Langdon Research Extension Center

North Dakota State University

2009 Annual Research Report

NDSU

Langdon Research Extension Center
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Use of this Report

The 2009 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.

2005-2009 Growing Season Summaries

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 elsewhere. 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.

2009

September 2008 through April 2009 precipitation levels were much above normal. This resulted in very late spring planting. May through August rainfall was near normal across the region but temperatures were below normal. The development of warm season crops lagged behind normal but fortunately a record warm September allowed most of these crops to mature. Corn moistures however were very wet. October weather was not conducive for harvesting but the first three weeks of November were warm and dry which allowed nearly all the crops to be harvested. Small grains and canola yields were quite good while the warm season crop yields were lower than previous years. Diseases in small grains were generally low but sclerotinia was observed in canola and sunflowers.

2009 Variety Trials

The NDSU Langdon Research Extension Center, in addition to its on-station research program, conducted variety research trials at four off-station locations in 2009. Trial locations were 4.5 miles west of Michigan for small grains and 3 miles west for soybeans, 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 1.5 miles north of the junction of Hwy 5 and 18 east of Cavalier and the Towner County trials 8 miles east of Cando on Hwy 17. 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 Michigan. 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
2009	6/6	9/29	115	5/23	10/9	139
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
Cavalier						
Normal	5/18	9/23	127	5/5	10/2	149
2009	6/6	9/29	115	6/6	10/8	124
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
Park River						
Normal	5/16	9/25	132	5/5	10/3	151
2009	5/23	9/29	115	4/7	10/8	184
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
Michigan						
Normal	5/17	9/21	127	5/6	10/1	148
2009	5/23	10/8	138	4/25	10/8	166

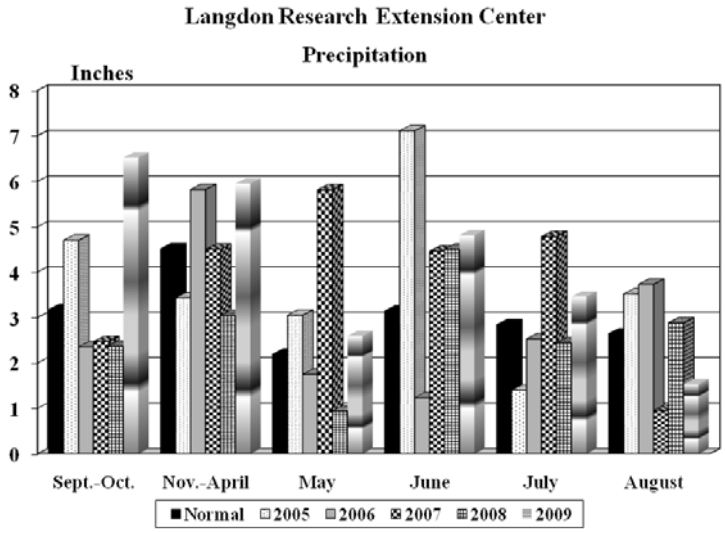
2009 Off-Station Crop Management						
Location(County/ Field Trial	**Previous Crop**	**Seeding Rate Unit/Acre**	**Yield Goal**	**Planting Date**	**Harvest Date**	**Row Spacing**
Cavalier (Pembina)						
HRSW	wheat	1.50 million pls	60 bu	5/22	9/16	6
Barley	wheat	1.25 million pls	110 bu	5/22	9/1	6
Soybeans	wheat	200,000 pls	60 bu	6/2	10/27	6
Drybeans	wheat	70,000-90,000 pls	2000 lb	6/2	--	30
	Drybeans not harvested due to poor stands caused by saturated soil conditions in trial area.					
Park River (Walsh)						
HRSW	fallow	1.50 million pls	60 bu	5/22	9/15	6
Soybean	wheat	200,000 pls	60 bu	6/1	11/2	6
Michigan (Nelson)						
HRSW	drybean	1.50 million pls	60 bu	5/2	8/26	6
Durum	drybean	1.50 million pls	60 bu	5/2	8/26	6
Soybean	wheat	200,000 pls	60 bu	6/1	11/2	6
Cando (Towner)						
HRSW	wheat	1.50 million pls	60 bu	5/21	8/31	6
Durum	wheat	1.50 million pls	60 bu	5/21	8/31	6
Barley	wheat	1.25 million pls	100 bu	5/21	8/31	6
Location	**Soil Type**					
Cavalier	Neche silty clay					
Park River	Wheat-Glyndon silt loam, Soybean-Fairdale silt loam					
Michigan	Hamerly loam					
Cando	Bearden-Lindaas silt loam					

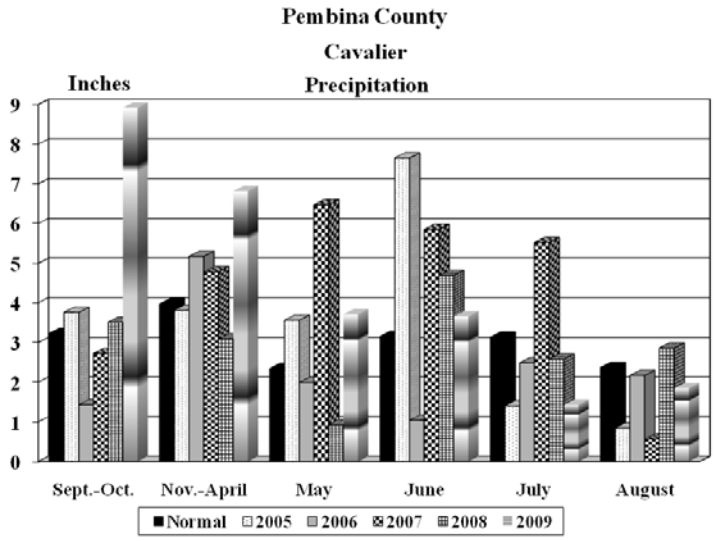
pls=pure live seeds

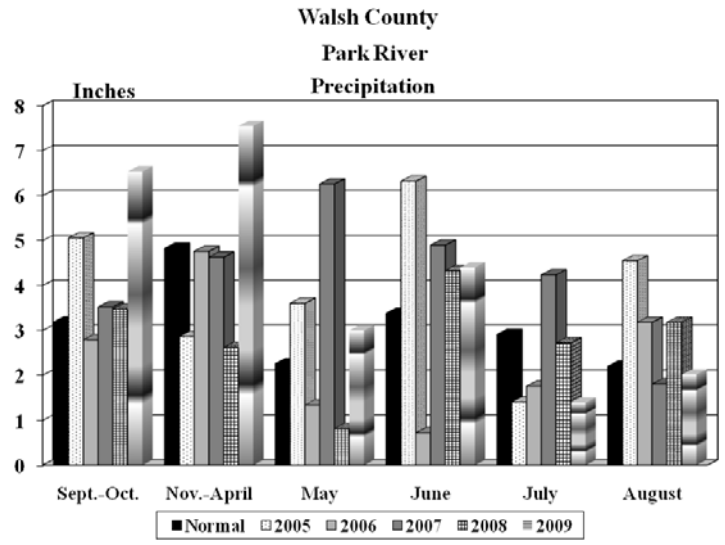
2009 Crop Management - Langdon						
Field Trial	**Previous Crop**	**Seeding Rate Unit/Acre**	**Yield Goal**	**Planting Date**	**Harvest Date**	**Row Spacing**
Barley	Soybean	1.25 million pls	120 bu	5/20	9/10	6
Buckwheat	Soybean	700,000 pls	1700 lb	5/28	9/30	6
Camelina	Soybean	5 lbs	1500 lb	5/19	9/4	6
Canola - LL, CL	Soybean	610,000 pls	2500 lb	5/18	9/17	6
Canola - RR	Soybean	610,000 pls	2500 lb	5/18	9/17	6
Corn	Soybean	28,000 thinned	110 bu	5/7	11/3	30
Durum	Soybean	1.50 million pls	60 bu	5/19	9/24	6
Drybean	Soybean	70-90,000 pls	2500 lb	5/28	10/19	30
Field Pea	Soybean	300,000 pls	60 bu	5/5	9/15	6
Flax	Soybean	2.8 million pls	40 bu	5/28	11/5	6
Forage (Cool Season)	Soybean	varied	varied	5/28	9/9	6
Forage (Warm Season)	Soybean	varied	varied	5/28	9/26	6
HRSW	Soybean	1.50 million pls	60 bu	5/19	9/23	6
HRWW	Soybean	1.0 million pls	60 bu	9/16/08	8/25	6
Mustard	Soybean	610,000 pls	2000 lb	5/19	9/4	6
Oats	Soybean	1.0 million pls	120 bu	5/20	9/10	6
Soybean - Conventional	wheat	200,000 pls	60 bu	5/28	10/26	6
Soybean - RR	wheat	200,000 pls	60 bu	5/28	10/26	6
Sunflower - Confection	flax	17,000 thinned	2500 lb	5/15	10/22	30
Sunflower-Oil	flax	20,000 thinned	2500 lb	5/15	10/22	30
Soil Type - Svea-Barnes loam						

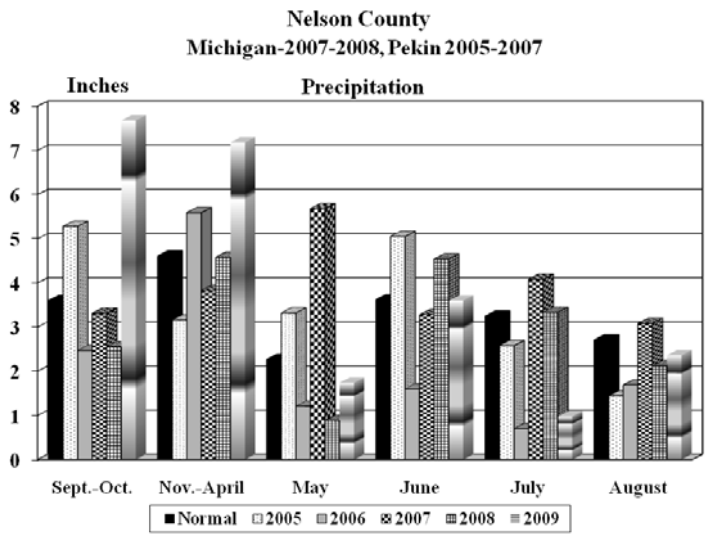
Langdon Research Extension Center and Off-Station
2005-2009 Precipitation Summaries

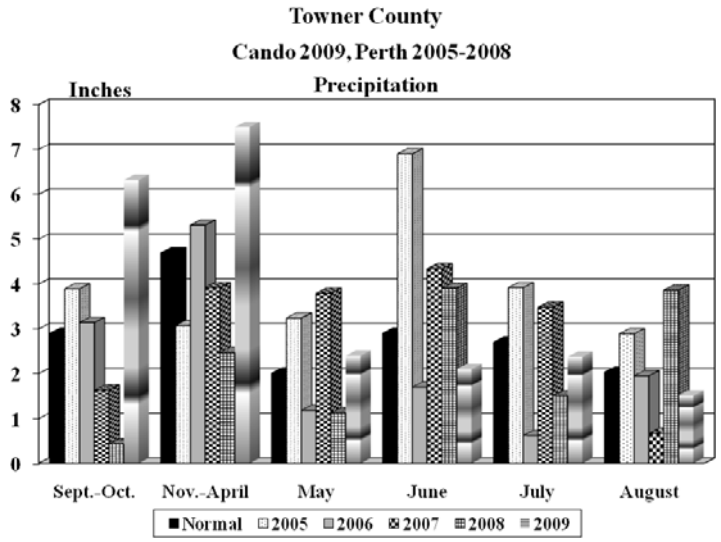
The graphs shown below indicate precipitation amounts from Langdon and each off-station location. Precipitation totals from the Langdon Research Extension Center are recorded on site while precipitation amounts from off-station locations are gathered from the nearest reporting National Weather Service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





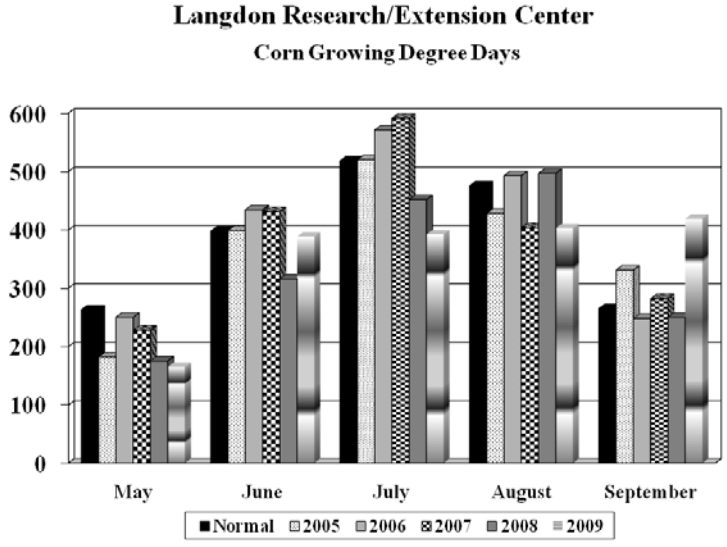


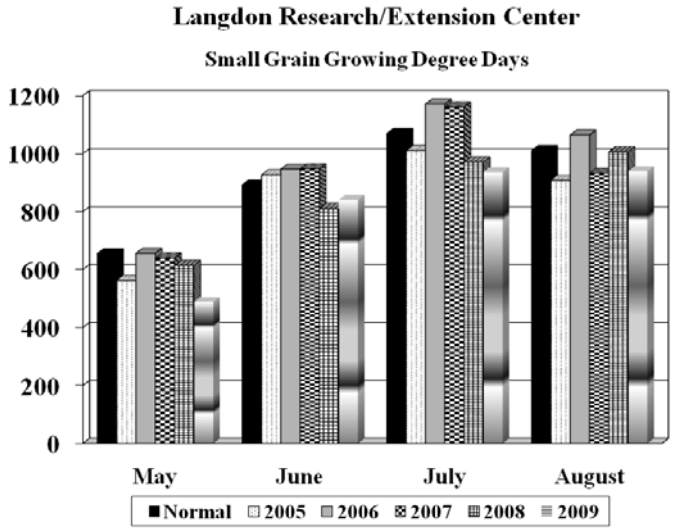




Growing Degree Days

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 minimal 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: Barlow and Mott – NDSU, Brogan - Westbred, Brennan and Jenna – AgriPro, Sabin – MN, Brick - SDSU. New durum varieties: Westhope - Westbred.

Hard Red Winter Wheat
The winter wheat trial in 2009 was planted into flax stubble in order to trap snow for increased winter survival. There was no fusarium head blight present in the 2006 and 2009 trials and very low levels in 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 2005-2007. Newer varieties tested include: Boomer and Striker-Westbred, Mace – ARS/NE, Art – Agripro.

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 2005 - 2007. HiFi, Souris, Rockford and Leggett 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. Newer varieties included: Leggett - Canada.

Barley
Off-station barley variety trials were conducted in Pembina and Towner counties in 2009. Barley trials are rotated between Pembina and Walsh Counties. There are many six-row and a few two-row barley varieties that have been approved by AMBA as recommended malting varieties. Contact you local elevator to determine which varieties are being contracted in your area. New varieties tested include: Celebration - BARI

Flax
New varieties tested include: Prairie Grande - 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 2009 cooperators were:

Chad Hofstad – Cando
Crystal Martodam – Towner County Agent
John Steffan - Michigan
Brad Brummond - Walsh County Agent
Marty Fear - Walsh County Agent
Dave Hankey - Park River Soybeans
Kent Schluchter - Cavalier
Lesley Lubenow - Pembina County Agent
Lionel Olson – Area Extension Agent

Average Data by Crop and Year Across Sites

Durum	Yield (bu/a)						Test Weight (lbs/bu)						Height (in)						Days to Head					
No. Sites	**3**	**2**	**3**	**3**	**3**	**9**	**3**	**2**	**3**	**3**	**3**	**9**	**3**	**2**	**2**	**3**	**3**	**8**	**3**	**2**	**3**	**2**	**3**	**8**
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
Alkabo	55	63	66	62	76	68	58.4	61.1	60.2	59.2	60.5	60.0	39	36	41	34	40	39	63	55	64	66	60	63
Grenora	62	60	57	67	84	69	57.7	60.1	58.3	58.0	59.8	58.7	38	34	39	34	39	37	62	54	64	65	60	63
Lebsock	59	55	59	65	80	68	59.1	61.4	59.8	60.0	61.3	60.4	38	34	40	35	40	38	62	53	63	65	59	62
DG Star	--	--	--	61	71	--	--	--	--	57.8	58.8	--	--	--	--	35	40	--	--	--	--	62	58	--
Wales	--	--	--	63	75	--	--	--	--	57.9	59.5	--	--	--	--	35	39	--	--	--	--	64	58	--
DG Max	--	--	--	--	75	--	--	--	--	--	60.1	--	--	--	--	--	41	--	--	--	--	--	58	--
Westhope	--	--	--	--	71	--	--	--	--	--	59.1	--	--	--	--	--	40	--	--	--	--	--	58	--
Divide	59	58	59	63	--	--	58.5	60.8	58.9	58.7	--	--	41	36	42	35	--	--	64	56	64	67	--	--
Grande D'oro	52	64	59	65	--	--	58.4	61.3	59.7	60.0	--	--	40	36	41	34	--	--	63	55	65	65	--	--
Mountrail	56	61	59	--	--	--	57.5	60.5	59.0	--	--	--	40	35	42	--	--	--	63	55	65	--	--	--
Primo Doro	49	54	53	--	--	--	58.2	61.4	58.7	--	--	--	44	40	44	--	--	--	62	53	63	--	--	--
Dilse	54	--	--	--	--	--	57.9	--	--	--	--	--	39	--	--	--	--	--	63	--	--	--	--	--
Pierce	56	--	--	--	--	--	59.0	--	--	--	--	--	40	--	--	--	--	--	63	--	--	--	--	--

Barley	Yield(bu/a)						Test Weight (lbs/bu)						Protein (%)						Plump (%)						Days to Head				
No. Sites	**4**	**4**	**4**	**3**	**3**	**10**	**4**	**4**	**4**	**3**	**3**	**10**	**4**	**4**	**4**	**3**	**3**	**10**	**4**	**4**	**4**	**3**	**3**	**10**	**4**	**4**	**1**	**3**	**8**
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**06**	**07**	**08**	**09**	**3yr**
Lacey	74	91	86	120	124	110	47.0	47.9	48.8	48.8	49.2	48.9	11.4	12.8	12.4	13.4	11.8	12.5	87	74	84	88	96	89	53	59	65	56	60
Stellar-ND	78	95	78	116	126	107	46.3	47.3	47.8	47.5	48.0	47.8	11.2	12.2	12.2	13.1	11.8	12.4	89	76	89	92	97	93	53	58	65	55	59
Tradition	75	93	73	113	124	104	47.0	47.7	48.0	49.0	48.9	48.6	11.1	12.6	12.4	13.2	11.9	12.5	87	72	84	94	96	91	55	60	66	57	61
Pinnacle*	--	--	80	120	133	111	--	--	49.7	49.9	49.8	49.8	--	--	11.2	12.0	11.0	11.4	--	--	92	96	96	95	--	60	65	57	61
Rasmusson	--	--	--	123	131	--	--	--	--	48.6	48.9	--	--	--	--	13.0	11.6	--	--	--	--	88	95	--	--	--	64	55	--
Celebration	--	--	--	--	131	--	--	--	--	--	48.9	--	--	--	--	--	12.3	--	--	--	--	--	97	--	--	--	--	56	--
Drummond	69	84	78	--	--	--	46.1	46.6	47.9	--	--	--	11.2	13.0	12.5	--	--	--	86	70	84	--	--	--	54	58	--	--	--
Legacy	74	89	74	--	--	--	45.4	45.1	47.2	--	--	--	11.1	12.3	12.2	--	--	--	84	67	84	--	--	--	55	61	--	--	--
Robust	67	--	--	--	--	--	46.8	--	--	--	--	--	11.7	--	--	--	--	--	84	--	--	--	--	--	--	--	--	--	--

*2-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**	**5**	**17**	**6**	**6**	**6**	**6**	**5**	**17**	**6**	**6**	**6**	**6**	**5**	**17**	**6**	**6**	**5**	**5**	**16**	**6**	**5**	**4**	**5**	**14**
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**06**	**07**	**08**	**09**	**3yr**	**06**	**07**	**08**	**09**	**3yr**
Freyr	53	65	62	75	77	71	58.4	61.1	59.7	60.0	58.3	59.3	15.6	14.5	14.4	14.5	13.6	14.2	35	36	36	37	36	54	60	64	56	60
Glenn	57	63	66	74	78	73	62.0	63.6	62.9	62.7	63.2	62.9	15.8	15.2	15.2	15.3	13.9	14.8	36	39	38	39	39	51	57	61	53	57
Howard	54	68	64	80	84	76	60.4	62.0	61.5	61.1	60.2	60.9	15.4	14.5	14.7	14.4	13.4	14.2	35	37	37	38	37	53	60	63	55	59
Ada	--	63	62	77	80	73	--	61.9	61.0	61.4	60.9	61.1	--	14.6	14.4	14.3	13.5	14.1	32	34	33	35	34	55	60	64	57	61
Faller	--	73	75	89	90	85	--	60.8	60.3	60.5	58.9	59.9	--	14.1	14.4	14.1	13.2	13.9	34	37	35	38	36	55	60	65	57	61
Kelby	--	61	63	73	76	70	--	61.5	60.0	60.5	60.7	60.4	--	15.1	14.9	14.9	14.0	14.6	29	32	30	32	32	52	58	63	53	58
Traverse	--	71	68	83	86	79	--	59.4	58.1	58.7	57.8	58.2	--	13.7	14.0	13.9	12.8	13.6	36	39	37	40	38	52	57	62	54	58
Steele-ND	51	--	62	76	77	72	59.9	--	61.2	61.0	60.4	60.9	15.8	--	15.1	14.7	13.7	14.5	--	37	37	38	37	--	59	64	55	59
Kuntz	--	--	65	80	78	74	--	--	59.9	60.0	58.8	59.6	--	--	14.1	13.8	13.4	13.8	--	33	32	33	33	--	60	65	56	60
RB07	--	--	66	79	80	75	--	--	59.6	60.3	59.7	59.9	--	--	14.6	14.6	13.7	14.3	--	35	32	34	34	--	57	61	53	57
Albany	--	--	--	82	85	--	--	--	--	59.9	59.6	--	--	--	--	13.4	12.4	--	--	--	33	35	--	--	--	68	59	--
Hat Trick	--	--	--	80	76	--	--	--	--	61.2	60.5	--	--	--	--	14.5	13.3	--	--	--	34	37	--	--	--	63	58	--
Samson	--	--	--	82	82	--	--	--	--	59.5	58.6	--	--	--	--	14.1	13.3	--	--	--	32	33	32	--	--	65	56	--
Tom	--	--	--	80	81	--	--	--	--	60.7	60.1	--	--	--	--	14.4	13.5		--	--	35	37	--	--	--	63	55	
Barlow	--	--	--	--	81	--	--	--	--	--	60.6	--	--	--	--	--	13.7	--	--	--	--	38	--	--	--	--	54	--
Breaker	--	--	--	--	82	--	--	--	--	61.8	60.2	--	--	--	--	14.4	13.5	--	--	--	35	37	--	--	--	65	57	--
Brennan	--	--	--	--	77	--	--	--	--	--	60.4	--	--	--	--	--	13.8	--	--	--	--	32	--	--	--	--	54	--
Brick	--	--	--	--	82	--	--	--	--	--	60.8	--	--	--	--	--	13.3	--	--	--	--	39	--	--	--	--	52	--
Cromwell	--	--	--	--	80	--	--	--	--	--	61.0	--	--	--	--	--	13.5	--	--	--	--	36	--	--	--	--	57	--
Jenna	--	--	--	--	77	--	--	--	--	--	58.8	--	--	--	--	--	13.7	--	--	--	--	34	--	--	--	--	57	--
Sabin	--	--	--	--	77	--	--	--	--	--	59.4	--	--	--	--	--	13.9	--	--	--	--	38	--	--	--	--	55	--
Alsen	52	62	53	73	--	--	60.3	61.7	60.4	60.9	--	--	16.0	15.0	15.0	14.9	--	--	34	36	35	--	--	54	59	63	--	--
Briggs	53	64	65	77	--	--	59.3	61.5	60.4	60.5	--	--	15.9	14.8	15.1	14.7	--	--	35	36	35	--	--	52	57	61	--	--
Knudson	59	65	67	78	--	--	59.2	61.2	60.1	60.1	--	--	14.6	14.1	14.2	14.1	--	--	32	35	34	--	--	56	60	64	--	--
Oklee	53	60	58	--	--	--	60.2	61.5	60.9	--	--	--	15.6	15.3	15.0	--	--	--	34	36	--	--	--	54	58	--	--	--
Trooper	56	66	68	--	--	--	59.8	62.0	60.6	--	--	--	14.7	14.1	13.5	--	--	--	30	32	--	--	--	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	--	--	--
Granger	51	69	--	--	--	--	59.2	61.7	--	--	--	--	15.6	14.7	--	--	--	--	38	--	--	--	--	53	--	--	--	--
Hanna	54	66	--	--	--	--	59.9	61.3	--	--	--	--	15.6	14.8	--	--	--	--	40	--	--	--	--	54	--	--	--	--
Polaris	55	63	--	--	--	--	59.5	60.0	--	--	--	--	14.2	14.1	--	--	--	--	34	--	--	--	--	59	--	--	--	--

HRSW Summary, Langdon 2005-2009

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
Ada	59	59	71	83	87	80	60.2	61.0	62.4	61.8	60.1	61.4	14.9	13.9	14.2	13.1	14.4	13.9
Alsen	56	63	59	80	79	73	60.2	60.3	61.8	61.0	58.6	60.5	15.5	14.8	15.3	14.8	14.8	14.9
Barlow	52	62	72	81	86	80	59.8	61.1	62.0	61.5	59.4	61.0	15.4	14.9	14.8	14.6	14.4	14.6
Bigg Red	52	62	59	72	91	74	61.6	62.0	62.5	62.9	61.8	62.4	13.3	13.6	13.6	13.6	13.9	13.7
Briggs	56	63	65	87	83	78	59.3	60.1	60.4	61.0	58.2	59.9	15.5	15.1	14.8	14.5	14.9	14.7
Dapps	65	57	67	77	93	79	59.2	58.4	60.1	59.9	59.3	59.8	16.2	15.8	16.5	15.8	15.0	15.8
Faller	80	69	76	94	103	91	59.9	59.1	61.1	60.5	58.5	60.0	14.5	14.1	15.0	13.5	14.0	14.2
Freyr	50	63	72	79	73	75	57.6	60.4	60.9	60.4	57.4	59.5	15.2	14.5	13.9	14.2	14.5	14.2
Glenn	59	56	76	80	85	80	61.8	62.2	63.8	62.8	62.5	63.0	15.2	15.5	15.0	15.3	14.8	15.0
Granger	49	67	69	78	79	75	59.6	60.6	61.2	60.6	58.0	59.9	15.0	14.7	14.9	13.8	14.6	14.4
Granite	58	60	63	78	83	75	60.8	61.4	62.8	62.9	61.6	62.4	15.7	15.5	16.3	15.0	15.4	15.6
Howard	61	63	63	85	90	79	60.8	60.0	62.2	61.5	59.4	61.0	14.9	14.5	15.2	14.4	14.3	14.6
Knudson	65	65	72	85	89	82	59.0	59.8	60.9	59.8	58.4	59.7	14.2	13.8	14.2	13.7	13.3	13.7
Oklee	53	62	65	77	86	76	60.5	60.8	61.3	61.1	60.0	60.8	14.9	14.8	15.2	14.1	14.6	14.6
Parshall	56	60	67	80	92	80	60.3	60.4	62.4	61.5	61.0	61.6	15.3	14.7	14.9	14.5	14.4	14.6
RB07	63	67	73	83	75	77	59.1	60.1	60.4	60.0	56.4	58.9	14.8	14.9	14.7	14.5	14.8	14.7
Reeder	51	61	62	85	86	78	57.7	59.6	60.7	60.2	58.2	59.7	14.7	14.0	14.5	15.4	14.9	14.9
Steele-ND	56	67	63	79	85	76	60.6	60.5	61.9	61.6	59.2	60.9	15.3	14.9	15.5	14.4	14.2	14.7
Trooper	55	61	74	85	77	78	59.5	61.2	61.3	62.2	57.7	60.4	14.3	13.8	13.5	13.0	13.8	13.4
Kelby	--	61	70	74	77	74	--	60.6	60.7	60.4	59.2	60.1	--	15.1	15.2	14.3	14.8	14.7
Traverse	--	66	76	89	94	86	--	57.5	58.8	59.0	56.3	58.0	--	14.1	13.9	13.2	13.2	13.4
Brick	--	--	68	83	90	80	--	--	61.5	62.1	59.8	61.1	--	--	14.7	13.7	13.9	14.1
Cromwell	--	--	73	84	90	82	--	--	62.1	61.8	60.1	61.3	--	--	14.7	14.1	14.3	14.4
Kuntz	--	--	71	86	78	78	--	--	60.5	59.9	58.1	59.5	--	--	14.1	13.6	13.9	13.9
Mott	--	--	62	85	88	78	--	--	61.7	61.1	59.7	60.8	--	--	13.9	14.2	13.8	14.0
Tom	--	--	71	86	89	82	--	--	60.9	60.7	59.0	60.2	--	--	14.3	13.7	14.4	14.1
Albany	--	--	--	88	89	--	--	--	--	60.1	58.7	--	--	--	--	12.6	13.1	--
Blade	--	--	--	83	83	--	--	--	--	61.7	60.2	--	--	--	--	14.3	14.4	--
Breaker	--	--	--	83	86	--	--	--	--	61.4	59.5	--	--	--	--	13.9	14.5	--
Brennan	--	--	--	82	78	--	--	--	--	61.0	58.6	--	--	--	--	14.4	14.6	--
Hat Trick	--	--	--	89	79	--	--	--	--	61.5	58.3	--	--	--	--	14.8	14.8	--
Jenna	--	--	--	85	83	--	--	--	--	59.4	57.7	--	--	--	--	14.0	14.4	--
Sabin	--	--	--	85	83	--	--	--	--	60.4	58.3	--	--	--	--	14.5	14.6	--
Samson	--	--	--	86	79	--	--	--	--	59.4	56.8	--	--	--	--	13.7	14.3	--
Vantage	--	--	--	81	77	--	--	--	--	62.8	61.5	--	--	--	--	15.5	15.9	--
AP605 CL	--	--	--	--	88	--	--	--	--	--	59.1	--	--	--	--	--	14.9	--
Brogan	--	--	--	--	71	--	--	--	--	--	57.3	--	--	--	--	--	15.4	--
Hanna	58	61	63	78	--	--	59.6	60.2	60.5	60.8	--	--	15.3	14.6	15.5	14.4	--	--
Norpro	56	67	71	81	--	--	57.6	60.2	60.3	59.6	--	--	15.2	14.3	14.6	13.6	--	--
Russ	53	62	60	73	--	--	58.1	58.8	58.9	61.6	--	--	14.1	14.7	14.6	15.2	--	--
AP 604CL	--	--	59	80	--	--	--	--	60.6	61.0	--	--	--	--	14.4	14.2	--	--
Banton	60	64	--	76	--	--	59.8	62.3	--	60.4	--	--	14.9	14.7	--	14.2	--	--
Choteau	--	--	--	76	--	--	--	--	--	59.5	--	--	--	--	--	13.4	--	--
Diamond	--	--	--	44	--	--	--	--	--	58.4	--	--	--	--	--	14.2	--	--
Lolo	--	--	--	84	--	--	--	--	--	60.3	--	--	--	--	--	12.9	--	--
Mercury	--	72	76	--	--	--	--	59.5	60.5	--	--	--	--	14.3	13.6	--	--	--
Rush	--	55	68	--	--	--	--	60.9	61.9	--	--	--	--	15.3	15.0	--	--	--
LSD 5%	4.9	8.1	7.7	5.8	7.1		0.6	1.4	1.0	0.8	1.0		0.6	0.7	1.0	0.7	0.5	

HRSW Summary, Langdon 2005-2009

	Days to Head						Height(in)						Lodging(0-9)					Shatter*	
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**06**	**07**	**08**	**09**	**3yr**	**2005**	**2008**
Ada	55	53	63	67	61	64	34	34	36	35	38	36	0.8	0.3	0.3	0.0	0.2	14	0
Alsen	54	52	61	67	59	62	34	37	39	39	39	39	0.8	0.3	2.0	0.0	0.8	16	40
Barlow	52	50	60	66	56	60	33	38	39	39	41	40	1.2	1.3	3.0	0.0	1.4	5	8
Bigg Red	55	55	63	68	61	64	38	41	41	41	47	43	1.4	0.8	0.7	0.0	0.5	135	202
Briggs	53	51	60	64	55	60	35	37	37	39	40	39	1.0	3.5	2.5	0.0	2.0	15	0
Dapps	54	53	62	67	58	62	40	41	42	44	45	44	0.7	3.8	1.9	0.0	1.9	45	14
Faller	55	54	63	69	60	64	36	36	38	38	40	39	1.2	3.8	1.9	0.0	1.9	18	0
Freyr	54	52	62	67	58	63	35	37	37	38	40	38	3.2	0.0	0.6	0.0	0.2	8	58
Glenn	54	49	60	64	56	60	37	38	41	41	43	42	1.2	0.3	1.2	0.0	0.5	0	2
Granger	54	53	61	66	59	62	39	41	41	42	45	43	1.5	1.8	2.1	0.0	1.3	136	96
Granite	57	55	69	71	63	68	34	34	37	35	38	37	0.0	0.0	0.2	0.0	0.1	10	26
Howard	54	52	62	67	59	63	36	36	39	40	41	40	0.0	3.0	3.4	0.0	2.1	24	0
Knudson	56	54	65	68	59	64	35	34	39	36	38	38	1.2	0.3	0.6	0.0	0.3	9	14
Oklee	54	53	60	66	58	61	35	37	37	39	42	39	1.5	3.0	0.8	0.0	1.3	70	14
Parshall	54	52	62	67	59	63	39	42	44	44	47	45	1.0	0.3	0.6	0.0	0.3	28	2
RB07	53	51	59	64	55	59	34	35	36	35	36	36	0.5	1.8	0.3	0.0	0.7	2	2
Reeder	55	53	62	66	57	62	34	36	40	40	41	40	1.3	1.3	1.2	0.0	0.8	14	2
Steele-ND	53	53	62	67	58	62	35	38	38	41	41	40	2.2	2.3	1.7	0.0	1.3	5	8
Trooper	53	50	61	66	56	61	32	31	35	33	34	34	0.8	0.5	0.2	0.0	0.2	0	0
Kelby	--	51	61	67	55	61	--	31	36	34	35	35	1.0	1.5	0.1	0.0	0.5	--	6
Traverse	--	50	61	65	57	61	--	40	40	40	44	41	1.5	0.5	1.5	0.0	0.7	--	102
Brick	--	--	58	63	52	58	--	--	39	40	42	40	--	1.5	0.8	0.0	0.8	--	8
Cromwell	--	--	65	70	61	65	--	--	38	37	40	38	--	0.3	1.6	0.0	0.6	--	2
Kuntz	--	--	63	69	59	64	--	--	36	34	35	35	--	1.0	0.1	0.0	0.4	--	10
Mott	--	--	67	69	61	66	--	--	41	42	43	42	--	0.0	0.7	0.0	0.2	--	16
Tom	--	--	62	66	58	62	--	--	38	38	40	39	--	2.5	2.7	0.0	1.7	--	0
Albany	--	--	--	70	62	--	--	--	--	36	38	--	--	--	0.8	0.0	--	--	76
Blade	--	--	--	69	59	--	--	--	--	37	40	--	--	--	0.5	0.0	--	--	0
Breaker	--	--	--	70	60	--	--	--	--	38	39	--	--	--	0.1	0.0	--	--	6
Brennan	--	--	--	67	57	--	--	--	--	34	35	--	--	--	0.0	0.0	--	--	0
Hat Trick	--	--	--	66	59	--	--	--	--	38	39	--	--	--	0.1	0.0	--	--	20
Jenna	--	--	--	71	62	--	--	--	--	38	37	--	--	--	0.6	0.0	--	--	8
Sabin	--	--	--	68	60	--	--	--	--	37	40	--	--	--	2.2	0.0	--	--	6
Samson	--	--	--	69	58	--	--	--	--	34	34	--	--	--	0.2	0.0	--	--	0
Vantage	--	--	--	73	63	--	--	--	--	37	39	--	--	--	0.0	0.0	--	--	10
AP605 CL	--	--	--	--	57	--	--	--	--	--	41	--	--	--	--	0.0	--	--	--
Brogan	--	--	--	--	60	--	--	--	--	--	38	--	--	--	--	0.0	--	--	--
Hanna	54	52	62	66	--	--	38	41	41	44	--	--	1.3	3.0	1.7	--	--	0	0
Norpro	55	52	63	67	--	--	32	33	35	35	--	--	1.5	2.0	0.8	--	--	16	0
Russ	53	51	63	65	--	--	37	39	39	37	--	--	1.5	2.3	0.7	--	--	17	52
AP 604CL	--	--	59	64	--	--	--	--	35	38	--	--	--	3.5	1.8	--	--	--	2
Banton	55	51	--	65	--	--	37	37	--	38	--	--	0.5	--	0.2	--	--	3	0
Choteau	--	--	--	67	--	--	--	--	--	36	--	--	--	--	0.0	--	--	--	2
Diamond	--	--	--	69	--	--	--	--	--	43	--	--	--	--	1.9	--	--	--	480
Lolo	--	--	--	70	--	--	--	--	--	39	--	--	--	--	2.3	--	--	--	4
Mercury	--	53	62	--	--	--	--	32	34	--	--	--	1.2	1.3	--	--	--	--	--
Rush	--	51	59	--	--	--	--	35	37	--	--	--	0.3	0.3	--	--	--	--	--
LSD 5%	1.1	1.0	1.0	1.2	1.0		1.8	2.1	2.0	2.0	1.6		1.4	2.0	2.1	--		43	55

*__2005-08__-Seeds/ft^2

Nelson County HRSW Summary 2005-2009

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging(0-9)					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
Freyr	48	56	55	74	80	70	58.1	62.1	60.2	58.8	58.3	59.1	15.9	14.4	15.2	13.9	13.4	14.2	2.8	0	0	0	0	0
Glenn	52	66	65	72	78	72	62.1	64.5	62.8	62.4	63.5	62.9	16.0	15.1	15.8	14.4	14.0	14.7	0.8	0	0	0	0	0
Howard	56	67	66	74	87	76	61.1	62.7	61.9	60.4	60.5	60.9	15.4	14.4	15.3	13.7	13.5	14.2	4.3	0	0	0	0	0
Ada	--	67	57	77	81	72	--	63.3	60.6	61.2	62.0	61.3	--	14.7	15.1	13.8	13.3	14.1	--	0	0	0	0	0
Faller	--	68	73	91	92	85	--	61.3	60.7	60.7	59.3	60.2	--	14.4	14.8	13.2	12.9	13.6	--	0	0	0	0	0
Kelby	--	62	62	74	75	70	--	63.0	60.5	61.1	62.4	61.3	--	15.0	15.4	14.2	13.8	14.5	--	0	0	0	0	0
Traverse	--	64	57	85	91	78	--	60.5	58.1	58.8	59.7	58.9	--	13.6	15.0	13.0	12.6	13.5	--	0	0	0	0	0
Steele-ND	51	--	59	75	74	70	60.6	--	61.6	60.6	61.5	61.2	15.8	--	15.8	14.1	13.6	14.5	1.9	--	0	0	0	0
Kuntz	--	--	56	84	85	75	--	--	60.5	60.3	58.6	59.8	--	--	14.7	13.4	13.5	13.9	--	--	0	0	0	0
RB07	--	--	65	82	78	75	--	--	60.6	60.2	61.7	60.8	--	--	15.3	13.4	13.3	14.0	--	--	0	0	0	0
Albany	--	--	--	85	97	--	--	--	--	60.0	60.9	--	--	--	--	12.8	12.5	--	--	--	--	0	0	--
Breaker	--	--	--	81	81	--	--	--	--	61.4	60.0	60.7	--	--	--	13.7	13.3	--	--	--	--	0	0	--
Hat Trick	--	--	--	86	74	--	--	--	--	61.6	62.7	--	--	--	--	13.3	12.8	--	--	--	--	0	0	--
Samson	--	--	--	82	87	--	--	--	--	59.2	59.9	--	--	--	--	13.7	13.3	--	--	--	--	0	0	--
Tom	--	--	--	81	84		--	--	--	61.1	60.7	--	--	--	--	14.0	13.6	--	--	--	--	0	0	--
Barlow	--	--	--	--	88	--	--	--	--	--	61.1	--	--	--	--	--	13.9	--	--	--	--	--	0	--
Brennan	--	--	--	--	79	--	--	--	--	--	62.4	--	--	--	--	--	13.6	--	--	--	--	--	0	--
Brick	--	--	--	--	81	--	--	--	--	--	62.7	--	--	--	--	--	13.4	--	--	--	--	--	0	--
Cromwell	--	--	--	--	84	--	--	--	--	--	60.9	--	--	--	--	--	13.5	--	--	--	--	--	0	--
Jenna	--	--	--	--	86	--	--	--	--	--	59.8	--	--	--	--	--	13.4	--	--	--	--	--	0	--
Sabin	--	--	--	--	77	--	--	--	--	--	60.9	--	--	--	--	--	13.8	--	--	--	--	--	0	--
Alsen	49	62	52	72	--	--	60.6	63.3	60.5	61.0	--	--	15.9	14.5	15.6	13.9	--	--	0.5	0	0	0	--	--
Briggs	51	62	62	80	--	--	60.0	62.5	60.4	60.5	--	--	16.0	15.0	15.9	13.8	--	--	0.5	0	0	0	--	--
Knudson	57	64	65	82	--	--	60.0	62.9	60.8	59.6	--	--	14.8	14.2	14.7	13.2	--	--	0.1	0	0	0	--	--
Bakker Gold	72	68	46	--	--	--	57.1	61.7	58.3	--	--	--	14.3	13.8	14.6	--	--	--	0.3	0	0	--	--	--
Fireball	46	63	53	--	--	--	57.4	61.7	58.4	--	--	--	16.5	15.7	16.1	--	--	--	1.0	0	0	--	--	--
Oklee	48	57	53	--	--	--	60.2	62.1	61.2	--	--	--	15.9	15.5	15.9	--	--	--	0.8	0	0	--	--	--
Hotshot	48	64	52	--	--	--	59.2	61.7	59.4	--	--	--	13.8	13.7	14.1	--	--	--	0.5	0	0	--	--	--
Trooper	53	64	63	--	--	--	59.7	62.5	60.5	--	--	--	14.7	14.3	14.2	--	--	--	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	--	--	--
LSD 5%	4.0	5.9	5.2	5.5	7.5		0.7	0.7	0.5	0.7	1.1		0.4	0.5	0.3	0.5	0.5		1.6	1.6	--	--	--	

Pembina County HRSW Summary 2005-2009

	Yield (bu/a)						Test Weight (lbs/bu)						Protein (%)						Lodging (0-9)					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
Freyr	60	75	62	81	63	69	59.0	61.6	60.7	59.9	59.1	59.9	15.4	12.9	13.9	14.9	13.3	14.0	0	0.3	0	0	0	0
Glenn	60	66	66	80	68	71	62.2	65.2	63.9	63.1	63.2	63.4	15.4	13.3	14.2	16.1	13.3	14.5	0	0	0	0	0	0
Howard	60	76	64	85	69	72	61.4	62.5	61.7	61.7	60.5	61.3	15.1	13.0	13.6	14.6	12.8	13.7	0	0.3	0	0	0	0
Ada	--	75	65	82	67	71	--	63.5	62.2	61.9	61.3	61.8	--	13.1	13.5	14.7	13.0	13.7	--	0.3	0	0	0	0
Faller	--	90	78	98	75	84	--	62.1	60.7	62.1	59.8	60.9	--	12.2	13.2	14.4	12.6	13.4	--	0	0	0	0	0
Kelby	--	73	59	77	68	68	--	63.1	59.8	61.0	60.1	60.3	--	13.1	14.1	15.2	14.0	14.4	--	0	0	0	0	0
Traverse	--	86	70	87	70	76	--	61.3	58.7	59.1	57.2	58.3	--	11.5	12.9	14.5	12.3	13.2	--	0	0	0	0	0
Steele-ND	58	--	66	82	66	71	60.9	--	61.8	61.2	60.7	61.2	15.4	--	14.0	15.0	13.1	14.0	0	--	0	0	0	0
Kuntz	--	--	69	84	63	72	--	--	60.4	60.5	59.2	60.0	--	--	13.4	14.0	13.5	13.6	--	--	0	0	0	0
RB07	--	--	69	82	72	74	--	--	60.4	61.0	60.0	60.5	--	--	13.6	15.3	13.5	14.1	--	--	0	0	0	0
Albany	--	--	--	85	77	--	--	--	--	60.5	59.7	--	--	--	--	13.7	11.7	--	--	--	--	0	0	--
Breaker	--	--	--	88	75	--	--	--	--	61.9	61.0	--	--	--	--	14.8	13.4	--	--	--	--	0	0	--
Hat Trick	--	--	--	87	74	--	--	--	--	61.9	61.2	--	--	--	--	14.7	12.8	--	--	--	--	0	0	--
Samson	--	--	--	86	79	--	--	--	--	59.0	58.7	--	--	--	--	14.5	12.8	--	--	--	--	0	0	--
Tom	--	--	--	83	69	--	--	--	--	60.8	60.7	--	--	--	--	14.7	12.9	--	--	--	--	0	0	--
Barlow	--	--	--	--	67	--	--	--	--	--	61.0	--	--	--	--	--	13.3	--	--	--	--	--	0	--
Brennan	--	--	--	--	69	--	--	--	--	--	60.0	--	--	--	--	--	13.6	--	--	--	--	--	0	--
Brick	--	--	--	--	69	--	--	--	--	--	60.4	--	--	--	--	--	12.6	--	--	--	--	--	0	--
Cromwell	--	--	--	--	71	--	--	--	--	--	61.5	--	--	--	--	--	13.3	--	--	--	--	--	0	--
Jenna	--	--	--	--	70	--	--	--	--	--	58.5	--	--	--	--	--	13.7	--	--	--	--	--	0	--
Sabin	--	--	--	--	71	--	--	--	--	--	59.2	--	--	--	--	--	13.4	--	--	--	--	--	0	--
Alsen	59	71	59	77	--	--	60.7	62.4	61.6	61.3	--	--	15.5	13.9	14.0	14.9	--	--	0	0	0	0	--	--
Briggs	57	71	68	79	--	--	59.6	62.8	61.2	61.0	--	--	15.3	12.6	14.4	15.5	--	--	0	0.3	0	0	--	--
Knudson	63	72	71	81	--	--	59.9	61.7	60.8	59.9	--	--	14.5	12.8	13.6	14.1	--	--	0	0	0	0	--	--
Trooper	63	70	74	--	--	--	61.2	62.8	62.0	--	--	--	14.6	12.2	13.0	--	--	--	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	--	--	--
LSD 5%	3.2	7.6	4.7	3.6	6.5		0.6	0.8	0.4	0.7	0.6		0.4	1.1	0.4	0.3	0.6		--	0.5	--	--	--	

Towner County HRSW Summary 2005-2009

Variety	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging (0-9)					
	05	06	07	08	09	3yr	05	06	07	08	09	3yr	05	06	07	08	09	3yr	05	06	07	08	09	3yr
Freyr	48	54	55	53	85	64	57.8	59.2	59.9	61.0	58.4	59.8	15.7	14.9	14.1	14.6	13.0	13.9	0	0	0	0	0	0
Glenn	51	56	60	58	78	65	61.8	63.2	62.4	63.3	63.8	63.2	15.7	15.5	14.9	15.2	13.0	14.4	0	0	0	0	0	0
Howard	49	60	60	60	90	70	60.3	61.4	61.1	61.6	60.8	61.2	15.3	14.7	14.6	14.8	12.4	13.9	0.3	0	0	0	0	0
Ada	--	38	54	54	81	63	--	59.0	61.0	61.6	61.0	61.2	--	16.3	14.4	15.3	12.9	14.2	--	0	0	0	0	0
Faller	--	60	68	57	86	70	--	60.0	59.8	59.7	59.0	59.5	--	14.6	14.3	14.7	12.5	13.8	--	0	0	0	0	0
Kelby	--	49	56	53	75	61	--	59.9	60.3	60.3	61.9	60.8	--	15.7	14.9	15.4	13.0	14.4	--	0	0	0	0	0
Traverse	--	55	64	59	78	67	--	57.1	59.0	59.0	58.5	58.8	--	14.3	13.8	13.9	12.3	13.3	--	0	0	0	0	0
Steele-ND	45	--	58	56	83	65	59.0	--	60.7	61.2	60.8	60.9	15.6	--	15.0	14.9	13.0	14.3	0.8	--	0	0	0	--
Kuntz	--	--	56	55	78	63	--	--	59.5	60.4	59.8	59.9	--	--	13.7	13.9	12.2	13.3	--	--	0	0	0	0
RB07	--	--	62	55	84	67	--	--	59.8	61.2	61.6	60.9	--	--	14.3	14.9	12.5	13.9	--	--	0	0	0	0
Albany	--	--	--	51	80	--	--	--	--	59.4	60.7	--	--	--	--	14.7	11.5	--	--	--	--	0	0	--
Breaker	--	--	--	59	84	--	--	--	--	62.0	60.3	--	--	--	--	15.0	12.5	--	--	--	--	0	0	--
Cromwell	--	--	--	51	71	--	--	--	--	61.7	61.9	--	--	--	--	15.5	12.8	--	--	--	--	0	0	--
Hat Trick	--	--	--	46	79	--	--	--	--	60.4	61.7	--	--	--	--	15.9	12.8	--	--	--	--	0	0	--
Samson	--	--	--	60	77	--	--	--	--	60.6	60.0	--	--	--	--	14.5	12.7	--	--	--	--	0	0	--
Tom	--	--	--	54	82	--	--	--	--	60.9	61.1		--	--	--	14.6	12.6	--	--	--	--	0	0	--
Barlow	--	--	--	--	85	--	--	--	--	--	61.4	--					12.9	--	--	--	--	--	0	--
Brennan	--	--	--	--	76	--	--	--	--	--	61.6	--	--	--	--	--	13.0	--	--	--	--	--	0	--
Brick	--	--	--	--	81	--	--	--	--	--	62.0	--	--	--	--	--	12.6	--	--	--	--	--	0	--
Jenna	--	--	--	--	77	--	--	--	--	--	60.4	--	--	--	--	--	12.7	--	--	--	--	--	0	--
Sabin	--	--	--	--	78	--	--	--	--	--	60.3	--	--	--	--	--	13.2	--	--	--	--	--	0	--
Alsen	48	47	45	52	--	--	60.1	60.3	60.1	60.8	--	--	16.0	15.3	14.7	15.8	--	--	0	0	0	0	--	--
Briggs	51	57	62	50	--	--	59.5	60.8	60.8	60.4	--	--	15.6	15.1	15.0	15.2	--	--	3.0	0	0	0	--	--
Knudson	54	49	60	54	--	--	58.8	59.6	59.9	61.4	--	--	14.2	15.2	14.3	15.0	--	--	0	0	0	0	--	--
Oklee	49	46	52	--	--	--	60.1	59.9	60.9	--	--	--	15.4	16.4	14.8	--	--	--	2.5	0	0	--	--	--
Trooper	51	50	55	--	--	--	59.7	59.8	59.2	--	--	--	14.5	14.7	13.2	--	--	--	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	--	--	--
LSD 5%	2.9	10.7	4.4	NS	5.9		0.5	2.0	0.6	0.9	1.0		0.2	1.1	0.3	0.8	0.6		1.4	1.1	--	--	--	

Walsh County HRSW Summary 2005-2009

	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging (0-9)					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
Freyr	56	79	52	89	84	75	57.9	61.6	55.9	60.3	58.5	58.2	16.0	15.6	15.0	14.7	14.0	14.6	0	0	4.8	0.0	4.3	3.0
Glenn	62	72	57	82	82	74	61.4	63.9	60.9	62.9	62.8	62.2	16.5	16.6	16.0	15.0	14.3	15.1	3.0	0	2.0	1.5	2.3	1.9
Howard	51	76	60	91	86	79	59.4	62.9	59.4	61.1	59.9	60.1	16.3	15.6	15.2	14.6	13.8	14.5	4.3	0	3.3	2.0	4.8	3.4
Ada	--	86	55	88	82	75	--	62.9	58.7	61.6	60.2	60.2	--	14.7	14.7	14.2	13.8	14.2	--	0	6.5	0.8	5.0	4.1
Faller	--	90	74	103	93	90	--	61.7	58.5	60.5	58.5	59.2	--	15.0	14.7	14.7	14.0	14.5	--	0	3.0	1.5	6.0	3.5
Kelby	--	72	58	86	83	76	--	61.5	57.8	60.7	60.0	59.5	--	15.8	15.2	14.8	14.3	14.8	--	0	3.5	0.0	1.0	1.5
Traverse	--	90	64	99	95	86	--	60.3	55.0	59.0	57.3	57.1	--	15.2	14.8	14.7	13.7	14.4	--	0	4.3	4.5	3.0	3.9
Steele-ND	45	--	56	87	78	73	58.7	--	59.3	61.3	59.7	60.1	16.8	--	15.8	14.7	14.5	15.0	4.8	--	3.3	0.5	3.5	2.4
Kuntz	--	--	58	90	85	78	--	--	57.2	59.9	58.2	58.4	--	--	14.4	14.4	14.1	14.3	--	--	4.0	0.0	0.5	1.5
RB07	--	--	54	95	90	80	--	--	55.9	59.8	58.7	58.1	--	--	15.1	14.4	14.2	14.6	--	--	5.8	0.0	3.8	3.2
Albany	--	--	--	99	83	--	--	--	--	60.6	58.2	--	--	--	--	13.5	13.4	--	--	--	--	0.8	6.5	--
Breaker	--	--	--	87	83	--	--	--	--	62.3	60.4	--	--	--	--	14.5	13.8	--	--	--	--	0.0	4.3	--
Hat Trick	--	--	--	98	74	--	--	--	--	61.9	58.7	--	--	--	--	14.0	13.5	--	--	--	--	0.0	5.0	--
Samson	--	--	--	98	88	--	--	--	--	60.0	57.5	--	--	--	--	14.1	13.6	--	--	--	--	0.0	0.0	--
Tom	--	--	--	93	81	--	--	--	--	60.1	58.8	--	--	--	--	14.8	14.2	--	--	--	--	3.8	5.8	--
Barlow	--	--	--	--	80	--	--	--	--	--	60.0	--	--	--	--	--	14.2	--	--	--	--	--	2.5	--
Brennan	--	--	--	--	82	--	--	--	--	--	59.6	--	--	--	--	--	13.9	--	--	--	--	--	0.5	--
Brick	--	--	--	--	89	--	--	--	--	--	61.1	--	--	--	--	--	14.2	--	--	--	--	--	3.8	--
Cromwell	--	--	--	--	86	--	--	--	--	--	60.6	--	--	--	--	--	13.7	--	--	--	--	--	5.8	--
Jenna	--	--	--	--	79	--	--	--	--	--	57.4	--					14.4	--	--	--	--	--	2.0	--
Sabin	--	--	--	--	76	--	--	--	--	--	58.4	--	--	--	--	--	14.7	--	--	--	--	--	4.0	--
Alsen	51	71	47	83	--	--	59.2	62.6	57.6	61.0	--	--	16.7	16.3	15.5	15.1	--	--	1.3	0	6.8	0.0	--	--
Briggs	48	72	59	87	--	--	57.4	61.7	58.6	60.5	--	--	17.3	15.9	16.0	14.8	--	--	6.8	0	4.0	4.0	--	--
Knudson	59	79	59	88	--	--	57.8	61.8	57.8	60.2	--	--	14.7	14.6	14.3	14.0	--	--	0.3	0	3.8	0.5	--	--
Bakker Gold	53	89	54	--	--	--	59.0	62.1	57.1	--	--	--	14.3	14.7	13.2	--	--	--	0	0	0.3	--	--	--
Fireball	50	72	51	--	--	--	57.5	60.3	55.5	--	--	--	16.5	16.4	15.7	--	--	--	0	0	0.5	--	--	--
Hotshot	36	86	42	--	--	--	56.8	63.1	56.8	--	--	--	15.0	13.4	12.7	--	--	--	0	0	3.3	--	--	--
Oklee	53	73	52	--	--	--	59.2	62.4	59.3	--	--	--	16.1	16.3	15.4	--	--	--	5.5	0	3.3	--	--	--
Trooper	60	85	59	--	--	--	58.5	63.0	59.2	--	--	--	15.2	14.8	13.9	--	--	--	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	--	--	--
LSD 5%	4.8	5.9	6.4	5.9	6.1		0.7	0.5	0.9	0.5	0.9		0.5	0.3	0.3	0.4	0.5		1.2	--	2.4	1.8	2.6	

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					
	8 site	LV	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.	09	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	20	4	11	27	17	57	20	5	17	4	1	20	--	--	--	--	--		3	4	2	5	2	0	4	0	0	0	0	0	--	--	--		--	2	--	--	--	--
Alsen	31	12	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	52	3	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	11	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	8	5	5	13	7	10	20	1	5	1	1	35	--	--	--	--	--		0	0	0	0	0	0	0	0	0	0	0	--	--	--	--		--	1	--	--	--	--
Freyr	23	10	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	13	7	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	11	4	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	28	19	10	40	23	67	20	3	42	4	1	--	--	--	--	--	--		1	0	1	1	0	0	7	0	0	0	0	--	--	--	--		--	--	--	--	--	--
Knudson	10	7	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	21	12	23	27	43	25	5	25	--	--	--	--	--	--	--	--		0	0	1	0	0	0	1	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Oklee	39	7	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	20	41	7	23	25	30	13	3	22	--	--	--	--	--	--	--	--		0	0	0	0	0	0	0	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Steele-ND	13	10	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	21	7	8	33	23	37	23	5	30	4	3	--	--	--	--	--	--		2	0	0	0	0	0	8	0	0	0	0	--	--	--	--		--	--	--	--	--	--
Trooper	51	49	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	--	21	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Barlow	--	4	13	45	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Blade	--	19	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Breaker	--	7	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Brennan	--	20	8	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Brick	--	11	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Brogan	--	11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Cromwell	--	5	7	13	--	--	--	--	--	--	--	--	--	--	--	--	--		--	0	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Dapps	--	7	7	20	--	--	--	--	--	1	1	10	--	--	--	--	--		--	0	--	--	--	--	--	0	0	0	0	0	--	--	--		--	0	--	--	--	--
Granger	--	7	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	--	8	5	30	--	--	--	--	--	3	--	40	24	10	35	60	72		--	0	--	--	--	--	--	0	--	--	--	0	2	3	1		9	16	6	2	4	16
Hat Trick	--	47	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Jenna	--	12	7	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Mott	--	6	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Parshall	--	5	8	67	--	--	--	--	--	6	--	30	--	--	--	--	--		--	3	--	--	--	--	--	1	--	--	--	4	--	--	--		--	3	--	--	--	--
Reeder	--	13	7	80	--	--	--	--	--	5	--	33	--	--	--	--	--		--	5	--	--	--	--	--	4	--	--	--	4	--	--	--		--	2	--	--	--	--
Sabin	--	17	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Samson	--	21	12	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Tom	--	7	7	43	--	--	--	--	--	--	--	--	--	--	--	--	--		--	2	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--	--
Vantage	--	11	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 head severity) - %										
Location	**8 site**	**LV**	**P**	**N**	**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**
Year	**Ave.**	**08**	**08**	**08**	**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**
Variety:																																
Ada	1	2	1	1	0	0	--	--	--	--	--	--	--	0	0	1	--	--	--	--	--	--	0	1	1	0	1	--	--	--	--	--
Albany	--	1	1	1	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--
Alsen	0	1	1	0	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
Barlow	--	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Bigg Red	--	0	--	--	0	0	1	--	--	--	--	--	--	0	0	1	--	--	--	--	--	--	0	0	0	0	0	--	--	--	--	--
Blade	--	1	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Breaker	--	1	1	1	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--
Brennan	--	--	--	--	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Brick	--	--	--	--	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Briggs	1	1	1	0	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
Cromwell	--	1	--	--	0	--	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	--
Dapps	--	2	--	--	1	--	2	--	--	--	--	--	--	3	0	1	--	--	--	--	--	--	0	0	--	--	1	--	--	--	--	--
Faller	0	1	0	0	0	0	1	--	--	--	--	--	--	0	0	1	--	--	--	--	--	--	0	0	0	0	1	--	--	--	--	--
Freyr	0	0	1	1	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
Glenn	0	1	1	0	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
Granger	--	2	--	--	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	--	--	1	--	3	4	5	3	3	3	--	3	0	4	2	9	4	4	6	--	0	0	--	--	1	2	3	3	4	7
Hat Trick	--	2	1	1	--	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Howard	1	1	2	1	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
Jenna	--	--	--	--	--	--	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Kelby	1	1	1	1	1	0	--	--	--	--	--	--	--	1	0	--	--	--	--	--	--	--	0	0	1	0	--	--	--	--	--	--
Knudson	0	0	0	1	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
Kuntz	1	2	1	1	0	0	--	--	--	--	--	--	--	1	0	--	--	--	--	--	--	--	0	0	0	1	--	--	--	--	--	--
Mott	--	--	--	--									--	2	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--
Oklee	--	1	--	--	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
Parshall	--	2	--	--	1	--	5	--	--	--	--	--	--	3	1	1	--	--	--	--	--	--	1	1	--	--	2	--	--	--	--	--
RB07	0	1	1	0	1	0	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	1	0	1	1	--	--	--	--	--	--
Reeder	--	4	--	--	1	--	5	--	--	--	--	--	--	5	1	4	--	--	--	--	--	--	1	1	--	--	2	--	--	--	--	--
Sabin	--	--	--	--	--	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
Samson	--	3	4	2	--	--	--	--	--	--	--	--	--	8	--	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--
Steele-ND	--	1	1	1	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
Tom	--	1	1	0	0	--	--	--	--	--	--	--	--	1	0	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	--
Traverse	0	1	0	0	0	0	--	--	--	--	--	--	--	0	0	--	--	--	--	--	--	--	0	0	1	1	--	--	--	--	--	--
Trooper	--	2	--	--	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
Vantage	--	1	--	--	--	--	--	--	--	--	--	--	--	3	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--

LV=Langdon Variety Trial, LI=Langdon Irrigated, P=Pembina, W=Walsh, T=Towner, R=Ramsey, N=Nelson. No new data for 2009.

Durum Summary, Langdon 2005-2009

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)					Height (in)					Days to Head				
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**06**	**07**	**08**	**09**	**3yr**	**06**	**07**	**08**	**09**	**3yr**	**06**	**07**	**08**	**09**	**3yr**
AC Navigator	42	65	50	78	58	62	52.8	60.4	55.8	57.2	56.5	56.5	1.4	3.5	3.3	2.2	3.0	35	37	37	34	36	59	66	70	65	67
Alkabo	70	69	80	77	88	82	58.8	61.5	60.6	59.5	60.2	60.1	1.5	0.3	0.8	0.0	0.4	42	42	41	45	42	57	66	70	65	67
Ben	62	65	64	80	84	76	58.2	61.4	59.5	59.5	59.5	59.5	2.7	0.0	1.5	1.8	1.1	44	43	43	47	44	58	66	68	64	66
Dilse	66	65	66	83	80	76	58.1	60.7	58.6	58.6	59.4	58.9	1.4	2.5	3.3	1.9	2.6	43	42	42	44	43	59	67	71	64	67
Grande D'oro	67	71	62	86	87	78	58.6	61.5	59.0	59.9	60.5	59.8	2.2	3.8	2.0	0.8	2.2	43	42	42	42	42	58	67	69	65	67
Grenora	77	69	67	87	96	83	57.4	60.2	58.2	58.2	58.7	58.4	1.2	2.3	1.5	2.8	2.2	41	40	41	44	42	57	66	69	64	66
Lebsock	70	64	69	88	96	84	58.6	61.9	59.9	60.2	60.5	60.2	1.4	0.8	2.0	0.0	0.9	41	41	42	45	42	56	65	70	62	66
Maier	59	61	66	82	79	76	57.0	60.8	57.8	57.8	58.2	57.9	2.1	2.3	3.8	1.3	2.5	42	40	40	43	41	58	65	69	64	66
Mountrail	69	71	68	85	89	81	56.9	60.7	58.6	59.4	59.3	59.1	1.8	4.3	3.8	3.8	4.0	43	43	42	46	44	59	68	71	64	68
Pierce	67	57	61	80	85	75	58.5	60.7	59.5	59.6	59.7	59.6	2.1	1.8	3.3	1.5	2.2	41	43	43	47	44	61	66	69	64	66
DG Star	--	67	51	78	67	65	--	61.1	55.5	57.4	57.0	56.6	0.8	1.3	0.0	0.5	0.6	33	41	41	44	42	54	64	66	63	64
Strongfield	--	64	56	83	75	71	--	60.3	56.9	57.3	58.0	57.4	3.6	4.0	2.3	0.0	2.1	42	41	40	42	41	57	68	69	63	67
AC Commander	--	--	60	76	61	65	--	--	56.1	54.3	53.8	54.7	--	2.3	6.0	0.0	2.8	--	35	35	34	35	--	66	70	64	66
AC Napoleon	--	--	61	86	85	77	--	--	56.4	57.9	56.1	56.8	--	3.0	2.5	1.4	2.3	--	44	44	46	44	--	67	69	64	67
Alzada	--	--	52	60	44	52	--	--	54.3	56.7	50.4	53.8	--	0.0	0.0	0.0	0.0	--	33	33	33	33	--	60	66	59	62
DG Max	--	--	--	81	78	--	--	--	--	59.5	58.6	--	--	--	2.3	0.7	--	--	--	43	46	--	--	--	67	62	--
Wales	--	--	--	76	78	--	--	--	--	56.1	56.6	--	--	--	1.0	0.0	--	--	--	40	43	--	--	--	69	62	--
Westhope	--	--	--	--	71	--	--	--	--	--	56.5	--	--	--	--	0.6	--	--	--	--	44	--	--	--	--	63	--
Divide	69	64	65	84	--	--	58.6	61.4	58.4	58.4	--	--	2.5	3.5	1.8	--	--	42	42	42	--	--	59	67	71	--	--
Primo Doro	65	58	55	--	--	--	59.1	61.4	57.2	--	--	--	1.9	7.8	--	--	--	47	43	--	--	--	56	65	--	--	--
Belzer	65	68	--	--	--	--	56.1	60.3	--	--	--	--	2.2	--	--	--	--	45	--	--	--	--	58	--	--	--	--
Munich	65	71	--	--	--	--	56.3	61.1	--	--	--	--	1.9	--	--	--	--	41	--	--	--	--	57	--	--	--	--
Plaza	70	66	--	--	--	--	56.9	60.3	--	--	--	--	0.8	--	--	--	--	34	--	--	--	--	59	--	--	--	--
Rugby	--	57	--	--	--	--	--	61.3	--	--	--	--	2.9	--	--	--	--	47	--	--	--	--	59	--	--	--	--
AC Avonlea	65	--	--	--	--	--	56.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Renville	62	--	--	--	--	--	57.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LSD 5%	4.6	6.8	10.0	4.9	8.5		0.7	0.9	1.4	1.3	1.7		1.9	3.3	NS	2.0		4.6	1.6	1.7	1.7		1.0	1.1	1.4	1.1	

Durum Summary, Nelson County 2005-2009

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Height (in)						Days to Head					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
Alkabo	52	58	67	66	68	67	59.4	60.7	61.0	59.0	61.1	60.4	0	0	0	0	0	0	36	29	40	35	37	38	62	52	62	61	56	60
Grenora	58	52	60	69	72	67	59.4	59.9	59.4	57.7	61.0	59.4	0	0	0	0	0	0	34	26	38	33	36	36	62	51	62	61	56	60
Lebsock	58	46	61	66	72	66	60.8	60.8	60.8	60.0	62.5	61.1	0	0	0	0	0	0	36	26	39	33	37	37	62	51	62	60	55	59
DG Star	--	--	--	64	74	--	--	--	--	57.5	60.3	--	--	--	--	0	0	--	--	--	--	34	38	--	--	--	--	58	55	--
Wales	--	--	--	68	75	--	--	--	--	58.4	61.6	--	--	--	--	0	0	--	--	--	--	35	37	--	--	--	--	59	55	--
DG Max	--	--	--	--	77	--	--	--	--	--	61.5	--	--	--	--	--	0	--	--	--	--	--	37	--	--	--	--	--	55	--
Westhope	--	--	--	--	73	--	--	--	--	--	60.9	--	--	--	--	--	0	--	--	--	--	--	39	--	--	--	--	--	55	--
Divide	59	53	61	64	--	--	60.2	60.1	60.5	58.7	--	--	0	0	0	0	--	--	38	29	41	35	--	--	62	53	62	62	--	--
Grande D'oro	52	57	65	69	--	--	60.6	61.0	61.2	60.2	--	--	0	0	0	0	--	--	38	29	41	34	--	--	62	52	63	60	--	--
Mountrail	58	51	61	--	--	--	59.8	60.2	60.1	--	--	--	0.5	0	0	--	--	--	37	28	40	--	--	--	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	54	--	--	--	--	--	59.6	--	--	--	--	--	0	--	--	--	--	--	37	--	--	--	--	--	62	--	--	--	--	--
Pierce	55	--	--	--	--	--	60.1	--	--	--	--	--	0.5	--	--	--	--	--	37	--	--	--	--	--	62	--	--	--	--	--
LSD 5%	5.1	NS	5.2	NS	NS		0.8	0.4	0.5	0.9	0.8		1.0	--	--	--	--		1.5	3.1	1.8	NS	NS		NS	0.9	0.7	2.1	1.3	

2007 and 2008 yield data are from Devils Lake

Durum Summary, Towner County 2005-2009

	Yield (bu/a)					Test Weight (lbs/bu)					Lodging (0-9)					Height (in)				Days to Head			
Variety	**05**	**07**	**08**	**09**	**3yr**	**05**	**07**	**08**	**09**	**3yr**	**05**	**07**	**08**	**09**	**3yr**	**05**	**08**	**09**	**3yr**	**05**	**07**	**09**	**3yr**
Alkabo	43	51	42	73	55	57.1	59.1	59.1	60.2	59.5	0.0	0	0	0	0	40	27	38	35	68	63	56	62
Grenora	50	45	44	84	58	56.2	57.4	58.2	59.8	58.5	0.0	0	0	0	0	39	27	36	34	67	63	56	62
Lebsock	50	48	40	73	54	57.8	58.6	59.7	60.8	59.7	0.3	0	0	0	0	38	29	37	35	68	63	56	62
DG Star	--	--	41	72	--	--	--	58.4	59.2	--	--	--	0	0	--	--	29	38	--	--	--	57	--
Wales	--	--	45	73	--	--	--	59.3	60.2	--	--	--	0	0	--	--	29	38	--	--	--	56	--
DG Max	--	--	--	71	--	--	--	--	60.2	--	--	--	--	0	--	--	--	39	--	--	--	56	--
Westhope	--	--	--	68	--	--	--	--	59.8	--	--	--	--	0	--	--	--	36	--	--	--	57	--
Divide	49	51	40	--	--	56.7	57.9	59.1	--	--	0.8	0	0	--	--	41	29	--	--	69	64	--	--
Grande D'oro	38	49	41	--	--	55.9	58.9	59.8	--	--	0.0	0	0	--	--	40	27	--	--	70	65	--	--
Mountrail	40	49	--	--	--	55.8	58.3	--	--	--	0.0	0	--	--	--	40	--	--	--	68	65	--	--
Primo Doro	39	49	--	--	--	56.2	58.8	--	--	--	3.0	0	--	--	--	45	--	--	--	68	62	--	--
Dilse	41	--	--	--	--	56.0	--	--	--	--	0.0	--	--	--	--	39	--	--	--	69	--	--	--
Pierce	47	--	--	--	--	58.4	--	--	--	--	0.0	--	--	--	--	40	--	--	--	69	--	--	--
LSD 5%	4.5	NS	3.2	6.9		0.8	0.7	0.5	NS		0.9	--	--	--		1.2	NS	1.8		1.0	0.9	1.0	

Durum Diseases by Location, Year and Variety

Location Year	Foliar Necrosis % of Flag at Soft Dough: 3 Site Ave.	LV 09	LV 08	LV 07	T 07	L 06	R 05	T 05	Fusarium Damage Kernels (Tombstones) %: 2 Site Ave.	LV 09	LV 08	LV 07	T 07	LV 05	R 05	T 05	DON ppm: 5 Site Ave.	LV 09	LV 08	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	15	4	15	27	15	2	73	73	1	2	2	0	2	3	3	3	1.5	2	1	1	2	7	1	3	0	0	1	0	1	7	4
Divide	--	--	22	17	15	3	63	13	1	--	2	0	2	2	2	5	--	--	2	1	3	3	1	3	0	0	0	0	0	3	6
Grande Doro	21	6	23	33	20	6	86	73	2	2	4	0	1	6	4	6	2.1	2	2	1	3	6	2	4	2	4	1	0	1	6	4
Grenora	9	2	12	13	18	2	58	13	2	1	3	0	2	2	3	6	3.4	4	3	2	3	6	3	5	1	0	1	0	1	6	4
Lebsock	14	6	17	20	23	3	60	32	1	1	1	0	1	2	2	4	1.9	2	2	2	4	4	3	3	0	0	0	0	1	4	1
Mountrail	15	3	17	27	20	3	70	58	2	2	3	1	3	4	3	4	--	3	--	2	2	9	1	3	1	0	1	1	1	3	9
AC Commander	38	21	20	73	--	--	--	--	4	2	6	3	--	--	--	--	5.4	4	7	2	--	--	--	--	3	1	5	--	--	--	--
AC Napoleon	22	9	23	33	--	--	--	--	1	2	1	0	--	--	--	--	1.9	1	3	2	--	--	--	--	1	1	1	--	--	--	--
AC Navigator	34	11	23	67	--	3	--	--	6	3	6	1	--	6	--	--	3.1	2	4	3	--	13	--	--	3	1	6	--	3	--	--
Alzada	58	67	23	83	--	--	--	--	6	3	10	3	--	--	--	--	3.8	3	4	3	--	--	--	--	4	3	5	--	--	--	--
Ben	12	5	20	10	--	2	--	--	1	1	1	1	--	3	--	--	2.0	2	2	2	--	7	--	--	1	0	1	--	2	--	--
Dilse	18	4	23	27	--	2	63	77	1	2	3	0	--	3	3	5	2.8	3	2	2	--	5	2	5	0	0	1	--	1	6	8
DG Star	42	24	27	77	--	--	--	--	0	1	1	0	--	--	--	--	1.1	1	1	1	--	--	--	--	1	0	1	--	--	--	--
Maier	21	4	20	40	--	1	--	--	2	2	3	0	--	3	--	--	3.4	3	4	2	--	5	--	--	1	0	1	--	1	--	--
Pierce	17	5	23	23	--	2	68	33	1	1	2	0	--	1	2	3	2.8	3	3	1	--	6	2	3	0	0	0	--	1	6	7
Strongfield	12	5	10	20	--	3	--	--	2	2	3	1	--	--	--	--	2.8	3	2	2	--	--	--	--	1	0	2	--	--	--	--
Wales	--	31	33	--	--	--	--	--	--	1	3	--	--	--	--	--	2.4	2	3	--	--	--	--	--	--	3	--	--	--	--	--
DG Max	--	12	--	--	--	--	--	--	--	1	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	--	--	--	--	--	--
Westhope	--	26	--	--	--	--	--	--	--	2	--	--	--	--	--	--	--	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.

HRWW Disease Summary, Langdon 2006-2009

Variety	Foliar Necrosis % Flag Leaf: 06	07	08	09	4yr	Leaf Rust % Flag Leaf: 06	07	2yr	FHB Field % Severity: 07	08	FDK %: 07	08	DON ppm: 08
Alice	18	82	45	45	48	2	18	10	5	0	1	0	0
Art	--	--	--	43	--	--	--	--	--	--	--	--	--
Boomer	--	--	--	28	--	--	--	--	--	--	--	--	--
CDC Accipiter	--	--	30	30	--	--	--	--	--	0	--	2	1
CDC Buteo	23	85	25	45	44	2	30	16	6	0	2	2	1
CDC Falcon	20	91	35	58	51	1	24	12	4	0	2	0	1
CDC Peregrine	--	--	15	15	--	--	--	--	--	0	--	0	0
Darrell	--	77	23	25	--	--	35	--	5	0	2	0	0
Expedition	30	49	30	60	42	7	25	16	6	0	2	1	0
Hawken	--	--	25	45	--	--	--	--	--	0	--	1	0

Variety	Foliar Necrosis % Flag Leaf: 06	07	08	09	3yr	Leaf Rust % Flag Leaf: 06	07	2yr	FHB Field % Severity: 07	08	FDK %: 07	08	DON ppm: 08
Jagalene	15	87	43	55	50	24	25	24	12	2	6	5	2
Jerry	8	48	24	25	26	3	5	4	2	0	1	1	1
Lyman	--	--	28	35	--	--	--	--	--	0	--	0	0
Mace	--	--	--	55		--	--	--	--	--	--	--	--
Millennium	5	54	25	58	35	4	15	10	3	0	1	1	1
Overland	--	--	23	25	--	--	--	--	--	0	--	1	1
Striker	--	--	--	55		--	--	--	--	--	--	--	--
Wesley	8	86	43	35	43	1	18	10	6	1	4	2	2
Yellowstone	8	85	43	48	46	40	30	35	7	2	9	8	2

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

Barley Summary - Langdon - 2005-2009

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Plump (%)					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
Drummond	70	107	97	128	115	113	47.6	47.0	49.0	49.3	47.4	48.6	0	0.8	2.0	0.3	0	0.8	90	66	86	94	94	91
Lacey	73	116	106	139	121	122	48.3	49.6	49.8	50.1	48.1	49.3	0	1.8	2.8	2.8	0	1.9	92	81	86	91	93	90
Legacy	71	109	90	145	120	118	46.4	46.2	47.9	49.3	47.5	48.2	0	5.0	4.5	2.5	0	2.3	92	68	81	91	89	87
Robust	69	106	93	123	132	116	48.2	49.1	50.2	50.8	48.8	49.9	0	2.8	3.8	0.3	0	1.4	91	71	88	95	91	91
Stellar-ND	70	120	94	127	123	114	47.8	48.8	48.6	49.1	47.6	48.4	0	1.0	4.8	1.0	0	1.9	94	89	89	96	98	94
Tradition	71	115	90	125	125	113	48.8	48.5	48.7	50.2	48.5	49.1	0	2.3	3.8	1.0	0	1.6	94	78	84	96	95	92
Rasmusson	--	--	105	138	124	122	--	--	49.4	50.1	48.1	49.2	--	--	2.8	1.8	0	1.5	--	--	87	93	94	91
Celebration	--	--	--	126	134	--	--	--	--	49.8	48.3	--	--	--	--	1.0	0	--	--	--	--	94	96	--
AC Metcalfe*	77	104	81	129	124	111	50.2	49.0	49.2	49.2	48.5	49.0	0	2.3	7.3	3.0	0	3.4	91	82	78	88	87	84
Conlon*	76	107	90	127	114	110	51.3	52.1	50.2	51.0	49.8	50.3	0	2.8	6.5	2.3	0	2.9	97	95	91	95	94	93
Pinnacle*	76	116	83	134	133	117	51.4	51.0	48.8	51.1	49.7	49.9	0	1.0	6.8	0.3	0	2.4	96	96	85	95	94	91
Rawson*	70	111	93	140	132	122	47.9	49.5	49.4	48.9	47.2	48.5	0	2.3	6.0	3.5	0	3.2	98	96	93	94	95	94
CDC Copeland*	--	--	85	129	133	116	--	--	48.5	48.6	47.9	48.3	--	--	7.5	1.3	0	2.9	--	--	81	93	90	88
Conrad*	--	--	73	128	130	110	--	--	49.2	49.1	48.0	48.8	--	--	7.8	3.5	0	3.8	--	--	81	88	87	85
Scarlett*	--	--	73	120	116	103	--	--	47.3	48.8	49.2	48.4	--	--	6.0	3.8	0	3.3	--	--	83	90	94	89
Bowman*	79	110	78	125	--	--	50.5	51.7	48.6	50.5	--	--	0	2.8	7.0	4.3	--	--	92	91	81	91	--	--
MNBrite	72	88	--	--	--	--	47.0	48.0	--	--	--	--	0	6.5	--	--	--	--	92	66	--	--	--	--
Harrington*	77	95	--	--	--	--	49.9	45.9	--	--	--	--	0	6.5	--	--	--	--	89	65	--	--	--	--
Eslick*	86	119	--	--	--	--	51.4	49.8	--	--	--	--	0	5.0	--	--	--	--	87	81	--	--	--	--
Haxby*	83	118	--	--	--	--	53.4	52.4	--	--	--	--	0	0.3	--	--	--	--	92	88	--	--	--	--
Excel	77	--	--	--	--	--	47.1	--	--	--	--	--	0	--	--	--	--	--	84	--	--	--	--	--
Logan*	74	--	--	--	--	--	50.2	--	--	--	--	--	0	--	--	--	--	--	91	--	--	--	--	--
Stark*	82	--	--	--	--	--	51.8	--	--	--	--	--	0	--	--	--	--	--	94	--	--	--	--	--
LSD 5%	10	9.4	11.6	14.4	14.1		0.8	1.6	1.0	1.0	1.2		--	2.7	3.1	NS	NS		2.4	11.2	5.4	4.6	5.8	

*2-row

Barley Summary - Langdon - 2005-2009

	Height (in)						Protein (%)						Days to Head					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
Drummond	31	38	37	39	36	37	10.8	12.3	12.6	13.2	12.5	12.8	62	54	59	66	57	61
Lacey	30	36	35	39	33	36	10.5	12.0	12.5	13.4	11.8	12.6	60	53	58	65	57	60
Legacy	32	39	35	40	38	37	12.0	11.2	12.9	12.7	12.7	12.8	62	55	61	67	59	62
Robust	32	40	36	40	39	38	11.3	12.6	13.4	12.8	13.1	13.1	61	54	59	66	57	61
Stellar-ND	30	37	36	38	34	36	10.8	11.1	13.0	12.6	12.2	12.6	59	52	59	65	57	60
Tradition	32	38	36	37	37	36	11.0	11.7	13.0	12.7	12.1	12.6	61	55	61	66	59	62
Rasmusson	--	--	35	36	32	34	--	--	12.1	12.3	11.6	12.0	--	--	58	64	56	59
Celebration	--	--	--	36	36	--	--	--	--	13.1	12.8	--	--	--	--	66	57	--
AC Metcalfe*	30	36	33	39	38	36	10.7	12.7	13.5	12.9	12.3	12.9	62	56	61	68	59	63
Conlon*	29	35	34	34	35	35	10.5	11.6	13.2	12.6	12.0	12.6	57	51	55	62	53	57
Pinnacle*	31	37	34	35	37	35	8.4	10.6	12.1	11.2	10.9	11.4	60	54	61	65	58	61
Rawson*	28	37	35	36	37	36	9.3	10.6	12.2	12.2	11.9	12.1	58	49	57	63	55	59
CDC Copeland*	--	--	34	38	39	37	--	--	12.8	11.6	11.3	11.9	--	--	63	68	62	64
Conrad*	--	--	32	34	36	34	--	--	14.4	13.0	12.5	13.3	--	--	64	68	60	64
Scarlett*	--	--	30	30	32	31	--	--	13.4	12.8	12.7	13.0	--	--	66	70	63	66
Bowman*	31	35	34	34	--	--	10.6	12.4	13.9	13.3	--	--	58	52	57	63	--	--
MNBrite	33	39	--	--	--	--	12.4	13.8	--	--	--	--	64	57	--	--	--	--
Harrington*	33	38	--	--	--	--	9.5	13.0	--	--	--	--	63	57	--	--	--	--
Eslick*	29	37	--	--	--	--	8.5	11.6	--	--	--	--	61	55	--	--	--	--
Haxby*	30	35	--	--	--	--	8.8	11.5	--	--	--	--	60	53	--	--	--	--
Excel	30	--	--	--	--	--	9.8	--	--	--	--	--	61	--	--	--	--	--
Logan*	29	--	--	--	--	--	9.8	--	--	--	--	--	59	--	--	--	--	--
Stark*	32	--	--	--	--	--	10.4	--	--	--	--	--	59	--	--	--	--	--
LSD 5%	2.4	1.6	1.9	2.5	3.1		1.1	1.0	0.6	1.2	0.9		0.8	1.7	1.1	0.9	1.2	

*2-row

Barley Summary - Pembina County - 2005-2009

	Yield (bu/a)				Test Weight (lbs/bu)				Lodging (0-9)				Protein (%)				Plump (%)			
Variety	**05**	**07**	**09**	**3yr**	**05**	**07**	**09**	**3yr**	**05**	**07**	**09**	**3yr**	**05**	**07**	**09**	**3yr**	**05**	**07**	**09**	**3yr**
Lacey	71	87	128	95	47.9	50.3	49.5	49.2	0	0	0	0	11.1	11.8	11.6	11.5	91	94	96	94
Stellar-ND	77	74	131	94	47.0	48.9	47.7	47.9	0	0	0	0	10.2	11.3	11.8	11.1	95	94	95	95
Tradition	71	70	127	89	47.4	49.9	48.7	48.7	0	0	0	0	10.4	11.9	11.8	11.4	92	93	96	94
Pinnacle*	--	80	141	--	--	51.0	48.8	--	--	0	0	--	--	10.3	11.1	--	--	97	96	--
Celebration	--	--	133	--	--	--	49.0	--	--	--	0	--	--	--	12.2	--	--	--	96	--
Rasmusson	--	--	141	--	--	--	48.9	--	--	--	0	--	--	--	11.5	--	--	--	94	--
Drummond	62	79	--	--	47.0	49.3	--	--	0	0	--	--	10.6	12.1	--	--	93	93	--	--
Legacy	73	81	--	--	46.7	49.3	--	--	0	0	--	--	10.0	11.1	--	--	88	93	--	--
Robust	59	--	--	--	47.5	--	--	--	0	--	--	--	10.8	--	--	--	90	--	--	--
LSD 5%	9.4	10.3	NS		0.5	0.5	0.8		--	--	--		0.6	0.6	NS		3.8	1.5	NS	

*2-row barley

Barley Summary - Towner County - 2005-2009

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Protein (%)						Plump (%)					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
Lacey	70	51	77	73	122	91	45.6	39.8	47.5	46.2	50.1	47.9	1.3	0	0	0	0	0	12.6	14.9	12.7	13.9	11.9	12.8	75	25	76	77	98	83
Tradition	74	67	72	79	122	91	45.5	42.0	46.6	47.4	49.5	47.8	0.8	0	0	0	0	0	12.2	14.5	12.5	14.1	11.7	12.8	76	31	76	87	98	87
Stellar-ND	79	57	80	73	125	92	44.5	39.0	47.2	45.1	48.6	47.0	0.3	0	0	0	0	0	12.7	14.3	12.2	14.1	11.3	12.5	76	27	86	82	98	88
Pinnacle*	--	--	80	86	125	97	--	--	49.4	49.8	50.9	50.0	--	--	0	0	0	0	--	--	11.0	12.9	11.0	11.6	--	--	92	97	99	96
Rasmusson	--	--	--	75	128	--	--	--	--	45.8	49.8	--	--	--	--	0	0	--	--	--	--	14.1	11.6	--	--	--	--	73	97	--
Celebration	--	--	--	--	126	--	--	--	--	--	49.4	--	--	--	--	--	0	--	--	--	--	--	11.8	--	--	--	--	--	98	--
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	NS		0.9	1.7	0.5	0.8	0.4		NS	--	--	--	--		0.4	NS	0.3	0.5	0.4		NS	NS	5.3	9.1	0.6	

*2-row barley

Barley Disease by Location, Year and Variety

	Foliar Necrosis - % of Flag					DON - ppm								FHB Field Severity - %				
Location	**4 Site**	**L**	**L**	**Lnl**	**Llo**	**7 Site**	**LV**	**LI**	**L**	**T**	**R**	**P**	**L**	**4 Site**	**LV**	**L**	**Lnl**	**Llo**
Year	**Ave.**	**08**	**06**	**04**	**04**	**Ave.**	**07**	**07**	**05**	**05**	**05**	**05**	**04**	**Ave.**	**07**	**05**	**04**	**04**
Variety:																		
Six-Rowed																		
Robust	36	10	15	50	70	4.7	1	7	5	9	6	5	1	3	2	1	1	7
Drummond	18	10	3	25	35	4.9	1	8	4	9	8	4	1	--	--	1	0	1
Lacey	30	10	14	33	65	4.0	1	4	7	5	6	5	1	--	--	2	0	3
Legacy	30	4	17	40	60	3.9	1	6	5	7	4	2	2	2	1	2	1	5
Tradition	23	4	2	30	55	3.3	1	5	3	7	6	1	1	1	1	1	0	2
Stellar-ND	38	7	6	55	85	4.5	1	7	7	13	3	2	1	1	2	1	0	0
Rasmusson	--	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Two-Rowed																		
Pinnacle	--	17	--	--	--	--	1	3	--	--	--	--	--	--	--	--	--	--
Bowman	54	10	8	100	100	--	1	--	2	--	--	--	1	--	--	1	1	2
Conlon	37	18	18	70	40	--	0	2	3	--	--	--	0	1	2	2	0	1
CDC Copeland	--	12	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
Scarlett	--	8	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
Rawson	25	15	13	10	60	--	1	--	4	--	--	--	0	--	--	1	0	1
AC Metcalfe	--	13	4	20	70	--	0	--	2	--	--	--	1	--	--	0	0	3
Conrad	--	13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

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

Field Severity = (Incidence x Head Severity) DON levels for Langdon were <0.8 for all varieties in 2008.

No new disease data for 2009.

HRWW Summary, Langdon 2005-2009

	Yield (bu/a)						Test Weight (lbs/bu)						Heading Date (after June1)						Lodging (0-9)				
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**06**	**07**	**08**	**09**	**3yr**
CDC Buteo	28	76	50	88	97	78	55.1	61.0	59.0	61.3	62.1	60.8	23	10	15	27	54	32	0	0.3	2.3	0	0.9
CDC Falcon	26	75	53	90	106	83	51.2	59.2	56.9	59.9	61.0	59.3	22	10	14	27	51	31	0	0.0	0.0	0	0.0
Expedition	40	81	42	85	109	78	55.5	61.3	57.0	60.0	60.7	59.2	18	4	9	23	52	28	0.3	0.0	0.0	0	0.0
Jagalene	17	67	23	80	87	64	49.6	58.9	54.2	59.0	61.0	58.1	21	6	13	27	53	31	0	0.0	0.5	0	0.2
Jerry	34	71	66	85	101	84	55.0	59.3	58.1	59.0	60.7	59.3	23	11	15	29	52	32	0	1.3	0.5	0	0.6
Millennium	31	74	67	91	85	81	55.9	60.3	59.4	60.7	60.5	60.2	21	9	14	25	55	31	0.3	0.0	0.0	0	0.0
Wesley	38	75	44	80	104	76	54.8	59.4	55.0	57.8	59.4	57.4	19	5	10	23	53	29	0	0.0	0.0	0	0.0
Yellowstone	17	51	34	85	104	74	47.8	53.7	51.0	57.6	59.5	56.0	24	12	15	30	56	34	0	0.0	0.0	0	0.0
Alice	--	76	40	82	100	74	--	59.2	55.0	59.1	60.7	58.3	--	4	11	23	51	28	0	0.0	0.0	0	0.0
Darrell	--	--	45	92	107	82	--	--	56.0	60.2	60.8	59.0	--	--	13	25	55	31	--	0.5	0.3	0	0.3
Hawken	--	--	48	88	88	75	--	--	57.9	60.4	60.5	59.6	--	--	11	21	50	27	--	0.0	0.0	0	0.0
CDC Accipiter	--	--	--	92	99	--	--	--	--	60.1	61.4	--	--	--	--	29	55	--	--	--	0.0	0	--
CDC Peregrine	--	--	--	91	108	--	--	--	--	60.3	61.4	--	--	--	--	28	54	--	--	--	1.5	0	--
Lyman	--	--	--	90	102	--	--	--	--	60.7	61.3	--	--	--	--	24	52	--	--	--	0.8	0	--
Overland	--	--	--	95	103	--	--	--	--	60.4	60.9	--	--	--	--	24	51	--	--	--	0.5	0	--
Art	--	--	--	--	115	--	--	--	--	--	61.5	--	--	--	--	--	51	--	--	--	--	0	--
Boomer	--	--	--	--	108	--	--	--	--	--	60.1	--	--	--	--	--	54	--	--	--	--	0	--
Mace	--	--	--	--	88	--	--	--	--	--	59.1	--	--	--	--	--	50	--	--	--	--	0	--
Striker	--	--	--	--	100	--	--	--	--	--	61.4	--	--	--	--	--	53	--	--	--	--	0	--
Roughrider	26	51	40	71	--	--	55.6	59.9	57.8	60.8	--	--	24	12	16	29	--	--	0.5	1.8	3.8	--	--
Radiant	--	65	39	83	--	--	--	56.6	54.0	59.4	--	--	--	12	15	29	--	--	0	0.0	0.0	--	--
NuDakota	--	--	42	80	--	--	--	--	52.4	56.6	--	--	--	--	13	25	--	--	--	0.0	0.0	--	--
Fridolin	21	82	28	--	--	--	49.1	59.2	52.3	--	--	--	25	11	18	--	--	--	0	0.0	--	--	--
Harding	33	64	58	--	--	--	55.4	58.9	58.8	--	--	--	22	11	14	--	--	--	0	1.3	--	--	--
Josef	21	68	15	--	--	--	53.2	58.6	52.8	--	--	--	24	11	19	--	--	--	0	0.0	--	--	--
McClintock	27	78	33	--	--	--	54.8	62.0	56.7	--	--	--	17	9	16	--	--	--	0	0.0	--	--	--
Ransom	34	82	60	--	--	--	54.8	60.5	56.9	--	--	--	22	11	15	--	--	--	1.5	2.8	--	--	--
Wendy*	29	73	40	--	--	--	54.7	60.3	56.2	--	--	--	18	4	10	--	--	--	0	0.0	--	--	--
Atrium	--	80	43	--	--	--	--	60.2	54.8	--	--	--	--	11	15	--	--	--	0	0.0	--	--	--
Dunai	--	74	30	--	--	--	--	57.5	52.2	--	--	--	--	13	18	--	--	--	0	0.0	--	--	--
Goodstreak	--	65	48	--	--	--	--	53.8	52.2	--	--	--	--	7	13	--	--	--	0.5	0.5	--	--	--
Paul	--	50	31	--	--	--	--	55.7	52.9	--	--	--	--	11	16	--	--	--	0.3	0.3	--	--	--
Capo	20	--	27	--	--	--	49.7	--	53.8	--	--	--	25	--	18	--	--	--	--	0.0	--	--	--
Arapahoe	33	--	--	--	--	--	55.2	--	--	--	--	--	22	--	--	--	--	--	--	--	--	--	--
NuSky*	17	--	--	--	--	--	51.3	--	--	--	--	--	23	--	--	--	--	--	--	--	--	--	--
Wahoo	37	--	--	--	--	--	53.7	--	--	--	--	--	20	--	--	--	--	--	--	--	--	--	--
LSD 5%	4.1	7.6	14.5	7.9	10.4		1.3	1.3	1.8	1.2	0.7		4.1	1.6	1.4	2.4	2.1		0.6	1.3	0.9	NS	

*Hard white winter wheat.

HRWW Summary, Langdon 2005-2009

	Winter Survival (%)						Protein(%)						Height (in)					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
CDC Buteo	97	100	76	98	93	89	12.1	10.7	10.2	11.2	11.1	10.8	40	47	35	43	41	40
CDC Falcon	97	100	84	98	91	91	13.0	10.8	10.4	11.0	10.6	10.7	33	39	30	34	33	32
Expedition	96	100	78	95	93	89	11.8	11.2	10.1	11.9	10.9	11.0	37	44	29	35	36	33
Jagalene	95	100	56	96	90	81	13.4	11.0	11.3	12.0	11.4	11.6	34	41	28	35	34	32
Jerry	94	100	86	93	90	90	13.2	11.1	11.0	11.8	11.7	11.5	40	49	36	43	42	40
Millennium	97	100	70	100	95	88	12.4	10.4	11.3	11.4	11.3	11.3	38	46	32	41	38	37
Wesley	95	100	75	97	96	89	12.8	12.3	11.3	12.1	11.3	11.6	32	37	27	30	32	30
Yellowstone	93	100	84	98	93	92	13.5	11.4	10.9	11.3	10.9	11.0	35	44	33	41	38	37
Alice	--	100	71	97	88	85	--	11.5	11.3	11.4	11.3	11.3	--	38	28	33	32	31
Darrell	--	--	74	100	91	88	--	--	11.1	11.1	11.2	11.1	--	--	32	38	38	36
Hawken	--	--	64	98	92	85	--	--	12.5	11.8	11.9	12.1	--	--	27	32	30	30
CDC Accipiter	--	--	--	98	89	--	--	--	--	11.2	10.7	--	--	--	--	37	35	--
CDC Peregrine	--	--	--	98	95	--	--	--	--	10.8	10.4	--	--	--	--	45	44	--
Lyman	--	--	--	94	91	--	--	--	--	12.1	12.2	--	--	--	--	38	36	--
Overland	--	--	--	100	97	--	--	--	--	12.0	10.8	--	--	--	--	39	37	--
Art	--	--	--	--	95	--	--	--	--	--	11.5	--	--	--	--	--	33	--
Boomer	--	--	--	--	90	--	--	--	--	--	11.3	--	--	--	--	--	37	--
Mace	--	--	--	--	89	--	--	--	--	--	11.1	--	--	--	--	--	32	--
Striker	--	--	--	--	86	--	--	--	--	--	11.7	--	--	--	--	--	33	--
Roughrider	98	100	71	91	--	--	14.4	12.4	11.2	11.9	--	--	44	48	38	44	--	--
Radiant	--	100	78	96	--	--	--	11.1	10.4	11.7	--	--	--	45	36	41	--	--
NuDakota	--	--	55	92	--	--	--	--	12.2	12.0	--	--	--	--	26	30	--	--
Fridolin	75	100	35	--	--	--	14.5	11.7	12.5	--	--	--	38	45	32	--	--	--
Harding	99	100	70	--	--	--	13.8	11.5	11.3	--	--	--	40	46	34	--	--	--
Josef	84	100	20	--	--	--	15.5	12.9	14.2	--	--	--	33	40	27	--	--	--
McClintock	97	100	58	--	--	--	13.2	11.8	11.5	--	--	--	40	47	36	--	--	--
Ransom	97	100	79	--	--	--	13.3	11.9	10.4	--	--	--	41	48	37	--	--	--
Wendy*	93	100	56	--	--	--	13.4	11.5	11.3	--	--	--	33	37	27	--	--	--
Atrium	--	100	69	--	--	--	--	11.8	11.4	--	--	--	--	41	31	--	--	--
Dunai	--	100	51	--	--	--	--	12.3	13.0	--	--	--	--	41	31	--	--	--
Goodstreak	--	100	76	--	--	--	--	9.5	10.1	--	--	--	--	43	31	--	--	--
Paul	--	100	69	--	--	--	--	11.5	9.9	--	--	--	--	43	31	--	--	--
Capo	74	--	50	--	--	--	14.6	--	12.1	--	--	--	37	--	33	--	--	--
Arapahoe	98	--	--	--	--	--	13.4	--	--	--	--	--	44	--	--	--	--	--
NuSky*	97	--	--	--	--	--	13.3	--	--	--	--	--	38	--	--	--	--	--
Wahoo	95	--	--	--	--	--	12.8	--	--	--	--	--	34	--	--	--	--	--
LSD 5%	8.0	--	25.0	4.3	NS		0.6	0.6	1.1	0.8	0.7		1.9	2.1	2.4	2.1	2.2	

*Hard white winter wheat.

Oats Summary, Langdon 2005-2009

	Yield (bu/a)						Test Weight (lbs/bu)						Days to Head					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
AC Pinnacle	108	152	149	197	222	189	32.8	33.2	37.8	36.0	34.7	36.2	67	59	68	71	61	66
Beach	94	148	133	183	190	168	34.6	36.8	39.6	38.8	38.9	39.1	65	56	65	69	59	64
Buff*	72	102	93	129	131	118	45.5	46.8	46.0	44.7	44.9	45.2	59	53	59	65	53	59
CDC Dancer	111	148	135	186	203	175	38.7	36.8	40.2	38.2	37.4	38.6	67	58	67	70	59	65
HiFi	168	159	161	175	197	178	39.2	37.7	40.0	38.4	38.4	38.9	65	57	66	69	59	65
Hytest	76	123	118	152	146	139	37.3	40.2	40.3	41.6	41.8	41.2	62	54	62	67	56	62
Jerry	53	134	122	170	152	148	29.6	37.5	39.3	39.1	38.6	39.0	63	54	61	66	56	61
Killdeer	87	135	135	185	176	165	29.9	34.6	36.9	37.5	37.2	37.2	64	55	63	68	57	62
Maida	65	141	131	156	165	151	30.9	37.2	38.9	37.4	36.7	37.7	65	56	62	69	58	63
Morton	136	159	141	166	181	162	39.5	39.1	40.4	39.2	39.1	39.6	65	56	64	68	59	63
Otana	39	113	105	186	149	147	25.0	32.6	32.8	38.1	35.1	35.3	66	57	66	71	62	66
Paul*	72	98	101	125	151	126	44.0	42.3	44.7	43.7	41.9	43.4	67	59	68	72	62	67
Rockford	160	152	169	177	206	184	40.9	38.6	41.2	39.9	39.5	40.2	67	58	67	70	60	65
Souris	142	161	150	187	204	180	37.9	36.9	40.2	37.6	37.5	38.4	66	57	65	69	58	64
Stark*	96	105	116	131	156	134	43.3	40.8	43.8	41.7	42.4	42.6	67	59	68	73	62	68
Youngs	94	138	143	183	189	171	32.8	35.0	37.9	36.9	36.7	37.2	67	59	68	71	60	66
Stallion	--	--	153	171	168	164	--	--	39.6	40.3	39.1	39.7	--	--	65	69	60	65
Furlong	46	--	--	177	171	--	25.8	--	--	36.0	36.4	--	67	--	--	72	64	--
Minstrel CDC	--	--	--	185	180	--	--	--	--	35.9	34.7	--	--	--	--	69	57	--
Leggett	--	--	--	--	207	--	--	--	--	--	36.5	--	--	--	--	--	59	--
AC Assiniboia	26	114	105	--	--	--	19.1	32.2	35.1	--	--	--	67	60	68	--	--	--
AC Ronald	24	104	99	--	--	--	22.2	32.5	33.7	--	--	--	68	60	70	--	--	--
CDC Weaver	57	121	126	--	--	--	27.5	32.1	35.8	--	--	--	68	60	68	--	--	--
AC Kaufman	57	126	--	--	--	--	27.5	33.8	--	--	--	--	67	57	--	--	--	--
Ebeltoft	98	146	--	--	--	--	32.8	33.2	--	--	--	--	67	60	--	--	--	--
Leonard	108	138	--	--	--	--	34.6	35.5	--	--	--	--	66	57	--	--	--	--
AC Gwen*	40	--	--	--	--	--	36.6	--	--	--	--	--	67	--	--	--	--	--
Sesqui	108	--	--	--	--	--	37.3	--	--	--	--	--	65	--	--	--	--	--
LSD 5%	7.4	13.8	15.3	15.5	23.5		1.2	1.1	1.1	0.9	1.3		0.9	0.9	1.7	1.5	1.2	

*Naked-hull variety

Oats Summary, Langdon 2005-2009

	Height (in)						Protein(%)						Lodging (0-9)					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
AC Pinnacle	35	49	46	43	43	44	6.2	8.9	12.3	12.0	7.5	10.6	3.5	7.8	4.0	0.3	0.8	1.7
Beach	46	51	51	46	45	47	7.1	10.8	13.3	13.4	9.1	11.9	7.7	5.3	3.5	0.3	0.0	1.3
Buff*	41	45	41	39	39	40	10.2	14.4	14.8	14.4	10.9	13.4	2.2	3.0	4.8	0.0	0.0	1.6
CDC Dancer	46	49	47	45	46	46	7.3	10.6	11.7	11.7	7.3	10.2	0.5	4.0	3.5	1.0	0.0	1.5
HiFi	47	49	44	45	45	44	9.9	11.5	13.1	13.1	9.1	11.8	0.7	6.3	3.8	0.0	0.0	1.3
Hytest	46	50	47	47	46	47	10.5	14.5	15.4	16.0	12.2	14.5	6.9	7.3	6.0	0.5	0.3	2.3
Jerry	46	48	44	44	42	43	6.8	12.1	12.6	14.7	10.0	12.4	8.5	5.8	4.8	0.0	1.5	2.1
Killdeer	40	41	41	38	37	38	6.3	10.0	12.1	12.5	8.0	10.9	6.2	3.8	6.0	0.0	1.0	2.3
Maida	43	50	44	42	44	43	7.6	12.1	12.9	14.2	9.4	12.2	8.3	6.3	3.3	0.0	2.3	1.9
Morton	49	53	51	46	46	48	10.8	13.4	13.9	14.2	8.8	12.3	0.0	5.0	4.3	0.0	0.5	1.6
Otana	47	49	46	48	48	47	6.4	10.0	11.7	13.6	7.3	10.9	7.7	7.0	5.5	1.8	7.3	4.9
Paul*	47	51	48	46	45	46	12.4	15.2	16.0	17.9	12.9	15.6	0.0	7.0	4.5	0.0	0.8	1.8
Rockford	48	50	47	44	48	46	11.1	12.0	14.1	13.7	9.5	12.4	0.2	5.8	3.5	0.0	1.0	1.5
Souris	43	47	45	41	39	41	10.3	11.5	13.5	13.4	8.9	11.9	0.1	7.3	3.8	0.0	0.0	1.3
Stark*	45	50	47	45	44	45	10.0	13.4	14.8	14.7	10.5	13.3	0.8	5.8	4.5	0.0	1.0	1.8
Youngs	46	50	46	48	46	46	8.3	11.4	14.2	14.4	10.4	13.0	6.1	6.3	5.8	1.5	0.0	2.4
Stallion	--	--	47	47	47	47	--	--	13.6	15.0	10.5	13.0	--	--	7.0	1.3	3.3	3.9
Furlong	41	--	--	43	43	--	7.1	--	--	13.6	9.5	--	8.6	--	--	1.3	1.8	--
Minstrel CDC	--	--	--	41	40	--	--	--	--	11.3	6.7	--	--	--	--	0.0	0.0	--
Leggett	--	--	--	--	42	--	--	--	--	--	10.2	--	--	--	--	--	1.8	--
AC Assiniboia	40	49	47	--	--	--	6.7	9.7	13.1	--	--	--	8.6	5.3	3.0	--	--	--
AC Ronald	37	46	42	--	--	--	6.7	9.8	10.8	--	--	--	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	44	50	--	--	--	--	6.0	9.6	--	--	--	--	8.0	4.8	--	--	--	--
Ebeltoft	40	45	--	--	--	--	6.5	10.5	--	--	--	--	4.5	5.5	--	--	--	--
Leonard	43	48	--	--	--	--	8.0	12.0	--	--	--	--	6.5	4.3	--	--	--	--
AC Gwen*	42	--	--	--	--	--	7.0	--	--	--	--	--	4.7	--	--	--	--	--
Sesqui	42	--	--	--	--	--	9.5	--	--	--	--	--	5.5	--	--	--	--	--
LSD 5%	5.1	2.4	2.5	2.3	3.0		0.9	0.8	1.1	0.7	0.8		1.8	3.2	2.2	NS	2.0	

Flax Summary, Langdon 2005-2009

	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Height (in)						Days to Flower					
Variety	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**	**05**	**06**	**07**	**08**	**09**	**3yr**
Bison	35	37	17	34	29	27	53.1	52.6	52.1	53.1	49.1	51.4	0	0	5.5	0	4.5	3.3	29	27	26	23	31	27	52	51	59	63	53	58
Carter*	39	37	36	34	37	36	53.2	52.8	53.6	53.7	50.8	52.7	0	0	0.5	0	1.5	0.7	28	25	27	23	30	26	56	53	60	65	53	59
CDC Arras	44	42	23	37	36	32	52.6	51.9	51.6	53.1	49.8	51.5	0	0	2.5	0	3.3	1.9	29	26	26	22	30	26	54	51	59	62	53	58
CDC Bethune	40	38	29	38	37	35	53.3	52.8	52.7	53.0	50.3	52.0	0	0	1.5	0	2.0	1.2	29	26	27	22	30	26	55	52	59	63	53	59
Hanley	41	42	29	36	35	33	53.9	52.6	53.0	53.6	50.1	52.2	0	0	2.8	0	2.5	1.8	25	24	26	21	26	24	52	51	57	63	52	57
Lightning	34	36	33	35	40	36	52.1	52.4	53.4	53.7	51.7	52.9	0	0	0.5	0	0.5	0.3	28	24	25	21	28	25	54	50	58	62	52	57
Linott	40	37	23	37	35	32	53.5	52.7	52.2	53.6	51.2	52.3	0	0	5.3	0	3.3	2.9	29	26	26	22	31	26	52	51	59	63	52	58
McGregor	45	36	30	36	38	35	53.8	52.8	52.8	53.7	51.5	52.7	0	0	1.0	0	2.8	1.3	28	23	27	22	31	26	55	52	61	65	54	60
Neche	40	35	19	37	42	33	53.5	53.2	51.9	53.6	52.1	52.5	0	0	6.3	0	2.0	2.8	30	26	26	22	32	27	53	50	59	63	53	58
Nekoma	36	38	30	36	40	35	53.8	53.5	53.5	53.7	52.5	53.2	0	0	2.0	0	2.8	1.6	27	25	27	22	31	27	54	50	58	63	53	58
Omega*	36	36	28	36	31	31	53.2	52.6	52.9	53.4	49.9	52.1	0	0	1.3	0	4.3	1.9	27	24	26	22	27	25	56	53	60	65	52	59
Pembina	39	35	35	35	40	37	53.4	52.9	53.1	53.6	52.9	53.2	0	0	1.0	0	1.0	0.7	29	26	27	22	31	26	55	51	59	63	53	58
Prairie Blue	43	40	32	38	41	37	53.2	52.4	52.8	52.9	50.0	51.9	0	0	0.0	0	1.5	0.5	28	23	25	21	30	25	55	52	61	64	54	60
Rahab 94	39	40	32	36	40	36	53.4	52.6	53.2	53.0	51.0	52.4	0	0	1.3	0	2.0	1.1	28	25	26	22	29	25	53	49	58	62	53	58
Webster	44	37	33	37	37	36	53.9	52.9	52.7	53.8	51.4	52.6	0	0	2.5	0	3.3	1.9	30	27	27	21	32	27	55	53	59	63	54	59
York	44	39	30	37	42	36	54.4	53.4	53.6	54.3	52.1	53.3	0	0	3.3	0	2.5	1.9	27	23	27	20	31	26	55	52	60	64	53	59
Prairie Thunder	--	--	35	37	28	33	--	--	53.1	53.5	48.1	51.6	--	--	0.5	0	2.0	0.8	--	--	26	21	26	24	--	--	58	64	52	58
CDC Sorrel	--	--	--	40	34	--	--	--	--	53.5	50.8	--	--	--	--	0	5.0	--	--	--	--	23	30	--	--	--	--	64	56	--
Prairie Grande	--	--	--	--	30	--	--	--	--	--	47.8	--	--	--	--	--	2.8	--	--	--	--	--	25	--	--	--	--	--	51	--
AC Watson	36	36	29	--	--	--	53.0	52.3	52.7	--	--	--	0	0	1.8	--	--	--	27	26	26	--	--	--	50	50	57	--	--	--
Scorpion*	--	--	29	--	--	--	--	--	52.7	--	--	--	--	--	0.5	--	--	--	--	--	23	--	--	--	--	--	58	--	--	--
Cathay	42	35	--	--	--	--	53.6	52.8	--	--	--	--	0	0	--	--	--	--	30	26	--	--	--	--	54	52	--	--	--	--
Selby	44	--	--	--	--	--	54.1	--	--	--	--	--	0	--	--	--	--	--	29	--	--	--	--	--	55	--	--	--	--	--
LSD 5%	5.5	4.1	5.7	3.2	7.0		0.3	0.5	0.6	0.4	1.1		--	--	1.9	--	2.2		1.8	1.9	1.1	1.2	1.5		0.9	0.8	1.0	0.7	0.8	

*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 2009 corn growing degree days for our trial were 1703, normal is 1761. 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 2009 was on October 9 (23 F.). Our normal killing frost date is September 21(28 F.). Sunflower growing degree-days from May 15 to October 9 was 2367. Normal is 2387. Sclerotinia head rot disease levels were high this year having a significant impact on yield. 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 and smaller.
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 Michigan. There were two variety trials conducted at each of the four locations, conventional and Roundup Ready. Entries for soybean trials are solicited from soybean companies on a yearly basis.

Soybeans respond to day length so the actual calendar maturity date is highly influenced by latitude location. Each variety therefore has a narrow range of north to south adaptation. Soybean yield and quality are affected if a season ending freeze occurs before a variety reaches it physiological maturity. Days to maturity are listed in the tables and indicate when the plants for a variety are observed and estimated to be physiologically mature. Relative maturity ratings are also provided by each company. These ratings consist of a number for the maturity group designation (00, 0) and 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. The trial at Cavalier was not harvest. The stands were very poor because of saturated soil conditions at emergence.

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 Sunflower - 2007-2009

Brand	Hybrid	Hybrid Type[1]	Days to Flower	Days to Mature	Plant Ht.	Head Rot[2]	Assert Damage[3]	Broken Stems[4]	Oil[5]	Test Wt.	Harv. Moist.	Yield @ 10% moisture 2007	Yield @ 10% moisture 2008	Yield @ 10% moisture 2009[6]	Average 2yr	Average 3yr
			(days)	(days)	(inch)	(%)	(%)	(%)	(%)	(lb/bu)	(%)	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a
Croplan	306 DMR NS	NS,DM	88	120	58	39	3	11	43.3	27.9	16	--	2199	1176	1687	--
Croplan	3080 DMR NS	NS,DM	88	120	54	57	0	4	42.4	26.2	15	2794	1967	862	1415	1874
Croplan	369 DMR NS	NS,DM	90	121	59	64	12	3	40.2	25.7	16	--	1739	1000	1370	--
Croplan	460 E NS	NS, Ex	90	120	63	77	0	4	43.1	26.0	15	--	--	1336	--	--
Croplan	555 CL DMR NS	NS,CL,DM	89	121	63	38	4	14	43.0	26.0	17	--	--	1438	--	--
Dahlgren	4421	NS	89	120	59	50	8	5	37.8	27.5	21	3014	2486	1649	2068	2383
Dahlgren	4416CL	NS,CL	92	122	70	51	5	8	33.7	25.7	23	--	--	1330	--	--
Integra	735 CLNSDM	NS,CL,DM	88	119	58	50	0	17	42.0	27.7	15	2396	2056	1124	1590	1859
Integra	IX09-85716 NSCLD	NS,CL,CM	90	121	61	74	0	2	40.5	27.9	15	--	--	1586	--	--
Integra	IX09-95010 NSDM	NS,DM	86	116	47	41	20	39	41.2	28.3	17	--	--	729	--	--
Integra	Ix09-95016 NSDM	NS,DM	90	121	57	75	5	15	43.4	28.0	23	--	--	1049	--	--
Mycogen	8D310	NS	89	120	58	26	6	3	39.6	28.5	22	--	2270	1678	1974	--
Mycogen	8D481	NS	93	125	65	67	2	4	40.4	27.0	20	--	--	1118	--	--
Mycogen	8H288CLDM	HO,CL,DM	87	122	54	68	2	11	41.4	26.9	23	--	1651	847	1249	--
Mycogen	8N270CLDM	NS,CL,DM	85	120	59	19	0	16	43.9	30.9	20	2623	1866	1309	1588	1933
Mycogen	8N358CLDM	NS,CL,DM	89	120	58	57	0	4	41.4	27.7	21	--	2173	1298	1735	--
Mycogen	8N433DM	NS,DM	91	122	64	83	3	3	40.5	27.5	18	--	--	966	--	--
Pioneer	63N82	NS,Ex	89	122	62	22	0	1	46.4	31.4	28	--	2187	1529	1858	--
Pioneer	64H41	HO	90	122	64	20	0	6	43.4	31.7	27	2541	2268	1540	1904	2116
Proseed	6007	NS,CL	91	118	69	38	0	5	41.3	30.9	19	--	1788	1358	1573	--
Proseed	7052	NS,CL	89	118	67	39	0	4	44.9	32.1	17	--	2024	1790	1907	--
Proseed	7207	NS,CL	92	121	68	52	0	2	40.8	25.8	14	--	2217	1151	1684	--
Proseed	7001 CL	NS,CL	92	124	63	53	3	1	39.7	27.4	26	--	--	1083	--	--
Proseed	9001 CL	NS,CL	88	117	58	46	1	4	41.6	27.5	16	--	--	1324	--	--
Proseed	E-4	NS,DM	88	118	58	18	4	4	41.0	29.1	17	--	--	1547	--	--
Proseed	E-5	NS,DM	91	123	63	30	3	1	42.7	29.0	26	2805	1837	1367	1602	2003
Proseed	E-6	NS,DM	92	121	66	70	3	4	38.9	24.3	20	--	1641	1179	1410	--
Proseed	E-8	NS,DM	89	121	65	35	6	3	43.7	26.6	24	--	--	1525	--	--

Oil Sunflower (continued)

Brand	Hybrid	Hybrid Type[1]	Days to Flower	Days to Mature	Plant Ht.	Head Rot[2]	Assert Damage[3]	Broken Stems[4]	Oil[5]	Test Wt.	Harv. Moist.	Yield @ 10% moisture 2007	Yield @ 10% moisture 2008	Yield @ 10% moisture 2009[6]	Yield Average 2yr	Yield Average 3yr
			(days)	(days)	(inch)	(%)	(%)	(%)	(%)	(lb/bu)	(%)	lbs/a	lbs/a	lbs/a	lbs/a	lbs/a
Proseed	E-85	NS,DM	89	120	64	47	4	3	40.4	26.9	17	2560	1944	1430	1687	1978
Seeds 2000	Defender Plus	NS,DM	87	117	53	36	10	21	40.7	28.4	17	2732	2069	1158	1613	1986
Seeds 2000	Viper	NS,CL	91	121	51	84	0	7	39.4	27.5	19	--	1679	658	1169	--
Seeds 2000	X5619	NS, Ex	90	120	58	79	0	23	42.8	25.3	16	--	--	984	--	--
Syngenta	DKF29-30	NS,DM	87	117	56	50	0	7	44.9	28.5	12	2431	1971	1382	1676	1928
Syngenta	DKF34-33	NS,DM	90	121	56	67	3	3	42.9	28.3	15	2593	1897	1382	1639	1957
Syngenta	DKF34-80CL	NS,CL,DM	90	117	57	70	0	16	40.1	25.3	14	2927	2143	891	1517	1987
Syngenta	DKF39-80CL	NS,CL	93	124	71	71	0	3	39.3	26.8	23	--	--	1049	--	--
Syngenta	IS7120	HO,DM	87	117	51	36	7	25	41.1	26.4	14	2494	2258	877	1568	1876
Syngenta	MH9001CL	NS,CL	93	123	64	72	2	3	42.7	25.8	28	--	--	1047	--	--
Syngenta	MH9002CL	NS,CL	90	120	63	76	0	2	40.0	28.0	14	--	--	1462	--	--
Triumph	s671	NS,SS	94	124	44	90	0	9	35.7	29.6	19	--	--	508	--	--
Triumph	s655	NS,DM	94	124	41	91	0	5	36.6	27.6	19	--	1593	529	1061	--
UDSA-Check	894	Trad	88	117	58	57	2	6	40.6	28.1	13	2691	2051	986	1518	1909
LSD 5%			1.2	2.3	5.0	26	9	16	2.2	1.3	4.3	563	425	417	--	--

[1]Type: HO = High Oleic, NS = NuSun, Trad = Traditional, CL = Clearfield, Ex= ExpressSun, DM = Downy Mildew Resistant, SS=Short Stature.

[2]Sclerotinia head rot. Indicates percent incidence of head rot for each hybrid. It does not indicate severity. Infected plants were harvested.

[3]Percent of plants with deformed heads. Assert sprayed June 23 at 0.7 pt/a. Temperature was 68^0F, R.H. 46%. Growth stage was 6 leaves.

Heads were not harvested but replaced with normal heads from outside harvest area.

[4]Broken stems were laying flat on the ground. Breakage may have resulted from stalk rot, phoma, or insects. Plants were not harvested.

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

[6]Percent Sclerotinia head rot incidence was plotted against yield with a resulting R^2=0.34. The yield variation and generally low yields were due to head rot.

Days to mature hybrid check: Hysun 311=117, SF270=116, PI6451=121.

Confectionary (Non-oil) Sunflower - 2007-2009

Brand	Hybrid	Days to Flower	Days to Mature	Plant Height	Test Weight	Harvest Moist.	Head Rot[3]	Assert Damage[4]	Seed over screen 22/64	Seed over screen 20/64	Seed over screen 18/64	Yield @ 10% moisture 2007	Yield @ 10% moisture 2008	Yield @ 10% moisture 2009	Average 2 yr	Average 3yr
		(days)	(days)	(inch)	(lbs/bu)	(%)	(%)	(%)	-----% over-----			----------lbs/a----------				
CHS Sunflower	RH1121	93	123	64	21.9	29	35	19	57	78	85	2440	3066	1766	2416	2424
CHS Sunflower	RH3126RT	89	122	64	22.5	30	24	7	55	77	86	--	--	1319	--	--
CHS Sunflower	RH400CL[1]	85	120	59	23.8	25	15	0	83	94	95	--	--	1913	--	--
Croplan Genetics	179	94	126	65	18.9	32	48	10	59	80	85	--	--	1290	--	--
Dahlgren	95EXCL[1]	93	124	67	21.3	28	54	2	45	78	85	--	2437	1471	1954	--
Dahlgren	9530	91	123	63	21.9	28	42	22	47	77	86	--	--	1570	--	--
Dahlgren	9592	89	122	44	21.3	25	26	0	55	75	83	--	2588	1821	--	--
Mycogen Seeds	8C451	89	122	58	20.7	28	36	2	55	81	87	--	2218	1707	--	--
RRC	2215	88	121	60	23.0	28	32	13	42	71	86	2398	2572	1632	2102	2201
RRC	2216	88	122	61	23.1	30	25	15	52	81	88	2740	2490	1639	2065	2290
RRC	2217	90	123	61	20.0	25	53	7	50	74	81	--	--	1559	--	--
Seeds 2000	Jaguar[1]	86	119	57	22.3	20	18	0	26	70	86	2612	2208	2136	2172	2319
Seeds 2000	Panther DMR[2]	85	121	57	24.4	19	16	9	21	60	85	2465	2084	1819	1952	2123
Triumph Seed Co.	747C	88	124	56	23.2	37	6	16	71	89	93	2478	2408	1399	1904	2095
Check-USDA	924	86	120	59	24.7	23	21	23	18	45	76	2388	2249	1167	1708	1935
LSD 5%		1.4	3.0	NS	1.6	5.3	15.7	NS				538	465	364	--	--

[1] Clearfield hybrid

[2] Downy mildew resistant

[3] Sclerotinia head rot. Indicates percent incidence of head rot for each hybrid. It does not indicate severity. Infected plants were harvested.

[4] Percent of plants with deformed heads. Assert sprayed June 23 at 0.7 pt/a. Temperature was 68^0F, R.H. 46%. Growth stage was 6 leaves.

Heads were not harvested but replaced with normal heads from outside harvest area.

Days to mature hybrid check: Hysun 311=117, SF270=116, PI6451=121.

Langdon - Corn Grain Summary - 2008-2009

Brand	Hybrid	Company RM	Yield bu/a			Perf. Index[1]	Test Wt. lbs/bu	Days to Silk	Harvest Moisture (%)	Height in
		09	08	09	2yr	09	09	09	09	09
Hyland Seeds	HL B18R	76	--	96	--	178	50.4	95	38	96
DEKALB	DKC29-98 (RR2/YGCB)	79	102	83	93	131	45.3	97	45	90
REA Hybrids	1T132	78	--	80	--	132	45.3	97	43	96
Hyland Seeds	Baxxos RR	76	102	77	90	129	47.9	97	42	100
Pioneer Brand	39D97	79	--	77	--	128	43.3	98	43	91
Hyland Seeds	HL B14R	75	102	77	90	129	47.5	97	42	95
DEKALB	DKC30-23 (RR2)	80	--	75	--	117	47.7	99	46	88
AgSource Seeds	3A-383+RR	82	84	70	77	103	42.7	101	49	97
Pioneer Brand	39V07	80	--	69	--	107	41.0	100	46	99
Hyland Seeds	HL B22R	79	98	69	84	110	44.2	101	45	92
DEKALB	DKC33-54 (RR2)	83	91	68	79	107	43.4	99	45	90
Wensman Seed	W 7085VT3	83	--	68	--	102	41.9	101	47	90
Dyna-Gro Seed	51V45	82	--	67	--	102	41.9	101	47	101
G2 Genetics	5H-884 RR/HX	83	--	67	--	98	39.6	101	49	101
REA Hybrids	2T956	83	--	67	--	106	44.0	101	45	94
Mustang Seeds	2304VT3RR	83	--	66	--	101	43.3	101	47	94
REA Hybrids	1T218	80	--	66	--	104	44.7	102	45	95
Seeds 2000	2781RR	78	103	64	83	104	43.5	101	44	93
Proseed	981CBLLGT	81	--	63	--	98	43.4	100	45	99
Mustang Seeds	7801VT3RR	78	--	62	--	99	44.0	99	45	94
Dyna-Gro Seed	50K21	78	--	62	--	94	43.1	101	47	98
REA Hybrids	1T345	79	--	62	--	93	42.6	102	47	90
Seeds 2000	8201VT3	82	85	62	74	90	41.0	103	49	93
Mustang Seeds	1308VT3RR	79	--	61	--	96	44.8	99	45	96
NuTech Seed	3A-484 RR	83	--	60	--	90	40.7	102	48	93
NuTech Seed	3T-083 VT3	82	82	58	70	87	43.0	102	48	99
Integra	6780R	80	90	57	73	88	41.8	102	46	95
NuTech Seed	3T-484 VT3	83	106	56	81	83	41.4	104	49	96
Mustang Seeds	8104GTCBLL	81	--	55	--	85	42.3	102	46	94
NuTech Seed	1B-183 CB/LL	82	--	55	--	84	40.7	103	46	94
Wensman Seed	W7083VT3	80	104	53	78	79	42.1	104	47	91
PFS	21A78	78	--	52	--	83	43.7	102	45	95
Integra Fortitied	9332R	83	--	42	--	58	38.2	103	53	86
Proseed	781RRBT	81	83	38	61	53	38.5	104	52	90
LSD 5%			18.9	18.2			1.7	2.5	3.6	5.5

[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.

Langdon - Drybean Summary - 2006-2009

Variety	Type	Maturity[1]	Yield (lbs/a)					Days to Mature		100 Seed Wt. (gms)				
			06	07	08	09	3yr	06	08	06	07	08	09	3yr
Buster	Pinto	ME	3758	3895	2714	2785	3132	96	109	44	40	41	36	39
GTS 900	Pinto	L	3610	3643	3018	2352	3004	95	114	40	38	37	37	37
Lariat	Pinto	L	4250	3933	3162	2607	3234	97	112	46	46	42	38	42
Maverick	Pinto	ME	3706	3843	1857	2672	2791	94	111	40	40	41	37	39
Othello	Pinto	E	3698	3200	2379	2240	2606	93	105	42	39	43	38	40
Stampede	Pinto	M	4190	3846	2658	2408	2971	94	111	42	41	40	33	38
La Paz	Pinto	L	--	--	2874	3213	--	--	119	--	--	34	34	--
ND 307	Pinto	M	--	--	--	2465	--	--	--	--	--	--	38	--
Windbreaker	Pinto	M	--	--	--	2894	--	--	--	--	--	--	37	--
Vista	Navy	ML	3817	3531	2179	2142	2617	98	113	20	19	19	18	19
Avalanche	Navy	ME	--	--	2363	1824	--	--	109	--	--	21	18	--
Ensign	Navy	M	--	--	2539	2001	--	--	111	--	--	20	19	--
Navigator	Navy	M	--	--	2275	2246	--	--	111	--	--	18	18	--
Mayflower	Navy	ML	--	--	--	1704	--	--	--	--	--	--	18	--
Eclipse	Black Turtle	M	3610	3428	2511	1819	2586	96	111	22	22	20	20	21
T-39	Black Turtle	M	3094	3174	2259	1750	2394	96	118	21	22	21	19	21
Jaguar	Black Turtle	M	--	3429	2183	2139	2584	--	110	--	20	19	18	19
Matterhorn	Great Northern	ME	--	4012	2383	2636	3010	--	110	--	39	37	34	37
Merlot	Small Red	ME	--	3527	2459	2402	2796	--	111	--	36	38	29	34
Sedona	Pink	M	--	3275	2187	2394	2619	--	108	--	40	36	35	37
LSD 5%			613	535	504	429		3.8	3.2	2.2	--	--	--	

[1]RM=Relative Maturity;E=Early;ME=Medium Early;M=Medium;ML=Medium Late;L=Late.

Langdon - Conventional Soybeans - 2007-2009

Brand	Variety	Maturity Group[1]	Plant Ht.	Maturity Date[2]	Protein	Oil	Lodging	Test Wt.	Yield 2007	Yield 2008	Yield 2009	Yield 2 year	Yield 3 Year
			in		%	%	0-9	lbs/bu					
NDSU	Cavalier	00.7	39	*	39.9	17.0	7.0	51.8	55.7	38.8	36.1	37.5	43.5
NDSU	Traill	0.0	38	*	39.7	17.2	7.0	48.5	--	--	42.1	--	--
Gowan Seeds	GS1001	00.0	35	9/16	41.2	16.1	4.5	55.6	52.9	32.9	39.0	36.0	41.6
Thunder Seed	7005	00.5	41	9/24	39.9	16.6	7.5	53.2	--	35.8	47.1	41.5	--
LSD 5%			2.5	2.6	0.9	0.3	2.1	1.3	6.1	NS	5.4	--	--

Pembina County - Conventional Soybeans - 2008-2009

Brand	Variety	Maturity Group[1]	Plant Ht.	Maturity Date[2]	Protein	Oil	Lodging	Test Wt.	Yield 2008	Yield 2009	Yield 2 year
			in		%	%	0-9	lbs/bu		---------bu/a------	
NDSU	Cavalier	00.7	32	9/15	39.2	18.0	1.0	54.5	40.2	47.0	43.6
NDSU	Traill	0.0	33	10/4	40.3	16.9	0.8	51.5	--	46.2	--
Thunder Seed	7005	00.5	37	9/26	39.2	17.3	0.3	55.0	36.7	49.2	43.0
LSD 5%			2.1	5.8	NS	NS	NS	2.0	NS	5.5	--

Nelson County - Conventional Soybeans - 2009

Brand	Variety	Maturity Group[1]	Plant Height	Maturity Date[2]	Protein	Oil	Test Weight	Yield 2009
			in		%	%	lbs/bu	bu/a
NDSU	Cavalier	00.7	20	9/18	36.4	19.2	55.5	24.6
NDSU	Traill	0.0	21	9/21	38.1	18.8	55.5	27.9
Thunder Seed	07005	00.5	25	9/19	37.0	19.0	56.1	33.8
LSD 5%			2.9	1.6	1.6	0.6	1.7	3.9

Walsh County - Conventional Soybeans - 2008-2009

Brand	Variety	Maturity Group[1]	Plant Ht.	Maturity date[2]	Lodging	Oil	Protein	Test Wt.	Yield 2008	Yield 2009	Yield 2 year
			in		0-9	%	%	lbs/bu		---------bu/a------	
NDSU	Cavalier	00.7	33	9/16	1.3	39.0	17.8	55.7	57.2	38.1	47.7
NDSU	Traill	0.0	36	9/17	4.0	41.0	17.7	55.7	--	40.7	--
Thunder Seed	07005	00.5	37	9/15	2.3	39.7	17.3	55.3	44.6	39.7	42.2
LSD 5%			NS	2.4	2.7	NS	NS	NS	5.8	NS	--

[1]Maturity Group provided by company

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

Oil and protein reported at 13% moisture.

Langdon - Roundup Ready Soybeans 2007-2009

Brand	Variety	Ma-turity Group[1]	Plant Ht.	Ma-turity date[2]	Lodg-ing	Pro-tein	Oil	Test Wt.	Yield				
									2007	2008	2009	2 year	3 year
			in		0-9	%	%	lbs/bu	bu/a				
AgSource	6006	00.8	38	9/24	7.0	36.7	19.5	52.2	67.3	53.5	55.5	54.5	58.8
AgSource	6007	00.7	37	9/22	5.0	36.7	18.8	54.3	--	--	45.5	--	--
AgSource	6042	0.4	39	*	3.3	40.0	17.7	47.5	--	52.2	26.1	39.2	--
ASGROW	AG00501	00.5	39	9/20	3.8	37.3	18.5	53.5	--	41.6	55.7	48.7	--
ASGROW	AG00603	00.6	38	9/20	4.5	38.6	17.9	54.7	61.4	46.5	57.2	51.9	55.0
ASGROW	AG00901	00.9	36	9/24	3.5	39.6	17.9	52.7	65.6	45.7	53.4	49.6	54.9
Dyna-Gro Seed	30M05	00.5	33	9/20	0.8	37.9	19.0	54.4	--	--	52.1	--	--
Dyna-Gro Seed	32J01	0.1	35	9/22	4.8	36.9	19.7	53.6	--	41.3	57.9	49.6	49.6
Dyna-Gro Seed	32T03	0.3	38	*	1.0	39.1	18.6	46.0	--	--	27.6	--	--
G2 Genetics(NuTech)	6019	0.1	40	9/24	5.3	39.6	18.5	53.0	--	--	50.6	--	--
G2 Genetics(NuTech)	6033	0.3	41	*	6.0	39.2	18.5	49.6	--	--	41.5	--	--
G2 Genetics(NuTech)	6031	0.3	37	*	2.3	39.7	18.4	50.8	--	--	29.7	--	--
G2 Genetics(NuTech)	6049	0.4	43	9/25	2.3	36.8	19.4	51.5	--	--	54.3	--	--
Gold Country Seed	9008RR	00.8	38	9/21	2.0	37.5	18.0	53.0	--	44.9	51.8	48.4	--
Gold Country Seed	0901RR	0.1	39	9/26	6.3	36.6	19.4	51.5	--	48.1	53.6	50.9	--
Hefty Seed Co.	H0059R	00.5	33	9/17	0.8	38.2	19.2	53.9	--	38.8	51.5	45.2	--
Hefty Seed Co.	H0079RN	00.7	34	9/20	1.8	38.4	18.1	53.7	--	36.0	48.9	42.5	--
Hefty Seed Co.	H0086R	00.8	36	9/21	4.3	37.7	19.0	53.8	58.4	41.7	53.3	47.5	51.1
Hefty Seed Co.	H0099R	00.9	40	9/20	5.3	38.7	18.7	55.0	--	40.6	55.3	48.0	--
Hyland Seeds	HS 02R28	0.2	39	9/26	6.0	38.4	17.5	52.6	--	43.4	46.4	44.9	--
Integra Fortified Seed	97001R	00.1	34	9/17	1.3	37.3	19.6	54.1	--	38.4	55.4	46.9	--
Integra Fortified Seed	79004R	00.4	32	9/17	0.5	37.6	19.4	53.6	--	--	50.8	--	--
Integra Fortified Seed	97009R	00.9	36	9/20	2.5	37.2	19.4	53.2	--	--	55.4	--	--
Kruger	K-004RR	00.4	33	9/17	1.3	37.6	19.5	53.9	--	38.7	52.9	45.8	--
Kruger	K-007RR	00.7	41	9/21	2.0	38.0	17.9	52.6	--	44.2	57.8	51.0	--
Kruger	K-009+RR	00.9	37	9/22	6.0	39.4	19.2	52.3	66.5	45.7	52.3	49.0	54.8
Kruger	K-028RR	0.2	36	*	0.0	39.8	17.9	48.5	--	47.3	21.7	34.5	--
Kruger	K2X05A9	0.4	39	*	2.5	39.9	17.7	47.8	--	--	24.2	--	--
Mustang Seeds	M-0096ERR	00.9	37	9/22	5.3	38.9	19.2	53.0	--	--	53.4	--	--
NorthStar Genetics	NS 0021RR	00.1	34	9/17	1.3	37.9	19.1	54.0	58.9	38.2	51.2	44.7	49.4
NorthStar Genetics	NS 0034RR	00.3	34	9/19	0.3	38.0	19.3	54.0	--	--	50.2	--	--
NorthStar Genetics	NS 0084RR	00.8	40	9/19	5.3	38.5	18.7	53.7	--	39.9	58.0	49.0	--
NuTech	6005	00.5	32	9/18	0.8	38.1	19.2	54.5	--	--	48.0	--	--
NuTech	0090RR	00.9	38	9/21	4.3	39.3	18.8	52.7	--	45.4	50.1	47.8	--
NuTech	6006+	00.8	41	9/25	6.0	37.1	19.3	51.3	--	47.9	52.5	50.2	--
NuTech	6022	0.2	39	9/23	5.8	37.2	18.9	51.7	--	48.1	63.0	55.6	--
NuTech	6015	0.1	37	9/24	6.0	37.3	19.6	52.4	67.7	48.7	53.4	51.1	56.6
PFS	EX2009.006RR	00.6	38	*	4.0	38.9	18.3	47.7	--	--	28.9	--	--
PFS	07008RR	00.8	37	9/20	3.5	37.5	19.3	52.9	60.6	44.9	56.9	50.9	54.1

Langdon - Roundup Ready Soybeans (continued)

Brand	Variety	Maturity Group[1]	Plant Ht.	Maturity date[2]	Lodging	Protein	Oil	Test Wt.	Yield 2007	Yield 2008	Yield 2009	Yield 2 year	Yield 3 year
			in		0-9	%	%	lbs/bu	bu/a				
PFS	EX2009.008	00.8	38	*	5.3	39.0	17.7	50.7	--	--	39.0	--	--
PFS	1000RR	0.0	38	9/25	7.0	36.9	19.3	52.2	--	--	53.1	--	--
Pioneer Brand	90M02	0.0	43	9/26	5.3	40.0	18.0	52.3	--	--	48.7	--	--
Pioneer Brand	90Y20	0.2	40	*	5.8	38.6	18.5	51.5	--	--	44.8	--	--
Prairie Brand	PB-00338RR	00.3	35	9/17	1.3	38.0	19.2	53.6	--	42.5	52.5	47.5	--
Prairie Brand	PB-00639RR	00.6	37	*	6.5	37.5	18.8	50.1	--		42.9	--	--
Prairie Brand	PB-00918RR	00.9	43	9/21	5.3	39.1	18.6	53.9	--	46.3	53.7	50.0	--
Prairie Brand	PB-0199RR	0.0	38	9/26	5.0	38.6	19.7	54.0	--		48.1	--	--
Proseed	80-04	00.4	35	9/19	1.8	38.0	19.2	53.6	--	39.5	51.5	45.5	--
Proseed	80-00	0.0	39	9/24	6.5	36.0	19.7	51.5	--	47.2	54.7	51.0	--
Proseed	70-10	0.1	36	9/25	4.0	37.6	19.5	52.4	--	41.1	50.9	46.0	--
Syngenta/NK Brand	S01-C9 Brand	0.1	37	9/23	1.0	39.0	19.0	52.4	--	41.3	52.1	46.7	--
Syngenta/NK Brand	S02-K3 Brand	0.2	37	9/22	3.5	37.1	19.3	52.7	--	--	51.4	--	--
Thunder Seed	29004RR	00.4	42	9/19	6.5	39.0	18.5	54.0	--	--	53.8	--	--
Thunder Seed	30005RR	00.5	37	9/24	6.5	38.8	18.2	51.7	--	--	51.7	--	--
Thunder Seed	29006RR	00.6	40	*	7.0	38.1	18.4	49.3	--	--	34.2	--	--
Thunder Seed	29008RR	00.8	37	*	5.0	38.9	17.9	50.2	--	--	40.4	--	--
Wensman Seed	W 20051RR	00.4	36	9/20	3.0	37.5	19.4	53.4	--	43.4	52.4	47.9	--
Wensman Seed	W 20092RR	00.9	39	9/21	5.5	39.1	19.1	53.7	--	--	53.9	--	--
Wensman Seed	W 2025RR	0.2	35	*	0.0	40.5	17.8	47.8	--	--	25.8	--	--
LSD 5%			3.0	2.0	1.8	0.9	0.6	1.2	5.0	4.6	5.8	--	--

[1]Maturity Group provided by company

[2]Date of physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color.) An * indicates that the variety did not reach maturity, in 3 of 4 replications, before the first frost on September 29 of 29° F.

Oil and protein reported at 13% moisture.

Pembina County - Roundup Ready Soybeans - 2007-2009

Brand	Variety	Maturity Group[1]	Plant Ht.	Maturity date[2]	Lodging	Protein	Oil	Test Wt.	Yield				
									2007	2008	2009	2 year	3 year
			in		0-9	%	%	lbs/bu	bu/a				
AgSource	6006	00.8	34	10/3	4.1	35.5	20.0	52.6	69.3	50.5	52.7	51.6	57.5
AgSource	6007	00.7	34	9/29	3.0	35.5	19.8	54.9	--	--	50.7	--	--
AgSource	6042	0.4	34	*	2.6	37.8	18.2	53.4	--	46.5	44.4	45.5	--
ASGROW	AG00501	00.5	33	9/26	0.1	35.3	19.5	55.2	--	49.1	60.6	54.8	--
ASGROW	AG00603	00.6	31	9/28	0.0	36.0	19.1	56.2	63.4	47.9	52.2	50.0	54.5
ASGROW	AG00901	00.9	33	9/28	0.1	35.6	19.7	55.7	63.1	49.0	51.8	--	54.6
Dyna-Gro Seed	30M05	00.5	28	9/25	0.1	35.2	20.6	54.8	--	--	49.8	--	--
Dyna-Gro Seed	32J01	0.1	30	9/29	0.5	35.9	19.9	53.6	--	42.9	53.7	48.3	--
Dyna-Gro Seed	32T03	0.3	34	*	1.0	36.5	19.1	51.2	--	--	45.9	--	--
G2 Genetics(NuTech)	6019	0.1	32	9/28	0.0	37.6	19.3	54.6	--	--	50.2	--	--
G2 Genetics(NuTech)	6033	0.3	35	*	1.4	37.3	19.0	52.6	--	--	45.1	--	--
G2 Genetics(NuTech)	6031	0.3	30	10/6	0.0	37.1	19.6	56.0	--	--	49.5	--	--
G2 Genetics(NuTech)	6049	0.4	36	*	0.3	35.2	19.9	52.7	--	--	52.0	--	--
Gold Country Seed	9008RR	00.8	34	9/27	0.0	34.9	19.6	55.2	--	--	52.0	--	--
Gold Country Seed	0901RR	0.1	33	9/30	3.7	35.5	19.8	52.3	--	--	50.9	--	--
Hefty Seed Co.	H0059R	00.5	26	9/22	0.0	35.2	20.5	55.0	--	44.3	43.2	43.7	--
Hefty Seed Co.	H0079RN	00.7	29	9/27	0.0	35.5	19.6	55.1	--	35.7	43.4	39.5	--
Hefty Seed Co.	H0086R	00.8	30	9/28	0.9	34.8	20.3	54.2	68.0	43.9	50.3	47.1	54.1
Hefty Seed Co.	H0099R	00.9	34	9/28	1.0	36.2	19.9	54.2	--	37.3	47.7	42.5	--
Hyland Seeds	HS 02R28	0.2	34	10/3	1.6	36.9	18.3	55.7	--	45.1	46.8	45.9	--
Integra Fortified Seed	97001R	00.3	26	9/23	0.0	35.0	20.6	55.5	--	43.7	47.0	45.4	--
Integra Fortified Seed	79004R	00.4	26	9/23	0.0	34.6	20.6	55.2	--	--	47.6	--	--
Integra Fortified Seed	97009R	00.9	30	9/27	3.9	35.0	20.3	53.9	61.0	43.9	48.8	46.4	51.2
Kruger	K-004RR	00.4	26	9/23	0.5	34.6	20.7	55.4	--	42.8	45.4	44.1	--
Kruger	K-007RR	00.7	33	9/26	0.0	36.2	19.2	54.5	--	46.5	52.2	49.3	--
Kruger	K-009+RR	00.9	33	9/28	0.3	36.9	20.0	53.1	66.0	45.6	49.2	47.4	53.6
Kruger	K-028RR	0.2	31	10/7	0.0	37.6	19.2	53.3	--	49.2	41.1	45.1	--
Kruger	K2X05A9	0.4	37	*	2.6	37.7	18.2	53.1	--	--	38.9	--	--
NorthStar Genetics	NS 0021RR	00.1	26	9/23	0.0	34.6	20.7	54.2	--	45.1	45.8	45.5	--
NorthStar Genetics	NS 0034RR	00.3	28	9/26	0.0	35.4	20.6	55.1	--	--	46.6	--	--
NorthStar Genetics	NS 0084RR	00.8	33	9/26	0.5	36.5	19.8	55.3	--	--	48.9	--	--
NuTech	6005	00.5	28	9/26	0.0	35.0	20.5	54.6	--	--	49.1	--	--
NuTech	6008	00.8	36	10/7	1.3	37.7	18.6	53.8	--	--	46.5	--	--
NuTech	0090RR	00.9	33	9/29	0.8	37.5	19.9	53.3	68.1	49.0	48.7	48.9	55.3
NuTech	6006+	00.8	35	10/1	3.3	35.5	20.0	52.9	--	50.4	55.0	52.7	--
NuTech	6022	0.2	35	10/2	2.7	35.7	19.6	52.3	--	52.9	53.4	53.1	--
PFS	EX2009.006RR	00.6	35	10/6	1.5	37.6	18.9	53.1	--	--	43.5	--	--
PFS	07008RR	00.8	31	9/27	1.1	35.2	20.4	54.3	64.3	46.2	52.2	49.2	54.2

Pembina County - Roundup Ready Soybeans (continued)

Brand	Variety	Maturity Group[1]	Plant Ht.	Maturity date[2]	Lodging	Protein	Oil	Test Wt.	Yield 2007	Yield 2008	Yield 2009	Yield 2 year	Yield 3 year
			in		0-9	%	%	lbs/bu	bu/a	bu/a	bu/a	bu/a	bu/a
PFS	EX2009.008	00.8	34	10/1	2.3	37.0	18.9	53.7	--	--	50.5	--	--
PFS	1000RR	0.0	34	10/2	4.2	35.1	19.9	52.3	--	--	50.9	--	--
Pioneer Brand	90M02	0.0	34	9/29	0.1	37.7	19.3	54.7	--	--	49.8	--	--
Pioneer Brand	90Y20	0.2	36	10/6	0.7	37.0	19.3	53.4	--	--	49.0	--	--
Prairie Brand	PB-00338RR	00.3	28	9/24	0.2	34.9	20.6	54.6	--	45.8	47.6	46.7	--
Prairie Brand	PB-00639RR	00.6	34	9/30	1.0	35.4	19.5	54.2	--		52.4	--	--
Prairie Brand	PB-00918RR	00.9	34	9/28	0.2	36.4	19.7	54.9	--	40.9	45.5	43.2	--
Prairie Brand	PB-0199RR	0.0	35	9/29	0.2	35.7	20.0	54.7	--		49.2	--	--
Proseed	80-04	00.4	26	9/22	0.1	34.7	20.4	54.9	--	44.2	45.0	44.6	--
Proseed	80-00	0.0	36	10/2	3.9	35.1	19.9	53.7	--	49.3	54.9	52.1	--
Proseed	70-10	0.1	32	10/1	0.3	35.9	20.0	53.0	--	45.9	47.1	46.5	--
Stine	0046-4	00.6	27	9/23	0.1	34.8	20.6	55.2	--	--	42.2	--	--
Stine	0066-4	00.8	27	9/26	0.1	34.5	20.6	55.0	--	44.5	49.3	46.9	--
Stine	0098-84	0.0	31	10/1	0.5	35.9	20.1	52.7	--	43.5	44.2	43.8	--
Syngenta/NK Brand	S01-C9 Brand	0.1	33	9/29	0.1	37.4	19.7	52.9	--	39.9	46.7	43.3	--
Syngenta/NK Brand	S02-K3 Brand	0.2	34	9/28	0.1	35.6	20.7	54.5	--	--	50.4	--	--
Thunder Seed	29004RR	00.4	33	9/27	0.1	36.6	19.7	55.6	--	--	48.6	--	--
Thunder Seed	30005RR	00.5	31	9/30	0.2	37.1	19.2	54.6	--	--	49.5	--	--
Thunder Seed	29006RR	00.6	33	10/1	0.3	35.3	19.5	54.2	--	--	47.5	--	--
Thunder Seed	29008RR	00.8	34	10/4	1.9	36.9	18.9	54.4	--	--	50.1	--	--
Wensman Seed	W 20051RR	00.4	29	9/26	0.1	35.1	20.6	54.4	67.6	45.7	45.9	45.8	53.1
Wensman Seed	W 20074RR	00.7	32	9/25	1.8	34.5	20.3	55.2	64.3	48.4	50.7	49.6	54.5
Wensman Seed	W 20092RR	00.9	33	9/28	0.6	36.9	20.0	53.1	--	--	50.0	--	--
Wensman Seed	W 2025RR	0.2	31	10/8	0.1	37.6	19.1	52.2	--	--	40.5	--	--
LSD 5%			2.4	2.9	1.3	0.8	0.4	1.4	5.2	2.9	4.8	--	--

[1]Maturity Group provided by company

[2]Date of physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color.) An * indicates that the variety did not reach maturity, in 3 of 4 replications, before the first killing frost on October 9, 20°F.

A light frost of 30° occurred on September 29.

Oil and protein reported at 13% moisture.

Walsh County - Roundup Ready Soybeans - 2007-2009

Brand	Variety	Maturity Group[1]	Plant ht.	Maturity date[2]	Protein	Oil	Lodging	Test Wt.	White Mold[3]	Yield				
										2007	2008	2009	2 year	3 year
			in		%	%	0-9	lbs/bu	0-9	bu/a				
AgSource	6006	00.8	37	9/19	36.3	19.0	4.0	54.6	3.8	70.5	60.8	30.8	45.8	54.0
AgSource	6007	00.7	31	9/19	36.6	18.8	3.5	54.3	4.0	--	--	26.7	--	--
AgSource	6043	0.4	32	9/25	38.7	18.2	1.5	54.3	4.5	--	58.1	15.7	36.9	--
ASGROW	AG00501	00.5	38	9/16	35.4	19.1	3.0	55.2	1.3	--	56.2	44.1	50.2	--
ASGROW	AG00603	00.6	37	9/16	36.5	19.0	5.0	55.7	1.3	64.3	55.9	42.8	49.4	54.3
ASGROW	AG00901	00.9	34	9/16	34.8	19.4	0.8	54.8	0.8	63.7	55.9	34.4	45.2	51.3
Dairyland	DSR-C750/RR	00.7	35	9/18	37.3	18.8	4.3	54.3	5.0	--	--	28.1	--	--
Dairyland	DSR-0101/RR	0.1	40	9/21	36.2	19.0	5.5	54.1	5.5	--	57.6	28.5	43.1	--
Dairyland	DST03-000/R2Y	0.3	36	9/26	37.6	18.2	0.8	54.3	2.8	--	--	26.9	--	--
Dyna-Gro Seed	30M05	00.5	32	9/14	35.5	20.1	0.0	55.5	0.8	--	--	32.4	--	--
Dyna-Gro Seed	32J01	0.1	35	9/16	36.1	19.7	2.3	55.6	1.8	--	51.3	36.7	44.0	--
Dyna-Gro Seed	32T03	0.3	41	9/27	37.1	19.7	2.5	52.2	2.5	--	53.0	32.9	43.0	--
G2 Genetic(NuTech)	6019	0.1	37	9/17	38.2	18.8	4.0	55.1	3.0	--	--	30.3	--	--
G2 Genetic(NuTech)	6033	0.3	37	9/23	37.9	18.8	5.3	54.3	4.8	--	--	25.0	--	--
G2 Genetic(NuTech)	6031	0.3	37	9/21	37.1	19.4	2.3	56.1	2.8	--	--	27.6	--	--
G2 Genetic(NuTech)	6049	0.4	42	9/22	36.1	19.2	4.0	54.8	3.0	--	--	36.8	--	--
Gold Country Seed	9008RR	00.8	39	9/17	36.3	18.4	2.3	55.3	2.3	--	56.6	34.5	45.6	--
Gold Country Seed	0901RR	0.1	40	9/21	36.3	19.1	5.8	54.5	5.0	--	60.4	32.7	46.6	--
Hefty Seed Co.	H0059R	00.5	34	9/14	36.1	19.9	0.3	55.0	0.5	--	--	36.5	--	--
Hefty Seed Co.	H0079RN	00.7	35	9/16	36.4	19.3	2.0	54.9	1.8	--	44.6	34.6	--	--
Hefty Seed Co.	H0086R	00.8	37	9/17	36.0	19.9	3.3	53.9	2.0	62.7	54.4	41.2	47.8	52.8
Hefty Seed Co.	H0099R	00.9	39	9/17	37.4	19.3	5.8	55.2	3.0	--	47.9	34.3	--	--
Hyland Seeds	HS 02R28	0.2	40	9/22	36.8	18.3	4.5	56.0	4.5	--	56.6	28.6	--	--
Integra	97009R	00.9	34	9/16	35.8	19.9	3.8	54.9	2.0	60.9	51.6	38.3	45.0	50.3
Integra	97014R	0.0	34	9/17	36.9	19.9	2.3	53.9	1.8	63.3	54.3	37.0	45.7	51.5
Integra	79020R	0.2	38	9/21	34.9	19.5	4.0	54.1	4.3	--	59.1	18.7	--	--
Kruger	K-004RR	00.4	33	9/12	36.8	19.5	0.5	55.1	0.8	--	51.1	40.0	--	--
Kruger	K-007RR	00.7	39	9/15	35.8	18.8	3.3	55.0	3.3	--	48.6	32.5	--	--
Kruger	K-009+RR	00.9	34	9/17	37.0	19.8	3.3	54.2	1.5	69.3	57.6	33.4	45.5	53.4
Kruger	K-028RR	0.2	31	9/24	38.5	18.4	1.5	53.3	5.0	--	57.8	16.4	37.1	--
Kruger	K2X05A9	0.4	38	9/27	37.4	18.8	0.5	54.9	1.5	--	--	30.4	--	--
Mustang Seeds	M-036RR	0.3	40	9/24	36.1	19.1	3.5	53.8	3.0	--	--	30.0	--	--
Mustang Seeds	M-047RR	0.4	36	9/25	36.3	20.4	1.0	53.9	2.3	--	--	28.1	--	--
NorthStar Genetics	NS 0021RR	00.1	32	9/13	36.4	19.6	1.8	55.1	1.3	60.0	52.2	34.6	43.4	48.9
NorthStar Genetics	NS 0034RR	00.3	30	9/13	36.1	20.0	0.0	54.7	0.5	--	--	30.3	--	--
NorthStar Genetics	NS 0084RR	00.8	40	9/15	37.9	19.2	4.5	55.2	1.8	--	49.4	33.6	41.5	--
NuTech	6006+	00.8	42	9/20	35.4	19.5	6.0	54.3	5.0	--	--	32.6	--	--
NuTech	6005	00.5	31	9/15	36.2	19.7	0.5	54.9	1.3	--	--	27.9	--	--
NuTech	6022	0.2	39	9/20	35.4	19.4	5.0	55.1	1.8	--	58.7	47.6	53.2	--

Walsh County - Roundup Ready Soybeans (continued)

Brand	Variety	Maturity Group[1]	Plant ht.	Maturity date[2]	Protein	Oil	Lodging	Test Wt.	White Mold[3]	Yield 2007	Yield 2008	Yield 2009	Yield 2 year	Yield 3 year
			in		%	%	0-9	lbs/bu	0-9	bu/a	bu/a	bu/a	bu/a	bu/a
NuTech	6009	00.9	35	9/19	37.7	19.7	3.0	54.5	1.8	--	--	38.9	--	--
PFS	07008RR	00.8	34	9/15	35.9	19.6	1.3	54.2	0.5	61.9	57.3	43.2	50.3	54.1
PFS	1002RR	0.2	39	9/17	35.8	19.3	6.0	53.7	1.5	--	--	45.0	--	--
PFS	EX2009.008	00.8	35	9/22	37.4	18.2	5.0	54.7	5.5	--	--	20.7	--	--
PFS	1000RR	0.0	37	9/18	36.6	18.7	5.8	55.0	5.8	--	--	31.1	--	--
Pioneer Brand	90M02	0.0	40	9/20	38.0	19.1	5.5	54.6	4.3	--	--	29.7	--	--
Pioneer Brand	90Y20	0.2	39	9/21	37.3	19.2	5.3	54.8	4.5	--	--	32.6	--	--
Prairie Brand	PB-0218RR	0.2	37	9/19	35.5	19.4	5.5	54.7	1.8	--	59.0	40.8	49.9	--
Prairie Brand	PB-039X	0.3	34	9/25	37.9	18.2	1.5	55.3	4.3	--	--	22.7	--	--
Prairie Brand	PB-0498RR	0.4	31	9/21	37.1	19.0	3.0	54.4	3.8	--	60.5	26.3	43.4	--
Prairie Brand	PB-059X	0.4	36	9/26	37.1	18.9	0.8	54.1	3.8	--	--	25.3	--	--
Proseed	70-10	0.1	34	9/16	36.9	19.6	0.5	55.3	1.0	70.4	55.3	30.5	42.9	52.1
Proseed	80-20	0.2	38	9/20	35.9	19.1	4.5	54.4	1.0	--	53.9	39.6	46.8	--
Proseed	70-30	0.3	36	9/22	37.4	18.6	3.0	55.6	4.0	61.8	50.9	25.5	38.2	46.1
Proseed	60-40	0.4	37	9/25	36.2	20.2	1.3	53.0	1.5	59.7	50.9	29.7	40.3	46.8
Proseed	80-50	0.4	31	9/22	36.5	19.2	3.3	54.5	3.8	--	57.8	21.9	39.9	--
Stine	0283-4	0.2	34	9/22	38.2	18.7	1.8	54.4	5.3	--	61.5	14.0	37.8	--
Syngenta/NK Brand	S01-C9 Brand	0.1	36	9/16	37.3	19.6	2.3	54.8	1.5	--	50.5	33.2	41.9	--
Syngenta/NK Brand	S02-K3 Brand	0.2	36	9/18	36.0	19.8	3.5	55.2	2.5	--	--	39.3	--	--
Thunder Seed	29004RR	00.4	39	9/16	37.6	19.2	4.0	55.9	1.5	--	--	34.2	--	--
Thunder Seed	30005RR	00.5	38	9/20	36.6	18.9	4.0	55.1	2.5	--	--	39.1	--	--
Thunder Seed	29006RR	00.6	38	9/20	37.1	19.0	4.8	55.2	3.5	--	--	32.5	--	--
Thunder Seed	2901RR	0.1	36	9/19	36.9	18.8	5.3	54.5	4.3	--	55.4	30.1	42.8	--
Wensman Seed	W 20074RR	00.7	36	9/16	35.8	19.7	3.5	54.8	1.3	62.2	52.7	44.3	48.5	53.1
Wensman Seed	W 20092RR	00.9	34	9/15	37.3	19.9	0.8	54.9	0.8	--	--	33.4	--	--
Wensman Seed	W 2025RR	0.2	32	9/25	38.6	18.6	2.3	53.8	6.0	--	55.4	13.5	34.5	--
LSD 5%			4.3	2.9	1.3	0.8	2.7	1.1	2.6	5.3	5.1	7.5	--	--

[1]Maturity Group provided by company

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

[3]Sclerotina stem rot(white mold) rating. Visual estimate of severity of white mold. 0=no white mold, 9=severe.

Presence of white mold in the trial resulted in higher variability (C.V.%) in yield data.

Oil and protein reported at 13% moisture.

Nelson County - Roundup Ready Soybeans - 2009

Brand	Variety	Maturity Group[1]	Plant Height	Maturity date[2]	Protein	Oil	Test Weight	Yield 2009
			in		%	%	lbs/bu	bu/a
ASGROW	AG00501	00.5	23	9/15	33.1	20.0	56.7	34.9
ASGROW	AG00603	00.6	24	9/17	33.5	20.0	57.3	31.5
ASGROW	AG00901	00.9	24	9/15	34.2	19.3	56.4	36.1
ASGROW	AG0202	0.2	27	9/21	35.1	18.9	56.6	39.5
Dairyland	DSR-0101/RR	0.1	25	9/21	34.5	20.1	54.5	36.6
Dairyland	DST03-000/R2Y	0.3	27	9/25	37.2	18.3	55.6	33.6
Dyna-Gro Seed	30M05	00.5	17	9/13	34.3	20.4	55.9	28.2
Dyna-Gro Seed	32J01	0.1	23	9/15	36.3	19.9	56.4	36.0
Dyna-Gro Seed	32T03	0.3	27	9/26	35.8	19.9	53.0	32.6
G2(NuTech)	6019	0.1	25	9/19	37.4	19.3	55.5	34.5
G2(NuTech)	6033	0.3	29	9/23	36.7	19.0	55.2	31.7
G2(NuTech)	6031	0.3	23	9/20	35.2	20.3	56.9	33.8
G2(NuTech)	6049	0.4	29	9/21	33.8	20.0	56.0	36.0
Hyland Seeds	HS 02R28	0.2	24	9/18	34.2	19.2	56.9	33.1
Integra Fortified Seed	79004R	00.4	18	9/13	34.0	20.5	56.6	27.2
Integra Fortified Seed	97009R	00.9	24	9/18	34.9	20.1	55.4	34.8
Integra Fortified Seed	97014R	0.0	24	9/16	35.7	20.6	55.4	33.0
Integra Fortified Seed	79020R	0.2	28	9/21	29.0	19.6	56.7	33.9
Kruger	K-004RR	00.4	22	9/12	35.0	20.2	56.1	30.9
Kruger	K-007RR	00.7	26	9/17	35.5	19.2	56.2	35.3
Kruger	K-009+RR	00.9	25	9/17	37.2	19.7	55.9	37.5
Kruger	K-028RR	0.2	23	9/23	36.8	19.4	54.4	29.5
Kruger	K2X05A9	0.4	29	9/28	36.4	18.7	54.6	26.5
Mustang Seeds	M-0096ERR	00.9	22	9/14	37.2	19.9	55.6	31.1
Mustang Seeds	M-036RR	0.3	29	9/24	32.8	19.9	56.8	42.0
Mustang Seeds	M-047RR	0.4	26	9/26	35.7	19.6	51.4	25.8
NorthStar Genetics	NS 0021RR	00.1	20	9/15	34.7	20.3	55.4	33.4
NorthStar Genetics	NS 0034RR	00.3	19	9/14	35.6	20.4	55.8	30.7
NorthStar Genetics	NS 0084RR	00.8	24	9/14	34.8	20.0	57.4	27.2
NuTech	0090RR	00.9	24	9/17	36.2	20.3	55.8	33.3
NuTech	6006+	00.8	24	9/21	33.4	20.7	55.0	32.9
NuTech	6005	00.5	19	9/12	34.7	20.5	56.1	28.5
NuTech	6022	0.2	23	9/16	34.8	19.8	55.1	35.8
NuTech	6043	00.4	24	9/22	35.6	19.8	55.1	28.9
PFS	07008RR	00.8	24	9/18	35.6	20.2	56.2	35.9
PFS	1002RR	0.2	21	9/16	35.5	19.7	56.5	35.3
PFS	EX2009.008	00.8	24	9/18	35.8	19.3	56.6	34.3
PFS	1000RR	0.0	24	9/19	34.1	20.3	56.8	32.6
Pioneer Brand	90M02	0.0	23	9/16	35.5	20.2	57.0	26.9

Nelson County - Roundup Ready Soybeans (continued)

Brand	Variety	Maturity Group[1]	Plant Height	Maturity date[2]	Protein	Oil	Test Weight	Yield 2009
			in		%	%	lbs/bu	bu/a
Pioneer Brand	90Y20	0.2	27	9/22	37.2	19.2	54.7	33.0
Prairie Brand	PB-0218RR	0.2	20	9/15	35.0	20.0	55.6	31.1
Prairie Brand	PB-039X	0.3	26	9/25	37.6	18.3	55.0	30.6
Prairie Brand	PB-0498RR	0.4	22	9/19	33.8	20.3	55.5	29.8
Prairie Brand	PB-059X	0.4	26	9/26	36.6	18.9	54.3	32.9
Proseed	70-10	0.1	22	9/18	36.5	20.0	55.6	35.9
Proseed	80-20	0.2	22	9/21	36.1	19.4	54.6	31.5
Proseed	70-30	0.3	26	9/24	36.5	18.6	55.0	31.1
Proseed	60-40	0.4	27	9/26	34.4	20.5	50.4	22.8
Syngenta/NK Brand	S01-C9 Brand	0.1	23	9/17	36.6	19.9	55.8	29.0
Syngenta/NK Brand	S02-K3 Brand	0.2	23	9/18	33.7	20.9	56.2	30.6
Thunder Seed	29004RR	00.4	26	9/18	35.0	20.0	56.4	30.3
Thunder Seed	30005RR	00.5	25	9/22	36.3	19.2	55.3	37.0
Thunder Seed	29006RR	00.6	26	9/20	34.7	19.4	55.4	35.7
Thunder Seed	2901RR	0.1	24	9/22	34.2	20.3	54.8	32.5
Wensman Seed	W 2025RR	0.2	21	9/20	35.2	20.0	55.9	27.2
Wensman Seed	W 2030RR	0.3	25	9/24	34.6	20.5	52.2	29.7
LSD 5%			3.1	4	2.7	1.2	1.7	7.7

[1]Maturity Group provided by company

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

Oil and protein reported at 13% moisture.

Canola - Liberty Link, Clearfield Varieties - 2007-2009

Company/Brand	Variety	Type[1]	Blackleg Rating[2]	Days to First Flower			Days to End Flower			Days to Mature			% Cover		
				08	09	2yr	08	09	2yr	08	09	2 yr	08	09	2 yr
Bayer CropScience	674	H,LL,TR	R	--	49	--	--	73	--	--	103	--	--	93	--
Bayer CropScience	InVigor 5440	H,LL,TR	R	55	50	52	76	71	73	102	101	101	83	89	86
Bayer CropScience	InVigor 5550	H,LL,TR	R	54	49	51	75	72	73	100	101	100	85	91	88
Bayer CropScience	InVigor 5630	H,LL,TR	R	55	49	52	77	72	75	102	101	101	75	93	84
Bayer CropScience	InVigor 8440	H,LL,TR	R	53	48	51	73	72	72	100	101	101	83	95	89
Bayer CropScience	InVigor Health 1141	H,LL,HO	MR	--	49	--	--	74	--	--	103	--	--	94	--
Bayer CropScience	InVigor Health 1144	H,LL,HO	MR	--	48	--	--	72	--	--	102	--	--	90	--
Brett Young	5525 CL	H,CL,TR	R	--	51	--	--	74	--	--	103	--	--	80	--
Canterra Seeds	30120-B6	H,CL,TR	MR	55	52	53	76	76	76	102	105	103	53	89	71
DL Seeds	30423-D8	Syn, CL,TR	R	--	49	--	--	73	--	--	101	--	--	91	--
DL Seeds	30522-C7	H,CL,TR	R	--	49	--	--	70	--	--	100	--	--	86	--
RR Check	HyCLASS 940[3]	H,TR	R	--	47	--	--	68	--	--	99	--	--	95	--
RR Check	DKL 72-55[3]	H,TR	R	--	47	--	--	68	--	--	100	--	--	93	--
LSD 5%				0.8	0.7		1.4	1.8		1.7	1.5		10.1	5.5	

[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 - 2007-2009

		Height (in)			Oil (%)			Yield (lbs/a)				
Company/Brand	**Variety**	**08**	**09**	**2 yr**	**08**	**09**	**2yr**	**07**	**08**	**09**	**2yr**	**3yr**
Bayer CropScience	674	--	40	--	--	45.1	--	--	--	3168	--	--
Bayer CropScience	InVigor 5440	43	40	41	40.8	43.8	42.3	3178	2814	3190	3002	3061
Bayer CropScience	InVigor 5550	44	39	41	41.8	44.3	43.1	2601	2650	2568	2609	2606
Bayer CropScience	InVigor 5630	42	38	40	40.6	44.6	42.6	2667	2762	2973	2867	2801
Bayer CropScience	InVigor 8440	42	39	41	40.7	44.0	42.4	3179	2809	3443	3126	3144
Bayer CropScience	InVigor Health 1141	--	41	--	--	45.5	--	--	--	3048	--	--
Bayer CropScience	InVigor Health 1144	--	40	--	--	44.1	--	--	--	3216	--	--
Brett Young	5525 CL	--	44	--	--	43.8	--	--	--	3291	--	--
Canterra	30120-B6	43	44	44	41.1	43.3	42.2	2724	2460	3054	2757	2746
DL Seeds	30423-D8	--	41	--	--	41.4	--	--	--	3302	--	--
DL Seeds	30522-C7	--	41	--	--	43.2	--	--	--	2786	--	--
RR Check	HyCLASS 940[1]	--	40	--	--	43.3	--	--	--	3127	--	--
RR Check	DKL 72-55[1]	--	39	--	--	46.9	--	--	--	3190	--	--
LSD 5%		2.6	2.4		1.8	1.6		258	367	NS		

[1]Roundup ready check variety.

Canola - Roundup Ready - 2007-2009

Company	Variety	Type[1]	Blackleg Rating[2]	Days to First Flower			Days to End Flower			Days to Mature			Cover %[3]		
				08	09	2yr	08	09	2yr	08	09	2yr	08	09	2yr
Brett Young	6020 RR	H,TR	MR	--	47	--	--	73	--	--	102	--	--	66	--
Brett Young	6040 RR	H,TR	R	--	50	--	--	75	--	--	102	--	--	75	--
Canterra Seeds	1768S	Syn,TR	MR	--	49	--	--	73	--	--	101	--	--	84	--
Canterra Seeds	1818 RR	OP,TR	R	53	50	51	76	73	74	105	103	104	45	54	49
Canterra Seeds	1950H	H,TR	MR	--	50	--	--	74	--	--	104	--	--	63	--
Canterra Seeds	1956S	Syn,TR	R	--	49	--	--	72	--	--	102	--	--	85	--
Cargill	V1035	H,HO	R	54	49	51	72	71	71	102	100	101	86	73	79
Cargill	V1037	H,HO	R	55	50	52	75	71	73	104	102	103	83	85	84
Cargill	V2010	H,HO	R	57	50	53	77	74	75	104	102	103	65	68	66
Cargill	V2018	H,HO	MR	55	49	52	77	74	75	102	102	102	69	73	71
Cargill	V2030	H,HO	MR	55	50	52	77	74	75	103	102	103	81	75	78
Croplan Genetics	HyCLASS 712	Syn,TR	R	55	51	53	78	78	78	105	105	105	80	60	70
Croplan Genetics	HyCLASS 906	H,TR	R	54	50	52	79	75	77	105	103	104	93	64	78
Croplan Genetics	HyCLASS 921	H,TR	R	--	49	--	--	71	--	--	100	--	--	65	--
Croplan Genetics	HyCLASS 924	H,TR	R	51	48	50	78	74	76	102	101	101	85	70	78
Croplan Genetics	HyCLASS 940	H,TR	R	52	48	50	71	71	71	100	98	99	93	76	84
DEKALB	DKL 30-42	H,TR	R	53	46	49	71	69	70	100	98	99	89	90	89
DEKALB	DKL 52-41	H,TR	MR	54	48	51	73	73	73	101	100	101	78	69	73
DEKALB	DKL 72-55	H,TR	R	53	47	50	75	70	72	103	100	102	70	81	76
DL Seeds	30119-D8	H,TR	R	--	49	--	--	72	--	--	101	--	--	88	--
DL Seeds	30205-D8	H,TR	R	--	50	--	--	73	--	--	102	--	--	75	--
DL Seeds	30214-C7	H,TR	R	55	49	52	78	73	75	104	101	103	63	70	66
DL Seeds	30220-D8	H,TR	R	--	51	--	--	78	--	--	106	--	--	73	--
DL Seeds	30221-D8	H,TR	R	--	50	--	--	77	--	--	106	--	--	70	--
DL Seeds	30516-D8	H,TR	R	--	52	--	--	81	--	--	107	--	--	45	--
DL Seeds	H7047	H,TR	R	--	49	--	--	74	--	--	101	--	--	85	--
DL Seeds	H8109	H,TR	R	--	50	--	--	76	--	--	103	--	--	85	--
Integra Fortified Seed	7121R	H,TR	R	--	47	--	--	70	--	--	100	--	--	81	--
Integra Fortified Seed	IX08-7321R	H,TR	R	53	49	51	75	71	73	102	101	102	76	81	79

Canola - Roundup Ready - 2007-2009 (continued)

Company	Variety	Type[1]	Blackleg Rating[2]	Days to First Flower			Days to End Flower			Days to Mature			Cover %[3]		
				08	09	2yr	08	09	2yr	08	09	2yr	08	09	2yr
Integra Fortified Seed	IX09-7426R	H,TR	R	--	49	--	--	73	--	--	100	--	--	73	--
Integra Fortified	IX09-7427R	H,TR	R	--	49	--	--	72	--	--	101	--	--	80	--
Monsanto	G64034	H,TR	R	55	49	52	76	76	76	104	104	104	95	65	80
Monsanto	G72522	H,TR	R	--	50	--	--	72	--	--	100	--	--	63	
Monsanto	G72643	H,TR	R	--	51	--	--	77	--	--	102	--	--	59	--
Monsanto	G88006	H,TR	R	--	49	--	--	72	--	--	102	--	--	63	--
Monsanto	G88007	H,TR	R	--	47	--	--	68	--	--	101	--	--	78	--
Monsanto	G88058	H,TR	R	--	49	--	--	71	--	--	101	--	--	70	--
Monsanto	G88061	H,TR	R	--	48	--	--	71	--	--	100	--	--	76	--
Monsanto	G88066	H,TR	R	--	50	--	--	72	--	--	100	--	--	73	--
Monsanto	G88075	H,TR	R	--	48	--	--	72	--	--	103	--	--	64	--
Monsanto	G88115	H,TR	R	--	46	--	--	71	--	--	101	--	--	79	--
Monsanto	G88117	H,TR	R	--	48	--	--	70	--	--	102	--	--	85	--
Monsanto	G88124	H,TR	R	--	48	--	--	69	--	--	102	--	--	78	--
Monsanto	G88930	H,TR	R	--	48	--	--	70	--	--	101	--	--	81	--
Pioneer Brand	45H28	H,TR	R	53	48	50	73	70	71	105	101	103	93	78	85
Pioneer Brand	45S51	H,TR	R	--	47	--	--	70	--	--	100	--	--	86	--
Proseed	RR25 CALIBER	Syn,TR	R	--	49	--	--	74	--	--	101	--	--	55	--
Proseed	RR30 CALIBER	Syn,TR	R	56	53	54	78	80	79	105	107	106	73	53	63
Proseed	RR50 CALIBER	H,TR	R	52	49	51	76	73	74	103	102	102	68	63	65
LSD 5%				1.0	1.3		1.6	2.9		NS	2.0		17	23	

[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 - 2007-2009

		Height (in)			Lodging (0-9)			Oil (%)			Yield (lbs/a)				
Company	**Variety**	**08**	**09**	**2yr**	**08**	**09**	**2yr**	**08**	**09**	**2yr**	**07**	**08**	**09**	**2yr**	**3yr**
Brett Young	6020 RR	--	35	--	--	1.3	--	--	46.4	--	--	--	3100	--	--
Brett Young	6040 RR	--	38	--	--	0.8	--	--	42.9	--	--	--	3070	--	--
Canterra Seeds	1768S	--	37	--	--	1.3	--	--	43.4	--	--	--	2883	--	--
Canterra Seeds	1818 RR	40	33	37	0.8	1.8	1.3	43.8	44.7	44.3	2240	3090	2743	2917	2691
Canterra Seeds	1950H	--	40	--	--	1.8	--	--	41.4	--	--	--	2889	--	--
Canterra Seeds	1956S	--	38	--	--	0.8	--	--	44.6	--	--	--	3122	--	--
Cargill	V1035	43	35	39	0.3	2.3	1.3	45.5	44.6	45.1	2606	3460	2737	3098	2934
Cargill	V1037	46	35	41	1.5	3.3	2.4	41.8	42.4	42.1	--	3507	2780	3143	--
Cargill	V2010	44	38	41	0.5	2.0	1.3	42.2	42.5	42.4	2866	3019	2886	2952	2924
Cargill	V2018	45	36	40	0.0	1.3	0.7	44.6	43.3	44.0	2679	2743	3048	2895	2823
Cargill	V2030	46	40	43	0.0	2.8	1.4	44.9	43.1	44.0	--	3464	2913	3188	--
Croplan Genetics	HyCLASS 712	44	36	40	0.0	0.8	0.4	42.7	43.9	43.3	2942	3043	3402	3222	3129
Croplan Genetics	HyCLASS 906	46	40	43	0.0	0.8	0.4	42.2	41.9	42.1	2523	3592	2863	3228	2993
Croplan Genetics	HyCLASS 921	--	35	--	--	1.8	--	--	46.8	--	--	--	2596	--	--
Croplan Genetics	HyCLASS 924	42	36	39	0.0	0.8	0.4	43.3	41.6	42.5	2953	3021	2762	2891	2912
Croplan Genetics	HyCLASS 940	41	35	38	0.0	1.0	0.5	44.6	44.2	44.4	2870	3321	2984	3153	3059
DEKALB	DKL 30-42	40	35	38	1.0	0.5	0.8	45.3	44.8	45.1	--	3332	3219	3275	--
DEKALB	DKL 52-41	42	36	39	0.0	1.0	0.5	43.9	43.8	43.9	3016	3004	3188	3096	3069
DEKALB	DKL72-55	42	36	39	1.0	1.0	1.0	45.7	45.8	45.8	--	3502	3373	3437	--
DL Seeds	30119-D8	--	38	--	--	2.3	--	--	42.1	--	--	--	3058	--	--
DL Seeds	30205-D8	--	37	--	--	1.0	--	--	43.4	--	--	--	2894	--	--
DL Seeds	30214-C7	47	36	42	0.0	1.3	0.7	42.3	43.5	42.9	--	3313	2778	3046	--
DL Seeds	30220-D8	--	40	--	--	0.5	--	--	42.8	--	--	--	3228	--	--
DL Seeds	30221-D8	--	41	--	--	0.0	--	--	45.9	--	--	--	3589	--	--
DL Seeds	30516-D8	--	42	--	--	0.0	--	--	44.7	--	--	--	3248	--	--
DL Seeds	H7047	--	40	--	--	0.0	--	--	43.8	--	--	--	3270	--	--
DL Seeds	H8109	--	40	--	--	1.0	--	--	41.6	--	--	--	3046	--	--
Integra Fortified Seed	7121R	--	38	--	--	0.8	--	--	42.0	--	--	--	3334	--	--
Integra Fortified Seed	IX08-7321R	43	37	40	0.5	2.0	1.3	44.4	43.1	43.8	--	2836	2783	2809	--

Canola - Roundup Ready - 2007-2009 (continued)

		Height (in)			Lodging (0-9)			Oil (%)			Yield (lbs/a)				
Company	**Variety**	**08**	**09**	**2yr**	**08**	**09**	**2yr**	**08**	**09**	**2yr**	**07**	**08**	**09**	**2yr**	**3yr**
Integra Fortified Seed	IX09-7426R	--	37	--	--	1.0	--	--	43.5	--	--	--	2459	--	--
Integra Fortified Seed	IX09-7427R	--	38	--	--	2.3	--	--	43.2	--	--	--	2544	--	--
Monsanto	G64034	45	39	42	0.8	0.0	0.4	44.4	44.3	44.4	--	3780	3298	3539	--
Monsanto	G72522	--	35	--	--	0.5	--	--	45.2	--	--	--	2963	--	--
Monsanto	G72643	--	36	--	--	0.8	--	--	45.0	--	--	--	3245	--	--
Monsanto	G88006	--	34	--	--	0.5	--	--	46.4	--	--	--	3467	--	--
Monsanto	G88007	--	38	--	--	1.3	--	--	45.8	--	--	--	3279	--	--
Monsanto	G88058	--	35	--	--	0.0	--	--	42.9	--	--	--	3537	--	--
Monsanto	G88061	--	35	--	--	0.5	--	--	44.8	--	--	--	3272	--	--
Monsanto	G88066	--	36	--	--	1.3	--	--	45.0	--	--	--	2810	--	--
Monsanto	G88075	--	34	--	--	1.3	--	--	44.9	--	--	--	3192	--	--
Monsanto	G88115	--	37	--	--	1.8	--	--	45.7	--	--	--	3190	--	--
Monsanto	G88117	--	39	--	--	1.8	--	--	45.8	--	--	--	3434	--	--
Monsanto	G88124	--	39	--	--	2.0	--	--	46.4	--	--	--	3228	--	--
Monsanto	G88930	--	36	--	--	1.3	--	--	45.8	--	--	--	3322	--	--
Pioneer Brand	45H28	46	37	41	0.8	1.8	1.3	45.3	45.1	45.2	--	3634	2714	3174	--
Pioneer Brand	45S51	--	38	--	--	2.3	--	--	42.1	--	--	--	2681	--	--
Proseed	RR25 CALIBER	--	34	--	--	1.3	--	--	43.7	--	--	--	2340	--	--
Proseed	RR30 CALIBER	47	41	44	0.0	1.3	0.7	42.1	42.5	42.3	2598	3107	3096	3101	2934
Proseed	RR50 CALIBER	42	38	40	1.3	1.0	1.2	43.1	43.0	43.1	2465	3029	2763	2896	2752
LSD 5%		3.2	3.6		1.0	1.2		2.0	2.1		346	522	392		

Field Peas - Langdon 2006-2009

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 %
	06	07	08	09	3yr	06	07	08	09	3yr	07	08	09	3yr	07	08	09	2yr	07	08	09	3yr	07	08	09	3yr	07	08	09	3yr	09
Yellow Cotyledon Type																															
CDC Mozart	71	53	70	90	71	62.2	61.7	62.6	60.8	61.7	208	240	250	233	56	62	62	60	98	99	112	103	6.8	4.8	8.5	6.7	35	27	36	33	22.1
DS Admiral	73	56	67	80	68	61.8	61.6	62.7	62.0	62.1	224	244	280	249	57	63	61	61	98	98	107	101	5.5	0.5	4.6	3.5	37	29	38	35	21.4
Eclipse	69	59	75	92	75	61.8	61.9	62.4	60.8	61.7	224	284	264	257	56	64	61	60	96	103	113	104	5.8	3.0	6.9	5.2	34	31	36	34	23.5
LAN4188	--	--	75	89	--	--	--	63.0	62.5	--	--	272	307	--	--	63	61	--	--	102	108	--	--	3.0	5.9	--	--	33	38	--	21.8
LAN4193	--	--	70	89	--	--	--	62.1	60.7	--	--	252	263	--	--	64	61	--	--	101	109	--	--	2.8	6.2	--	--	31	36	--	22.0
Spider	--	--	78	103	--	--	--	62.9	61.3	--	--	284	276	--	--	63	61	--	--	99	111	--	--	1.5	7.2	--	--	33	39	--	22.4
Agassiz	--	--	--	96	--	--	--	--	60.6	--	--	--	262	--	--	--	61	--	--	--	110	--	--	--	6.0	--	--	--	43	--	21.9
CDC Centennial	--	--	--	100	--	--	--	--	60.6	--	--	--	297	--	--	--	62	--	--	--	112	--	--	--	7.8	--	--	--	37	--	22.3
CDC Golden	--	--	--	82	--	--	--	--	62.3	--	--	--	241	--	--	--	61	--	--	--	112	--	--	--	6.8	--	--	--	39	--	22.6
CDC Meadow	--	--	--	84	--	--	--	--	61.6	--	--	--	242	--	--	--	60	--	--	--	107	--	--	--	5.3	--	--	--	37	--	21.6
Commander	--	--	--	91	--	--	--	--	61.2	--	--	--	209	--	--	--	62	--	--	--	111	--	--	--	7.8	--	--	--	40	--	22.7
LAN 4195	--	--	--	93	--	--	--	--	61.0	--	--	--	310	--	--	--	62	--	--	--	109	--	--	--	7.3	--	--	--	36	--	22.3
LAN 4200	--	--	--	93	--	--	--	--	60.8	--	--	--	258	--	--	--	62	--	--	--	108	--	--	--	6.8	--	--	--	34	--	21.9
Noble	--	--	--	71	--	--	--	--	61.7	--	--	--	232	--	--	--	62	--	--	--	119	--	--	--	5.9	--	--	--	37	--	24.1
Polstead	--	--	--	92	--	--	--	--	61.9	--	--	--	279	--	--	--	61	--	--	--	114	--	--	--	6.4	--	--	--	32	--	22.7
Puma	--	--	--	92	--	--	--	--	62.4	--	--	--	277	--	--	--	61	--	--	--	112	--	--	--	7.7	--	--	--	39	--	22.0
PUSA 09003	--	--	--	97	--	--	--	--	61.9	--	--	--	265	--	--	--	61	--	--	--	112	--	--	--	5.9	--	--	--	40	--	22.3
PUSA 09004	--	--	--	102	--	--	--	--	62.7	--	--	--	306	--	--	--	62	--	--	--	109	--	--	--	3.7	--	--	--	38	--	21.9
Summit	--	--	--	91	--	--	--	--	61.8	--	--	--	235	--	--	--	61	--	--	--	108	--	--	--	6.3	--	--	--	38	--	21.8
SW E 5083	--	--	--	98	--	--	--	--	60.4	--	--	--	292	--	--	--	60	--	--	--	109	--	--	--	7.5	--	--	--	36	--	22.5
Thunderbird	--	--	--	95	--	--	--	--	61.7	--	--	--	244	--	--	--	65	--	--	--	112	--	--	--	7.2	--	--	--	41	--	22.5
Tudor	--	--	--	84	--	--	--	--	61.7	--	--	--	271	--	--	--	67	--	--	--	112	--	--	--	7.2	--	--	--	39	--	22.8
Alezon	--	--	73	--	--	--	--	62.3	--	--	--	244	--	--	--	62	--	--	--	98	--	--	--	6.8	--	--	--	29	--	--	--
LAN4190	--	--	76	--	--	--	--	63.6	--	--	--	284	--	--	--	63	--	--	--	103	--	--	--	4.0	--	--	--	34	--	--	--
LAN4194	--	--	64	--	--	--	--	61.0	--	--	--	300	--	--	--	61	--	--	--	98	--	--	--	5.5	--	--	--	30	--	--	--
APCM 714202	63	50	--	--	--	62.5	62.7	--	--	--	256	--	--	--	64	--	--	--	98	--	--	--	3.8	--	--	--	41	--	--	--	--
Ceb 4152	74	65	--	--	--	61.9	61.6	--	--	--	264	--	--	--	56	--	--	--	101	--	--	--	3.8	--	--	--	41	--	--	--	--
Ceb 4159	73	71	--	--	--	62.1	62.0	--	--	--	244	--	--	--	57	--	--	--	95	--	--	--	6.8	--	--	--	35	--	--	--	--
Ceb 4163	68	57	--	--	--	61.6	60.9	--	--	--	204	--	--	--	57	--	--	--	94	--	--	--	5.5	--	--	--	32	--	--	--	--
Fusion	72	53	--	--	--	61.6	61.5	--	--	--	260	--	--	--	56	--	--	--	94	--	--	--	5.3	--	--	--	33	--	--	--	--
Miami	71	59	--	--	--	61.9	61.1	--	--	--	220	--	--	--	57	--	--	--	94	--	--	--	6.5	--	--	--	31	--	--	--	--
PS01102958	62	48	--	--	--	61.5	61.5	--	--	--	208	--	--	--	59	--	--	--	97	--	--	--	6.8	--	--	--	33	--	--	--	--
SW Capri	74	53	--	--	--	62.1	61.4	--	--	--	196	--	--	--	57	--	--	--	94	--	--	--	6.0	--	--	--	32	--	--	--	--
SW Circus	66	47	--	--	--	62.0	61.3	--	--	--	192	--	--	--	58	--	--	--	96	--	--	--	5.5	--	--	--	34	--	--	--	--

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 %
	06	07	08	09	3yr	06	07	08	09	3yr	07	08	09	3yr	07	08	09	3yr	07	08	09	3yr	07	08	09	3yr	07	08	09	3yr	09
Yellow Cotyledon Type																															
SW Marquee	70	54	--	--	--	62.0	61.8	--	--	--	184	--	--	--	57	--	--	--	99	--	--	--	3.3	--	--	--	38	--	--	--	--
SW Midas	69	54	--	--	--	62.2	61.8	--	--	--	198	--	--	--	58	--	--	--	92	--	--	--	7.0	--	--	--	32	--	--	--	--
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	--	--	--	--
Tudor	--	59	--	--	--	--	61.3	--	--	--	228	--	--	--	61	--	--	--	98	--	--	--	5.3	--	--	--	35	--	--	--	--
APCM 8302	55	--	--	--	--	62.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
APCM 714204	57	--	--	--	--	62.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ceb 4148	73	--	--	--	--	61.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Ceb 4160	65	--	--	--	--	62.7	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Green Cotyledon Type																															
CDC Striker	--	59	73	89	74	--	62.3	63.8	63.0	63.0	212	264	276	251	58	64	61	61	98	101	107	102	5.5	1.5	5.5	4.2	35	29	36	33	22.5
Cruiser	65	54	60	81	65	61.8	61.6	61.9	60.7	61.4	196	224	230	217	56	63	61	60	94	97	109	100	5.3	4.8	7.5	5.9	33	28	37	33	22.2
Majoret	62	61	74	92	76	61.5	61.8	62.1	62.3	62.1	200	220	231	217	58	64	62	61	95	100	112	102	5.5	5.8	7.0	6.1	34	27	36	32	22.6
CDC Sage	--	--	--	77	--	--	--	--	61.0	--	--	--	196	--	--	--	62	--	--	--	110	--	--	--	7.5	--	--	--	38	--	22.0
Cooper	--	--	--	93	--	--	--	--	61.5	--	--	--	311	--	--	--	66	--	--	--	114	--	--	--	7.0	--	--	--	37	--	21.9
LAN 1103	--	--	--	84	--	--	--	--	61.9	--	--	--	300	--	--	--	62	--	--	--	110	--	--	--	5.1	--	--	--	37	--	21.6
Matrix	--	--	70	--	--	--	--	61.9	--	--	--	296	--	--	--	65	--	--	--	100	--	--	--	2.5	--	--	--	26	--	--	--
Ceb 1093	74	66	--	--	--	62.0	61.3	--	--	--	252	--	--	--	59	--	--	--	96	--	--	--	6.5	--	--	--	34	--	--	--	--
Cooper	71	58	--	--	--	61.6	61.3	--	--	--	264	--	--	--	61	--	--	--	97	--	--	--	4.8	--	--	--	35	--	--	--	--
Nitouche	69	63	--	--	--	60.9	61.2	--	--	--	268	--	--	--	58	--	--	--	96	--	--	--	3.3	--	--	--	36	--	--	--	--
Camry	--	56	--	--	--	--	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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
PS99102238	57	--	--	--	--	61.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Misc. Type																															
CDC Tucker*	--	--	--	74	--	--	--	--	62.0	--	--	--	174	--	--	--	63	--	--	--	119	--	--	--	6.5	--	--	--	40	--	24.7
LSD 5%	6.0	8.0	5.5	6.8		0.5	0.5	0.5	1.0		--	--	--		0.8	0.6	0.6			5.0	1.8		1.8	2.4	1.8		3	2	3		0.5

*Forage

Mustard

Variety	Yield (lbs/a)						Days to Flower						Lodging (0-9)						Height (in)						Disease[1]
Yellow	05	06	07	08	09	3yr	05	06	07	08	09	3yr	05	06	07	08	09	3yr	05	06	07	08	09	3yr	09
AC Pennant	1574	1952	1753	1777	1288	1606	23	40	42	47	37	42	0	0	2.3	0.0	0	0.8	43	42	46	42	41	43	6.8
Ace	1416	1928	1659	1951	1714	1775	24	41	41	47	37	42	0	0	3.8	0.0	0	1.3	44	45	47	44	44	45	2.8
Andante	1689	2086	1766	2146	2057	1990	23	40	41	47	37	42	0	0	3.3	0.0	0	1.1	44	46	44	43	42	43	2.8
Tilney	1074	1851	1836	2004	1857	1899	23	40	40	47	36	41	0	0	2.8	0.5	0	1.1	44	44	44	43	42	43	3.5
Forge	2803	--	2514	2361	2086	2320	27	--	46	51	44	47	0	--	4.0	0.3	0	1.4	52	--	49	52	52	51	0.0
Brown	--	--	1486	2106	1923	1838	--	--	48	51	44	47	--	--	7.3	0.0	0	2.4	--	--	44	49	50	48	0.3
Duchess	--	--	2089	2278	1900	2089	--	--	47	50	44	47	--	--	8.0	0.3	0	2.8	--	--	49	48	49	49	0.0
LSD 5%	300	NS	381	325	440		0.7	NS	0.9	0.8	1.0		--	NS	2.2	NS	--		2.2	2.5	NS	2.5	3.5		2.2

[1]Disease was primarily sclerotinia.

Buckwheat

	Yield (lbs/a)					Test Weight (lbs/bu)					Height (in)					Lodging (0-9)				
Variety	06	07	08	09	4yr	06	07	08	09	4yr	06	07	08	09	4yr	06	07	08	09	4yr
Koma	3083	2386	1081	2929	2370	47.4	49.1	43.3	50.7	47.6	51	41	44	45	45	7.8	1.3	3.8	2.0	3.7
Manor	2710	2342	953	2840	2211	45.8	48.1	42.4	48.0	46.1	52	42	42	43	45	7.3	0.8	2.5	1.0	2.9
Koto	2637	--	--	3176	--	46.8	--	--	50.7	--	54	--	--	46	--	6.3	--	--	0.3	--
Mancan	3169	2282	1358	--	--	46.3	48.8	43.3	--	--	51	41	46	--	--	8.0	1.0	3.0	--	--
LSD 5%	758	NS	NS	NS		NS	0.7	1.5	1.1		3.2	NS	NS	NS		1.4	NS	NS	NS	

Camelina

Variety	Yield (lbs/a)			Days to Flower			Test Wt. (lb/bu)	Height (in)			Oil (%)		
	08	**09**	**2yr**	**08**	**09**	**2yr**	**09**	**08**	**09**	**2yr**	**08**	**09**	**2yr**
Blaine Creek	2660	2208	2434	53	45	49	53.0	36.1	33.6	34.9	36.4	36.7	36.6
Calina	2555	2360	2457	53	46	49	52.5	36.5	33.3	34.9	36.1	36.9	36.5
Celine	2444	2242	2343	55	47	51	52.9	37.6	33.1	35.4	36.2	37.7	37.0
Galina	2706	2413	2559	53	45	49	52.0	35.7	33.0	34.4	36.2	36.8	36.5
Ligena	2429	2316	2372	52	44	48	51.3	37.9	34.0	36.0	37.8	38.3	38.1
Robinson	2373	2302	2338	53	44	49	51.9	33.0	34.3	33.7	36.9	36.7	36.8
Suneson	2603	2169	2386	52	43	47	53.1	35.4	33.1	34.3	37.9	37.5	37.7
CO 46	2643	2174	2408	49	42	45	50.1	34.9	32.5	33.7	37.1	37.2	37.2
Co 54-97	2593	2260	2426	51	44	47	52.3	36.1	34.1	35.1	36.4	36.6	36.5
LSD 5%	NS	NS		1.2	1.0		1.7	1.5	NS		NS	NS	

2009 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----------			
Hayes (Barley)	3.3	3.9	10.9	32	72	9-Sep	9.5	55	42	62
Haybet (Barley)	4.0	4.7	13.2	32	69	9-Sep	7.4	58	39	58
Everleaf (Oat)	3.3	3.9	11.1	43	80	9-Sep	9.0	49	47	65
Morton (Oat)	4.6	5.4	15.2	49	73	9-Sep	7.5	47	49	68
Morton+Arvike (Oat+Pea)	4.5	5.4	15.1	47	76	9-Sep	8.2	50	46	63
Mean	3.9	4.6	13.1	41	74					
C.V. %	9.0	8.7	8.9	4.9	2.2					
LSD 5%	0.5	0.6	1.8	3.1	2.5					

Planting Date: May 28.

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)	4.3	5.1	14.4	52	68	26-Sep	7.3	51	45	65
Nutri+Plus BMR (Sorghum/sudan)	4.2	5.0	14.1	81	73	26-Sep	5.8	58	39	63
BMR Sweething (Sorghum/sudan)	3.6	4.2	11.9	70	74	26-Sep	8.2	58	39	66
Mean	4.0	4.7	13.5	68	72					
C.V. %	10.3	10.3	9.9	4.1	2.9					
LSD 5%	NS	NS	NS	4.8	3.7					

Planting Date: May 28.

Previous Crop: Soybean

Pearl Millet and Red Proso Milliet were planted but plant densities were to low for yield determination.

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 2007 growing season are listed below:

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

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Bryan Hanson	Agronomist
John Lukach	Extension Area Specialist/Agronomy
Scott Halley	Crop Protection
Rodney Armstrong	Adult Farm Business Management Instructor, LRSC
Richard Wilhelmi	Research Technician
Kevin Beauchamp	Research Technician
James Chaput	Research Technician
Kevin Misek	Research Specialist
Sharon Ring	Administrative Assistant and Horticulture
Ron Beneda	Cavalier County Extension Agent
Macine Lukach	Cavalier County Extension Agent

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