	40	--	--	--	--	--	53.5	--	--	--	--	--	0	--	--	--	--	--	23	--	--	--	--	--	64	--
AC Watson	29	36	36	29	--	--	52.4	53.0	52.3	52.7	--	--	2.0	0	0	1.8	--	--	30	27	26	26	--	--	71	50	50	57	--	--
Scorpion*	--	--	--	29	--	--	--	--	--	52.7	--	--	--	--	--	0.5	--	--	--	--	--	23	--	--	--	--	--	58	--	--
Cathay	24	42	35	--	--	--	52.6	53.6	52.8	--	--	--	1.8	0	0	--	--	--	31	30	26	--	--	--	71	54	52	--	--	--
Selby	17	44	--	--	--	--	51.9	54.1	--	--	--	--	6.0	0	--	--	--	--	32	29	--	--	--	--	72	55	--	--	--	--
AC CarnDuff	26	--	--	--	--	--	53.0	--	--	--	--	--	1.8	--	--	--	--	--	29	--	--	--	--	--	70	--	--	--	--	--
CDC Mons	22	--	--	--	--	--	51.3	--	--	--	--	--	5.3	--	--	--	--	--	29	--	--	--	--	--	72	--	--	--	--	--
LSD 5%	5.8	5.5	4.1	5.7	3.2		1.0	0.3	0.5	0.6	0.4		2.3	--	--	1.9	--		1.4	1.8	1.9	1.1	1.2		0.6	0.9	0.8	1.0	0.7	

*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 2008 corn growing degree days were 1684, normal is 1796. 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.
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 2008 was on October 14 (28 F.). Our normal killing frost date is September 21(28 F.). Sunflower growing degree-days from May 15 to October 14 was 2401. Normal is 2550. Roundup was applied to the trial on October 1 after all hybrids matured. 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 Devils Lake. 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. The trial at Devils Lake received over 10 inches of rainfall from late September to the end of October. The conventional trial was harvest on November 4 but the field conditions were too wet to harvest the RR trial. An additional 2-3 of precipitation fell November 5-7.

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 are 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, 13% moisture.
Test Weight: pounds per bushel.
Height: inches
Physiological mature (PM): days to planting to physiological maturity at R7 reproductive stage (one normal pod on the main stem obtains mature brown or tan color).
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.
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 trial combining Clearfield and Liberty Link varieties. Each variety is sprayed with its own herbicide type. Two Roundup Ready check varieties were included in the Liberty and Clearfield trial for comparison.

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.

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 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
		07	08	2yr	07	08	2yr	08	07	08	2yr	07	08	2yr	07	08	2yr	08
Advanta Pacific	F51289 NS,DM	2963	2025	2494	70	79	75	129	56	52	54	33.9	30.8	32.3	48.3	46.9	47.6	17.9
Advanta Pacific	F30236 NS,DM	2300	1746	2023	70	80	75	128	50	46	48	30.2	28.1	29.1	45.4	45.9	45.7	17.5
Advanta Pacific	F51292NS,DM	--	2227	--	--	88	--	134	--	63	--	--	32.6	--	--	49.1	--	28.4
Advanta Pacific	F51122 NS,CL	2652	2122	2387	75	85	80	131	68	58	63	32.4	29.7	31.1	45.7	44.3	45.0	17.3
CHS	08EXP01	--	2081	--	--	86	--	133	--	--	--	--	24.3	--	--	--	--	21.9
Croplan Genetics	306 DMR	--	2199	--	--	82	--	131	--	55	--	--	31.0	--	--	48.0	--	18.2
Croplan Genetics	3080 DMR	2794	1967	2381	75	85	80	132	64	56	60	31.7	29.9	30.8	50.7	49.3	50.0	22.1
Croplan Genetics	325 DMR	--	2340	--	--	86	--	131	--	56	--	--	31.0	--	--	46.6	--	19.8
Croplan Genetics	369 DMR	--	1739	--	--	89	--	135	--	62	--	--	30.5	--	--	45.3	--	24.5
Croplan Genetics	356	2846	2080	2463	78	90	84	135	69	61	65	32.5	32.8	32.7	47.6	47.5	47.6	24.8
Croplan Genetics	528 CL DMR	2941	1989	2465	76	87	82	132	68	63	65	34.1	32.2	33.2	46.6	44.8	45.7	19.7
Croplan Genetics	551 CL	--	1816	--	--	88	--	136	--	63	--	--	30.9	--	--	45.6	--	27.5
Croplan Genetics	564 CL	2989	2092	2540	79	90	84	134	73	66	69	33.8	31.6	32.7	46.6	48.7	47.7	31.8
Dahlgren	4421	3014	2486	2750	73	82	78	130	70	59	64	30.2	29.4	29.8	45.4	42.2	43.8	19.3
Dahlgren	4455	--	2323	--	--	--	--	135	--	65	--	--	32.9	--	--	42.3	--	19.6
Dahlgren	4370	2661	1646	2153	72	83	77	129	58	51	54	32.9	30.4	31.6	48.4	49.3	48.9	17.3
Dahlgren	4370NS	--	2057	--	--	84	--	131	--	54	--	--	30.6	--	--	48.4	--	19.5
Dahlgren	4500CL	--	1979	--	--	89	--	134	--	60	--	--	30.0	--	--	48.2	--	27.3
DEKALB	MH6643	--	2127	--	--	82	--	132	--	57	--	--	30.2	--	--	46.8	--	18.9
DEKALB	DKF29-30	2431	1971	2201	73	80	77	131	67	57	62	34.0	31.4	32.7	47.2	46.7	47.0	16.6
DEKALB	IS6131	2502	2077	2289	73	81	77	132	61	54	58	34.5	33.0	33.8	47.2	47.2	47.2	16.7
DEKALB	IS7120	2494	2258	2376	73	82	77	132	61	56	58	32.9	32.0	32.4	45.0	44.8	44.9	18.8
DEKALB	DKF34-80CL	2927	2143	2535	77	89	83	133	70	62	66	32.9	30.8	31.8	50.8	46.3	48.5	20.9
DEKALB	DKF34-33	2593	1897	2245	77	88	82	134	70	59	65	44.4	33.3	38.9	48.6	49.3	48.9	19.7
Dyna-Gro	92N53	2621	1839	2230	74	84	79	132	67	55	61	32.5	30.7	31.6	51.0	50.9	50.9	22.7
Dyna-Gro	94C38	--	1791	--	--	91	--	135	--	66	--	--	30.6	--	--	44.8	--	27.3
Garst	4651NS	--	2028	--	--	86	--	134	--	61	--	--	31.7	--	--	46.7	--	23.3
Garst	NX43489	--	2166	--	--	86	--	132	--	62	--	--	33.4	--	--	45.7	--	21.0
Garst	NX44166	--	2098	--	--	87	--	132	--	64	--	--	32.6	--	--	45.5	--	21.8
Integra Seed	Int. 536 NSDM	2855	2182	2518	73	86	80	133	61	57	59	31.9	30.2	31.1	44.3	44.9	44.6	28.3
Integra Seed	IX0834 NSDM	--	1991	--	--	86	--	134	--	57	--	--	33.6	--	--	48.6	--	30.6
Integra Seed	Int.735 NSCLDM	2396	2056	2226	75	86	81	132	69	57	63	33.2	29.3	31.3	44.4	45.5	45.0	19.4

Oil Sunflowers (continued)

Brand	Hybrid	Yield(lbs/a)			Days to Bloom			Days to Mature	Height (in.)			Test Wt. (lbs/bu)			Oil (%)[1]			% Harvest Moisture
		07	08	2yr	07	08	2yr	08	07	08	2yr	07	08	2yr	07	08	2yr	08
Mycogen Seeds	8N270	2623	1866	2245	73	81	77	133	59	50	55	33.0	31.1	32.1	48.8	47.3	48.1	18.9
Mycogen Seeds	8N337DM	2830	1864	2347	74	84	79	130	66	56	61	32.2	31.2	31.7	51.3	49.8	50.6	21.2
Mycogen Seeds	8H288DM	--	1651	--	--	83	--	130	--	57	--	--	31.9	--	--	46.2	--	22.0
Mycogen Seeds	8D310	--	2270	--	--	83	--	130	--	61	--	--	29.0	--	--	42.7	--	19.3
Mycogen Seeds	8N358CLDM	--	2173	--	--	88	--	133	--	62	--	--	30.8	--	--	49.0	--	27.0
Mycogen Seeds	8H449DM	--	2244	--	--	88	--	136	--	64	--	--	33.7	--	--	49.3	--	30.0
Pioneer Brand	63N82	--	2187	--	--	86	--	133	--	67	--	--	33.7	--	--	49.4	--	21.7
Pioneer Brand	63M40	--	2131	--	--	86	--	130	--	57	--	--	30.7	--	--	44.9	--	18.8
Pioneer Brand	64H41	2541	2268	2404	77	87	82	133	76	64	70	37.3	34.5	35.9	45.6	45.2	45.4	22.4
Proseed	6007	--	1788	--	--	89	--	133	--	69	--	--	33.5	--	--	44.9	--	23.2
Proseed	6008	--	2067	--	--	89	--	132	--	64	--	--	30.7	--	--	43.2	--	23.1
Proseed	6481	3277	1837	2557	77	87	82	132	75	63	69	32.2	28.5	30.3	46.8	42.7	44.8	19.2
Proseed	7016	--	1644	--	--	93	--	133	--	74	--	--	30.3	--	--	42.2	--	22.7
Proseed	7025	--	1969	--	--	92	--	133	--	62	--	--	30.7	--	--	41.2	--	23.9
Proseed	7052	--	2024	--	--	88	--	132	--	68	--	--	32.4	--	--	48.2	--	17.5
Proseed	7069	--	1919	--	--	90	--	133	--	69	--	--	31.5	--	--	44.4	--	19.3
Proseed	7207	--	2217	--	--	91	--	133	--	69	--	--	31.9	--	--	46.2	--	19.9
Proseed	EE-2	3327	2103	2715	78	88	83	131	79	64	72	32.2	29.9	31.1	41.0	41.2	41.1	17.8
Proseed	E-85	2560	1944	2252	76	85	81	132	74	63	68	31.1	29.0	30.0	44.5	42.9	43.7	20.2
Proseed	E-5	2805	1837	2321	77	88	83	132	75	62	69	32.4	30.8	31.6	45.3	44.7	45.0	23.2
Proseed	E-6	--	1641	--	--	91	--	133	--	64	--	--	27.6	--	--	43.1	--	25.1
Proseed	E-7	--	1882	--	--	85	--	131	--	66	--	--	28.9	--	--	46.5	--	20.6
Seeds 2000	Defender Plus-NS-DMR	2732	2069	2401	74	84	79	130	68	53	60	32.6	30.7	31.6	45.6	45.0	45.3	19.6
Seeds 2000	Teton HO-DMR	2721	1736	2229	76	87	82	132	67	57	62	30.6	28.9	29.8	46.7	45.9	46.3	21.2
Seeds 2000	X4206-HO-DMR	--	1849	--	--	83	--	132	--	56	--	--	29.8	--	--	46.5	--	18.5
Seeds 2000	Viper CL-NS	--	1679	--	--	88	--	134	--	59	--	--	30.5	--	--	45.7	--	25.0
Triumph Seed	TRXS 7322	--	1593	--	--	89	--	135	--	40	--	--	33.6	--	--	48.9	--	26.5
Triumph Seed	TRXDM 8340	--	2027	--	--	85	--	133	--	52	--	--	32.0	--	--	49.2	--	24.7
USDA	894	2691	2051	2371	76	84	80	131	70	58	64	34.4	33.2	33.8	49.6	46.5	48.1	20.3
LSD 5%		563	425		1.4	1.8		1.9	5	4		3.6	1.5		3.2	1.7		3.2

[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
		07	08	2yr	07	08	2yr	08	07	08	2yr	07	08	2yr	22/64	20/64	18/64	08
CHS	07EXP02	2472	2163	2318	76	84	80	132	74	63	69	24.8	23.8	24.3	81	13	3	28.6
CHS Royal Hybrid	RH 1121	2440	3066	2753	78	84	81	133	76	59	68	25.4	24.6	25.0	67	19	8	26.0
Dahlgren	9530	2914	2365	2639	74	84	79	132	70	56	63	24.5	23.2	23.9	64	22	6	24.5
Dahlgren	9532DM2	2325	2093	2209	70	80	75	130	64	54	59	23.0	22.8	22.9	20	48	21	20.5
Dahlgren	9583CL1	2358	2319	2339	78	86	82	132	77	60	69	24.9	23.2	24.1	36	39	17	26.4
Dahlgren	95EXPCL1	--	2437	--	--	88	--	135	--	61	--	--	23.1	--	71	21	3	29.6
Dahlgren	9592EXP	--	2588	--	--	84	--	132	--	59	--	--	20.8	--	87	8	1	23.3
Mycogen Seeds	8C451	--	2218	--	--	85	--	131	--	60	--	--	20.6	--	85	8	1	22.4
Red River Comm.	2215	2398	2572	2485	76	82	79	131	75	58	67	24.6	24.0	24.3	67	23	4	21.9
Red River Comm.	2216	2740	2490	2615	75	84	80	132	75	57	66	24.3	23.7	24.0	68	22	4	22.8
Red River Comm.	2419	--	2311	--	--	87	--	134	--	61	--	--	21.9	--	78	15	3	28.5
Seeds 2000	Jaguar CL1	2612	2208	2410	74	84	79	132	74	59	66	24.1	22.1	23.1	67	21	4	20.4
Seeds 2000	Panther	2569	2148	2359	72	80	76	131	66	57	62	25.6	23.8	24.7	53	33	8	21.3
Seeds 2000	Panther DMR2	2465	2084	2275	72	80	76	130	71	56	63	26.3	23.6	25.0	51	35	8	21.4
Triumph Seed	767C	2478	2408	2443	76	83	79	132	69	57	63	23.7	23.3	23.5	65	24	5	27.2
USDA	924	2388	2249	2318	71	79	75	132	65	57	61	25.8	25.1	25.5	19	41	28	25.0
LSD 5%		538	465		2.1	1.8		1.2	4.1	4.4		0.9	1.0					3.4

Days to mature hybrid check: Hysun 311=130, SF270=130, PI6451=134.

[1]Clearfield hybrid

[2]Downy mildew resistant

Corn Grain

Brand	Hybrid	Company RM	Yield bu/a			Perf. Index[1]	Test Wt. lbs/bu	Days to Silk	Harvest Moisture (%)	Height in
		08	07	08	2yr	08	08	08	08	08
Gold Ctry Seed	77-01 CBR	77	--	111	--	121	47.4	86	37	100
Mustang Seeds	1308RRYGCB	78	--	110	--	137	48.9	87	33	97
NuTech Seed	3C-482 RR/YGCB	81	--	108	--	117	47.0	87	38	95
G2	5H-881 RR/HX	81	--	107	--	108	40.8	89	40	109
NuTech Seed	3T-484 VT3	83	--	106	--	99	42.5	91	43	105
Wensman Seed	W 7083 VT3	80	--	104	--	103	42.0	90	41	96
Seeds 2000	2781 RR	78	--	103	--	115	48.3	85	36	101
Hyland Seeds	Baxxos RR	75	--	102	--	120	49.5	84	35	107
DEKALB	DKC29-98 (RR2/YGCB)	79	129	102	116	129	50.9	83	32	87
Hyland Seeds	HL B14R	75	--	102	--	122	47.9	86	34	101
AgSource	3C-882 RR/YGCB	82	129	102	116	110	44.3	89	38	97
Mustang Seeds	2304VT3	83	--	101	--	93	42.6	91	44	101
DEKALB	DKC35-19 (RR2/YGCB)	83	--	100	--	111	46.6	89	37	97
PFS	24F80	80	--	100	--	97	44.9	89	42	95
PFS	37T79	79	--	99	--	118	49.1	88	34	96
Wensman Seed	EXP 6056BtRR	72	--	99	--	118	49.1	85	34	85
Gold Ctry Seed	80-02 RR	80	--	99	--	114	46.7	87	35	101
Hyland Seeds	HL B22R	79	--	98	--	102	44.1	89	39	98
Gold Ctry Seed	84-03 RR	77	--	98	--	105	46.2	90	38	97
Proseed	678RRBT	78	118	94	106	109	48.6	89	35	97
Mustang Seeds	1979RRYGCB	79	--	94	--	102	44.9	89	38	102
Wensman Seed	W 6076BtRR	79	--	93	--	97	43.9	89	39	99
Proseed	879RR	78	--	92	--	108	46.9	87	35	97
DEKALB	DKC33-54 (RR2)	83	--	91	--	93	43.4	88	40	93
Integra	6780R	80	127	90	108	92	44.4	89	40	99
NuTech Seed	3C-181 RR/YGCB	80	--	87	--	71	38.4	92	50	94
Integra	6780 VT3	78	--	86	--	88	45.1	89	40	100
Seeds 2000	8201VT3	82	--	85	--	78	41.0	93	45	99
Hyland Seeds	HLX 815 BtRR	75	--	85	--	105	48.2	85	33	86
AgSource	3A-383+RR	83	127	84	105	76	41.5	93	45	101
Proseed	781RRBT	81	136	83	110	68	38.0	91	50	96
NuTech Seed	3T-083 VT3	82	--	82	--	80	43.4	90	42	103
NuTech Seed	3A-887 GT	83	--	80	--	62	38.2	92	53	102
Integra	9311RBC	81	--	78	--	84	44.8	88	38	100
LSD 5%			19.9	18.9		--	1.9	1.7	3.0	5

[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 2004-2008

Variety	Type	Yield (lbs/a)					Days to Mature				100 Seed Wt. (gms)				
		05	06	07	08	3yr	05	06	08	2yr	05	06	07	08	3yr
Buster	Pinto	2741	3758	3895	2714	3456	104	96	109	103	40	44	40	41	41
Maverick	Pinto	2691	3706	3843	1857	3135	104	94	111	103	38	40	40	41	40
Othello	Pinto	2391	3698	3200	2379	3092	101	93	105	99	38	42	39	43	41
GTS 900	Pinto	2145	3610	3643	3018	3424	109	95	114	105	37	40	38	37	38
Topaz R	Pinto	--	3210	3113	2275	2866	--	86	103	95	--	41	39	42	41
Lariat	Pinto	--	4250	3933	3162	3782	--	97	112	104	--	46	46	42	45
Stampede	Pinto	--	4190	3846	2658	3565	--	94	111	103	--	42	41	40	41
La paz	Pinto	--	--	--	2874	--	--	--	119	--	--	--	--	34	--
Baja	Pinto	--	--	--	2638	--	--	--	106	--	--	--	--	40	--
Durango	Pinto	--	--	--	2419	--	--	--	107	--	--	--	--	41	--
Sonora	Pinto	--	--	--	2970	--	--	--	107	--	--	--	--	34	--
Vista	Navy	2598	3817	3531	2179	3176	109	98	113	106	18	20	19	19	20
Seahawk	Navy	1970	3343	3696	1771	2937	114	99	109	104	23	23	24	23	23
Norstar	Navy	--	3103	3384	2447	2978	--	99	110	105	--	21	20	18	20
Navigator	Navy	--	--	--	2275	--	--	--	111	--	--	--	--	18	--
Avalanche	Navy	--	--	--	2363	--	--	--	109	--	--	--	--	21	--
Ensign	Navy	--	--	--	2539	--	--	--	111	--	--	--	--	20	--
T9903	Navy	--	--	--	2579	--	--	--	110	--	--	--	--	23	--
Eclipse	Black Turtle	2379	3610	3428	2511	3183	112	96	111	103	19	22	22	20	21
T-39	Black Turtle	2159	3094	3174	2259	2842	112	96	118	107	20	21	22	21	21
Jaguar	Black Turtle	--	--	3429	2183	--	--	--	110	--	--	--	20	19	--
Merlot	Small Red	--	--	3527	2459	--	--	--	111	--	--	--	36	38	--
Sedona	Pink	--	--	3275	2187	--	--	--	108	--	--	--	40	36	--
Matterhorn	Great Northern	--	--	4012	2383	--	--	--	110	--	--	--	39	37	--
LSD 5%		627	613	535	504		3.0	3.8	3.2		2.1	2.2	--	--	

Drybean Summary, Pembina County 2004-2008

Variety	Type	Yield (lbs/a)						100 Seed Wt. (gms)						Days to Mature
		04	05	06	07	08	3yr	04	05	06	07	08	3yr	08
Buster	Pinto	1280	2023	3322	3752	3262	3445	37	41	45	48	36	43	113
Maverick	Pinto	1209	2019	2523	3373	2043	2646	34	40	39	47	36	41	114
Othello	Pinto	1706	2162	2678	2839	2403	2640	40	38	36	43	34	38	112
GTS 900	Pinto	1053	2217	3018	3305	2730	3018	31	41	42	51	34	42	116
Topaz R	Pinto	--	--	2510	2737	2159	2469	--	--	38	46	34	40	111
Stampede	Pinto	--	--	--	3418	2723	--	--	--	--	48	32	--	114
Lariat	Pinto	--	--	--	3561	2738	--	--	--	--	52	34	--	116
La paz	Pinto	--	--	--	--	3083	--	--	--	--	--	31	--	117
Baja	Pinto	--	--	--	--	2647	--	--	--	--	--	33	--	113
Durango	Pinto	--	--	--	--	2770	--	--	--	--	--	35	--	113
Sonora	Pinto	--	--	--	--	3002		--	--	--	--	28	--	113
Norstar	Navy	1321	1859	2007	2895	2319	2407	19	18	23	21	16	20	114
Vista	Navy	1851	2526	3226	2982	2746	2985	18	20	22	23	17	21	117
Seahawk	Navy	1934	1651	3182	2760	2003	2648	24	23	26	26	20	24	116
Navigator	Navy	--	--	--	--	2471	--	--	--	--	--	16	--	115
Avalanche	Navy	--	--	--	--	2647	--	--	--	--	--	18	--	115
Ensign	Navy	--	--	--	--	2818	--	--	--	--	--	19	--	116
T9903	Navy	--	--	--	--	2603	--	--	--	--	--	21	--	116
T-39	Black Turtle	1105	2103	2850	2888	2415	2718	18	21	22	25	18	22	118
Eclipse	Black Turtle	1400	2448	2786	3316	2627	2910	17	23	25	24	17	22	114
Jaguar	Black Turtle	--	--	--	2940	2343	--	--	--	--	25	16	--	114
Merlot	Small Red	--	--	--	--	2607	--	--	--	--	--	33	--	113
Sedona	Pink	--	--	--	2918	2379	--	--	--	--	48	35	--	112
Matterhorn	Great Northern	--	--	--	--	2858	--	--	--	--	--	32	--	115
LSD 5%		194	321	767	308	266		2.6	2.5	2.6	--	--		2.3

Langdon - Conventional Soybeans - 2006-2008

Brand	Variety	Maturity Group[1]	Plant Height	PM	Oil	Protein	Test Weight	Yield 2006	Yield 2007	Yield 2008	Yield 2 yr avg.	Yield 3 yr avg.
			in	days	%	%	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
Gowan Seeds	GS1001	00.0	24	108	16.2	38.8	55.9	50.0	52.9	32.9	42.9	45.3
NDSU	Cavalier	00.7	27	119	16.1	36.1	54.8	56.2	55.7	38.8	47.3	50.2
Thunder Seeds	07005	00.5	27	119	16.4	35.8	56.8	--	--	35.8	--	--
LSD 5%			2.3	1.3	NS	2.0	0.7	6.5	6.1	NS		

Pembina - Conventional Soybeans - 2006-2008

Brand	Variety	Maturity Group[1]	Plant Height	PM	Oil	Protein	Test Weight	Yield 2006	Yield 2007	Yield 2008	Yield 2 yr avg.	Yield 3 yr avg.
			in	days	%	%	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
Gowan Seeds	GS 1001	00.0	28	80	15.9	39.4	55.3	--	--	40.9	--	--
NDSU	Cavalier	00.7	31	95	16.3	37.0	55.6	38.0	60.6	40.2	50.4	46.3
Thunder Seeds	07005	00.5	34	103	15.3	38.0	57.0	--	--	36.7	--	--
LSD 5%			3.1	8.3	0.6	0.7	NS	--	--	NS		

Walsh County - Conventional Soybean - 2006-2008

Brand	Variety	Maturity Group[1]	Plant Height	PM	Lodging	Oil	Protein	Test Weight	Yield 2006	Yield 2007	Yield 2008	Yield 2 yr avg.	Yield 3 yr avg.
			in	days	0-9	%	%	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
Thunder Seeds	07005	00.5	42	111	1.8	16.3	38.6	55.3	--	--	44.6	--	--
NDSU	Cavalier	00.7	42	113	2.3	16.2	38.0	54.6	49.2	67.7	57.2	62.5	58.0
NDSU	Walsh	0.3	45	119	4.5	16.4	37.8	53.2	48.6	57.4	46.8	52.1	50.9
NDSU	Barnes	0.3	46	123	4.8	17.5	36.7	54.1	45.6	55.4	54.0	54.7	51.7
LSD 5%			1.9	3.1	2.4	0.3	0.7	NS	4.5	6.2	5.8		

Ramsey County - Conventional Soybeans - 2006-2008

Brand	Variety	Maturity Group[1]	Plant Height	PM	Oil	Protein	Test Weight	Yield 2006	Yield 2007	Yield 2008	Yield 2 yr avg.[2]	Yield 3 yr avg.[3]
			in	days	%	%	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
NDSU	Cavalier	00.5	27	113	17.2	35.7	54.3	25.1	72.3	35.3	53.8	44.2
Thunder Seeds	07005	005	28	113	16.5	37.2	55.1	--	--	30.4	--	--
NDSU	Walsh	0.3	32	123	16.8	35.9	55.4	26.4	68.7	34.2	51.5	43.1
NDSU	Barnes	0.3	31	124	17.7	35.5	56.3	28.6	69.6	44.9	57.3	47.7
LSD 5%			2.3	1.6	NS	NS	NS	3.9	8.5	4.5		

[1]Maturity Group provided by company

[2] 2 year average includes Devils Lake 2008 and Pekin 2007.

[3] 3 year average includes Devils Lake 2008, Pekin 2007 and Devils Lake 2006.

Yield, oil and protein reported at 13% moisture.

Langdon - Roundup Ready 2006-2008

Brand	Variety	Maturity Group[1]	Plant Ht.	PM	Protein	Oil	Test Wt.	Yield 2006	Yield 2007	Yield 2008	2 yr avg.	3 yr avg.
			in	days	%	%	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
Proseed	80-04	00.4	24	114	37.3	17.0	55.4	--	--	39.5	--	--
NorthStar Genetics	NS 0021RR	00.3	25	114	37.6	16.5	54.2	58.9	55.8	38.2	47.0	51.0
Kruger	K-004RR	00.4	26	114	36.4	17.1	53.0	--	--	38.7	--	--
Integra	97001R	00.2	25	115	37.3	17.0	53.8	--	--	38.4	--	--
Integra	77002R	00.5	27	115	37.5	16.6	53.9	--	--	42.3	--	--
Syngenta/NK	S00-W3	00.3	29	115	36.3	16.4	53.6	--	58.0	44.7	51.4	--
Hefty Seed Company	H0059R	00.5	26	116	36.8	16.9	54.3	--	--	38.8	--	--
Prairie Brand	PB-00338RR	00.3	26	116	36.5	17.0	52.8	--	--	42.5	--	--
Stine	0046-4	00.5	25	116	36.4	17.2	55.0	--	--	38.3	--	--
Wensman Seed	W 20051RR	00.5	27	116	37.5	16.8	53.7	59.1	58.7	43.4	51.0	53.7
NorthStar Genetics	NS 0011RR	00.3	27	116	37.3	16.6	54.5	60.2	68.2	42.8	55.5	57.1
Wensman Seed	W 20074RR	00.7	27	116	36.2	17.3	53.8	63.4	59.7	42.8	51.3	55.3
AgSource	6004	00.4	27	116	37.9	16.1	54.4	--	--	45.3	--	--
Roughrider Genetics	RG600RR	0.0	30	117	36.8	16.8	54.2	53.4	56.4	38.6	47.5	49.5
PFS	06004RR	00.4	28	117	38.3	16.7	53.7	56.0	60.1	40.1	50.1	52.1
PFS	07008RR	00.8	28	117	36.0	17.1	55.2	58.0	60.6	44.9	52.7	54.5
Thunder Seed	27005RR	00.5	28	117	36.6	17.1	54.4	57.2	59.7	39.8	49.7	52.2
Thunder Seed	29009RR	00.9	30	117	38.4	15.9	54.3	--	--	43.4	--	--
Hyland Seeds	RR Russell	00.6	27	117	35.4	16.9	55.7	--	--	36.5	--	--
Proseed	70-10	0.1	28	117	36.7	16.8	54.5	--	--	41.1	--	--
NuTech	NT-0055RR	00.5	29	117	37.3	16.7	55.1	65.6	64.2	49.5	56.8	59.8
Syngenta/NK	S00-H7	00.7	29	117	35.8	17.4	51.4	--	--	41.7	--	--
Roughrider Genetics	RG6008RR	00.8	28	117	36.9	15.9	53.4	47.5	54.6	35.4	45.0	45.8
Roughrider Genetics	RG7008RR	00.7	28	117	38.1	15.4	55.7	50.1	51.9	39.3	45.6	47.1
Hefty Seed Company	H0086R	00.8	29	118	37.3	16.3	51.9	59.7	58.4	41.7	50.1	53.3
Wensman Seed	W 20096RR	00.9	30	118	39.1	15.8	54.1	--	--	40.7	--	--
Prairie Brand	PB-00918RR	00.9	32	118	37.2	16.5	54.3	--	--	46.3	--	--
Thunder Seed	26009RR	00.9	29	118	37.4	16.8	51.8	--	58.5	42.6	50.5	--
Hyland Seeds	RR Ramsey	00.5	29	118	38.2	16.3	53.7	51.6	54.7	40.6	47.7	49.0
Dyna-Gro	SX08009	00.9	29	119	37.8	16.1	54.1	--	--	41.4	--	--
Prairie Brand	PB-00578RR	00.5	27	119	36.2	17.0	53.3	--	--	44.3	--	--
Prairie Brand	PB-0107RR	0.1	28	119	36.6	16.8	53.4	--	56.7	42.7	49.7	--
NuTech	NT-0090RR	00.9	29	119	38.2	16.5	53.6	60.3	62.0	45.4	53.7	55.9
Asgrow	AG00501	00.5	29	119	37.5	15.8	54.6	--	--	41.6	--	--
Kruger	K-009+RR	00.9	31	119	38.1	17.1	53.9	58.2	66.5	45.7	56.1	56.8
PFS	1001RR	0.1	31	119	37.5	16.3	54.8	--	--	44.0	--	--
Dyna-Gro	SX08007	00.7	27	119	36.7	16.0	55.7	--	--	35.6	--	--
Hefty Seed Company	H0097R	00.9	29	119	37.9	16.6	52.9	59.5	61.8	42.9	52.3	54.7
NuTech	6022	0.2	28	119	35.8	16.8	54.1	--	--	48.1	--	--
Proseed	50-07	00.7	30	119	36.3	17.1	52.9	61.7	62.6	45.0	53.8	56.4
Hefty Seed Company	H0099R	00.9	30	119	38.3	16.0	54.2	--	--	40.6	--	--
NorthStar Genetics	NS 0064RR	00.6	29	119	37.0	16.0	54.5	--	--	39.1	--	--

Langdon - Roundup Ready (continued)

Brand	Variety	Mat-urity Group[1]	Plant Ht.	PM	Pro-tein	Oil	Test Wt.	Yield 2006	2007	2008	2 yr avg.	3 yr avg.
			in	days	%	%	lbs/bu	----------bu/a----------				
Dyna-Gro	320J01	0.1	28	119	37.3	16.4	54.7	--	--	41.3	--	--
NorthStar Genetics	NS 0084RR	00.8	31	120	38.5	15.7	53.7	--	--	39.9	--	--
PFS	0901RR	0.1	28	120	36.6	16.5	53.5	--	45.6	43.2	44.4	--
Asgrow	AG0901	00.9	30	120	37.9	15.8	54.3	60.4	65.6	45.7	55.7	57.2
NuTech	6015	0.1	30	120	36.5	16.7	54.4	--	67.7	48.7	58.2	--
AgSource	6024	0.2	29	120	37.0	16.5	53.1	--	--	45.7	--	--
Asgrow	AG00603	00.6	31	120	37.6	15.5	55.7	--	61.4	46.5	54.0	--
Gold Country Seed	9008RR	00.8	29	121	37.6	16.2	55.1	--	--	44.9	--	--
Hefty Seed Company	H0079RN	00.7	29	121	36.3	16.2	55.0	--	--	36.0	--	--
Kruger	K-007RR	00.7	32	121	36.0	16.7	55.2	--	--	44.2	--	--
Hyland Seeds	HS 02R28	0.2	30	121	36.7	15.8	57.7	--	--	43.4	--	--
Syngenta/NK	S01-C9	0.1	29	121	36.7	17.1	53.2	--	--	41.3	--	--
Prairie Brand	PB-0218RR	0.1	30	122	36.2	16.7	53.8	--	--	48.2	--	--
Integra	97007RS	00.7	31	122	37.1	15.2	53.2	--	--	44.2	--	--
Proseed	80-00	0.0	33	123	36.4	16.5	53.3	--	--	47.2	--	--
AgSource	6006	00.6	32	124	36.7	16.2	55.5	--	67.3	53.5	60.4	--
NuTech	6006+	00.6	30	124	37.8	16.0	52.9	--	--	47.9	--	--
Gold Country Seed	0901RR	0.1	31	124	36.2	16.6	54.4	--	--	48.1	--	--
Thunder Seed	2901RR	0.1	30	124	36.2	16.4	53.5	--	--	48.9	--	--
Roughrider Genetics	RG601NRR	0.1	32	125	38.4	15.1	55.6	52.8	51.1	37.8	44.4	47.2
Kruger	K-028RR	0.2	32	126	37.5	16.1	51.8	--	--	47.3	--	--
Gold Country Seed	2703RR	0.3	32	126	38.2	15.3	52.9	--	--	36.1	--	--
AgSource	6042	0.4	34	127	37.9	15.4	51.9	--	--	52.2	--	--
Kruger	K-042RR	0.4	34	128	37.1	15.7	53.6	--	--	40.9	--	--
LSD 5%			2.9	2.1	1.2	0.8	2.3	4.7	5.0	4.6		

[1]Maturity Group provided by company

Yield, oil and protein reported at 13% moisture.

Pembina County - Roundup Ready Soybeans 2006-2008

Brand	Variety	Maturity Group[1]	Plant Ht.	PM	Pro-tein	Oil	Test Wt.	Yield 2006	Yield 2007	Yield 2008	2 yr avg.	3 yr avg.
			in	days	%	%	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
Syngenta/NK	S00-H7	00.7	30	113	36.5	16.8	55.1	--	--	43.1	--	--
Hefty Seed Company	H0059R	00.5	26	114	36.8	16.8	54.1	--	--	44.3	--	--
Prairie Brand	PB-00338RR	00.3	27	115	36.8	16.9	53.3	--	--	45.8	--	--
Syngenta/NK	S00-W3	00.3	34	115	36.4	16.5	54.1	--	57.3	44.7	51.0	--
AgSource	6004	00.4	26	115	37.0	16.7	55.5	--	--	46.0	--	--
Proseed	80-04	00.4	26	115	36.8	15.9	54.2	--	--	44.2	--	--
Kruger	K-004RR	00.4	25	115	36.3	17.4	53.9	--	--	42.8	--	--
Integra	97001R	00.2	26	115	36.2	16.1	53.5	--	--	43.7	--	--
Hyland Seeds	RR Russell	00.6	30	116	34.6	16.7	57.5	--	--	41.5	--	--
NorthStar Genetics	NS 0011RR	00.3	26	116	36.7	16.5	55.0	48.5	71.4	43.4	57.4	54.4
REA	5825RR	00.4	25	116	36.8	17.4	52.1	--	--	43.9	--	--
NorthStar Genetics	NS 0021RR	00.3	28	116	36.7	17.0	53.1	--	--	45.1	--	--
Wensman Seed	W 20051RR	00.5	30	116	37.0	17.1	53.7	45.3	67.6	45.7	56.7	52.9
Integra	77002R	00.5	27	116	37.0	17.2	54.9	--	--	42.2	--	--
Stine	0066-4	00.7	26	116	36.3	16.9	54.2	--	--	44.5	--	--
PFS	06004RR	00.4	30	117	38.1	16.6	54.7	43.2	65.6	42.1	53.9	50.3
Roughrider Genetics	RG7008RR	00.7	32	117	37.6	17.2	57.3	39.9	61.2	43.8	52.5	48.3
REA	5771RR	00.7	27	117	36.3	16.5	54.1	--	--	42.3	--	--
Hefty Seed Company	H0086R	00.8	30	117	36.1	17.1	54.0	42.7	55.4	43.9	49.7	47.3
Thunder Seed	27005RR	00.5	30	118	36.7	16.5	54.4	--	68.7	43.3	56.0	--
Asgrow	AG00501	00.5	36	118	36.2	17.1	53.7	--	--	49.1	--	--
Prairie Brand	PB-00578RR	00.5	26	118	36.4	16.4	54.6	--	--	45.9	--	--
Roughrider Genetics	RG6008RR	00.8	29	118	37.5	16.1	56.0	39.5	61.6	39.2	50.4	46.8
NuTech	NT-0055RR	00.5	29	118	36.6	16.9	55.3	44.1	69.7	44.6	57.2	52.8
Dyna-Gro	SX08009	00.9	33	118	38.4	15.2	55.6	--	--	41.4	--	--
PFS	07008RR	00.8	33	118	36.0	17.1	52.9	45.8	64.3	46.2	55.2	52.1
Prairie Brand	PB-00918RR	00.9	34	118	37.9	17.2	56.5	--	--	40.9	--	--
Dyna-Gro	320J01	0.1	31	118	37.1	16.5	54.0	--	--	42.9	--	--
Hyland Seeds	RR Ramsey	00.5	32	118	38.0	16.5	53.4	--	--	39.9	--	--
Stine	0098-84	0.0	28	118	36.7	17.1	54.3	--	--	43.4	--	--
Hefty Seed Company	H0099R	00.9	32	118	38.5	16.0	54.6	--	--	37.3	--	--
Syngenta/NK	S01-C9	0.1	30	119	37.6	16.8	54.4	--	--	39.9	--	--
Integra	97009R	00.9	31	119	35.9	16.9	52.7	46.3	61.0	43.9	52.4	50.4
Thunder Seed	29009RR	00.9	32	119	37.7	16.1	56.6	--	--	41.7	--	--
PFS	1001RR	0.1	32	119	38.0	17.1	54.4	--	--	41.8	--	--
Wensman Seed	W 20096RR	00.9	33	119	37.8	16.8	55.0	--	--	40.7	--	--
Dyna-Gro	SX08007	00.7	27	119	35.3	17.2	55.9	--	--	36.5	--	--

Pembina County - Roundup Ready Soybeans (continued)

Brand	Variety	Maturity Group[1]	Plant Ht.	PM	Pro-tein	Oil	Test Wt.	Yield 2006	2007	2008	2 yr avg.	3 yr avg.
			in	days	%	%	lbs/bu	bu/a				
PFS	0901RR	0.1	29	119	36.9	16.5	54.0	--	63.0	43.8	53.4	--
Proseed	70-10	0.1	30	119	36.7	16.7	53.9	--	--	45.9	--	--
Prairie Brand	PB-0107RR	0.1	29	119	36.8	16.8	55.0	--	65.3	44.2	54.7	--
Wensman Seed	W 20074RR	00.7	32	119	36.0	16.8	53.6	47.3	64.3	48.4	56.4	53.3
NuTech	6015	0.1	30	120	36.7	16.6	54.7	--	66.1	44.9	55.5	--
Hefty Seed Company	H0097R	00.9	30	120	37.5	17.3	54.7	42.3	62.4	46.2	54.3	50.3
Proseed	50-07	00.7	33	120	36.0	16.9	53.7	43.1	69.1	44.6	56.9	52.3
Kruger	K-007RR	00.7	33	120	36.6	16.7	54.9	--	--	46.5	--	--
Asgrow	AG00901	00.9	31	120	36.5	16.1	55.7	--	63.1	49.0	56.1	--
NuTech	6022	0.2	32	120	36.5	16.6	55.1	--	--	52.9	--	--
Roughrider Genetics	RG600RR	0.0	33	120	36.1	17.0	55.1	42.5	63.5	43.6	53.6	49.9
REA	5840NRR	00.7	28	120	36.2	17.3	56.3	--	--	37.0	--	--
NuTech	NT-0090RR	00.9	30	121	38.0	17.0	55.1	44.0	68.1	49.0	58.5	53.7
Asgrow	AG00603	00.6	34	121	36.8	16.5	55.5	--	63.4	47.9	55.7	--
Thunder Seed	26009RR	00.9	30	121	37.7	17.0	52.4	--	67.1	43.2	55.1	
Hyland Seeds	HS 02R28	0.2	33	122	36.6	16.3	57.2	--	--	45.1	--	--
AgSource	6024	0.2	32	122	37.4	16.3	52.4	--	--	46.1	--	--
Kruger	K-009+RR	00.9	32	122	37.3	16.8	52.6	44.2	66.0	45.6	55.8	51.9
Hefty Seed Company	H0079RN	00.7	30	122	35.9	16.2	57.1	--	--	35.7	--	--
AgSource	6006	00.6	34	122	36.7	16.7	55.6	--	69.3	50.5	59.9	--
Prairie Brand	PB-0218RR	0.1	31	122	36.3	16.9	55.4	--	--	50.2	--	--
Thunder Seed	2901RR	0.1	34	122	35.6	16.8	53.3	--	--	46.5	--	--
NuTech	6006+	00.6	35	123	36.5	16.7	54.2	--	--	50.4	--	--
Proseed	80-00	0.0	34	123	36.1	17.1	54.1	--	--	49.3	--	--
Kruger	K-028RR	0.2	33	126	36.8	16.8	55.0	--	--	49.2	--	--
Roughrider Genetics	RG601NRR	0.1	32	126	38.0	16.0	55.7	43.3	56.0	41.6	48.8	47.0
AgSource	6042	0.4	34	128	37.3	16.1	55.7	--	--	46.5	--	--
Kruger	K-042RR	0.4	36	129	37.0	15.8	54.3	--	--	44.2	--	--
LSD 5%			2.4	2.4	0.8	NS	2.4	5.7	5.2	2.9		

[1]Maturity Group provided by company

Walsh County - Roundup Ready Soybeans 2006-2008

Brand	Variety	Maturity Group[1]	Plant Ht.	PM	Pro-tein	Oil	Lodging	Test Wt.	Yield 2006	Yield 2007	Yield 2008	Yield 2 yr avg.	Yield 3 yr avg.
			in	days	%	%	0-9	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
Kruger	K-004RR	00.4	35	110	37.4	16.8	0.4	53.4	--	--	51.1	--	--
NorthStar Genetics	NS 0011RR	00.3	35	112	38.1	17.0	0.3	55.0	48.0	67.8	53.4	60.6	56.4
Roughrider Genetics	RG7008RR	00.7	41	112	38.5	16.5	1.0	55.3	46.3	56.4	51.3	53.9	51.3
Integra	97014R	0.0	38	112	38.1	16.8	1.1	54.5	49.3	63.3	54.3	58.8	55.6
REA	5825RR	00.4	35	113	37.3	17.9	0.0	53.4	--	--	51.7	--	--
Syngenta/NK	S00-W3	00.3	43	113	37.2	16.5	1.1	53.8	--	59.7	53.3	56.5	--
Wensman Seed	W 20074RR	00.7	40	113	36.8	17.0	1.4	54.8	--	62.2	52.7	57.4	--
Roughrider Genetics	RG6008RR	00.8	40	113	38.5	17.2	1.4	54.7	44.1	59.3	49.5	54.4	51.0
Hyland Seeds	RR Ramsey	00.5	39	114	38.8	16.3	0.1	55.2	--	--	49.9	--	--
Kruger	K-009+RR	00.9	41	114	38.3	17.3	0.8	54.2	48.7	69.3	57.6	63.4	58.5
NorthStar Genetics	NS 0021RR	00.3	37	114	37.6	16.7	1.4	53.9	52.6	60.0	52.2	56.1	54.9
REA	5771RR	00.7	36	114	37.5	16.6	1.9	53.6	--	--	53.5	--	--
Thunder Seed	27005RR	00.5	36	114	37.3	17.0	0.3	54.8	53.4	64.3	48.0	56.2	55.2
Prairie Brand	PB-00965RR	00.9	39	114	38.6	17.3	0.4	54.2	48.2	60.6	57.1	58.9	55.3
Integra	97009R	00.9	40	114	37.2	17.3	0.5	54.6	52.7	60.9	51.6	56.3	55.1
Syngenta/NK	S00-H7	00.7	42	114	36.3	16.6	3.0	53.5	--	--	52.7	--	--
Roughrider Genetics	RG600RR	0.0	40	114	36.9	17.1	1.8	54.6	49.1	64.8	55.4	60.1	56.4
Hyland Seeds	RR Russell	00.6	39	114	36.4	16.4	5.6	55.6	--	--	45.9	--	--
NuTech	6015	0.1	37	114	37.3	17.4	0.4	52.8	--	68.7	52.0	60.3	--
Wensman Seed	W 20096RR	00.9	42	114	38.1	16.9	1.6	55.6	--	--	48.9	--	--
Dyna-Gro	SX08009	00.9	43	114	38.3	16.3	1.8	53.9	--	--	52.4	--	--
NorthStar Genetics	NS 0064RR	00.6	37	114	36.6	16.4	0.4	55.3	--	--	46.6	--	--
Proseed	70-10	0.1	37	114	37.3	16.9	0.3	55.4	--	70.4	55.3	62.9	--
Stine	0098-84	0.0	35	115	37.0	17.3	0.2	54.0	--	--	51.8	--	--
NuTech	NT-0090RR	00.9	40	115	38.5	17.6	1.3	53.8	50.9	68.7	53.1	60.9	57.6
Kruger	K-007RR	00.7	38	115	37.4	16.7	0.1	54.8	--	--	48.6	--	--
Asgrow	AG00501	00.5	43	115	36.1	16.8	2.2	54.5	--	--	56.2	--	--
PFS	0901RR	0.1	40	115	37.4	17.1	0.6	54.3	--	60.8	51.3	56.0	--
Syngenta/NK	S01-C9	0.1	39	115	37.8	16.3	0.3	54.6	--	--	50.5	--	--
PFS	1001RR	0.1	44	115	39.0	16.8	1.3	56.1	--	--	48.3	--	--
Hefty Seed Company	H0097R	00.9	39	115	38.0	17.7	1.2	54.0	--	58.3	53.2	55.8	--
PFS	07008RR	00.8	42	115	37.6	16.7	1.8	55.3	54.3	61.9	57.3	59.6	57.8
Gold Country Seed	9008RR	00.8	42	115	37.0	16.9	0.7	55.7	--	--	56.6	--	--
Asgrow	AG0901	00.9	41	115	37.5	16.7	0.4	55.6	--	63.7	55.9	59.8	--
Prairie Brand	PB-00918RR	00.9	44	115	38.7	16.5	1.8	54.4	--	--	49.0	--	--
Thunder Seed	26009RR	00.9	38	116	38.3	17.5	1.4	54.5	49.6	59.2	47.0	53.1	51.9
Jung Seed Genetics	8025RR	00.2	36	116	37.1	17.2	0.3	54.1	--	--	51.1	--	--
Hefty Seed Company	H0086R	00.8	40	116	37.4	17.1	2.1	53.4	50.3	62.7	54.4	58.5	55.8
REA	5840NRR	00.7	39	116	37.3	17.1	1.3	56.1	--	--	43.8	--	--
Hefty Seed Company	H0079RN	00.7	39	117	37.3	16.8	1.9	54.6	--	--	44.6	--	--

Walsh County - Roundup Ready Soybeans (continued)

Brand	Variety	Maturity Group[1]	Plant Ht.	PM	Pro-tein	Oil	Lodging	Test Wt.	Yield 2006	Yield 2007	Yield 2008	Yield 2 yr avg.	Yield 3 yr avg.
			in	days	%	%	0-9	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
NorthStar Genetics	NS 0084RR	00.8	43	117	39.1	17.3	1.6	55.6	--	--	49.4	--	--
Dyna-Gro	320J01	0.1	38	117	37.3	17.1	1.3	53.2	--	--	51.3	--	--
Thunder Seed	29009RR	00.9	43	117	38.4	17.3	2.0	55.6	--	59.2	49.7	54.4	--
Roughrider Genetics	RG603RR	0.3	47	118	37.6	17.0	1.5	54.9	47.0	55.4	49.0	52.2	50.5
Hefty Seed Company	H0099R	00.9	41	118	38.5	16.3	2.2	54.8	--	--	47.9	--	--
Asgrow	AG00603	00.6	44	119	37.6	16.6	4.6	54.9	49.7	64.3	55.9	60.1	56.6
Dairyland	DSR-0101/RR	0.1	41	119	36.5	17.1	5.3	54.1	--	--	57.6	--	--
Prairie Brand	PB-0498RR	0.4	36	119	37.3	17.1	3.5	55.2	--	--	60.5	--	--
NuTech	NT-0220RR	0.2	41	120	35.4	17.4	1.3	54.3	--	63.9	58.1	61.0	--
Proseed	80-50	0.4	35	120	37.4	16.7	0.8	54.4	--	--	57.8	--	--
AgSource	6043	0.4	38	120	37.4	17.1	0.8	55.3	--	--	58.1	--	--
Thunder Seed	2901RR	0.1	43	120	36.4	17.3	6.3	54.2	--	--	55.4	--	--
Gold Country Seed	0901RR	0.1	44	121	36.3	17.2	7.9	54.3	--	--	60.4	--	--
Kruger	K-028RR	0.2	38	121	37.6	16.9	0.9	54.1	--	--	57.8	--	--
Proseed	80-20	0.2	42	121	35.8	16.7	6.9	52.5	--	--	53.9	--	--
Roughrider Genetics	RG601NRR	0.1	46	121	38.0	16.5	2.0	55.7	53.9	56.6	45.7	51.2	52.1
Hyland Seeds	HS 02R28	0.2	41	121	36.4	17.5	6.1	56.6	--	--	56.6	--	--
REA	6832RR	0.2	38	121	37.4	17.1	0.5	54.9	--	--	57.6	--	--
Stine	0283-4	0.2	39	121	37.3	17.2	0.8	56.0	--	--	61.5	--	--
Prairie Brand	PB-0218RR	0.1	44	121	36.3	16.9	6.5	54.1	--	--	59.0	--	--
NuTech	6022	0.2	44	122	36.3	17.0	6.1	53.6	--	--	58.7	--	--
AgSource	6042	0.4	42	122	37.5	17.5	1.8	55.1	--	62.8	54.4	58.6	--
AgSource	6034	0.3	45	122	36.7	16.4	4.6	54.7	--	--	61.9	--	--
AgSource	6006	00.6	44	122	36.0	16.3	7.9	53.7	--	70.5	60.8	65.7	--
Wensman Seed	W 2025RR	0.2	37	122	37.4	16.6	0.7	54.9	--	--	55.4	--	--
NuTech	NT-0330RR	0.3	43	126	37.6	17.1	0.9	53.3	--	62.6	54.8	58.7	--
Proseed	70-30	0.3	42	126	37.9	16.5	1.0	54.9	--	61.8	50.9	56.3	--
Gold Country Seed	2703RR	0.3	45	127	37.8	16.6	1.1	54.9	--	--	50.7	--	--
Integra	79020R	0.2	39	127	38.4	16.4	1.3	54.7	--	--	59.1	--	--
Hefty Seed Company	H037R	0.3	43	127	37.4	17.5	0.5	54.2	--	57.4	51.0	54.2	--
Dyna-Gro	32T03	0.2	46	127	37.8	16.6	0.9	55.1	--	--	53.0	--	--
Wensman Seed	W 2030RR	0.3	44	127	37.3	17.4	1.3	55.0	--	--	53.3	--	--
Proseed	60-40	0.4	47	127	37.9	16.5	1.0	53.3	51.1	59.7	50.9	55.3	53.9
Prairie Brand	PB-0356RR	0.3	45	128	38.6	17.0	1.9	53.1	53.8	62.3	54.1	58.2	56.7
Kruger	K-042RR	0.4	46	129	38.3	16.7	1.5	54.9	--	--	50.5	--	--
LSD 5%			2.9	2.3	0.9	NS	1.7	NS	6.6	5.3	5.1		

[1]Maturity Group provided by company

Canola - Liberty Link, Clearfield Varieties - 2006-2008

Company/Brand	Variety	Type[1]	Blackleg Rating[2]	Days to First Flower			Days to End Flower			Days to Mature			% Cover		
				07	08	2yr	07	8	2yr	07	08	2 yr	07	08	2 yr
DL Seeds	30423-C7	Syn,CL,TR	R	--	55	--	--	81	--	--	105	--	--	51	--
DL Seeds	30522-C7	H,CL,TR	R	--	55	--	--	79	--	--	104	--	--	49	--
DL Seeds	30611-C7	H,CL,TR	R	--	56	--	--	77	--	--	103	--	--	54	--
Bayer Crop Science	InVigor 5440	H,LL,TR	R	49	55	52	71	76	73	93	102	97	78	83	80
Bayer Crop Science	InVigor 5550	H,LL,TR	R	50	54	52	71	75	73	94	100	97	84	85	85
Bayer Crop Science	InVigor 5630	H,LL,TR	R	48	55	51	72	77	74	93	102	97	81	75	78
Bayer Crop Science	InVigor 8440	H,LL,TR	R	48	53	51	70	73	72	94	100	97	81	83	82
Bayer Crop Science	953	H,LL,HO	NA	--	52	--	--	71	--	--	99	--	--	89	--
Canterra	30120-B6	H,CL,TR	MR	51	55	53	72	76	74	94	102	98	71	53	62
Mycogen Seeds	Nexera 830 CL	OP,CL,HO	R	50	56	53	73	81	77	95	106	100	80	58	69
Mycogen Seeds	Nexera 845 CL	OP,CL,HO	MR	50	54	52	70	70	70	93	102	98	86	73	79
Mycogen Seeds	DN051493	OP,CL,HO	R	--	58	--	--	81	--	--	105	--	--	46	--
Mycogen Seeds	DN051505	OP,CL,HO	R	--	56	--	--	74	--	--	102	--	--	45	--
Mycogen Seeds	DN051535	OP,CL,HO	R	--	56	--	--	75	--	--	100	--	--	55	--
Mycogen Seeds	DN051607	OP,CL,HO	R	--	56	--	--	74	--	--	102	--	--	48	--
Mycogen Seeds	DN051692	OP,CL,HO	R	--	57	--	--	78	--	--	103	--	--	46	--
Mycogen Seeds	DN051874	OP,CL,HO	R	--	56	--	--	77	--	--	105	--	--	41	--
Check[3]	IS7145	H,RR,TR	R	47	54	51	69	76	73	92	100	96	90	68	79
Check[3]	45H26	H,RR,TR	R	--	54	--	--	75	--	--	101	--	--	74	--
LSD 5%				1.6	0.8		1.6	1.4		1.7	1.7		11	10	

[1]OP-Open Pollinated, H-Hybrid, SYN-Synthetic, LL-Liberty Link, CL-Clearfield System
TR-Traditional Oil type, HO-High Oleic Oil Type

[2]Blackleg Rating: S=Susceptible, MS=Moderately Susceptible, MR=Moderately Resistant, R=Resistant,
Ratings provided by the company.

[3]Roundup ready check variety.

Canola - Liberty Link, Clearfield Varieties - 2006-2008

		Height (in)			Oil (%)			Yield (lbs/a)				
Company/Brand	**Variety**	07	08	2 yr	07	08	2yr	06	07	08	2yr	3yr
DL Seeds	30423-C7	--	44	--	--	40.5	--	--	--	2508	--	--
DL Seeds	30522-C7	--	43	--	--	40.7	--	--	--	2280	--	--
DL Seeds	30611-C7	--	42	--	--	41.6	--	--	--	2551	--	--
Bayer Crop Science	InVigor 5440	42	43	43	41.6	40.8	41.2	--	3178	2814	2996	--
Bayer Crop Science	InVigor 5550	42	44	44	44.5	41.8	43.2	2202	2601	2650	2625	2484
Bayer Crop Science	InVigor 5630	41	42	42	43.3	40.6	42.0	2061	2667	2762	2714	2497
Bayer Crop Science	InVigor 8440	41	42	42	41.5	40.7	41.1	--	3179	2809	2994	--
Bayer Crop Science	953	--	42	--	--	40.7	--	--	--	2973	--	--
Canterra	30120-B6	43	43	43	41.3	41.1	41.2	--	2724	2460	2592	--
Mycogen Seeds	Nexera 830 CL	42	43	43	41.6	40.5	41.1	--	2375	2219	2297	--
Mycogen Seeds	Nexera 845 CL	39	38	38	45.0	44.1	44.6	--	2279	2402	2340	--
Mycogen Seeds	DN051493	--	45	--	--	43.3	--	--	--	2135	--	--
Mycogen Seeds	DN051505	--	40	--	--	44.5	--	--	--	2104	--	--
Mycogen Seeds	DN051535	--	43	--	--	44.0	--	--	--	2253	--	--
Mycogen Seeds	DN051607	--	41	--	--	43.4	--	--	--	2148	--	--
Mycogen Seeds	DN051692	--	40	--	--	40.4	--	--	--	1929	--	--
Mycogen Seeds	DN051874	--	41	--	--	45.2	--	--	--	2182	--	--
Check[1]	IS7145	41	41	41	43.5	43.3	43.4	--	2596	2729	2663	--
Check[1]	45H26	--	41	--	--	42.9	--	--	--	2735	--	--
LSD 5%		2.5	2.6		2.1	1.8		377	258	367	--	--

[1]Roundup ready check variety.

Canola - Roundup Ready - 2006-2008

Company	Variety	Type[1]	Blackleg Rating[2]	Days to First Flower			Days to End Flower			Days to Mature			Cover %[3]		
				07	08	2yr	07	08	2yr	07	08	2yr	07	08	2yr
DL Seeds	30412-B6	H,TR	MR	47	54	50	69	76	73	93	103	98	85	55	70
DL Seeds	30503-B6	H,TR	MR	47	54	50	70	77	73	93	104	99	79	56	68
DL Seeds	30416-B6	H,TR	MR	47	55	51	70	77	74	93	104	99	80	53	66
DL Seeds	30214-C7	H,TR	R	--	55	--	--	78	--	--	104	--	--	63	--
DL Seeds	30216-C7	H,TR	R	--	55	--	--	77	--	--	104	--	--	70	--
DL Seeds	30217-C7	H,TR	R	--	54	--	--	77	--	--	104	--	--	63	--
DL Seeds	30408-C7	H,TR	R	--	53	--	--	77	--	--	104	--	--	66	--
DL Seeds	30422-C7	H,TR	MR	--	53	--	--	74	--	--	105	--	--	60	--
DL Seeds	30509-C7	Syn,TR	MR	--	53	--	--	76	--	--	103	--	--	75	--
DL Seeds	H6195	H,TR	MR	--	55	--	--	77	--	--	103	--	--	69	--
DL Seeds	H7385	H,TR	MR	--	52	--	--	72	--	--	100	--	--	69	--
BrettYoung	4414 RR	H,TR	R	47	52	50	69	74	72	92	101	96	90	84	87
BrettYoung	6051 RR	H,TR	MR	--	54	--	--	78	--	--	105	--	--	80	--
BrettYoung	6235RR	H,TR	MR	--	54	--	--	77	--	--	104	--	--	78	--
Canterra	SWK5325 RR	H,TR	MR	--	54	--	--	79	--	--	105	--	--	70	--
Canterra	1818 RR	OP,TR	R	48	53	51	70	76	73	96	105	100	45	45	45
Canterra	30507-B6	H,TR	MR	49	54	52	69	76	72	92	103	97	83	71	77
Cargill	v1035	H,HO	R	46	54	50	68	72	70	92	102	97	88	86	87
Cargill	v1037	H,HO	R	--	55	--	--	75	--	--	104	--	--	83	--
Cargill	v2010	H,HO	R	49	57	53	70	77	73	93	104	98	96	65	81
Cargill	v2018	H,HO	MR	49	55	52	70	77	73	93	102	98	84	69	76
Cargill	V2030	H,HO	MR	--	55	--	--	77	--	--	103	--	--	81	--
Croplan Genetics	HYCLASS 410	Syn,TR	R	49	54	51	71	77	74	94	104	99	83	78	80
Croplan Genetics	HYCLASS 712	Syn,TR	R	50	55	53	72	78	75	95	105	100	84	80	82
Croplan Genetics	HYCLASS 906	H,TR	R	47	54	51	70	79	74	92	105	99	96	93	94
Croplan Genetics	HYCLASS 906P	H,TR	R	--	54	--	--	78	--	--	106	--	--	76	--
Croplan Genetics	HYCLASS 924	H,TR	R	46	51	49	69	78	73	91	102	96	89	85	87
Croplan Genetics	HYCLASS 940	H,TR	R	46	52	49	67	71	69	90	100	95	94	93	93
DEKALB	DKL52-41	H,TR	R	46	54	50	69	73	71	93	101	97	--	78	--
DEKALB	DKL30-42	H,TR	R	--	53	--	--	71	--	--	100	--	--	89	--
DEKALB	DKL72-55	H,TR	MR	--	53	--	--	75	--	--	103	--	--	70	--

Canola - Roundup Ready - 2006-2008 (continued)

Company	Variety	Type[1]	Blackleg Rating[2]	Days to First Flower			Days to End Flower			Days to Mature			Cover %		
				07	08	2yr	07	08	2yr	07	08	2yr	07	08	2yr
DEKALB	IS3057	H,TR	R	45	51	48	66	71	68	90	100	95	88	88	88
DEKALB	IS7145	H,TR	MR	46	55	50	67	75	71	89	101	95	95	76	86
Integra Seed	IX08-7321R	H,TR	R	--	53	--	--	75	--	--	102	--	--	76	--
Integra Seed	IX08-7121R	H,TR	R	--	53	--	--	74	--	--	102	--	--	81	--
Integra Seed	IX08-7323R	H,TR	R	--	54	--	--	76	--	--	103	--	--	68	--
Monsanto	G72061	H,TR	R	--	55	--	--	76	--	--	102	--	--	75	--
Monsanto	G64034	H,TR	R	--	55	--	--	76	--	--	104	--	--	95	--
Monsanto	G75011	H,TR	R	--	53	--	--	74	--	--	101	--	--	64	--
Monsanto	G75449	H,TR	R	--	54	--	--	77	--	--	102	--	--	79	--
Monsanto	G67012	H,TR	R	--	53	--	--	73	--	--	101	--	--	78	--
Monsanto	G72021	H,TR	R	--	52	--	--	73	--	--	102	--	--	79	--
Monsanto	Z4409	H,TR	R	--	53	--	--	72	--	--	101	--	--	84	--
Monsanto	G72003	H,TR	T	--	53	--	--	73	--	--	101	--	--	86	--
Monsanto	DKL52-41PLUS	Syn,TR	MR	--	53	--	--	74	--	--	103	--	--	86	--
Mycogen Seeds	G2X0022	OP, HO	R	--	59	--	--	80	--	--	107	--	--	44	--
Mycogen Seeds	G2X0023	OP, HO	R	--	56	--	--	77	--	--	105	--	--	63	--
Mycogen Seeds	G2X0024	OP, HO	R	--	57	--	--	77	--	--	106	--	--	51	--
Mycogen Seeds	G2X0039	OP, HO	R	--	57	--	--	80	--	--	105	--	--	66	--
Mycogen Seeds	G2X0043	OP, HO	R	--	56	--	--	77	--	--	104	--	--	51	--
Mycogen Seeds	G2X0044	OP, HO	R	--	55	--	--	77	--	--	105	--	--	60	--
Mycogen Seeds	G2X0054	OP, HO	R	--	55	--	--	77	--	--	104	--	--	71	--
Pioneer Brand	45H26	H,TR	R	46	53	50	68	74	71	95	101	98	94	89	91
Pioneer Brand	45H28	H,TR	R	--	53	--	--	73	--	--	105	--	--	93	--
Proseed	2066	H,TR	MR	47	55	51	70	78	74	91	103	97	83	58	70
Proseed	30 Caliber	Syn,TR	R	50	56	53	72	78	75	94	105	100	78	73	75
Proseed	50 Caliber	H,TR	R	46	52	49	69	76	73	89	103	96	88	68	78
Proseed	2030	H,TR	R	--	52	--	--	77	--	--	102	--	--	73	--
LSD 5%				1.1	1.0		1.7	1.6		2.3	NS		6.4	17	

[1]OP-Open Pollinated, H-Hybrid, Syn-Synthetic. TR-Traditional Oil Type, HO-High Oleic Oil Type

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

[3] % Cover- Visual rating of percent area of plot covered by plant growth. This is a measure of stand and vigor. Plants were at 5-6 leaf stage.

Canola - Roundup Ready - 2006-2008

		Height (in)			Lodging (0-9)			Oil (%)			Yield (lbs/a)				
Company	Variety	07	08	2yr	07	08	2yr	07	08	2yr	06	07	08	2yr	3yr
DL Seeds	30412-B6	41	43	42	1.8	0.3	1.1	43.7	43.0	43.4	--	2660	2922	2791	--
DL Seeds	30503-B6	42	46	44	2.0	0.0	1.0	41.9	42.0	42.0	--	2291	3472	2881	--
DL Seeds	30416-B6	42	46	44	2.5	0.3	1.4	43.1	43.2	43.2	--	2380	3371	2876	--
DL Seeds	30214-C7	--	47	--	--	0.0	--	--	42.3	--	--	--	3313	--	--
DL Seeds	30216-C7	--	46	--	--	0.0	--	--	42.9	--	--	--	3014	--	--
DL Seeds	30217-C7	--	47	--	--	1.0	--	--	43.8	--	--	--	3357	--	--
DL Seeds	30408-C7	--	42	--	--	0.3	--	--	45.4	--	--	--	3428	--	--
DL Seeds	30422-C7	--	43	--	--	1.3	--	--	41.3	--	--	--	3129	--	--
DL Seeds	30509-C7	--	45	--	--	0.8	--	--	42.7	--	--	--	3636	--	--
DL Seeds	H6195	--	46	--	--	0.0	--	--	43.0	--	--	--	2565	--	--
DL Seeds	H7385	--	42	--	--	0.5	--	--	44.0	--	--	--	2821	--	--
BrettYoung	4414 RR	44	43	43	2.8	0.0	1.4	43.0	45.2	44.1	--	2718	2638	2678	--
BrettYoung	6051 RR	--	45	--	--	0.0	--	--	43.3	--	--	--	3263	--	--
BrettYoung	6235RR	--	47	--	--	0.0	--	--	44.0	--	--	--	3418	--	--
Canterra	SWK5325 RR	--	44	--	--	0.0	--	--	43.6	--	--	--	3286	--	--
Canterra	1818 RR	38	40	39	2.5	0.8	1.7	42.5	43.8	43.2	1693	2240	3090	2665	2341
Canterra	30507-B6	43	43	43	3.3	0.8	2.1	42.2	43.3	42.8	--	2640	3046	2843	--
Cargill	v1035	39	43	41	4.0	0.3	2.2	42.9	45.5	44.2	2394	2606	3460	3033	2820
Cargill	v1037	--	46	--	--	1.5	--	--	41.8	--	--	--	3507	--	--
Cargill	v2010	42	44	43	2.0	0.5	1.3	41.8	42.2	42.0	2158	2866	3019	2942	2681
Cargill	v2018	41	45	43	1.3	0.0	0.7	42.8	44.6	43.7	--	2679	2743	2711	--
Cargill	V2030	--	46	--	--	0.0	--	--	44.9	--	--	--	3464	--	--
Croplan Genetics	HYCLASS 410	47	44	46	3.3	0.8	2.1	43.2	42.0	42.6	--	2527	3329	2928	--
Croplan Genetics	HYCLASS 712	46	44	45	2.5	0.0	1.3	41.7	42.7	42.2	1969	2942	3043	2992	2651
Croplan Genetics	HYCLASS 906	44	46	45	0.8	0.0	0.4	42.0	42.2	42.1	2274	2523	3592	3058	2796
Croplan Genetics	HYCLASS 906P	--	45	--	--	0.0	--	--	42.5	--	--	--	3413	--	--
Croplan Genetics	HYCLASS 924	42	42	42	0.8	0.0	0.4	42.6	43.3	43.0	2331	2953	3021	2987	2768
Croplan Genetics	HYCLASS 940	42	41	41	1.8	0.0	0.9	43.2	44.6	43.9	--	2870	3321	3096	--
DEKALB	DKL52-41	43	42	42	3.5	0.0	1.8	43.3	43.9	43.6	--	3016	3004	3010	--
DEKALB	DKL30-42	--	40	--	--	1.0	--	--	45.3	--	--	--	3332	--	--
DEKALB	DKL72-55	--	42	--	--	1.0	--	--	45.7	--	--	--	3502	--	--

Canola - Roundup Ready - 2006-2008 (continued)

		Height (in)			Lodging (0-9)			Oil (%)			Yield (lbs/a)				
Company	Variety	07	08	2yr	07	08	2yr	07	08	2yr	06	07	08	2yr	3yr
DEKALB	IS3057	41	40	40	2.0	0.3	1.2	43.8	46.4	45.1	--	2668	2967	2817	--
DEKALB	IS7145	41	42	41	2.8	0.0	1.4	45.4	46.6	46.0	2168	2728	2736	2732	2544
Integra Seed	IX08-7321R	--	43	--	--	0.5	--	--	44.4	--	--	--	2836	--	--
Integra Seed	IX08-7121R	--	42	--	--	1.5	--	--	42.0	--	--	--	3518	--	--
Integra Seed	IX08-7323R	--	45	--	--	0.0	--	--	43.3	--	--	--	3092	--	--
Monsanto	G72061	--	43	--	--	0.5	--	--	44.0	--	--	--	3263	--	--
Monsanto	G64034	--	45	--	--	0.8	--	--	44.4	--	--	--	3780	--	--
Monsanto	G75011	--	41	--	--	0.0	--	--	43.8	--	--	--	2613	--	--
Monsanto	G75449	--	41	--	--	0.0	--	--	42.6	--	--	--	2972	--	--
Monsanto	G67012	--	41	--	--	0.3	--	--	47.3	--	--	--	3062	--	--
Monsanto	G72021	--	40	--	--	0.3	--	--	48.3	--	--	--	3051	--	--
Monsanto	Z4409	--	40	--	--	1.0	--	--	45.8	--	--	--	2815	--	--
Monsanto	G72003	--	42	--	--	1.0	--	--	45.8	--	--	--	3173	--	--
Monsanto	DKL52-41PLUS	--	45	--	--	0.5	--	--	42.9	--	--	--	3665	--	--
Mycogen Seeds	G2X0022	--	46	--	--	0.0	--	--	42.8	--	--	--	2342	--	--
Mycogen Seeds	G2X0023	--	41	--	--	0.0	--	--	43.3	--	--	--	2607	--	--
Mycogen Seeds	G2X0024	--	40	--	--	0.5	--	--	42.2	--	--	--	2290	--	--
Mycogen Seeds	G2X0039	--	45	--	--	0.3	--	--	41.4	--	--	--	2841	--	--
Mycogen Seeds	G2X0043	--	44	--	--	0.5	--	--	43.3	--	--	--	2661	--	--
Mycogen Seeds	G2X0044	--	44	--	--	0.0	--	--	41.4	--	--	--	2878	--	--
Mycogen Seeds	G2X0054	--	42	--	--	0.3	--	--	40.0	--	--	--	2719	--	--
Pioneer Brand	45H26	42	45	44	4.3	0.5	2.4	43.4	45.6	44.5	2577	2959	3143	3051	2893
Pioneer Brand	45H28	--	46	--	--	0.8	--	--	45.3	--	--	--	3634	--	--
Proseed	2066	40	45	42	3.0	0.8	1.9	41.4	41.5	41.5	1826	2351	2761	2556	2313
Proseed	30 Caliber	48	47	48	1.3	0.0	0.7	42.3	42.1	42.2	--	2598	3107	2852	--
Proseed	50 Caliber	40	42	41	0.8	1.3	1.1	42.6	43.1	--	--	2465	3029	2747	--
Proseed	2030	--	44	--	--	0.3	--	--	43.5	--	--	--	3043	--	--
LSD 5%		3.1	3.2		2.6	1.0		2.1	2.0		323	346	522	--	--

Field Peas - Langdon 2005-2008

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 %
	05	06	07	08	3yr	05	06	07	08	3yr	06	07	08	3yr	06	07	08	2yr	06	07	08	3yr	06	07	08	3yr	06	07	08	3yr	08
Yellow Cotyledon Type																															
CDC Mozart	56	71	53	70	64	62.3	62.2	61.7	62.6	62.2	244	208	240	231	48	56	62	56	88	98	99	95	8.3	6.8	4.8	6.6	36	35	27	33	23.5
DS Admiral	64	73	56	67	65	62.6	61.8	61.6	62.7	62.0	272	224	244	247	50	57	63	57	86	98	98	94	7.3	5.5	0.5	4.4	43	37	29	36	23.8
Eclipse	65	69	59	75	67	62.2	61.8	61.9	62.4	62.0	197	224	284	235	48	56	64	56	87	96	103	95	8.3	5.8	3.0	5.7	39	34	31	35	24.6
Alezon	--	--	--	73	--	--	--	--	62.3	--	--	--	244	--	--	--	62	--	--	--	98	--	--	--	6.8	--	--	--	29	--	24.6
Spider	--	--	--	78	--	--	--	--	62.9	--	--	--	284	--	--	--	63	--	--	--	99	--	--	--	1.5	--	--	--	33	--	24.3
LAN4188	--	--	--	75	--	--	--	--	63.0	--	--	--	272	--	--	--	63	--	--	--	102	--	--	--	3.0	--	--	--	33	--	24.7
LAN4190	--	--	--	76	--	--	--	--	63.6	--	--	--	284	--	--	--	63	--	--	--	103	--	--	--	4.0	--	--	--	34	--	24.5
LAN4193	--	--	--	70	--	--	--	--	62.1	--	--	--	252	--	--	--	64	--	--	--	101	--	--	--	2.8	--	--	--	31	--	24.2
LAN4194	--	--	--	64	--	--	--	--	61.0	--	--	--	300	--	--	--	61	--	--	--	98	--	--	--	5.5	--	--	--	30	--	25.0
Ceb 4152	66	74	65	--	--	62.4	61.9	61.6	--	--	261	264	--	--	46	56	--	--	88	101	--	--	5.5	3.8	--	--	44	41	--	--	--
SW Capri	65	74	53	--	--	61.0	62.1	61.4	--	--	230	196	--	--	49	57	--	--	84	94	--	--	8.5	6.0	--	--	39	32	--	--	--
SW Circus	71	66	47	--	--	62.3	62.0	61.3	--	--	249	192	--	--	49	58	--	--	88	96	--	--	6.5	5.5	--	--	39	34	--	--	--
SW Marquee	68	70	54	--	--	62.5	62.0	61.8	--	--	264	184	--	--	50	57	--	--	86	99	--	--	6.0	3.3	--	--	43	38	--	--	--
SW Midas	61	69	54	--	--	62.4	62.2	61.8	--	--	250	198	--	--	50	58	--	--	87	92	--	--	7.0	7.0	--	--	39	32	--	--	--
APCM 714202	--	63	50	--	--	--	62.5	62.7	--	--	324	256	--	--	57	64	--	--	89	98	--	--	3.8	3.8	--	--	46	41	--	--	--
Ceb 4159	--	73	71	--	--	--	62.1	62.0	--	--	262	244	--	--	50	57	--	--	87	95	--	--	6.8	6.8	--	--	43	35	--	--	--
Ceb 4163	--	68	57	--	--	--	61.6	60.9	--	--	255	204	--	--	49	57	--	--	89	94	--	--	7.5	5.5	--	--	40	32	--	--	--
Fusion	--	72	53	--	--	--	61.6	61.5	--	--	206	260	--	--	48	56	--	--	88	94	--	--	7.5	5.3	--	--	42	33	--	--	--
Miami	--	71	59	--	--	--	61.9	61.1	--	--	286	220	--	--	50	57	--	--	87	94	--	--	7.0	6.5	--	--	41	31	--	--	--
PS01102958	--	62	48	--	--	--	61.5	61.5	--	--	255	208	--	--	52	59	--	--	89	97	--	--	8.3	6.8	--	--	38	33	--	--	--
Tudor	67	--	59	--	--	62.1	--	61.3	--	--	--	228	--	--	--	61	--	--	--	98	--	--	--	5.3	--	--	--	35	--	--	--
CDC Golden	--	--	51	--	--	--	--	62.1	--	--	--	200	--	--	--	57	--	--	--	95	--	--	--	5.3	--	--	--	34	--	--	--
CDC Meadow	--	--	56	--	--	--	--	62.1	--	--	--	184	--	--	--	57	--	--	--	95	--	--	--	4.3	--	--	--	36	--	--	--
IN 4176	--	--	47	--	--	--	--	61.5	--	--	--	240	--	--	--	56	--	--	--	99	--	--	--	3.3	--	--	--	38	--	--	--
IN 4179	--	--	68	--	--	--	--	61.1	--	--	--	240	--	--	--	54	--	--	--	93	--	--	--	3.5	--	--	--	35	--	--	--
Noble	--	--	59	--	--	--	--	61.4	--	--	--	208	--	--	--	58	--	--	--	102	--	--	--	3.5	--	--	--	39	--	--	--
Polstead	--	--	65	--	--	--	--	61.2	--	--	--	272	--	--	--	57	--	--	--	98	--	--	--	4.8	--	--	--	32	--	--	--
Ceb 4148	70	73	--	--	--	62.3	61.9	--	--	--	288	--	--	--	51	--	--	--	87	--	--	--	7.3	--	--	--	41	--	--	--	--
APCM 714204	--	57	--	--	--	--	62.1	--	--	--	254	--	--	--	57	--	--	--	90	--	--	--	2.8	--	--	--	45	--	--	--	--
APCM 8302	--	55	--	--	--	--	62.5	--	--	--	233	--	--	--	51	--	--	--	88	--	--	--	6.5	--	--	--	47	--	--	--	--
Ceb 4160	--	65	--	--	--	--	62.7	--	--	--	244	--	--	--	50	--	--	--	88	--	--	--	5.3	--	--	--	42	--	--	--	--

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 %
	05	06	07	08	3yr	05	06	07	08	3yr	06	07	08	3yr	06	07	08	3yr	06	07	08	3yr	06	07	08	3yr	06	07	08	3yr	08
Yellow Cotyledon Type																															
Carneval	64	--	--	--	--	62.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CDC Bronco	51	--	--	--	--	61.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
CDC Golden	64	--	--	--	--	63.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ceb 4132	62	--	--	--	--	61.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ceb 4133	57	--	--	--	--	61.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Cutlass	66	--	--	--	--	62.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Topeka	50	--	--	--	--	61.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Green Cotyledon Type																															
Cruiser	51	65	54	60	60	62.1	61.8	61.6	61.9	61.8	246	196	224	222	48	56	63	56	87	94	97	92	7.3	5.3	4.8	5.8	42	33	28	34	24.6
Majoret	66	62	61	74	66	63.2	61.5	61.8	62.1	61.8	245	200	220	222	49	58	64	57	87	95	100	94	7.8	5.5	5.8	6.4	38	34	27	33	24.5
CDC Striker	--	--	59	73	--	--	--	62.3	63.8	--	--	212	264	--	--	58	64	--	--	98	101	--	--	5.5	1.5	--	--	35	29	--	25.0
Matrix	--	--	--	70	--	--	--	--	61.9	--	--	--	296	--	--	--	65	--	--	--	100	--	--	--	2.5	--	--	--	26	--	23.2
Ceb 1093	69	74	66	--	--	61.9	62.0	61.3	--	--	204	252	--	--	53	59	--	--	88	96	--	--	5.3	6.5	--	--	37	34	--	--	--
Cooper	68	71	58	--	--	62.3	61.6	61.3	--	--	218	264	--	--	56	61	--	--	90	97	--	--	5.5	4.8	--	--	40	35	--	--	--
Nitouche	60	69	63	--	--	61.6	60.9	61.2	--	--	194	268	--	--	49	58	--	--	88	96	--	--	6.5	3.3	--	--	44	36	--	--	--
Camry	58	--	56	--	--	62.1	--	61.5	--	--	--	232	--	--	--	57	--	--	--	97	--	--	--	6.5	--	--	--	33	--	--	--
CDC Sage	--	--	52	--	--	--	--	61.7	--	--	--	188	--	--	--	59	--	--	--	98	--	--	--	5.5	--	--	--	36	--	--	--
Medora	--	--	32	--	--	--	--	60.7	--	--	--	152	--	--	--	60	--	--	--	97	--	--		4.5	--	--	--	34	--	--	--
Pro 031-7029	--	--	44	--	--	--	--	60.8	--	--	--	212	--	--	--	56	--	--	--	97	--	--	--	6.8	--	--	--	35	--	--	--
Tamora	--	--	53	--	--	--	--	60.9	--	--	--	260	--	--	--	61	--	--	--	95	--	--	--	4.0	--	--	--	32	--	--	--
IN 1097	--	70	--	--	--	--	61.4	--	--	--	206	--	--	--	46	--	--	--	87	--	--	--	6.5	--	--	--	39	--	--	--	--
PS99102238	--	57	--	--	--	--	61.2	--	--	--	186	--	--	--	53	--	--	--	88	--	--	--	6.3	--	--	--	43	--	--	--	--
Striker	64	--	--	--	--	63.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ceb 1090	60	--	--	--	--	61.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
K-2	61	--	--	--	--	62.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Stirling	46	--	--	--	--	62.4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Stratus	55	--	--	--	--	60.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SWC 6198	56	--	--	--	--	62.8	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Misc. Type																															
UK2	--	64	--	--	--	--	60.8	--	--	--	202	--	--	--	50	--	--	--	88	--	--	--	6.8	--	--	--	47	--	--	--	--
LSD 5%	7.4	6.0	8.0	5.5		0.6	0.4	0.5	0.5		--	--	--		0.8	0.8	1		1.8	5.0	2.1		1.7	1.8	2.4		2.3	3	2		0.7

Mustard

Variety	Yield (lbs/a)						Days to Flower						Lodging (0-9)						Height (in)					
Yellow	04	05	06	07	08	5yr	04	05	06	07	08	5yr	04	05	06	07	08	3yr	04	05	06	07	08	5yr
AC Pennant	2278	1574	1952	1753	1777	1867	32	23	40	42	47	37	1.3	0	0	2.3	0.0	0.8	54	43	42	46	42	45
Ace	2608	1416	1928	1659	1951	1913	31	24	41	41	47	37	2.0	0	0	3.8	0.0	1.3	56	44	45	47	44	47
Andante	2796	1689	2086	1766	2146	2097	30	23	40	41	47	36	1.0	0	0	3.3	0.0	1.1	53	44	46	44	43	46
Tilney	2389	1074	1851	1836	2004	1831	31	23	40	40	47	36	1.3	0	0	2.8	0.5	1.1	55	44	44	44	43	46
Brown	--	--	--	1486	2106	--	--	--	--	48	51	--	--	--	--	7.3	0.0	--	--	--	--	44	49	--
Duchess	--	--	--	2089	2278	--	--	--	--	47	50	--	--	--	--	8.0	0.3	--	--	--	--	49	48	--
AC Base	2514	--	--	--	--	--	30	--	--	--	--	--	2.0	--	--	--	--	--	52	--	--	--	--	--
Viscount	2201	--	--	--	--	--	32	--	--	--	--	--	1.7	--	--	--	--	--	57	--	--	--	--	--
Oriental																								
Forge	2094	2803	--	2514	2361	--	36	27	--	46	51	--	2.0	0	--	4.0	0.3	--	57	52	--	49	52	--
LSD 5%	NS	300	NS	381	325		1.5	0.7	NS	0.9	0.8		NS	--	NS	2.2	NS		NS	2.2	2.5	NS	2.5	

Buckwheat

Variety	Yield (lbs/a)					Test Weight (lbs/bu)					Height (in)					Lodging (0-9)				
	05	06	07	08	4yr	05	06	07	08	4yr	05	06	07	08	4yr	05	06	07	08	4yr
Koma	2704	3083	2386	1081	2314	50.2	47.4	49.1	43.3	47.5	42	51	41	44	45	6.0	7.8	1.3	3.8	4.7
Mancan	2895	3169	2282	1358	2426	47.8	46.3	48.8	43.3	46.6	40	51	41	46	45	3.7	8.0	1.0	3.0	3.9
Manor	2873	2710	2342	953	2219	47.1	45.8	48.1	42.4	45.9	40	52	42	42	44	4.7	7.3	0.8	2.5	3.8
Koto	2824	2637	--	--	--	49.6	46.8	--	--	--	43	54	--	--	--	2.7	6.3	--	--	--
AC Manisoba	3307	--	--	--	--	46.5	--	--	--	--	44	--	--	--	--	6.7	--	--	--	--
AC Springfield	2771	--	--	--	--	44.9	--	--	--	--	41	--	--	--	--	3.3	--	--	--	--
LSD 5%	NS	758	NS	NS		1.0	NS	0.7	1.5		NS	3.2	NS	NS		NS	1.4	NS	NS	

2008 Annual Forage Trials - Langdon Research Extension Center

Variety (Crop)	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)	4.6	5.5	15.4	44	60	5-Aug	5.8	57	40	58
Paul (Oat)	4.4	5.1	14.6	44	60	5-Aug	5.5	51	45	66
Everleaf (Oat)	4.5	5.3	15.0	40	67	5-Aug	5.9	54	42	62
Haybet (Barley)	5.1	6.1	17.1	30	49	5-Aug	4.2	55	42	61
Hays (Barley)	5.3	6.2	17.7	30	47	5-Aug	4.4	54	42	62
Paul+Arvika (Oat+Pea)	4.5	5.2	14.8	44	63	5-Aug	7.1	55	41	58
Mean	4.7	5.6	15.8	38	58					
C.V. %	5.5	5.6	5.6	2.7	2.8					
LSD 5%	0.4	0.5	1.3	1.6	2.5					

Planting Date: May 8.
Previous Crop: Soybean

Variety (Crop)	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----------			
Golden German (German Millet)	3.6	4.2	11.9	40	72	3-Sep	8.8	55	42	62
Piper (Sudan Grass)	3.9	4.7	13.1	73	61	3-Sep	5.4	50	46	72
Nutri+BMR (Sorghum+Sudan)	3.1	3.7	10.5	64	72	3-Sep	7.5	61	37	57
Cerise (Red Proso Millet)	4.3	5.1	14.3	47	61	3-Sep	8.0	61	36	54
Mean	3.7	4.4	12.4	56	66					
C.V. %	7.8	7.7	7.9	2.2	1.6					
LSD 5%	0.5	0.5	1.6	2	1.7					

Planting Date: June 4.
Previous Crop: Soybean

Evaluation of foliar fungicide on several HRSW cultivars, Langdon, ND 2008

Bryan Hanson, Agronomist, NDSU Langdon Research Extension Center
Scott Halley, Crop Protection, NDSU Langdon Rearch Extension Center

A field experiment was planted on 6 May at Langdon, ND. The previous crop was wheat. Eighteen 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. After herbicide application was completed, a Fusarium inoculum consisiting of two isolates was hand-broadcast at rate of 150 gms/plot to encourage development of disease. Prosaro fungicide and Induce adjuvant were applied at 6.5 fl oz/a and 0.125% v/v with a CO2 backpack sprayer delivering 18.4 GPA at 40 psi. The spray was equipped with a three-nozzle boom, nozzles spaced 20 inches on center, mounted on a double swivel and oriented to spray forward and backward 30 degrees downward from horizontal. The application was made at Feekes growth stage 10.51 on 7 or 14 July by maturity. Prosaro fungicide (prothioconazole/tebuconazole) is manufactured by Bayer Cropscience and Induce by Helena Chemical Co. FHB disease incidence (number of spikes infected) and field severity were determined from a sample of twenty grain heads at early dough stage. Leaf severity was determined from a 5 leaf sample at the same time. Head severity rating is the number of FHB infected kernels per head divided by total kernels per individual spike. The FHB index was calculated (FHB incidence*severity)/100. The experimental design was a split-plot with four replications.

Fungicide treatment and its interaction with cultivars were significant for test weight and tombstones. Cultivar yield response to fungicide application averaged 6.1 bushels and ranged from 3.1 to 11.0 bu/a. FHB disease pressure was light on resistant and moderate on susceptible cultivars. FHB was significantly different among cultivars and treatments but no interactions were significantly different. Incidence ranged from 40 to 80% and severities ranged from 1% on the treated Traverse to 20% on the untreated Samson. Leaf disease pressure was light but some differencence were measured among cultivars. DON data was not available at press.

Langdon HRSW Variety x Fungicide Trial

ANOVA	Yield	TW	Tombstones	FHB Incidence	FHB Severity	FHB Index	Leaf Severity
Cultivar	**	**	**	**	**	**	**
Fungicide	*	**	**	**	**	**	NS
C*F	NS	*	**	NS	NS	NS	NS

P<0.05*, P<0.01**, NS=non-significant

Cultivar response to fungicide averaged over cultivars

Fungicide Treatm	YIELD	TW	TB	FHB Incidence	FHB Severity	FHB Index	Leaf Severity
	bu/a	lbs/bu	%	%	%		%
No Fungicide	74.5	58.7	3.6	76.1	15.9	10.3	12.3
Fungicide	80.6	59.9	0.4	50.1	11.0	3.6	8.7
LSD 5%	4.3	0.2	0.6	3.4	1.7	2.5	NA
LSD 1%	NS	0.4	1.1	6.2	3.1	4.5	NA
C.V.%	4.3	0.6	55.9	18.2	51.1	27.9	70.9

Cultivar traits averaged over fungicide treatments

Variety	YIELD	TW	Tombstones	FHB Incidence	FHB Severity	FHB Index	Leaf Severity
	bu/a	lbs/bu	%	%	%		%
Alsen	67.6	59.9	0.8	63.8	12.3	5.9	7.8
Knudson	77.5	58.6	2.6	64.9	11.8	5.7	5.4
Briggs	78.1	59.3	2.0	52.5	11.3	4.4	6.3
Steele-ND	71.6	59.4	2.5	58.8	13.9	6.2	5.6
Freyr	70.8	58.4	1.3	63.8	12.9	6.2	8.5
Glenn	75.4	62.3	0.6	53.1	12.7	4.8	6.1
Kelby	70.9	59.2	1.6	77.5	18.2	12.3	7.5
Traverse	82.0	57.1	0.4	40.1	10.2	2.2	13.0
Ada	79.4	60.4	1.8	74.4	15.8	10.2	14.9
Howard	79.4	60.0	2.9	66.1	14.4	7.6	4.0
Faller	89.0	59.6	0.3	58.1	12.1	5.6	13.4
RB07	78.0	58.5	1.1	50.0	11.2	3.6	8.9
Kuntz	78.5	58.1	3.4	65.6	11.8	6.8	14.2
Tom	79.8	59.2	1.3	58.1	12.2	4.7	8.3
Hat Trick	81.1	59.8	2.0	81.3	17.6	13.2	28.1
Albany	78.5	58.9	1.3	63.8	11.9	6.2	14.1
Breaker	80.4	60.8	1.6	61.3	12.4	5.7	9.0
Samson	77.5	57.6	9.0	82.5	18.7	14.3	13.6
LSD 5%	5.7	0.6	0.8	16.9	3.6	4.4	8.6
LSD 1%	7.6	0.8	1.1	22.6	4.8	5.8	11.4

Cultivar response to fungicide treatments

Treatment	YIELD	TW	TB	FHB Incidence	FHB Severity	FHB Index	Leaf Severity
	bu/a	lbs/bu	%	%	%		%
Alsen	64.9	59.4	1.3	73.8	13.0	7.5	9.4
Alsen+F	**70.3**	**60.3**	**0.3**	**53.8**	**11.5**	**4.4**	**6.3**
Knudson	74.4	58.0	4.5	71.3	12.5	6.7	7.6
Knudson+F	**80.7**	**59.3**	**0.8**	**58.5**	**11.1**	**4.7**	**3.3**
Briggs	75.6	58.8	3.8	70.0	13.0	7.4	2.8
Briggs+F	**80.5**	**59.8**	**0.3**	**35.0**	**9.5**	**1.4**	**9.7**
Steele-ND	68.3	58.8	4.0	73.8	16.6	9.2	8.5
Steele-ND+F	**74.9**	**60.1**	**1.0**	**43.8**	**11.3**	**3.2**	**2.7**
Freyr	69.1	58.2	2.3	75.0	13.9	8.6	6.8
Freyr+F	**72.5**	**58.7**	**0.3**	**52.5**	**11.8**	**3.7**	**10.2**
Glenn	73.3	61.9	1.0	62.5	13.2	6.1	8.1
Glenn+F	**77.6**	**62.8**	**0.3**	**43.8**	**12.1**	**3.4**	**4.0**
Kelby	67.6	58.6	3.0	83.8	21.5	16.3	6.9
Kelby+F	**74.1**	**59.8**	**0.3**	**71.3**	**14.8**	**8.3**	**8.1**
Traverse	80.5	56.5	0.8	50.0	11.2	3.4	16.7
Traverse+F	**83.6**	**57.6**	**0.0**	**30.3**	**9.2**	**1.0**	**9.4**
Ada	74.4	59.8	3.5	90.0	19.5	15.8	17.9
Ada+F	**84.5**	**60.9**	**0.0**	**58.8**	**12.1**	**4.5**	**11.9**
Howard	76.0	59.3	5.0	80.0	18.0	11.9	4.1
Howard+F	**82.8**	**60.7**	**0.8**	**52.3**	**10.9**	**3.2**	**3.9**
Faller	86.8	59.1	0.5	76.3	15.6	9.6	17.9
Faller+F	**91.2**	**60.1**	**0.0**	**40.0**	**8.6**	**1.5**	**9.0**
RB07	75.5	58.0	2.3	70.0	12.6	6.1	11.8
RB07+F	**80.5**	**59.1**	**0.0**	**30.0**	**9.7**	**1.1**	**6.0**
Kuntz	74.3	57.1	6.0	83.8	15.3	11.4	16.5
Kuntz+F	**82.6**	**59.1**	**0.8**	**47.5**	**8.4**	**2.1**	**11.9**
Tom	77.6	58.7	2.3	68.8	13.9	6.4	8.1
Tom+F	**82.0**	**59.7**	**0.3**	**47.5**	**10.6**	**2.9**	**8.5**
Hat Trick	78.3	58.9	4.0	95.0	20.9	19.2	29.7
Hat Trick+F	**84.0**	**60.6**	**0.0**	**67.5**	**14.3**	**7.2**	**26.5**
Albany	77.0	58.5	2.3	82.5	14.9	10.5	16.4
Albany+F	**80.1**	**59.3**	**0.3**	**45.0**	**9.0**	**1.9**	**11.7**
Breaker	75.5	60.3	3.0	76.3	15.9	9.2	13.1
Breaker+F	**85.3**	**61.3**	**0.3**	**46.3**	**9.0**	**2.2**	**5.0**
Samson	72.0	56.4	15.3	87.5	23.9	20.1	19.1
Samson+F	**83.0**	**58.7**	**2.8**	**77.5**	**13.5**	**8.5**	**8.1**
LSD 5%	NA	0.6	1.6	NA	NA	NA	NA
LSD 1%	NA	NS	2.1	NA	NA	NA	NA

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

Yield, Test Weight, Fusarium Head Blight (FHB) Incidence, Index, Head Severity, Protein and Foliar Disease Levels by Winter Wheat Cultivar and Fungicide Treatment Langdon, 2008.

S. Halley and K. Misek

				FHB				
Cultivar	Treatment	Yield	Test Weight	Incidence	Index	Head Severity	Protein	Foliar Disease
		Bu/A	Lb/Bu	%		%	%	%
Jagalene		110.3	62.1	30.8	1.1	9.2	13.2	1.5
CDC Falcon		109.4	61.6	29.1	0.9	8.5	12.2	6.0
Wesley		102.8	60.7	47.5	3.1	11.6	14.0	5.4
Jerry		100.4	60.3	23.3	0.9	11.5	12.9	2.8
Ransom		99.3	60.1	20.0	0.4	7.6	12.5	4.5
LSD $_{(p>0.05)}$		10.2	0.4	13.8	1.1	NS	0.5	NS
	Fungicide	108.9	61.2	22.8	0.8	10.0	13.1	4.5
	Untreated	100.0	60.7	37.4	1.7	9.3	12.8	3.5
LSD $_{(p>0.05)}$		4.5	0.2	8.4	0.8	NS	0.2	NS
Jagalene	**Fungicide**	**116.3**	**62.5**	**28.8**	**1.2**	**9.9**	**13.6**	**1.6**
	Untreated	104.2	61.6	32.8	1.0	8.5	12.8	1.5
CDC Falcon	**Fungicide**	**114.5**	**61.6**	**26.3**	**0.7**	**9.2**	**12.3**	**4.5**
	Untreated	104.3	61.6	31.9	1.0	7.8	12.1	7.6
Wesley	**Fungicide**	**102.8**	**61.2**	**35.0**	**1.5**	**10.6**	**14.2**	**8.6**
	Untreated	102.8	60.3	60.0	4.8	12.6	13.8	2.2
Jerry	**Fungicide**	**106.2**	**60.3**	**14.2**	**0.8**	**13.1**	**13.0**	**2.3**
	Untreated	94.6	60.3	32.5	1.0	9.9	12.9	3.4
Ransom	**Fungicide**	**104.8**	**60.3**	**2.9**	**0.1**	**7.4**	**12.6**	**5.7**
	Untreated	93.9	59.8	4.1	0.8	7.9	12.4	3.2
% C.V.		6.4	0.5	41.5	88.3	40.6	2.8	120.5

- Planted winter wheat on 13 Sept into flax stubble in 6-in rows. Soil was too dry for complete emergence until after precipitation was received.
- A Fusarium inoculum was distributed in the plot to increase the chance of disease. Fungicide was applied at early flowering growth stage (Feekes 10.51) with a CO_2 pressurized backpack sprayer equipped with XR8001 nozzles oriented forward and backward and angled 30 degrees downward from horizontal. The spray volume was 18.4 GPA applied at 40 psi.
- Prosaro fungicide (Bayer CropScience) and Induce adjuvant (Helena Chemical Co.) were applied at rate of 6.5 fl oz/A and 0.125% v/v.

Discussion

FHB and foliar disease levels were very small. Fungicide reduced incidence and FHB index by 61 and 47%, respectively. Most importantly, the Prosaro application at early flowering increased yield 8.9 bu/ acre; numerically on four of the five cultivars (range of 10.2 to 12.1 bu/acre), increased test weight by 0.5 lb/bu; numerically on three of five cultivars and increased protein by 0.3 %.

Notes

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 2009 growing season are listed below:

HRSW – Glenn, Faller
Durum –Lebsock
Barley – Stellar-ND, Robust, Lacey, Rasmusson
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

Randy Mehlhoff	Director
Bryan Hanson	Agronomist
John Lukach	Foundation Seed Stocks, Soils/Fertility, Superintendent
Scott Halley	Crop Protection
Rodney Armstrong	Adult Farm Business Management Instructor, LRSC
Richard Wilhelmi	Research Specialist
Kevin Beauchamp	Research Specialist
James Chaput	Research Specialist
Kevin Misek	Research Specialist
Sharon Ring	Administrative Assistant and Horticulture
Ron Beneda	Cavalier County Extension Agent
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Scott Nelson	Producer, Lakota, ND
Chuck Damschen	Producer, Hampden, ND District 10 Representative
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