



Langdon
Research Extension
Center

**NORTH DAKOTA
STATE UNIVERSITY**

2011
Annual Research
Report No. 86
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NDSU NORTH DAKOTA
STATE UNIVERSITY

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The 2011 annual research report is intended to provide producers information to aid in selecting varieties and/or hybrids. Variety information and research reports on crop disease and production can also be found at our website www.ag.ndsu.edu/langdonrec/. Variety trial results from all NDSU Research Extension Centers and the Main Station at Fargo, along with crop extension bulletins, can be accessed on the web at www.ag.ndsu.edu/varietytrials/.

Choosing a variety is one of the most important decisions a producer makes in successful crop production. Characteristics to consider in selecting a variety may include yield potential, disease resistance, protein content when grown with proper fertility, straw strength, plant height, test weight, yield stability across years and locations, 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.

The agronomic data presented in this publication are from replicated research plots using experimental designs that enable the use of statistical analysis. The trials are designed so that "real" yield and agronomic differences can be statistically separated from differences that occur by chance. The least significant difference (LSD) values given in the 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 two varieties is less than 5 bushels, they are not significantly different from one another. If there is a "NS" for LSD 5% value it means there was no real difference between any varieties or the trial was too variable to detect a real difference. The CV stands for coefficient of variation and is expressed as a percentage. The CV is a measure of variability in the trial. Large CVs mean that a large amount of variation could not be attributed to differences in the varieties or agronomic characteristic.

The NDSU Langdon Research Extension Center, in addition to its on-station research program, conducted variety research trails at five off-station locations in 2011. Trial locations were at Cavalier, Park River, Voss, Lakota, Devils Lake, Cando and Willow City. These locations are in cooperation with the farmer, the Extension Service and the County Agricultural Improvement Association.

2011 Weather Summary

Fall recharge at Langdon for September through October 2010 was 7.32 inches, 4.09 inches above normal. Precipitation from November 2010 through March 2011 was 1.9 inches, 1.31 inches below normal. Snowfall for the 2010-2011 was 58.2 inches, 20.4 inches above normal. Spring planting was delayed until the latter half of May because of the saturated soil conditions. Prevented plant acres for the nine counties in northeast North Dakota was 772,000 acres. Rainfall was generally above normal across the region April-September except for most of Cavalier County, western Walsh and extreme eastern Ramsey County. Temperatures were below normal in April-May, near normal in June and above normal July-August. This was especially favorable for the warm season crops because of the late planting. Yields varied considerably across the region but given the late planting date were generally fair to good. Harvest conditions were excellent throughout the fall. A frost/freeze September 14th and 15th ended the growing season around the region. The warmer than normal temperatures starting in July prevented serious crop damage in the warm season crops.

2011 Crop Management - Langdon						
Field Trial	Previous Crop	Seeding Rate Unit/Acre	Yield Goal	Planting Date	Harvest Date	Row Spacing
Barley	drybean	1.25 million pls	120 bu	May 18	Aug. 23	6
Camelina	soybean	5 lbs	1500 lb	May 19	Aug. 24	6
Canola - LL, CL	soybean	610,000 pls	2500 lb	May 25	Aug. 31	6
Canola - RR	soybean	610,000 pls	2500 lb	May 25	Aug. 31	6
Corn	wheat	28,000 thinned	110 bu	May 16	Oct. 20	30
Durum	soybean	1.50 million pls	60 bu	May 17	Sept. 7	6
Drybean	wheat	70-90,000 pls	2500 lb	June 2	Sept. 26	30
Field Pea	soybean	300,000 pls	60 bu	May 19	Aug. 30	6
Flax	soybean	2.8 million pls	40 bu	May 19	Sept. 19	6
HRSW	soybean	1.50 million pls	60 bu	May 17	Sept. 6	6
HRWW	canola	1.2 million pls	100 bu	Oct.6,2010	Aug.15	7
Oats	soybean	1.0 million pls	120 bu	May 17	Aug. 25	6
Soybean - Conventional	soybean	200,000 pls	60 bu	May 19	Sept. 29	6
Soybean - RR	wheat	200,000 pls	60 bu	May 20	Sept. 29	6
Sunflower - Confection	wheat	17,000 thinned	2500 lb	June 2	Oct. 12	30
Sunflower-Oil	Wheat	20,000 thinned	2500 lb	June 2	Oct. 13	30
Soil Type - Svea-Barnes loam						

Special thanks to our local cooperators and Extension Agents for their efforts in our off-station variety testing.

Allan Wood-Cando
 Crystal Martodam -Towner County Agent
 Bill Hodous - Ramsey County Agent
 Dave Hankey - Park River
 Brad Brummond - Walsh County Agent
 Kent Schluchter - Cavalier
 Lesley Lubenow - Pembina County Agent
 Scott Nelson – Lakota
 Lucas Walter - Nelson County Agent
 Dave Biderdorf – Willow City
 Tim Semler – Bottineau County Agent
 Jason Hanson, Winfield Solutions – Devils Lake
 Lucas Walter - Nelson County Agent

2011 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	drybean	1.50 million pls	60 bu	June 3	Aug. 26	6
Barley	drybean	1.25 million pls	100 bu	June 3	Aug. 26	6
Soybeans	drybean	200,000 pls	60 bu	June 3	Sept. 30	6
Drybean	drybean	70,000-90,000 pls	2000 lb	June 3	Sept. 26	30
Park River, Voss (Walsh)						
HRSW	fallow	1.50 million pls	60 bu	May 6	Aug. 18	6
Soybean (Voss)	wheat	200,000 pls	60 bu	June 1	Sept. 28	6
Lakota (Nelson)						
HRSW	canola	1.50 million pls	60 bu	May 6	Aug. 18	6
Durum	canola	1.50 million pls	60 bu	May 6	Aug. 18	6
Soybean	wheat	200,000 million pls	60 bu	June 6	Oct. 3	6
Cando (Towner)						
HRSW	soybean	1.50 million pls	60 bu	May 26	Aug. 24	6
Durum	soybean	1.50 million pls	60 bu	May 26	Aug. 24	6
Barley	soybean	1.25 million pls	100 bu	May 26	Aug. 24	6
Devils Lake(Ramsey)						
HRWW	canola	1.2 million pls	100 bu	Sept.29,10	Aug. 4	7
Willow City(Bottineau)						
HRWW	canola	1.2 million pls	100 bu	Sept.30,10	Aug.23	7
Location	Soil Type					
Cavalier	Fargo silty clay					
Park River, Voss	Glyndon silt loam,					
Lakota	Hamerly-Wyard loam –soybeans; small grains – Barnes loam					
Cando	Barnes loam					

pls=pure live seeds

**Record of Climatological Observation
Langdon, ND**

	Precipitation		Dep. from		Temperature		Dep. from
	Normal*	2011	Normal		Normal*	2011	Normal
April	1.24	1.60	+0.36	April	38.2	36.6	-1.6
May	2.27	2.48	+0.21	May	51.5	49.5	-2.0
June	3.23	3.08	-0.15	June	60.8	60.3	-0.5
July	2.86	2.67	-0.19	July	66.1	68.6	+2.5
August	2.61	0.80	-1.81	August	64.4	66.9	+2.5
September	2.02	3.99	+1.97	Sept.	54.3	56.8	+2.5
Total	14.23	14.62	0.39	Ave.	55.9	56.5	-0.6

*109 year average

Monthly Growing Degree Days and Normals-Langdon

	Wheat Growing Degree Days			Corn Growing Degree Days			Sunflower Growing Degree Days		
	2011	Normal	Deviation	2011	Normal	Deviation	2011	Normal	Deviation
April	229	263	-34	--	--	--	--	--	--
May	555	638	-83	157	242	-85	260	337	-77
June	864	872	-8	370	366	+4	529	525	+4
July	1066	998	+68	563	479	+84	752	665	+87
August	1008	937	+76	499	441	+58	675	617	+58
September	693	640	+53	294	241	+53	419	334	+85
Total	4415	4348	+67	1883	1769	+114	2635	2478	+157

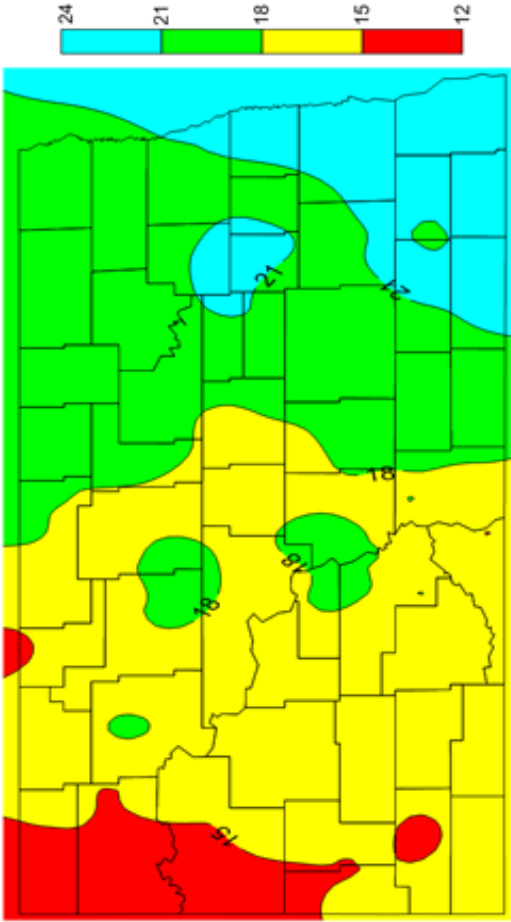
Frost Dates, Langdon and Selected Cities

	Last Spring Frost		First Fall Frost		Frost Free Days	
	32°F	28°F	32°F	28°F	32°F	28°F
Langdon						
Normal	21-May	8-May	17-Sep	28-Sep	118	142
2011	26-May	2-May	14-Sep	14-Sep	111	135
Cavalier						
Normal	16-May	5-May	23-Sep	3-Oct	129	151
2011	26-May	26-May	14-Sep	14-Sep	111	111
Grafton						
Normal	9-May	30-Apr	24-Sep	4-Oct	138	157
2011	2-May	1-May	14-Sep	15-Sep	135	137
Lakota						
Normal	10-May	10-Apr	26-Sep	6-Oct	138	158
2011	2-May	2-May	15-Sep	18-Oct	136	169

Normals are from the NWS, 2011 frost dates from nearest reporting NDAWN station.

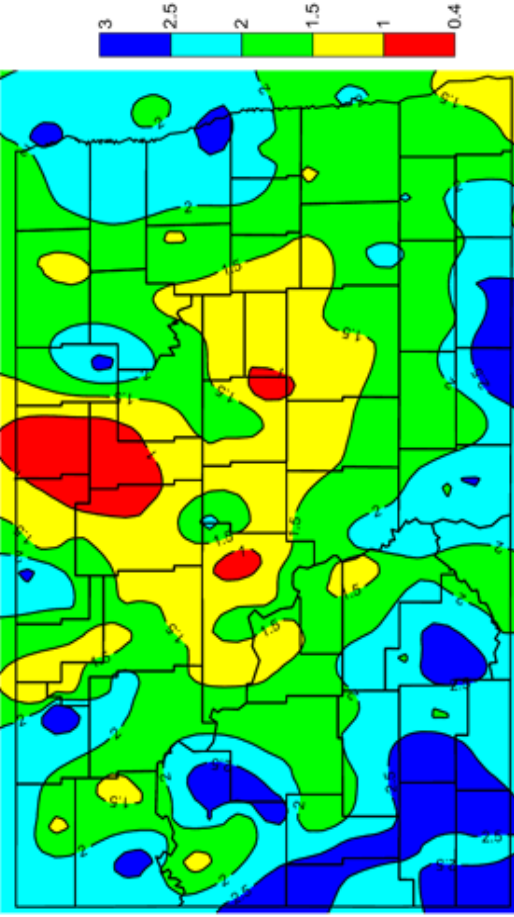
North Dakota Annual 1981-2010 Precipitation (inches)

(Data from NWS Cooperative Network)



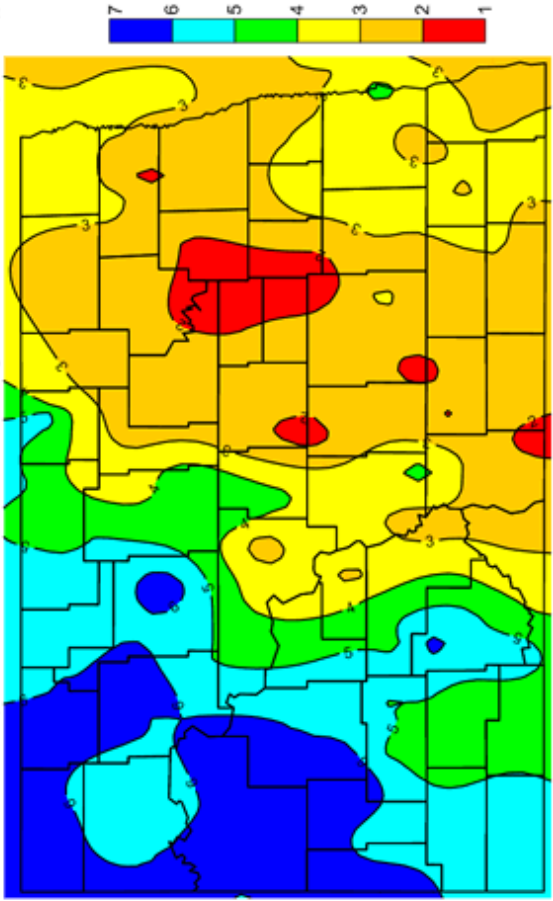
North Dakota April 2011 Precipitation (inches)

(Data from NWS Cooperative Network and North Dakota Agricultural Weather Network (NDAWN))



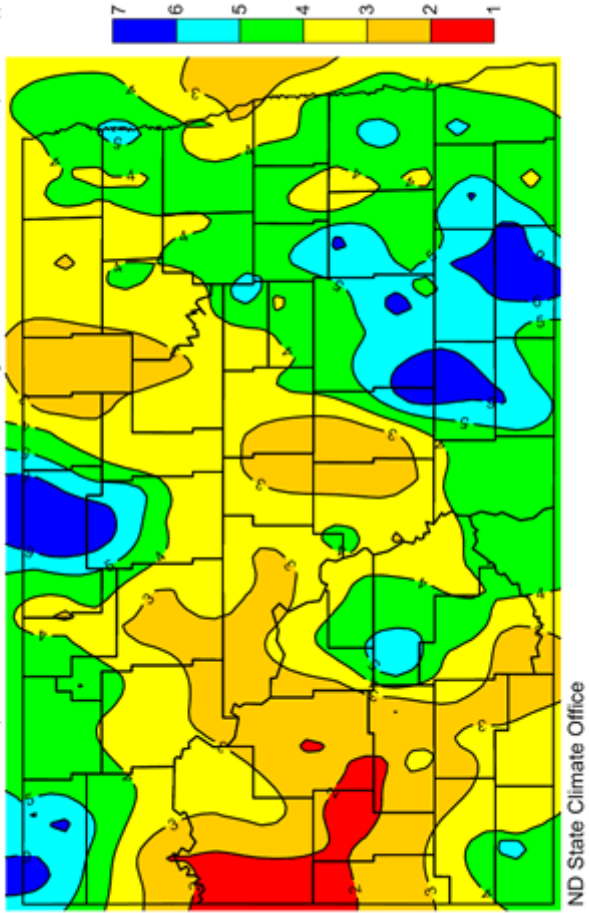
North Dakota May 2011 Precipitation (inches)

(Data from NWS Cooperative Network and North Dakota Agricultural Weather Network (NDAWN))



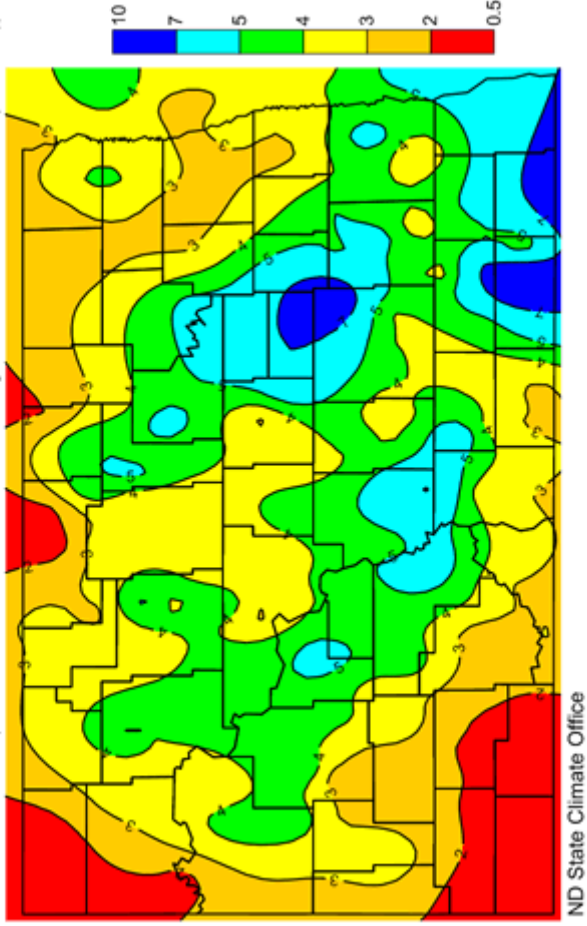
North Dakota June 2011 Precipitation (inches)

(Data from NWS Cooperative Network and North Dakota Agricultural Weather Network (NDAWN))



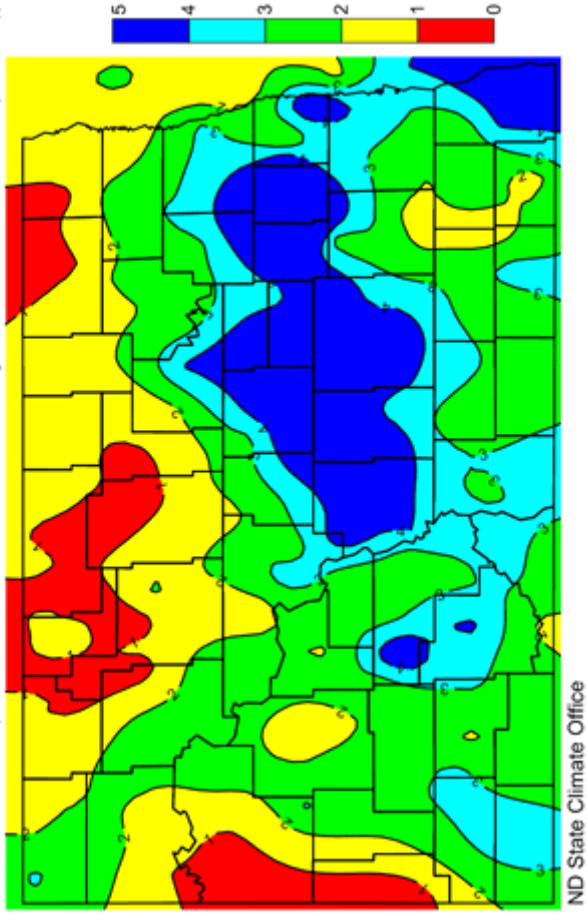
North Dakota July 2011 Precipitation (inches)

(Data from NWS Cooperative Network and North Dakota Agricultural Weather Network (NDAWN))



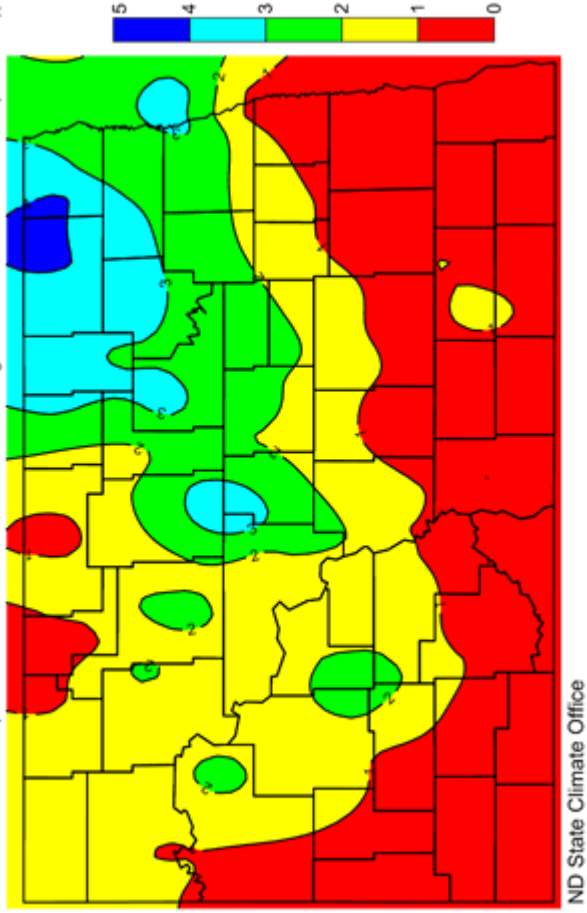
North Dakota August 2011 Precipitation (inches)

(Data from NWS Cooperative Network and North Dakota Agricultural Weather Network (NDAWN))



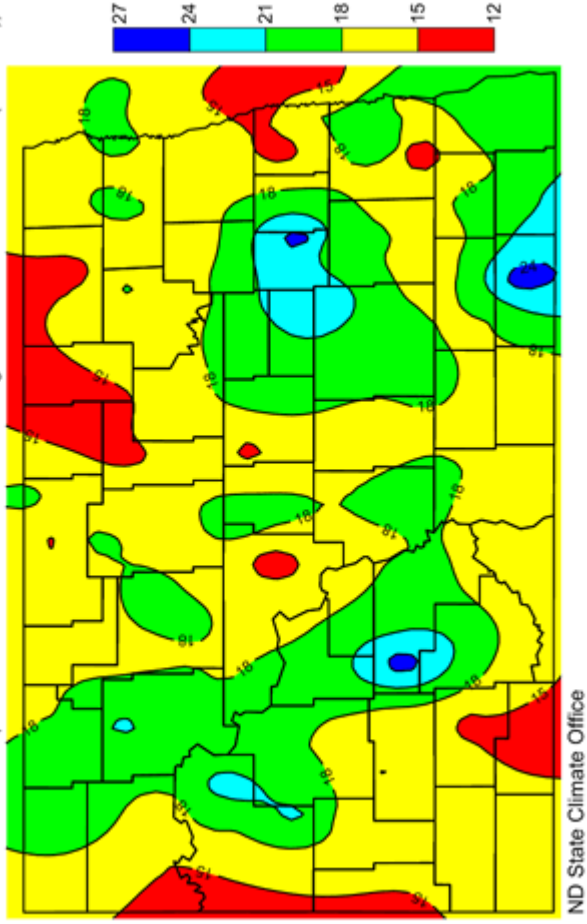
North Dakota September 2011 Precipitation (inches)

(Data from NWS Cooperative Network and North Dakota Agricultural Weather Network (NDAWN))

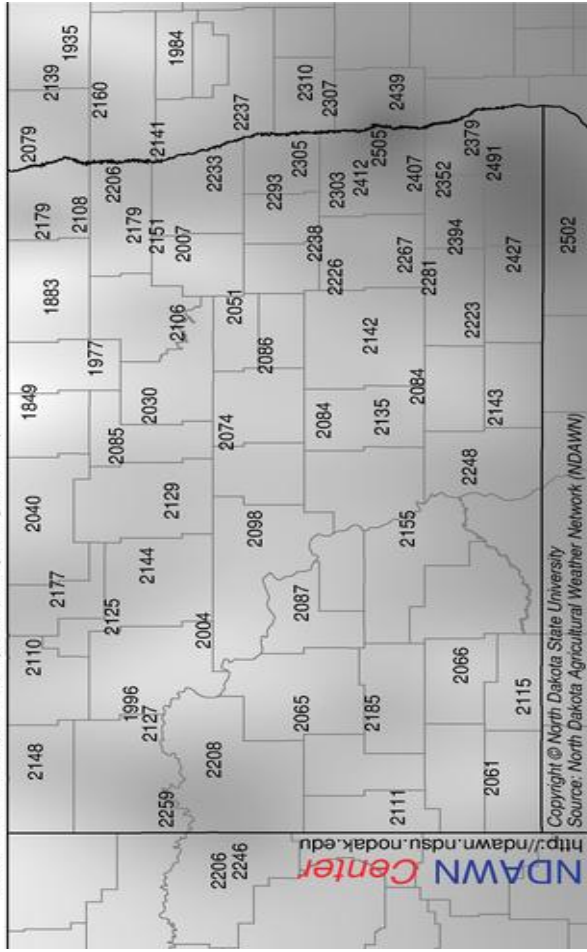


North Dakota April - September 2011 Precipitation (inches)

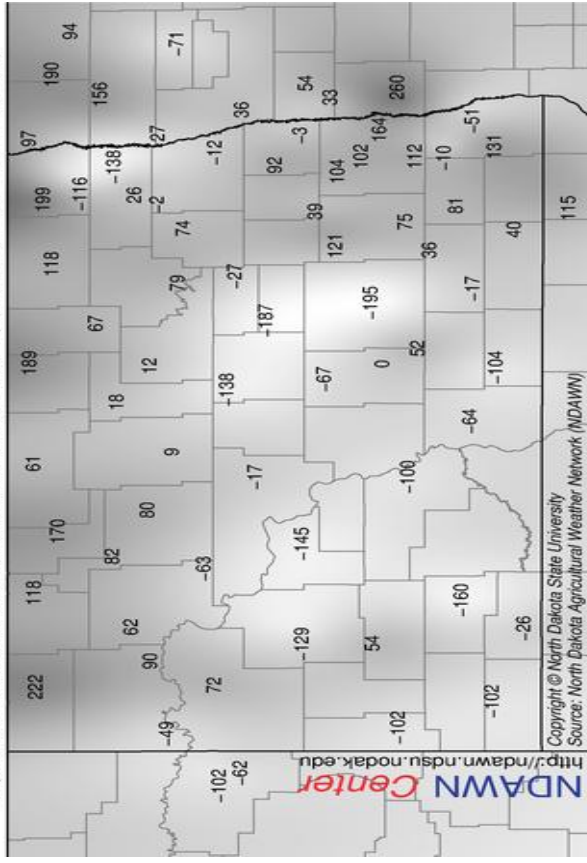
(Data from NWS Cooperative Network and North Dakota Agricultural Weather Network (NDAWN))



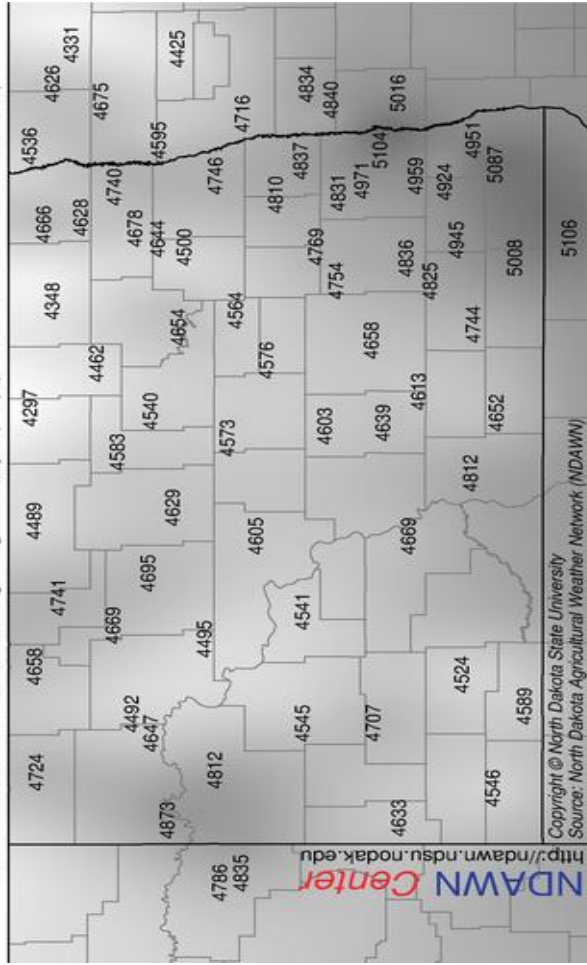
Corn Accumulated Daily Growing Degree Days (°F) (2011-05-01 - 2011-09-30)



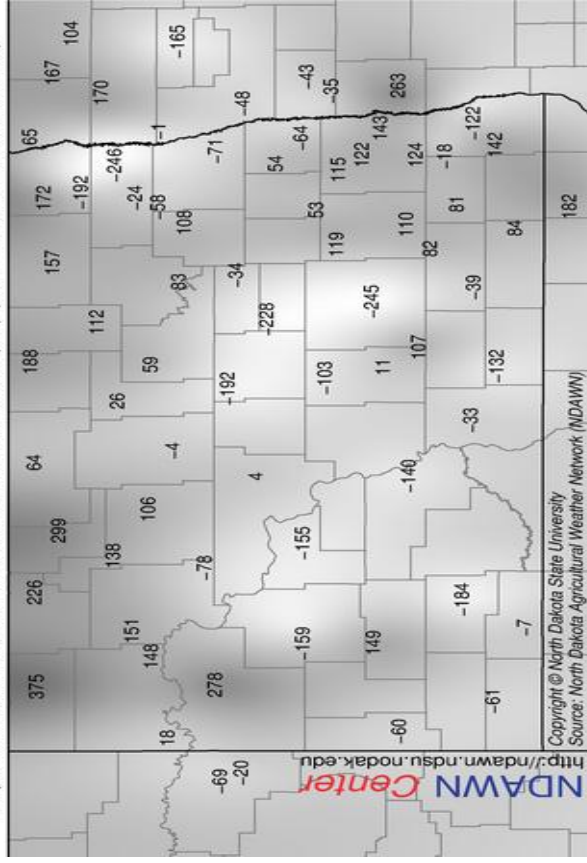
Departure from Normal Corn Accumulated GDD (°F) (2011-05-02 - 2011-09-30)



Accumulated Wheat Growing Degree Days (°F) (2011-05-01 - 2011-09-30)



Departure from Normal Wheat Accumulated GDD (°F) (2011-05-01 - 2011-09-30)



Average Data by Crop and Year Across Sites

Durum	Yield (bu/a)									Test Weight (lbs/bu)									Height (in)									Days to Head																																												
	3	3	3	3	3	9	07	08	09	10	11	3yr	3	3	3	3	3	9	07	08	09	10	11	3yr	2	3	3	3	3	9	07	08	09	10	11	3yr	3	2	3	3	3	9																														
Variety	66	62	76	79	62	73	60.2	59.2	60.5	58.4	59.2	59.4	41	34	40	42	38	40	41	34	40	42	38	40	41	34	40	42	38	40	64	66	60	69	55	61	64	65	60	69	56	62	63	65	59	71	54	61	--	--	--	--	--	58	69	55	61	--	--	--	--	--	60	70	57	62						
Alkabo	57	67	84	86	61	77	58.3	58.0	59.8	57.9	57.8	58.5	39	34	39	41	37	39	39	34	39	41	37	39	39	34	39	41	37	39	64	65	60	69	56	62	63	65	59	71	54	61	--	--	--	--	--	58	69	55	61	--	--	--	--	--	60	70	57	62												
Grenora	59	65	80	76	63	73	59.8	60.0	61.3	59.5	59.7	60.2	40	35	40	41	39	40	40	35	40	41	39	40	40	35	40	41	39	40	63	65	59	71	54	61	--	--	--	--	--	58	69	55	61	--	--	--	--	--	60	70	57	62																		
Lebsock	--	--	75	74	59	70	--	--	60.1	58.2	58.7	59.0	--	--	41	43	40	41	--	--	41	43	40	41	--	--	41	43	40	41	--	--	--	--	--	58	69	55	61	--	--	--	--	--	60	70	57	62																								
DG Max	--	--	87	80	60	76	--	--	60.1	57.6	57.7	58.5	--	--	43	45	40	43	--	--	43	45	40	43	--	--	43	45	40	43	--	--	--	--	--	60	70	57	62	--	--	--	--	--	60	70	57	62																								
Tioga	--	--	71	76	61	69	--	--	59.1	58.6	58.9	58.9	--	--	40	41	39	40	--	--	40	41	39	40	--	--	40	41	39	40	--	--	--	--	--	58	70	57	62	--	--	--	--	--	58	70	57	62																								
Westhope	59	63	--	80	59	--	58.9	58.7	--	57.2	58.0	--	42	35	--	43	40	--	42	35	--	43	40	--	42	35	--	43	40	--	64	67	--	70	58	--	64	67	--	70	58	--	--	--	--	--	--	51	--	--	--	--	--	--	--	--	51	--	--	--												
Divide	--	--	--	--	43	--	--	--	--	--	55.8	--	--	--	--	--	30	--	--	--	--	--	30	--	--	--	--	--	30	--	--	--	--	--	--	51	--	--	--	--	--	--	--	--	51	--	--	--																								
WB-Belfield	--	61	71	72	--	--	--	57.8	58.8	57.0	--	--	--	35	40	41	--	--	--	35	40	41	--	--	--	35	40	41	--	--	--	62	58	68	--	--	--	62	58	68	--	--	--	62	58	68	--	--	--	62	58	68	--	--	--	62	58	68	--	--	--	62	58	68	--	--	--	62	58	68	--	--
DG Star	--	63	75	76	--	--	--	57.9	59.5	57.8	--	--	--	35	39	41	--	--	--	35	39	41	--	--	--	35	39	41	--	--	--	64	58	69	--	--	--	64	58	69	--	--	--	64	58	69	--	--	--	64	58	69	--	--	--	64	58	69	--	--	--	64	58	69	--	--						
Wales	59	65	--	77	--	--	59.7	60.0	--	59.7	--	--	41	34	--	42	--	--	41	34	--	42	--	--	41	34	--	42	--	--	65	65	--	71	--	--	65	65	--	71	--	--	65	65	--	71	--	--	65	65	--	71	--	--	65	65	--	71	--	--	65	65	--	71	--	--						
Grande D'oro	59	--	--	--	--	--	59.0	--	--	--	--	--	42	--	--	--	--	--	42	--	--	--	--	--	42	--	--	--	--	--	65	--	--	--	--	--	65	--	--	--	--	--	65	--	--	--	--	--	65	--	--	--	--	--	65	--	--	--	--	--												
Mountrail	53	--	--	--	--	--	58.7	--	--	--	--	--	44	--	--	--	--	--	44	--	--	--	--	--	44	--	--	--	--	--	63	--	--	--	--	--	63	--	--	--	--	--	63	--	--	--	--	--	63	--	--	--	--	--	63	--	--	--	--	--												
Primo Doro																																																																								

Barley	Yield(bu/a)									Test Weight (lbs/bu)									Protein (%)									Plump (%)									Days to Head																											
	4	3	3	3	3	9	07	08	09	10	11	3yr	4	3	3	3	3	9	07	08	09	10	11	3yr	4	3	3	3	3	9	07	08	09	10	11	3yr	4	3	3	3	3	9	08	09	10	11	3yr	1	3	3	1	7												
No. Sites	86	120	124	116	94	111	48.8	48.8	49.2	50.2	49.8	49.7	12.4	13.4	11.8	12.0	13.4	12.4	84	88	96	96	94	95	65	65	64	51	57	65	65	64	51	57	65	65	64	51	57	65	65	64	51	57	65	65	64	51	57	65	65	64	51	57										
Variety	80	120	133	119	99	117	49.7	49.9	49.8	49.9	50.8	50.2	11.2	12.0	11.0	10.8	12.0	11.3	92	96	96	97	95	96	65	65	67	54	59	65	65	67	54	59	65	65	67	54	59	65	65	67	54	59	65	65	67	54	59	65	65	67	54	59	65	65	67	54	59					
Lacey	78	116	126	116	99	114	47.8	47.5	48.0	48.6	48.8	48.5	12.2	13.1	11.8	11.9	12.8	12.2	89	92	97	97	94	96	65	65	65	51	57	65	65	65	51	57	65	65	65	51	57	65	65	65	51	57	65	65	65	51	57	65	65	65	51	57	65	65	65	51	57	65	65	65	51	57
Pinnacle*	73	113	124	118	97	113	48.0	49.0	48.9	49.7	49.8	49.5	12.4	13.2	11.9	12.0	13.0	12.3	84	94	96	96	92	95	66	66	66	53	58	66	66	66	53	58	66	66	66	53	58	66	66	66	53	58	66	66	66	53	58	66	66	66	53	58	66	66	66	53	58					
Stellar-ND	--	123	131	126	104	120	--	48.6	48.9	49.4	49.4	49.2	--	13.0	11.6	11.6	12.7	12.0	--	88	95	94	91	93	64	64	64	50	57	64	64	64	50	57	64	64	64	50	57	64	64	64	50	57	64	64	64	50	57	64	64	64	50	57										
Tradition	--	--	131	111	91	111	--	48.9	49.1	48.7	48.9	--	12.3	12.5	14.3	13.0	--	--	97	94	90	94	--	--	97	94	90	94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
Rasmusson	--	--	118	98	--	--	--	--	48.3	48.6	--	--	12.0	13.1	--	--	--	--	89	84	--	--	--	--	89	84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--												
Celebration	78	--	--	--	--	--	47.9	--	--	--	--	--	12.5	--	--	--	--	--	84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
Quest	74	--	--	--	--	--	47.2	--	--	--	--	--	12.2	--	--	--	--	--	84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
Drummond																																																																
Legacy																																																																

*2-row barley

HRSW Summary, Langdon 2007-2011																		
Variety	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)					
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr
Alsen	59	80	79	78	54	70	61.8	61.0	58.6	60.7	60.4	59.9	15.3	14.8	14.8	14.2	15.9	15.0
Barlow	72	81	86	85	66	79	62.0	61.5	59.4	60.6	61.7	60.6	14.8	14.6	14.4	14.0	15.6	14.7
Brick	68	83	90	84	67	80	61.5	62.1	59.8	61.3	61.7	60.9	14.7	13.7	13.9	14.0	14.3	14.1
Briggs	65	87	83	83	67	78	60.4	61.0	58.2	60.7	60.7	59.9	14.8	14.5	14.9	14.1	15.4	14.8
Cromwell	73	84	90	80	66	78	62.1	61.8	60.1	61.2	61.9	61.0	14.7	14.1	14.3	14.1	14.9	14.4
Faller	76	94	103	92	79	91	61.1	60.5	58.5	60.3	60.8	59.9	15.0	13.5	14.0	13.0	14.4	13.8
Freyr	72	79	73	83	60	72	60.9	60.4	57.4	60.0	59.5	58.9	13.9	14.2	14.5	13.8	15.5	14.6
Glenn	76	80	85	77	58	73	63.8	62.8	62.5	62.5	62.9	62.6	15.0	15.3	14.8	14.2	15.6	14.8
Howard	63	85	90	88	66	81	62.2	61.5	59.4	60.9	61.8	60.7	15.2	14.4	14.3	13.8	15.4	14.5
Kelby	70	74	77	79	58	71	60.7	60.4	59.2	60.2	59.1	59.5	15.2	14.3	14.8	14.1	15.3	14.7
Kuntz	71	86	78	75	64	72	60.5	59.9	58.1	58.7	59.7	58.8	14.1	13.6	13.9	13.7	14.9	14.2
Prosper	88	92	95	94	77	89	61.5	60.8	59.3	60.3	60.8	60.1	14.8	13.8	13.9	13.1	14.8	13.9
RB07	73	83	75	79	70	75	60.4	60.0	56.4	59.8	60.3	58.8	14.7	14.5	14.8	13.5	15.2	14.5
Steele-ND	63	79	85	87	66	80	61.9	61.6	59.2	61.0	61.4	60.5	15.5	14.4	14.2	14.2	15.3	14.5
Velva	68	85	84	74	69	76	59.6	59.4	57.1	57.4	60.1	58.2	15.3	14.4	14.4	13.6	14.7	14.2
Albany	--	88	89	91	72	84	--	60.1	58.7	59.9	61.1	59.9	--	12.6	13.1	12.2	14.2	13.2
Breaker	--	83	86	88	67	80	--	61.4	59.5	60.3	62.2	60.7	--	13.9	14.5	13.7	14.9	14.4
Brennan	--	82	78	75	61	71	--	61.0	58.6	60.0	60.0	59.5	--	14.4	14.6	13.9	15.1	14.5
Jenna	--	85	83	82	72	79	--	59.4	57.7	59.9	59.4	59.0	--	14.0	14.4	13.9	14.8	14.3
Sabin	--	85	83	81	66	77	--	60.4	58.3	59.9	59.9	59.4	--	14.5	14.6	14.0	15.4	14.7
Samson	--	86	79	82	62	74	--	59.4	56.8	58.3	59.2	58.1	--	13.7	14.3	13.0	15.1	14.1
Select	--	85	70	78	71	73	--	61.7	57.4	60.9	61.9	60.1	--	13.9	14.5	13.7	15.1	14.4
Vantage	--	81	77	78	58	71	--	62.8	61.5	62.3	61.8	61.8	--	15.5	15.9	14.7	16.0	15.5
Brogan	--	--	71	73	66	70	--	--	57.3	59.5	61.0	59.2	--	--	15.4	13.6	14.6	14.5
Alpine	--	--	--	79	60	--	--	--	--	59.6	58.7	--	--	--	--	13.0	15.2	--
Rollag	--	--	--	76	63	--	--	--	--	61.4	61.4	--	--	--	--	14.0	16.1	--
WB Digger	--	--	--	81	66	--	--	--	--	59.9	59.5	--	--	--	--	13.3	14.4	--
Powerplay	--	--	--	--	67	--	--	--	--	--	61.1	--	--	--	--	--	15.0	--
SY Soren	--	--	--	--	64	--	--	--	--	--	60.6	--	--	--	--	--	15.6	--
WB Mayville	--	--	--	--	58	--	--	--	--	--	59.9	--	--	--	--	--	15.6	--
Dapps	67	77	93	79	--	--	60.1	59.9	59.3	60.1	--	--	16.5	15.8	15.0	14.2	--	--
Knudson	72	85	89	83	--	--	60.9	59.8	58.4	59.2	--	--	14.2	13.7	13.3	13.2	--	--
Mott	62	85	88	76	--	--	61.7	61.1	59.7	60.3	--	--	13.9	14.2	13.8	13.0	--	--
Reeder	62	85	86	84	--	--	60.7	60.2	58.2	60.1	--	--	14.5	15.4	14.9	14.0	--	--
Tom	71	86	89	84	--	--	60.9	60.7	59.0	60.4	--	--	14.3	13.7	14.4	13.7	--	--
Traverse	76	89	94	95	--	--	58.8	59.0	56.3	58.0	--	--	13.9	13.2	13.2	13.3	--	--
Blade	--	83	83	86	--	--	--	61.7	60.2	61.1	--	--	--	14.3	14.4	13.8	--	--
Hat Trick	--	89	79	68	--	--	--	61.5	58.3	58.8	--	--	--	14.8	14.8	12.4	--	--
Ada	71	83	87	--	--	--	62.4	61.8	60.1	--	--	--	14.2	13.1	14.4	--	--	--
Bigg Red	59	72	91	--	--	--	62.5	62.9	61.8	--	--	--	13.6	13.6	13.9	--	--	--
Granger	69	78	79	--	--	--	61.2	60.6	58.0	--	--	--	14.9	13.8	14.6	--	--	--
Granite	63	78	83	--	--	--	62.8	62.9	61.6	--	--	--	16.3	15.0	15.4	--	--	--
Oklee	65	77	86	--	--	--	61.3	61.1	60.0	--	--	--	15.2	14.1	14.6	--	--	--
Parshall	67	80	92	--	--	--	62.4	61.5	61.0	--	--	--	14.9	14.5	14.4	--	--	--
Trooper	74	85	77	--	--	--	61.3	62.2	57.7	--	--	--	13.5	13.0	13.8	--	--	--
AP605 CL	--	--	88	--	--	--	--	--	59.1	--	--	--	--	--	14.9	--	--	--
AP604 CL	59	80	--	--	--	--	60.6	61.0	--	--	--	--	14.4	14.2	--	--	--	--
Hanna	63	78	--	--	--	--	60.5	60.8	--	--	--	--	15.5	14.4	--	--	--	--
Norpro	71	81	--	--	--	--	60.3	59.6	--	--	--	--	14.6	13.6	--	--	--	--
Russ	60	73	--	--	--	--	58.9	61.6	--	--	--	--	14.6	15.2	--	--	--	--
LSD 5%	7.7	5.8	7.1	5.0	4.6		1.0	0.8	1.0	0.6	0.5		1.0	0.7	0.5	0.4	0.6	

HRSW Summary, Langdon 2007-2011																
Variety	Days to Head						Height(in)						Lodging(0-9)			Shatter*
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	08	10	2yr	2008
Alsen	61	67	59	68	56	61	39	39	39	37	36	37	2.0	0.4	1.2	40
Barlow	60	66	56	67	54	59	39	39	41	40	38	40	3.0	1.5	2.3	8
Brick	58	63	52	63	50	55	39	40	42	40	39	40	0.8	1.8	1.3	8
Briggs	60	64	55	66	53	58	37	39	40	39	36	39	2.5	2.3	2.4	0
Cromwell	65	70	61	70	58	63	38	37	40	38	34	37	1.6	3.1	2.4	2
Faller	63	69	60	69	57	62	38	38	40	39	37	39	1.9	0.8	1.4	0
Freyr	62	67	58	69	56	61	37	38	40	38	35	37	0.6	1.8	1.2	58
Glenn	60	64	56	65	53	58	41	41	43	40	38	41	1.2	0.0	0.6	2
Howard	62	67	59	68	57	61	39	40	41	40	39	40	3.4	2.2	2.8	0
Kelby	61	67	55	67	56	59	36	34	35	35	31	33	0.1	2.9	1.5	6
Kuntz	63	69	59	69	57	62	36	34	35	34	32	34	0.1	1.1	0.6	10
Prosper	64	69	60	70	57	62	40	39	40	39	37	39	2.2	1.5	1.9	4
RB07	59	64	55	67	54	59	36	35	36	35	36	36	0.3	2.1	1.2	2
Steele-ND	62	67	58	68	56	61	38	41	41	40	38	40	1.7	2.8	2.3	8
Velva	64	68	59	70	57	62	40	40	41	39	38	39	3.0	0.0	1.5	8
Albany	--	70	62	70	59	64	--	36	38	36	34	36	0.8	1.8	1.3	76
Breaker	--	70	60	69	57	62	--	38	39	39	35	38	0.1	1.0	0.6	6
Brennan	--	67	57	67	57	60	--	34	35	33	32	33	0.0	3.7	1.9	0
Jenna	--	71	62	71	59	64	--	38	37	36	34	35	0.6	2.2	1.4	8
Sabin	--	68	60	68	57	62	--	37	40	37	39	39	2.2	1.8	2.0	6
Samson	--	69	58	68	58	62	--	34	34	35	31	33	0.2	0.2	0.2	0
Select	--	63	54	64	52	57	--	39	42	38	39	39	1.8	1.8	1.8	0
Vantage	--	73	63	74	60	66	--	37	39	35	36	37	0.0	0.0	0.0	10
Brogan	--	--	60	69	55	61	--	--	38	35	35	36	--	0.6	0.6	--
Alpine	--	--	--	68	57	--	--	--	--	37	36	--	--	2.8	--	--
Rollag	--	--	--	67	55	--	--	--	--	34	34	--	--	0.8	--	--
WB Digger	--	--	--	67	55	--	--	--	--	38	36	--	--	1.6	--	--
Powerplay	--	--	--	--	56	--	--	--	--	--	34	--	--	--	--	--
SY Soren	--	--	--	--	55	--	--	--	--	--	32	--	--	--	--	--
WB Mayville	--	--	--	--	56	--	--	--	--	--	32	--	--	--	--	--
Dapps	62	67	58	66	--	--	42	44	45	43	--	--	1.9	1.1	1.5	14
Knudson	65	68	59	69	--	--	39	36	38	37	--	--	0.6	3.6	2.1	14
Mott	67	69	61	70	--	--	41	42	43	41	--	--	0.7	0.3	0.5	16
Reeder	62	66	57	67	--	--	40	40	41	39	--	--	1.2	0.8	1.0	2
Tom	62	66	58	67	--	--	38	38	40	38	--	--	2.7	2.9	2.8	0
Traverse	61	65	57	66	--	--	40	40	44	40	--	--	1.5	0.1	0.8	102
Blade	--	69	59	68	--	--	--	37	40	38	--	--	0.5	0.8	0.7	0
Hat Trick	--	66	59	68	--	--	--	38	39	37	--	--	0.1	1.6	0.9	20
Ada	63	67	61	--	--	--	36	35	38	--	--	--	0.3	--	--	0
Bigg Red	63	68	61	--	--	--	41	41	47	--	--	--	0.7	--	--	202
Granger	61	66	59	--	--	--	41	42	45	--	--	--	2.1	--	--	96
Granite	69	71	63	--	--	--	37	35	38	--	--	--	0.2	--	--	26
Oklee	60	66	58	--	--	--	37	39	42	--	--	--	0.8	--	--	14
Parshall	62	67	59	--	--	--	44	44	47	--	--	--	0.6	--	--	2
Trooper	61	66	56	--	--	--	35	33	34	--	--	--	0.2	--	--	0
AP605 CL	--	--	57	--	--	--	--	--	41	--	--	--	--	--	--	--
AP604 CL	59	64	--	--	--	--	35	38	--	--	--	--	1.8	--	--	2
Hanna	62	66	--	--	--	--	41	44	--	--	--	--	1.7	--	--	0
Norpro	63	67	--	--	--	--	35	35	--	--	--	--	0.8	--	--	0
Russ	63	65	--	--	--	--	39	37	--	--	--	--	0.7	--	--	52
LSD 5%	1.0	1.2	1.0	1.0	1.3		2.0	2.0	1.6	1.0	1.9		2.1	1.3		55

*2008-Seeds/ft²

Pembina County HRSW Summary 2006-2011

Variety	Yield (bu/a)						Test Weight (lbs/bu)						Protein (%)					
	06	07	08	09	11	3yr	06	07	08	09	11	3yr	06	07	08	09	11	3yr
Faller	90	78	98	75	71	81	62.1	60.7	62.1	59.8	60.3	60.7	12.2	13.2	14.4	12.6	14.2	13.7
Glenn	66	66	80	68	68	72	65.2	63.9	63.1	63.2	63.3	63.2	13.3	14.2	16.1	13.3	15.7	15.0
Howard	76	64	85	69	68	74	62.5	61.7	61.7	60.5	59.5	60.6	13.0	13.6	14.6	12.8	15.0	14.1
Kelby	73	59	77	68	62	69	63.1	59.8	61.0	60.1	61.3	60.8	13.1	14.1	15.2	14.0	15.6	14.9
RB07	--	69	82	72	70	74	--	60.4	61.0	60.0	61.2	60.7	--	13.6	15.3	13.5	15.0	14.6
Breaker	--	--	88	75	66	76	--	--	61.9	61.0	61.0	61.3	--	--	14.8	13.4	14.6	14.3
Samson	--	--	86	79	64	76	--	--	59.0	58.7	59.3	59.0	--	--	14.5	12.8	15.2	14.2
Barlow	--	--	--	67	68	--	--	--	--	61.0	62.2	--	--	--	--	13.3	15.0	--
Brennan	--	--	--	69	65	--	--	--	--	60.0	61.4	--	--	--	--	13.6	15.3	--
Brick	--	--	--	69	64	--	--	--	--	60.4	62.7	--	--	--	--	12.6	15.2	--
Cromwell	--	--	--	71	67	--	--	--	--	61.5	59.7	--	--	--	--	13.3	15.0	--
Jenna	--	--	--	70	65	--	--	--	--	58.5	59.3	--	--	--	--	13.7	14.9	--
Prosper	--	--	--	77	74	--	--	--	--	59.6	59.9	--	--	--	--	12.9	14.4	--
Sabin	--	--	--	71	61	--	--	--	--	59.2	57.7	--	--	--	--	13.4	15.3	--
Velva	--	--	--	73	65	--	--	--	--	59.2	57.9	--	--	--	--	13.1	14.6	--
Rollag	--	--	--	--	54	--	--	--	--	--	58.6	--	--	--	--	--	15.8	--
Select	--	--	--	--	63	--	--	--	--	--	61.1	--	--	--	--	--	15.2	--
SY Soren	--	--	--	--	65	--	--	--	--	--	61.0	--	--	--	--	--	15.3	--
Vantage	--	--	--	--	64	--	--	--	--	--	62.0	--	--	--	--	--	15.9	--
WB-Digger	--	--	--	--	72	--	--	--	--	--	58.2	--	--	--	--	--	14.3	--
WB-Mayville	--	--	--	--	66	--	--	--	--	--	60.6	--	--	--	--	--	15.3	--
Ada	75	65	82	67	--	--	63.5	62.2	61.9	61.3	--	--	13.1	13.5	14.7	13.0	--	--
Freyr	75	62	81	63	--	--	61.6	60.7	59.9	59.1	--	--	12.9	13.9	14.9	13.3	--	--
Traverse	86	70	87	70	--	--	61.3	58.7	59.1	57.2	--	--	11.5	12.9	14.5	12.3	--	--
Kuntz	--	69	84	63	--	--	--	60.4	60.5	59.2	--	--	--	13.4	14.0	13.5	--	--
Steele-ND	--	66	82	66	--	--	--	61.8	61.2	60.7	--	--	--	14.0	15.0	13.1	--	--
Albany	--	--	85	77	--	--	--	--	60.5	59.7	--	--	--	--	13.7	11.7	--	--
Hat Trick	--	--	87	74	--	--	--	--	61.9	61.2	--	--	--	--	14.7	12.8	--	--
Tom	--	--	83	69	--	--	--	--	60.8	60.7	--	--	--	--	14.7	12.9	--	--
Alsen	71	59	77	--	--	--	62.4	61.6	61.3	--	--	--	13.9	14.0	14.9	--	--	--
Briggs	71	68	79	--	--	--	62.8	61.2	61.0	--	--	--	12.6	14.4	15.5	--	--	--
Knudson	72	71	81	--	--	--	61.7	60.8	59.9	--	--	--	12.8	13.6	14.1	--	--	--
LSD 5%	7.6	4.7	3.6	6.5	5.3		0.8	0.4	0.7	0.6	1.1		1.1	0.4	0.3	0.6	0.6	0.3

Walsh County HRSW Summary 2007-2011

Variety	Yield(bu/a)				Test Weight(lbs/bu)				Protein(%)				Lodging(0-9)											
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr
Faller	74	103	93	81	65	79	58.5	60.5	58.5	58.4	58.3	58.4	14.7	14.7	14.0	14.1	15.2	14.4	3.0	1.5	6.0	3.9	5.5	5.1
Glenn	57	82	82	65	60	69	60.9	62.9	62.8	61.2	62.5	62.2	16.0	15.0	14.3	14.7	15.6	14.9	2.0	1.5	2.3	4.1	3.3	3.2
Howard	60	91	86	69	55	70	59.4	61.1	59.9	58.8	59.1	59.3	15.2	14.6	13.8	14.7	15.6	14.7	3.3	2.0	4.8	4.6	4.0	4.5
Kelby	58	86	83	71	58	71	57.8	60.7	60.0	58.9	58.9	59.3	15.2	14.8	14.3	15.1	15.6	15.0	3.5	0.0	1.0	1.8	6.0	2.9
RB07	54	95	90	79	65	78	55.9	59.8	58.7	58.4	57.6	58.2	15.1	14.4	14.2	13.9	15.2	14.4	5.8	0.0	3.8	0.7	6.5	3.7
Albany	--	99	83	76	72	77	--	60.6	58.2	58.6	58.8	58.5	--	13.5	13.4	12.9	13.5	13.3	--	0.8	6.5	1.5	4.3	4.1
Breaker	--	87	83	82	63	76	--	62.3	60.4	61.1	61.1	60.9	--	14.5	13.8	13.9	15.3	14.3	--	0.0	4.3	0.3	3.5	2.7
Samson	--	98	88	77	70	78	--	60.0	57.5	57.7	59.1	58.1	--	14.1	13.6	13.7	14.9	14.1	--	0.0	0.0	0.2	2.5	0.9
Barlow	--	--	80	74	57	70	--	--	60.0	59.6	59.7	59.8	--	--	14.2	14.6	15.4	14.7	--	--	2.5	1.8	4.5	2.9
Brennan	--	--	82	66	63	71	--	--	59.6	58.5	59.8	59.3	--	--	13.9	14.6	15.0	14.5	--	--	0.5	1.3	3.3	1.7
Brick	--	--	89	64	59	71	--	--	61.1	59.0	60.1	60.1	--	--	14.2	15.1	15.4	14.9	--	--	3.8	6.9	6.8	5.8
Cromwell	--	--	86	72	58	72	--	--	60.6	59.5	59.7	59.9	--	--	13.7	14.4	15.7	14.6	--	--	5.8	2.4	7.0	5.1
Jenna	--	--	79	73	63	72	--	--	57.4	57.9	57.8	57.7	--	--	14.4	14.4	15.6	14.8	--	--	2.0	0.2	6.8	3.0
Prosper	--	--	94	80	71	82	--	--	59.5	58.9	59.4	59.3	--	--	13.8	14.2	14.7	14.3	--	--	5.8	3.7	5.0	4.8
Sabin	--	--	76	66	52	65	--	--	58.4	58.2	56.3	57.6	--	--	14.7	14.6	17.0	15.4	--	--	4.0	6.9	7.8	6.2
Velva	--	--	82	74	57	71	--	--	57.7	58.5	57.6	57.9	--	--	14.3	14.1	15.9	14.8	--	--	1.8	1.2	6.3	3.1
Select	--	--	--	54	62	--	--	--	--	58.1	60.1	--	--	--	--	15.0	16.1	--	--	--	--	4.6	5.5	--
Vantage	--	--	--	75	66	--	--	--	--	61.6	61.7	--	--	--	--	15.3	16.5	--	--	--	--	0.2	0.3	--
WB-Digger	--	--	--	79	62	--	--	--	--	58.9	58.0	--	--	--	--	13.5	15.4	--	--	--	--	0.5	5.0	--
Powerplay	--	--	--	--	62	--	--	--	--	--	59.5	--	--	--	--	--	15.0	--	--	--	--	--	5.8	--
Rollag	--	--	--	--	63	--	--	--	--	--	60.5	--	--	--	--	--	15.6	--	--	--	--	--	3.8	--
SY Soren	--	--	--	--	62	--	--	--	--	--	59.2	--	--	--	--	--	15.3	--	--	--	--	--	4.5	--
WB-Mayville	--	--	--	--	63	--	--	--	--	--	59.9	--	--	--	--	--	15.3	--	--	--	--	--	1.0	--
Kuntz	58	90	85	71	--	--	57.2	59.9	58.2	57.8	--	--	14.4	14.4	14.1	14.3	--	--	4.0	0.0	0.5	0.6	--	--
Steele-ND	56	87	78	61	--	--	59.3	61.3	59.7	58.6	--	--	15.8	14.7	14.5	14.7	--	--	3.3	0.5	3.5	3.1	--	--
Hat Trick	--	98	74	68	--	--	--	61.9	58.7	58.9	--	--	--	14.0	13.5	13.7	--	--	--	0.0	5.0	0.7	--	--
Tom	--	93	81	72	--	--	--	60.1	58.8	58.9	--	--	--	14.8	14.2	13.6	--	--	--	3.8	5.8	2.7	--	--
Blade	--	--	--	75	--	--	--	--	61.4	--	--	--	--	--	14.2	--	--	--	--	--	--	0.5	--	--
Brogan	--	--	--	73	--	--	--	--	59.5	--	--	--	--	--	13.7	--	--	--	--	--	--	1.7	--	--
Ada	55	88	82	--	--	--	58.7	61.6	60.2	--	--	--	14.7	14.2	13.8	--	--	--	6.5	0.8	5.0	--	--	--
Freyr	52	89	84	--	--	--	55.9	60.3	58.5	--	--	--	15.0	14.7	14.0	--	--	--	4.8	0.0	4.3	--	--	--
Traverse	64	99	95	--	--	--	55.0	59.0	57.3	--	--	--	14.8	14.7	13.7	--	--	--	4.3	4.5	3.0	--	--	--
Alsen	47	83	--	--	--	--	57.6	61.0	--	--	--	--	15.5	15.1	--	--	--	--	6.8	0.0	--	--	--	--
Briggs	59	87	--	--	--	--	58.6	60.5	--	--	--	--	16.0	14.8	--	--	--	--	4.0	4.0	--	--	--	--
Knudson	59	88	--	--	--	--	57.8	60.2	--	--	--	--	14.3	14.0	--	--	--	--	3.8	0.5	--	--	--	--
LSD 5%	6.4	5.9	6.1	6.1	5.8	--	0.9	0.5	0.9	0.6	1.0	--	0.3	0.4	0.5	0.6	0.7	--	2.4	1.8	2.6	1.7	2.7	--

Nelson County HRSW Summary 2007-2011

Variety	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging(0-9)	
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr		
Faller	73	91	92	83	83	86	60.7	60.7	59.3	59.5	60.6	59.8	14.8	13.2	12.9	13.1	14.4	13.5	0.0	
Glenn	65	72	78	66	61	68	62.8	62.4	63.5	61.2	61.5	62.1	15.8	14.4	14.0	14.5	15.2	14.6	0.3	
Howard	66	74	87	78	73	79	61.9	60.4	60.5	60.2	60.2	60.3	15.3	13.7	13.5	14.4	15.1	14.3	1.5	
Kelby	62	74	75	66	56	66	60.5	61.1	62.4	58.4	58.5	59.8	15.4	14.2	13.8	14.2	15.4	14.5	0.0	
RB07	65	82	78	70	68	72	60.6	60.2	61.7	58.6	59.6	60.0	15.3	13.4	13.3	14.0	15.5	14.3	0.0	
Breaker	--	81	81	82	74	79	--	61.4	60.0	62.0	60.4	60.8	--	13.7	13.3	13.8	14.9	14.0	0.0	
Barlow	--	--	88	77	68	78	--	--	61.1	60.6	59.8	60.5	--	--	13.9	14.4	15.4	14.6	0.5	
Brennan	--	--	--	79	69	59	69	--	--	62.4	58.5	59.1	60.0	--	--	13.6	13.9	15.0	14.2	0.0
Brick	--	--	--	81	75	63	73	--	--	62.7	60.0	60.5	61.1	--	--	13.4	14.0	14.7	14.0	0.5
Cromwell	--	--	--	84	76	69	77	--	--	60.9	60.7	60.5	60.7	--	--	13.5	13.6	14.8	14.0	0.0
Jenna	--	--	--	86	83	64	78	--	--	59.8	58.0	58.4	58.7	--	--	13.4	14.2	15.2	14.3	0.0
Prosper	--	--	--	92	88	84	88	--	--	59.8	59.8	60.5	60.0	--	--	13.1	13.2	14.5	13.6	0.0
Sabin	--	--	--	77	78	64	73	--	--	60.9	59.0	58.5	59.5	--	--	13.8	14.3	15.8	14.6	1.3
Velva	--	--	--	--	80	75	77	--	--	58.7	59.9	58.4	59.0	--	--	13.2	14.0	15.3	14.2	0.0
Select	--	--	--	--	63	68	--	--	--	--	59.2	60.4	--	--	--	--	13.9	14.9	--	1.0
Vantage	--	--	--	--	74	71	--	--	--	--	62.5	60.5	--	--	--	--	14.9	16.5	--	0.0
Rollag	--	--	--	--	--	67	--	--	--	--	--	60.9	--	--	--	--	--	15.6	--	--
Samson	--	--	--	--	--	65	--	--	--	--	--	59.0	--	--	--	--	--	14.8	--	--
SY Soren	--	--	--	--	--	62	--	--	--	--	--	59.0	--	--	--	--	--	15.0	--	--
WB-Digger	--	--	--	--	--	74	--	--	--	--	--	59.1	--	--	--	--	--	14.8	--	--
WB-Mayville	--	--	--	--	--	70	--	--	--	--	--	59.8	--	--	--	--	--	15.7	--	--
Kuntz	56	84	85	69	--	--	60.5	60.3	58.6	57.9	--	--	14.7	13.4	13.5	14.1	--	--	0.0	
Steele-ND	59	75	74	76	--	--	61.6	60.6	61.5	59.8	--	--	15.8	14.1	13.6	14.4	--	--	1.3	
Albany	--	85	97	89	--	--	--	60.0	60.9	59.3	--	--	--	12.8	12.5	12.6	--	--	0.0	
Hat Trick	--	86	74	72	--	--	--	61.6	62.7	59.9	--	--	--	13.3	12.8	12.9	--	--	0.0	
Tom	--	81	84	72	--	--	--	61.1	60.7	59.0	--	--	--	14.0	13.6	14.1	--	--	0.8	
Ada	57	77	81	--	--	--	60.6	61.2	62.0	--	--	--	15.1	13.8	13.3	--	--	--	--	
Freyr	55	74	80	--	--	--	60.2	58.8	58.3	--	--	--	15.2	13.9	13.4	--	--	--	--	
Traverse	57	85	91	--	--	--	58.1	58.8	59.7	--	--	--	15.0	13.0	12.6	--	--	--	--	
Samson	--	82	87	--	--	--	--	59.2	59.9	--	--	--	--	13.7	13.3	--	--	--	--	
Alsen	52	72	--	--	--	--	60.5	61.0	--	--	--	--	15.6	13.9	--	--	--	--	--	
Briggs	62	80	--	--	--	--	60.4	60.5	--	--	--	--	15.9	13.8	--	--	--	--	--	
Knudson	65	82	--	--	--	--	60.8	59.6	--	--	--	--	14.7	13.2	--	--	--	--	--	
LSD 5%	5.2	5.5	7.5	8.2	5.2	5.2	0.5	0.7	1.1	0.5	0.7	0.7	0.3	0.5	0.5	0.4	0.6	0.6	NS	

Towner County HRSW Summary 2007-2011

Variety	Yield(bu/a)						Test Weight(lbs/bu)						Protein(%)						Lodging(0-9)
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr	
Faller	68	57	86	86	61	78	59.8	59.7	59.0	60.1	58.6	59.2	14.3	14.7	12.5	13.5	16.6	14.2	7.3
Glenn	60	58	78	73	53	68	62.4	63.3	63.8	62.5	62.0	62.8	14.9	15.2	13.0	14.4	16.9	14.8	4.0
Howard	60	60	90	79	59	76	61.1	61.6	60.8	59.6	59.9	60.1	14.6	14.8	12.4	13.6	16.6	14.2	4.3
Kelby	56	53	75	72	56	68	60.3	60.3	61.9	59.5	59.9	60.4	14.9	15.4	13.0	14.2	16.9	14.7	1.5
RB07	62	55	84	76	58	73	59.8	61.2	61.6	59.8	58.7	60.0	14.3	14.9	12.5	13.8	16.7	14.3	4.5
Breaker	--	59	84	80	61	75	--	62.0	60.3	61.8	60.5	60.9	--	15.0	12.5	13.4	16.3	14.1	3.0
Cromwell	--	51	71	75	58	68	--	61.7	61.9	61.4	59.3	60.9	--	15.5	12.8	13.9	16.3	14.3	4.8
Barlow	--	--	85	76	54	72	--	--	61.4	60.7	58.9	60.3	--	--	12.9	13.9	17.3	14.7	6.5
Brennan	--	--	76	73	58	69	--	--	61.6	59.6	59.9	60.4	--	--	13.0	13.8	16.7	14.5	1.5
Brick	--	--	81	74	48	68	--	--	62.0	60.8	60.7	61.2	--	--	12.6	13.8	16.6	14.3	6.3
Jenna	--	--	77	77	62	72	--	--	60.4	58.9	58.9	59.4	--	--	12.7	13.8	16.9	14.5	1.3
Prosper	--	--	85	88	65	79	--	--	59.6	59.9	59.1	59.5	--	--	12.7	13.4	16.3	14.1	6.3
Sabin	--	--	78	73	54	68	--	--	60.3	59.2	58.4	59.3	--	--	13.2	13.9	16.9	14.7	6.5
Velva	--	--	93	79	55	76	--	--	59.9	60.3	57.2	59.1	--	--	12.2	13.9	17.1	14.4	3.0
Select	--	--	--	69	58	--	--	--	--	60.4	60.2	--	--	--	--	13.3	16.8	--	3.3
Vantage	--	--	71	71	56	--	--	--	62.6	61.0	--	--	--	--	15.2	17.6	--	0.8	
Samson	--	60	77	--	71	--	--	60.6	60.0	--	58.7	--	--	14.5	12.7	--	15.8	--	0.5
Rollag	--	--	--	--	60	--	--	--	--	60.8	--	--	--	--	--	--	16.8	--	2.0
SY Soren	--	--	--	--	57	--	--	--	--	59.8	--	--	--	--	--	--	17.2	--	0.8
WB-Digger	--	--	--	--	65	--	--	--	--	58.3	--	--	--	--	--	--	16.0	--	0.8
WB-Mayville	--	--	--	--	57	--	--	--	--	58.9	--	--	--	--	--	--	16.4	--	0.0
Kuntz	56	55	78	76	--	--	59.5	60.4	59.8	59.0	--	--	13.7	13.9	12.2	13.0	--	--	--
Steele-ND	58	56	83	79	--	--	60.7	61.2	60.8	59.7	--	--	15.0	14.9	13.0	13.7	--	--	--
Albany	--	51	80	82	--	--	--	59.4	60.7	58.6	--	--	--	14.7	11.5	12.8	--	--	--
Hat Trick	--	46	79	76	--	--	--	60.4	61.7	59.3	--	--	--	15.9	12.8	13.5	--	--	--
Tom	--	54	82	78	--	--	--	60.9	61.1	60.0	--	--	--	14.6	12.6	13.8	--	--	--
Ada	54	54	81	--	--	--	61.0	61.6	61.0	--	--	--	14.4	15.3	12.9	--	--	--	--
Freyr	55	53	85	--	--	--	59.9	61.0	58.4	--	--	--	14.1	14.6	13.0	--	--	--	--
Traverse	64	59	78	--	--	--	59.0	59.0	58.5	--	--	--	13.8	13.9	12.3	--	--	--	--
Alsen	45	52	--	--	--	--	60.1	60.8	--	--	--	--	14.7	15.8	--	--	--	--	--
Briggs	62	50	--	--	--	--	60.8	60.4	--	--	--	--	15.0	15.2	--	--	--	--	--
Knudson	60	54	--	--	--	--	59.9	61.4	--	--	--	--	14.3	15.0	--	--	--	--	--
LSD 5%	4.4	NS	5.9	4.9	5.8		0.6	0.9	1.0	0.7	1.3		0.3	0.8	0.6	0.3	0.5		2.0

HRSW Disease by Location, Year and Variety														FHB ¹						FDK ³																		
		Foliar Necrosis - % of Flag at Soft Dough												FS - %						DON ² - ppm						(Tombstones)-%												
Location	Year	5site		L		P		W		N		T		L		L		N		L		T		L		L		L		L		L		L				
		Ave.	11	11	11	11	11	11	11	11	10	10	10	10	10	09	08	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11			
Variety:		19	13	13	25	22	20	7	9	7	5	4	13	1	2.8	0.6	5.0	1.2	1.2	1.1	--	--	--	2.8	0.6	5.0	1.2	1.2	1.1	--	--	--	1.2	1.2	1.1	--	--	--
Barlow		21	8	10	23	17	45	6	9	10	8	7	8	0	1.4	0.4	2.3	1.1	1.2	1.0	0.9	0.5	0.6	1.4	0.4	2.3	1.1	1.2	1.0	0.9	0.5	0.6	0.4	1	0	1	--	--
Breaker		20	19	14	17	27	25	27	43	55	23	20	8	0	0.6	0.6	0.6	1.2	2.1	0.3	--	--	--	0.6	0.6	0.6	1.2	2.1	0.3	--	--	--	1.1	1	1	3	--	--
Brennan		37	48	14	38	22	65	17	35	28	36	11	13	0	0.1	0.1	0.1	0.6	0.8	0.3	--	--	--	0.1	0.1	0.1	0.6	0.8	0.3	--	--	--	0.0	0	0	1	--	--
Brick		13	13	8	10	18	14	4	11	12	8	5	7	1	0.5	0.3	0.7	0.9	1.4	0.3	0.7	--	--	0.5	0.3	0.7	0.9	1.4	0.3	0.7	--	--	0.8	1	0	0	0	0
Cromwell		16	18	8	20	15	18	15	21	11	5	5	5	3	1.3	0.3	2.3	0.6	0.7	0.5	0.8	0.3	0.3	1.3	0.3	2.3	0.6	0.7	0.5	0.8	0.3	0.3	0.3	1	0	0	0	0
Faller		21	18	11	32	22	23	16	38	17	4	7	7	1	1.1	0.5	1.6	0.6	0.8	0.3	0.7	0.6	0.3	1.1	0.5	1.6	0.6	0.8	0.3	0.7	0.6	0.3	0.0	0	0	0	0	0
Glenn		27	20	4	45	13	55	8	8	23	7	4	7	1	1.1	0.4	1.7	1.4	1.7	1.0	1.1	1.8	0.7	1.1	0.4	1.7	1.4	1.7	1.0	1.1	1.8	0.7	1.5	2	1	3	1	1
Howard		18	11	11	18	25	25	4	11	16	10	12	7	0	0.9	0.4	1.3	1.8	2.6	1.0	--	--	--	0.9	0.4	1.3	1.8	2.6	1.0	--	--	--	1.0	2	1	2	--	--
Jenna		26	28	25	25	28	24	13	40	20	26	19	10	0	0.5	0.1	0.9	1.0	1.3	0.7	0.9	1.0	0.7	0.5	0.1	0.9	1.0	1.3	0.7	0.9	1.0	0.7	0.8	1	1	1	1	0
Kelby		15	14	8	20	15	17	4	7	8	4	5	10	3	0.9	0.6	1.2	1.4	1.3	1.5	--	--	--	0.9	0.6	1.2	1.4	1.3	1.5	--	--	--	0.2	0	0	0	--	--
Prosper		41	15	9	80	38	63	15	48	19	17	41	7	0	0.9	0.7	1.0	1.0	1.5	0.5	0.9	0.5	0.3	0.9	0.7	1.0	1.0	1.5	0.5	0.9	0.5	0.3	0.2	0	0	0	0	0
RB07		18	10	15	28	20	18	--	--	--	--	--	--	0	0.1	0.0	0.2	--	0.5	--	--	--	--	0.1	0.0	0.2	--	0.5	--	--	--	--	--	0	--	--	--	--
Rollag		34	23	9	58	24	55	13	19	33	9	17	12	1	0.5	0.0	0.9	0.6	0.8	0.3	--	--	--	0.5	0.0	0.9	0.6	0.8	0.3	--	--	--	0.1	0	0	0	--	--
Sabin		19	10	10	22	27	24	22	--	20	--	21	12	1	1.4	1.3	1.5	3.7	5.4	1.9	3.2	3.9	2.1	1.4	1.3	1.5	3.7	5.4	1.9	3.2	3.9	2.1	4.3	5	4	8	--	--
Samson		25	23	8	45	23	25	33	86	77	59	42	--	0	0.7	0.2	1.1	1.1	1.4	0.8	--	--	--	0.7	0.2	1.1	1.1	1.4	0.8	--	--	--	1.0	1	1	--	--	--
Select		21	18	21	17	27	21	--	--	--	--	--	--	0	0.3	0.4	0.2	--	0.7	--	--	--	--	0.3	0.4	0.2	--	0.7	--	--	--	--	--	1	--	--	--	--
SY Soren		14	9	8	17	10	26	8	24	4	7	11	10	0	6.4	4.1	8.6	1.6	2.1	1.1	1.1	--	--	6.4	4.1	8.6	1.6	2.1	1.1	1.1	--	--	2.5	5	0	3	--	--
Vantage		13	13	9	13	10	22	8	5	13	2	6	6	0	1.6	2.7	0.5	4.0	4.9	3.0	--	--	--	1.6	2.7	0.5	4.0	4.9	3.0	--	--	--	1.7	1	2	5	--	--
Velva		21	20	8	25	23	28	17	--	23	--	--	--	0	3.5	3.7	3.2	2.8	4.0	1.5	--	--	--	3.5	3.7	3.2	2.8	4.0	1.5	--	--	--	2.9	4	2	--	--	--
WB Digger		61	68	27	63	70	78	--	--	--	--	--	--	0	0.9	1.1	0.7	--	2.5	--	--	--	--	0.9	1.1	0.7	--	2.5	--	--	--	--	4.5	3	6	--	--	--
WB-Mayville		--	14	--	12	--	--	9	28	32	13	21	13	--	--	0.1	--	1.0	1.2	0.8	0.8	0.8	0.5	--	0.1	--	1.0	1.2	0.8	0.8	0.8	0.5	1.2	2	0	1	--	--
Albany		--	15	--	--	--	--	12	--	--	--	--	--	--	--	0.6	--	1.8	2.2	1.4	--	--	--	--	0.6	--	1.8	2.2	1.4	--	--	--	1.1	1	1	--	--	--
Alpine		--	28	--	--	--	--	12	--	--	--	12	13	--	--	0.1	--	0.9	1.5	0.3	0.6	0.6	0.3	--	0.1	--	0.9	1.5	0.3	0.6	0.6	0.3	0.5	1	1	1	0	0
Alsen		--	13	--	--	--	--	10	--	--	--	11	7	--	--	0.8	--	1.4	1.7	1.0	1.2	0.6	0.3	--	0.8	--	1.4	1.7	1.0	1.2	0.6	0.3	0.7	1	0	2	1	1
Briggs		--	10	--	--	--	--	10	--	16	--	11	--	--	--	1.8	--	1.4	1.7	1.0	--	--	--	--	1.8	--	1.4	1.7	1.0	--	--	--	1.6	2	1	--	--	--
Brogan		--	10	--	--	--	--	5	--	--	--	10	7	--	--	0.6	--	0.9	1.4	0.3	0.3	0.6	0.5	--	0.6	--	0.9	1.4	0.3	0.3	0.6	0.5	1.1	1	1	0	0	0
Freyr		--	15	--	--	--	--	23	69	38	20	21	12	--	--	0.6	--	1.2	2.0	0.3	1.6	0.9	0.5	--	0.6	--	1.2	2.0	0.3	1.6	0.9	0.5	1.2	2	1	1	0	0
Kuntz		--	45	--	70	--	--	--	--	--	--	--	--	--	--	0.1	--	--	1.7	--	--	--	--	--	0.1	--	--	1.7	--	--	--	--	--	2	--	--	--	--
Powerplay		--	35	--	--	--	--	8	10	37	7	10	8	--	--	0.9	--	1.4	1.8	0.9	1.2	1.2	1.2	--	0.9	--	1.4	1.8	0.9	1.2	1.2	1.2	1.3	1	1	3	0	0
Steele-ND																																						

LR%=Leaf Rust % - Flag Leaf

²DON test results reported as <0.5 ppm are listed as 0.3 ppm

L=Langdon, P=Pembina, W=Walsh, T=Towner, R=Ramsey, N=Nelson

¹FHB-Fusarium Head Blight-Field Severity (Incidence x head severity)

³Fusarium Damaged Kernels

Durum Summary, Langdon 2007-2011

Variety	Yield (bu/a)			Test Weight (lbs/bu)			Lodging (0-9)			Height (in)			Days to Head														
	07	08	09	10	11	3yr	08	09	10	11	3yr	08	09	10	11	3yr	08	09	10	11	3yr						
AC Commander	60	76	61	72	54	63	56.1	54.3	53.8	54.1	57.1	55.0	6.0	0.0	5.0	0.0	1.7	35	34	36	34	35	70	64	71	60	65
AC Navigator	50	78	58	63	47	56	55.8	57.2	56.5	54.0	57.3	55.9	3.3	2.2	4.7	0.5	2.5	37	34	37	34	35	70	65	70	60	65
Alkabo	80	77	88	89	65	81	60.6	59.5	60.2	58.1	60.5	59.6	0.8	0.0	3.7	0.7	1.5	41	45	43	41	43	70	65	71	59	65
Ben	64	80	84	90	64	79	59.5	59.5	59.5	59.4	60.1	59.7	1.5	1.8	3.5	0.4	1.9	43	47	44	42	44	68	64	69	58	64
DG Star	51	78	67	80	69	72	55.5	57.4	57.0	56.5	60.4	58.0	0.0	0.5	2.9	0.6	1.3	41	44	43	44	44	66	63	68	55	62
Dilse	66	83	80	84	61	75	58.6	58.6	59.4	57.0	59.7	58.7	3.3	1.9	5.5	0.2	2.5	42	44	43	43	43	71	64	72	61	66
Grenora	67	87	96	95	64	85	58.2	58.2	58.7	57.6	59.0	58.4	1.5	2.8	5.1	1.1	3.0	41	44	43	39	42	69	64	71	59	65
Lebsock	69	88	96	87	69	84	59.9	60.2	60.5	58.7	60.6	59.9	2.0	0.0	3.3	0.3	1.2	42	45	43	41	43	70	62	72	57	64
Maier	66	82	79	81	64	75	57.8	57.8	58.2	56.1	59.2	57.8	3.8	1.3	5.7	0.2	2.4	40	43	43	40	42	69	64	71	58	64
Mountrail	68	85	89	87	61	79	58.6	59.4	59.3	57.7	59.1	58.7	3.8	3.8	5.3	0.1	3.1	42	46	45	41	44	71	64	73	61	66
Pierce	61	80	85	87	66	79	59.5	59.6	59.7	58.4	60.7	59.6	3.3	1.5	5.1	0.4	2.3	43	47	45	43	45	69	64	71	59	65
Strongfield	56	83	75	81	63	73	56.9	57.3	58.0	55.3	59.9	57.7	2.3	0.0	6.3	0.2	2.2	40	42	43	40	42	69	63	73	59	65
Tioga	60	88	98	90	65	84	58.2	58.1	58.9	57.1	59.5	58.5	3.5	1.5	4.4	1.2	2.4	45	47	47	45	46	70	64	72	60	65
DG Max	--	81	78	78	64	73	--	59.5	58.6	57.2	60.4	58.7	2.3	0.7	5.1	0.4	2.1	43	46	45	43	44	67	62	69	57	63
Wales	--	76	78	84	68	77	--	56.1	56.6	57.1	60.8	58.1	1.0	0.0	3.2	2.1	1.8	40	43	42	41	42	69	62	70	60	64
Westhope	--	--	71	85	75	77	--	--	56.5	58.2	61.2	58.6	--	0.6	3.4	0.5	1.5	--	44	42	42	43	--	63	70	60	64
Alzada	52	60	--	58	50	--	54.3	56.7	50.4	53.5	56.5	53.4	0.0	0.0	7.2	0.3	2.5	33	33	33	31	32	66	59	66	55	60
Divide	65	84	--	90	65	--	58.4	58.4	--	56.7	59.9	--	1.8	--	5.8	0.3	--	42	--	45	43	--	71	--	71	61	--
CDC Verona	--	--	--	81	57	--	--	--	--	55.8	59.4	--	--	--	4.4	0.4	--	--	--	44	40	--	--	--	73	61	--
Rugby	--	--	--	--	--	58	--	--	--	--	59.8	--	--	--	--	0.3	--	--	--	--	47	--	--	--	--	59	--
WB-Belfield	--	--	--	--	45	--	--	--	--	--	55.8	--	--	--	--	0.1	--	--	--	--	31	--	--	--	--	52	--
Grande D'oro	62	86	87	87	--	--	59.0	59.9	60.5	59.2	--	--	2.0	0.8	3.9	--	--	42	42	44	--	--	69	65	73	--	--
AC Napoleon	61	86	85	--	--	--	56.4	57.9	56.1	--	--	--	2.5	1.4	--	--	--	44	46	--	--	--	69	64	--	--	--
LSD 5%	10.0	4.9	8.5	5.5	6.5	6.5	1.4	1.3	1.7	1.0	0.8	0.8	NS	2.0	1.3	1.4	1.4	1.7	1.7	2.0	2.2	2.2	1.4	1.1	1.0	1.0	1.0

Durum Summary, Nelson County 2007-2011

Variety	Yield (bu/a)			Test Weight (lbs/bu)			Height (in)			Days to Head		
	07	08	11	07	08	11	07	08	11	07	08	11
Alkabo	67	66	68	61.0	59.0	61.1	40	35	37	62	61	58
Grenora	60	69	72	59.4	57.7	61.0	38	33	36	62	61	59
Lebsock	61	66	72	60.8	60.0	62.5	39	33	37	62	60	58
DG Max	--	--	77	--	--	61.5	--	--	37	--	--	60
Tioga	--	--	80	--	--	61.1	--	--	40	--	--	62
Westhope	--	--	73	--	--	60.9	--	--	39	--	--	62
Divide	61	64	--	60.5	58.7	56.0	41	35	42	62	62	--
WB-Belfield	--	--	--	--	--	56.3	--	--	29	--	--	56
DG Star	--	64	74	--	57.5	60.3	--	34	38	--	58	68
Wales	--	68	75	--	58.4	61.6	--	35	37	--	59	69
Grande D'oro	65	69	--	61.2	60.2	58.6	41	34	41	63	60	72
Mountrail	61	--	--	60.1	--	--	40	--	--	62	--	--
Primo Doro	54	--	--	60.1	--	--	45	--	--	61	--	--
LSD 5%	5.2	NS	NS	0.5	0.9	0.8	1.8	NS	NS	0.7	2.1	1.3

2007 and 2008 yield data are from Devils Lake

Durum Summary, Towner County 2007-2011

Variety	Yield (bu/a)			Test Weight (lbs/bu)			Height (in)			Days to Head		
	07	08	11	07	08	11	07	08	11	07	09	11
Alkabo	51	42	73	59.1	59.1	60.0	27	38	41	63	56	48
Grenora	45	44	84	57.4	58.2	58.4	27	36	40	63	56	58
Lebsock	48	40	73	58.6	59.7	60.5	29	37	40	63	56	57
DG Max	--	--	71	--	--	58.9	--	39	42	--	56	48
Tioga	--	--	84	--	--	57.6	--	42	44	--	58	60
Westhope	--	--	68	--	--	57.2	--	36	40	--	57	59
Divide	51	40	--	57.9	59.1	56.9	29	--	42	64	--	54
WB-Belfield	--	--	--	--	--	55.3	--	--	31	--	--	46
DG Star	--	41	72	--	58.4	58.6	29	38	40	--	57	68
Wales	--	45	73	--	59.3	60.2	29	38	42	--	56	69
Grande D'oro	49	41	--	58.9	59.8	61.3	27	--	42	65	--	68
Mountrail	49	--	--	58.3	--	--	--	--	--	65	--	--
Primo Doro	49	--	--	58.8	--	--	--	--	--	62	--	--
LSD 5%	NS	3.2	6.9	0.7	0.5	NS	NS	1.8	2.0	0.9	1.0	NS

HRWW Summary, Langdon 2010-2011																		
Variety	Yield (bu/a)						Test Weight (lbs/bu)						Protein(%)					
	NoF*	wF*	NoF*	wF*	NoF*	wF*	NoF*	wF*	NoF*	wF*	NoF*	wF*	NoF*	wF*	NoF*	wF*	NoF*	wF*
Ideal	85	104	70	74	77	89	58.6	60.1	60.7	61.3	59.7	60.7	12.4	11.7	11.5	11.5	11.9	11.6
Art	85	101	67	70	76	85	58.9	60.4	61.2	61.8	60.0	61.1	12.8	12.7	13.0	13.0	12.9	12.9
Decade	59	95	65	72	62	83	54.6	57.9	60.9	61.6	57.8	59.7	12.2	12.8	11.5	12.3	11.9	12.6
CDC Falcon	72	93	68	73	70	83	56.7	58.9	59.9	60.7	58.3	59.8	12.3	12.1	11.5	11.4	11.9	11.7
Jerry	79	94	65	73	72	84	56.9	58.1	59.7	60.4	58.3	59.3	13.0	12.8	12.0	11.9	12.5	12.4
Peregrine	77	89	71	72	74	80	58.5	58.7	60.9	61.0	59.7	59.8	11.7	11.6	11.1	11.2	11.4	11.4
Millennium	84	97	60	65	72	81	58.1	59.7	60.2	60.7	59.1	60.2	12.5	12.5	12.3	12.3	12.4	12.4
Accipiter	79	99	58	65	68	82	57.1	58.5	59.4	60.4	58.2	59.5	11.4	11.7	11.7	11.7	11.5	11.7
Overland	89	97	60	65	75	81	58.5	60.1	60.8	61.3	59.7	60.7	12.3	12.4	11.9	12.0	12.1	12.2
Lyman	88	98	58	67	73	83	59.2	59.6	60.7	61.0	59.9	60.3	13.0	13.1	13.4	13.3	13.2	13.2
Boomer	79	95	60	64	70	80	56.3	58.7	58.9	60.2	57.6	59.5	12.3	12.3	12.0	12.1	12.1	12.2
Carter	65	95	58	67	61	81	57.5	59.5	60.4	61.3	59.0	60.4	12.4	12.3	12.5	12.4	12.5	12.4
SY-Wolf	74	94	59	63	66	78	57.2	59.0	60.5	61.1	58.8	60.1	12.1	12.2	12.2	12.4	12.1	12.3
Darrell	73	93	58	65	65	79	57.7	58.8	60.4	60.8	59.0	59.8	12.1	12.3	12.0	12.5	12.1	12.4
WB-Matlock	74	92	55	63	64	78	58.9	59.7	60.1	60.8	59.5	60.3	12.9	12.7	13.0	12.8	13.0	12.7
Striker	79	90	55	63	67	77	57.3	59.1	60.4	61.5	58.9	60.3	12.3	11.9	12.4	12.3	12.4	12.1
Yellowstone	53	90	51	63	52	77	52.8	55.6	57.4	58.8	55.1	57.2	12.3	12.3	11.9	12.2	12.1	12.3
Hawken	55	88	51	63	53	75	55.5	58.6	59.1	60.1	57.3	59.4	12.7	13.0	13.3	13.1	13.0	13.0
Wesley	61	81	55	59	58	70	54.7	57.4	59.7	60.5	57.2	58.9	13.2	13.4	12.6	13.3	12.9	13.3
Expedition	--	--	53	60	--	--	--	--	60.1	60.6	--	--	--	--	12.2	12.3	--	--
Jagalene	56	102	--	--	--	--	55.6	58.8	--	--	--	--	11.6	11.4	--	--	--	--
Camelot	72	94	--	--	--	--	57.0	59.2	--	--	--	--	12.7	12.8	--	--	--	--
Mace	74	90	--	--	--	--	56.5	58.7	--	--	--	--	11.9	11.9	--	--	--	--
LSD 5%	13.5		5.1				1.8		0.6				0.8		0.4			
Average	73	94	60	66	67	80	57.0	58.9	60.1	60.8	58.6	59.8	12.4	12.4	12.2	12.3	12.3	12.4

2010 - wF = Prosar at early flower, 6.5 oz/a + NIS 0.125% v/v, NoF = No Fungicide

2011 - wF = Stratego at herbicide time, 4oz/a + Prosar at early flower, 6.5 oz/a + NIS 0.125% v/v, NoF = No Fungicide

HRWW Summary, Langdon 2009-2011																
Variety	Winter Survival (%)				Heading Date (after June1)				Height (in)				Lodging (0-9)			
	09	10	11	3yr	09	10	11	3yr	09	10	11	3yr	09	10	11	3yr
Ideal	94	100	100	98	23	24	25	24	36	37	30	34	0	2.2	0.0	0.7
Art	95	100	100	98	21	16	22	20	33	36	29	33	0	1.0	0.0	0.3
Decade	--	100	100	--	--	17	23	--	--	36	30	--	--	1.7	0.0	--
CDC Falcon	91	100	100	97	21	19	25	22	33	34	28	31	0	2.0	0.0	0.7
Jerry	90	100	100	97	22	20	27	23	42	42	35	39	0	3.5	0.0	1.2
Peregrine	95	100	100	98	24	20	29	24	44	44	37	41	0	2.3	0.0	0.8
Millennium	95	100	100	98	25	18	23	22	38	41	31	37	0	1.5	0.0	0.5
Accipiter	89	100	100	96	25	22	31	26	35	40	30	35	0	1.5	0.0	0.5
Overland	97	100	100	99	21	15	22	19	37	39	30	35	0	1.5	0.0	0.5
Lyman	91	100	100	97	22	15	23	20	36	37	30	34	0	3.7	1.3	1.7
Boomer	90	100	100	97	24	20	28	24	37	39	31	35	0	1.8	0.0	0.6
Carter	--	100	100	--	--	16	28	--	--	32	26	--	--	3.3	0.0	--
SY-Wolf	--	100	100	--	--	16	23	--	--	36	28	--	--	0.5	0.0	--
Darrell	91	100	100	97	25	15	24	22	38	37	31	35	0	1.8	1.3	1.1
WB-Matlock	85	100	100	95	25	19	29	24	37	39	29	35	0	1.3	0.0	0.4
Striker	86	100	100	95	23	17	25	22	33	35	29	32	0	0.8	0.0	0.3
Yellowstone	93	100	100	98	26	22	30	26	38	38	30	36	0	1.8	0.0	0.6
Hawken	92	100	100	97	20	12	22	18	30	33	25	29	0	0.0	0.0	0.0
Wesley	96	100	100	99	23	14	22	20	32	34	26	31	0	1.0	0.0	0.3
Expedition	93	--	100	--	22	--	23	--	36	--	29	--	0	--	1.3	--
Jagalene	90	100	--	--	23	16	--	--	34	36	--	--	0	2.2	--	--
Camelot	--	100	--	--	--	14	--	--	--	37	--	--	--	3.2	--	--
Mace	89	100	--	--	20	19	--	--	32	35	--	--	0	1.8	--	--
CDC Buteo	93	--	--	--	24	--	--	--	41	--	--	--	0	--	--	--
Alice	88	--	--	--	21	--	--	--	32	--	--	--	0	--	--	--
LSD 5%	4.3	NS	--	--	2.4	2.1			2.1	2.2			--	NS		

2010 and 2011 data are an average of fungicide and no fungicide plots

HRWW Summary - Devils Lake, Willow City and 2010-2011 Averages																
Variety	Yield (bu/a)								Test Weight (lbs/bu)							
	No Fungicide				With Fungicide ^b				No Fungicide				With Fungicide ^b			
	2010 ^a	Devils	Willow	2011	2010 ^a	Devils	Willow	2011	2010 ^a	Devils	Willow	2011	2010 ^a	Devils	Willow	2011
Ave	Lake	City	Ave	Ave	Lake	City	Ave	Ave	Lake	City	Ave	Ave	Lake	City	Ave	
Accipiter	89	70	63	67	98	88	91	89	60.3	60.4	58.4	59.4	62.1	61.7	60.7	61.2
Art	--	74	73	74	--	82	91	87	--	59.9	59.1	59.5	--	60.9	61.0	61.0
Boomer	92	73	60	67	99	80	83	81	59.1	58.2	57.1	57.6	60.1	59.8	59.4	59.6
CDC Falcon	90	76	60	68	99	81	85	83	59.2	59.0	56.7	57.9	60.8	60.0	59.8	59.9
Darrel	--	77	84	80	--	88	90	89	--	60.9	59.8	60.4	--	61.1	60.1	60.6
Decade	--	75	79	77	--	86	93	89	--	60.5	58.9	59.7	--	61.2	60.2	60.7
Hawken	90	69	--	69	97	82	--	82	60.0	60.6	--	--	61.3	61.7	--	--
Jerry	95	72	66	69	102	77	80	78	59.2	59.8	59.0	59.4	60.4	60.7	60.1	60.4
Lyman	98	71	76	74	100	81	90	85	60.8	61.4	60.9	61.1	60.4	61.9	61.4	61.7
Millennium	99	76	69	73	104	86	89	87	60.3	60.5	59.9	60.2	60.5	61.1	61.1	61.1
Overland	99	78	80	79	105	91	92	91	60.3	60.4	59.9	60.2	60.6	61.5	60.4	61.0
Striker	91	67	55	61	100	75	81	78	59.7	59.6	57.3	58.5	60.8	61.2	60.3	60.8
SY Wolf	--	81	83	82	--	88	92	90	--	61.8	59.4	60.6	--	62.2	59.8	61.0
WB-Matlock	95	74	63	68	101	85	83	84	60.3	60.4	59.6	60.0	61.1	61.8	60.4	61.1
Site Average	94	74	70	72	101	83	88	85	59.9	60.2	58.9	59.6	60.8	61.2	60.4	60.8
LSD 5%		5.9	4.4			5.9	4.4		0.7	0.5			0.7	0.5		

Variety	Protein (%)								Foliar Necrosis % at Soft Dough							
	No Fungicide				With Fungicide ^b				No Fungicide				With Fungicide ^b			
	2010 ^a	Devils	Willow	2011	2010	Devils	Willow	2011	2010 ^a	Devils	Willow	2011	2010 ^a	Devils	Willow	2011
Ave	Lake	City	Ave	Ave	Lake	City	Ave	Ave	Lake	City	Ave	Ave	Lake	City	Ave	
Accipiter	10.8	11.2	12.1	11.7	10.9	11.0	11.7	11.3	58	73	63	68	37	20	28	24
Art	--	12.4	12.8	12.6	--	12.2	12.7	12.5	--	80	40	60	--	35	30	33
Boomer	11.4	12.1	12.6	12.4	11.5	11.9	12.2	12.1	84	65	67	66	50	25	37	31
CDC Falcon	11.0	11.8	12.7	12.2	11.4	11.7	12.0	11.9	75	90	66	78	50	40	40	40
Darrel	--	11.5	12.5	12.0	--	11.7	12.2	12.0	--	60	35	48	--	25	22	23
Decade	--	12.1	11.9	12.0	--	12.0	11.7	11.8	--	83	38	60	--	35	22	28
Hawken	12.0	12.7	--	--	12.1	12.5	--	--	79	65	--	65	46	40	--	40
Jerry	11.9	12.1	12.4	12.2	11.9	12.3	12.3	12.3	51	75	63	69	32	20	33	27
Lyman	12.2	12.7	12.5	12.6	12.1	13.2	12.9	13.1	59	55	60	58	37	15	30	23
Millennium	11.4	12.0	11.9	12.0	11.3	12.1	12.2	12.2	67	65	57	61	48	30	20	25
Overland	11.6	12.3	11.7	12.0	11.6	12.6	11.7	12.1	58	30	40	35	37	15	28	22
Striker	11.5	12.1	12.7	12.4	11.7	12.0	12.7	12.3	73	85	76	81	47	45	45	45
SY Wolf	--	11.9	12.8	12.3	--	11.9	12.7	12.3	--	25	33	29	--	15	22	45
WB-Matlock	11.8	12.7	12.7	12.7	11.8	12.6	12.9	12.8	67	80	63	72	42	20	30	18
Site Average	11.6	12.1	12.4	12.2	11.6	12.1	12.3	12.2	67	66	54	61	42	27	30	30
LSD 5%		0.5	0.4			0.5	0.4									

Variety	Tombstone Kernel (%)								Height (in)				Lodging (0-9)			
	No Fungicide				With Fungicide ^b				2010 ^a Devils Willow 2011				2010 ^a Devils Willow 2011			
	Ave	Lake	City	Ave	Ave	Lake	City	Ave	Ave	Lake	City	Ave	Ave	Lake	City	Ave
Accipiter	1.4	1.0	1.3	1.2	0.0	0.0	0.8	0.4	36	37	37	37	0.2	2.2	1.8	2.0
Art	2.8	0.7	1.0	0.8	1.0	0.2	0.7	0.4	31	32	34	33	0.3	2.0	2.5	2.3
Boomer	--	1.0	2.8	1.9	--	0.0	0.8	0.4	--	36	37	36	--	2.3	2.8	2.6
CDC Falcon	3.1	0.3	1.3	0.8	0.9	0.3	0.8	0.6	35	33	35	34	1.7	2.2	3.2	2.7
Darrel	--	0.8	0.7	0.8	--	0.3	0.7	0.5	--	36	39	38	--	2.5	3.0	2.8
Decade	--	1.7	4.3	3.0	--	1.2	2.5	1.8	--	34	37	36	--	1.3	1.2	1.3
Hawken	1.3	1.3	--	--	0.3	0.7	--	--	33	30	--	--	0.2	1.2	--	--
Jerry	0.4	0.2	1.0	0.6	0.3	0.3	0.5	0.4	42	40	42	41	1.6	2.8	2.8	2.8
Lyman	0.6	0.5	0.8	0.7	0.1	0.3	0.3	0.3	36	35	38	36	3.3	4.3	3.2	3.8
Millennium	1.2	0.8	2.0	1.4	0.4	0.5	0.5	0.5	39	38	40	39	0.7	3.2	3.3	3.3
Overland	0.1	0.7	2.0	1.3	0.2	0.2	1.2	0.7	37	37	38	37	0.5	3.5	2.3	2.9
Striker	2.0	1.3	2.8	2.1	1.2	0.5	0.5	0.5	34	33	35	34	0.3	1.3	3.0	2.2
SY Wolf	--	1.7	1.7	1.7	--	1.7	1.3	1.5	--	34	34	34	--	1.0	1.0	1.0
WB-Matlock	1.1	0.7	0.8	0.8	0.1	0.0	0.7	0.3	38	37	38	37	1.0	2.8	2.0	2.4
Site Average	1.4	0.9	1.7	1.3	0.5	0.4	0.9	0.6	36	35	37	36	1.0	2.3	2.5	2.4

a - 2010 data is an average of Tolna, Leeds and Lakota sites.

b - 2010 - with Fungicide = Prosaro at early flower, 6.5 oz/a + NIS 0.125% v/v

b - 2011 - with Fungicide = Stratego at herbicide time, 4oz/a + Prosaro at early flower, 6.5 oz/a + NIS 0.125% v/v

Height and lodging data is an average of fungicide and no fungicide plots

HRWW Disease Summary, Langdon 2010-2011

Variety	Foliar Necrosis (%)						Leaf Rust (%)						FDK (%) Tombstones						Stripe Rust (%)		Bacterial Leaf (%)			
	NoF**		wF**		NoF**		wF**		NoF**		wF**		NoF**		wF**		NoF**		wF**		2010		2009	
	10	11	11	11	2yr	2yr	10	10	11	11	2yr	2yr	10	10	11	11	2yr	2yr	10	10	11	11	2yr	2yr
Accipiter	57	17	63	23	60	20	1	0	0	0	0	0	14	2	11	4	13	3	0.3				0.0	0.0
Art	57	17	88	63	73	40	0	0	0	0	0	0	17	6	4	1	11	4	0.3				2.5	2.5
Boomer	47	17	70	47	58	32	0	0	0	0	0	0	16	8	7	5	12	6	1.0				0.0	0.0
Carter	93	20	80	37	87	28	0	0	2	0	1	0	16	4	2	1	9	3	0.0				--	--
CDC Falcon	90	27	93	47	92	37	1	0	0	0	1	0	15	9	5	3	10	6	0.3				0.0	0.0
Darrell	67	10	67	33	67	22	2	0	1	0	2	0	14	4	5	5	10	4	0.7				0.0	0.0
Decade	90	13	92	30	91	22	8	0	25	1	16	1	42	23	8	2	25	13	0.0				--	--
Expedition	--	--	83	57	--	--	--	--	2	0	--	--	--	--	3	2	--	--	--				--	--
Hawken	73	23	57	50	65	37	0	0	0	0	0	0	25	19	10	3	17	11	1.0				6.3	6.3
Ideal	37	13	57	30	47	22	0	0	0	0	0	0	14	10	8	4	11	7	0.7				0.0	0.0
Jerry	30	12	77	53	53	33	0	0	0	0	0	0	6	4	5	3	6	3	0.3				0.0	0.0
Lyman	30	13	47	37	38	25	0	0	0	0	0	0	10	7	3	2	6	5	0.0				0.0	0.0
Millennium	37	10	60	30	48	20	1	0	0	0	0	0	18	8	5	3	12	6	0.0				3.8	3.8
Overland	30	13	82	57	56	35	0	0	0	0	0	0	17	11	6	4	12	8	0.3				0.0	0.0
Peregrine	53	20	43	17	48	18	0	0	0	0	0	0	5	3	2	2	3	3	0.3				0.0	0.0
Striker	70	27	92	70	81	48	1	0	0	0	1	0	22	14	6	3	14	9	0.0				0.5	0.5
SY-Wolf	33	13	40	30	37	22	0	0	0	0	0	0	28	13	7	3	18	8	0.7				--	--
WB-Matlock	63	30	83	53	73	42	2	0	0	0	1	0	11	4	5	4	8	4	0.7				0.0	0.0
Wesley	53	27	93	57	73	42	3	0	9	0	6	0	39	18	7	5	23	11	0.3				0.0	0.0
Yellowstone	83	27	80	47	82	37	8	0	7	0	8	0	28	11	13	9	21	10	0.0				3.5	3.5
Camalot	77	23	--	--	--	--	0	0	--	--	--	--	31	14	--	--	--	--	0.0				--	--
Jagalene	100	23	--	--	--	--	8	0	--	--	--	--	32	23	--	--	--	--	2.0				11.3	11.3
Mace	57	23	--	--	--	--	0	0	--	--	--	--	17	7	--	--	--	--	0.0				0.0	0.0

2010 - wF = Prosarato at early flower, 6.5 oz/a + NIS 0.125% v/v, NoF = No Fungicide

2011 - wF = Stratego at herbicide time, 4oz/a + Prosarato at early flower, 6.5 oz/a + NIS 0.125% v/v, NoF = No Fungicide

Winter Cereals



Sustainability in Action

Winter Cereals Sustainability in Action, in northeast ND, is a joint research and education initiative between Ducks Unlimited, Bayer Crop Science, NDSU Extension Service and NDSU Langdon R/E Center. The objective is to improve agricultural productivity of winter wheat. Increased winter wheat acres will provide improved habitat for wildlife in areas with low levels of grassland. This program provides all salaries and operating funds for the winter wheat effort based at the NDSU Langdon R/E Center. The research on winter wheat includes varieties, fungicides, fertility and weed control. Contact John Lukach at the Langdon R/E Center for additional information.

Barley Summary - Langdon - 2007-2011

Variety	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)			Plump (%)					
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	3yr	07	08	09	10	11	3yr
Lacey	106	139	121	128	110	120	49.8	50.1	48.1	50.3	49.6	49.3	2.8	2.8	2.8	86	91	93	94	94	94
Rasmusson	105	138	124	150	117	130	49.4	50.1	48.1	48.9	49.5	48.8	2.8	1.8	2.3	87	93	94	94	94	94
Stellar-ND	94	127	123	128	116	122	48.6	49.1	47.6	49.1	48.6	48.4	4.8	1.0	2.9	89	96	98	97	95	97
Tradition	90	125	125	131	114	123	48.7	50.2	48.5	49.8	49.3	49.2	3.8	1.0	2.4	84	96	95	95	92	94
Celebration	--	126	134	123	108	122	--	49.8	48.3	49.4	49.3	49.0	--	1.0	--	--	94	96	92	95	94
Quest	--	128	130	133	108	123	--	48.8	46.0	48.4	48.7	47.7	--	0.5	--	--	91	86	88	87	87
Innovation	--	--	--	126	117	--	--	--	--	49.6	48.7	--	--	--	--	--	--	--	93	92	--
Drummond	97	128	115	--	--	--	49.0	49.3	47.4	--	--	--	2.0	0.3	1.2	86	94	94	--	--	--
Legacy	90	145	120	--	--	--	47.9	49.3	47.5	--	--	--	4.5	2.5	3.5	81	91	89	--	--	--
Robust	93	123	132	--	--	--	50.2	50.8	48.8	--	--	--	3.8	0.3	2.1	88	95	91	--	--	--
AC Metcalfe*	81	129	124	122	93	113	49.2	49.2	48.5	50.0	49.4	49.3	7.3	3.0	5.2	78	88	87	94	88	89
CDC Copeland*	85	129	133	136	89	119	48.5	48.6	47.9	48.2	49.2	48.4	7.5	1.3	4.4	81	93	90	97	92	93
Conlon*	90	127	114	125	99	112	50.2	51.0	49.8	51.5	51.6	51.0	6.5	2.3	4.4	91	95	94	97	97	96
Pinnacle*	83	134	133	130	115	126	48.8	51.1	49.7	49.1	51.1	50.0	6.8	0.3	3.6	85	95	94	95	95	94
Rawson*	93	140	132	140	107	126	49.4	48.9	47.2	48.7	49.4	48.4	6.0	3.5	4.8	93	94	95	98	95	96
Lilly*	--	--	--	116	92	--	--	--	--	50.6	48.8	--	--	--	--	--	--	--	91	87	--
Conrad*	73	128	130	--	98	--	49.2	49.1	48.0	--	50.1	--	7.8	3.5	--	81	88	87	--	92	--
Sunshine*	--	--	--	128	--	--	--	--	--	49.8	--	--	--	--	--	--	--	--	96	--	--
Scarlett*	73	120	116	--	--	--	47.3	48.8	49.2	--	--	--	6.0	3.8	--	83	90	94	--	--	--
Bowman*	78	125	--	--	--	--	48.6	50.5	--	--	--	--	7.0	4.3	--	81	91	--	--	--	--
LSD 5%	11.6	14.4	14.1	13.7	10.9		1.0	1.0	1.2	0.7	0.8		3.1	NS		5.4	4.6	5.8	0.5	3.3	

*2-row

Barley Summary - Langdon - 2007-2010																		
Variety	Height (in)						Protein (%)						Days to Head					
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr
Lacey	35	39	33	39	36	36	12.5	13.4	11.8	12.3	13.3	12.5	58	65	57	64	51	57
Rasmusson	35	36	32	37	32	34	12.1	12.3	11.6	12.1	12.5	12.1	58	64	56	66	50	57
Stellar-ND	36	38	34	39	34	36	13.0	12.6	12.2	12.1	12.4	12.2	59	65	57	64	51	58
Tradition	36	37	37	40	36	38	13.0	12.7	12.1	12.0	12.7	12.3	61	66	59	65	53	59
Celebration	--	36	36	38	35	36	--	13.1	12.8	12.3	13.7	12.9	--	66	57	66	54	59
Quest	--	36	38	39	38	38	--	12.1	12.5	11.9	12.7	12.4	--	65	57	66	52	58
Innovation	--	--	--	38	33	--	--	--	--	12.3	12.5	--	--	--	--	64	51	--
Drummond	37	39	36	--	--	--	12.6	13.2	12.5	--	--	--	59	66	57	--	--	--
Legacy	35	40	38	--	--	--	12.9	12.7	12.7	--	--	--	61	67	59	--	--	--
Robust	36	40	39	--	--	--	13.4	12.8	13.1	--	--	--	59	66	57	--	--	--
AC Metcalfe*	33	39	38	38	35	37	13.5	12.9	12.3	11.9	13.7	12.6	61	68	59	67	54	60
CDC Copeland*	34	38	39	40	36	38	12.8	11.6	11.3	11.3	12.9	11.8	63	68	62	70	56	63
Conlon*	34	34	35	35	34	35	13.2	12.6	12.0	12.3	12.7	12.3	55	62	53	60	49	54
Pinnacle*	34	35	37	39	35	37	12.1	11.2	10.9	10.8	12.0	11.2	61	65	58	66	54	59
Rawson*	35	36	37	38	36	37	12.2	12.2	11.9	11.3	11.9	11.7	57	63	55	63	50	56
Lilly*	--	--	--	32	31	--	--	--	--	11.2	12.1	--	--	--	--	67	53	--
Conrad*	32	34	36	--	31	--	14.4	13.0	12.5	--	12.7	--	64	68	60	--	55	--
Sunshine*	--	--	--	32	--	--	--	--	--	11.5	--	--	--	--	--	68	--	--
Scarlett*	30	30	32	--	--	--	13.4	12.8	12.7	--	--	--	66	70	63	--	--	--
Bowman*	34	34	--	--	--	--	13.9	13.3	--	--	--	--	57	63	--	--	--	--
LSD 5%	1.9	2.5	3.1	1.0	3.3		0.6	1.2	0.9	0.5	0.7		1.1	0.9	1.2	1.0	1.0	

*2-row

Barley Summary - Pembina County - 2007-2011

Variety	Yield (bu/a)			Test Weight (lbs/bu)			Protein (%)			Plump (%)														
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr						
Lacey	87	149	128	103	95	109	50.3	50.1	49.5	49.4	50.4	49.8	11.8	12.9	11.6	11.6	13.2	12.1	94	97	96	99	93	96
Pinnacle*	80	140	141	105	102	116	51.0	48.7	48.8	48.8	51.8	49.8	10.3	11.8	11.1	10.6	11.7	11.1	97	97	96	99	96	97
Stellar-ND	74	148	131	108	100	113	48.9	48.4	47.7	47.4	49.6	48.2	11.3	12.6	11.8	11.7	12.5	12.0	94	98	95	99	92	95
Tradition	70	136	127	101	97	108	49.9	49.3	48.7	48.7	51.0	49.5	11.9	12.7	11.8	11.6	12.9	12.1	93	97	96	98	92	95
Rasmusson	--	155	141	101	110	117	--	49.9	48.9	48.8	50.8	49.5	--	12.5	11.5	11.0	12.4	11.6	--	98	94	97	91	94
Celebration	--	--	133	95	95	108	--	--	49.0	48.5	49.1	48.9	--	--	12.2	12.4	14.2	12.9	--	--	96	96	88	93
Quest	--	--	--	--	99	105	--	--	--	48.1	50.3	--	--	--	--	11.8	13.0	--	--	--	93	86	--	--
LSD 5%	10.3	7.6	NS	NS	NS	7.0	0.5	0.5	0.8	0.5	0.8	0.7	0.6	0.6	NS	0.7	0.7	1.5	NS	NS	1.0	3.2	--	

*Two row barley

Barley trials are conducted in Pembina County in odd number years and Walsh County in even numbered years. 2008 and 2010 data is from Walsh County.

Barley Summary - Towner County - 2007-2011

Variety	Yield (bu/a)			Test Weight (lbs/bu)			Lodging (0-9)			Protein (%)			Plump (%)														
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr									
Lacey	77	72.7	122	118	77	105	47.5	46.2	50.1	50.8	49.3	50.1	2.3	0.5	1.4	12.7	13.9	11.9	12.2	13.7	12.6	76	77	98	95	95	96
Pinnacle*	80	86.4	125	121	79	108	49.4	49.8	50.9	51.7	49.6	50.7	0.0	2.0	1.0	11.0	12.9	11.0	10.9	12.4	11.4	92	97	99	98	94	97
Stellar-ND	80	72.7	125	112	83	106	47.2	45.1	48.6	49.2	48.3	48.7	2.8	1.0	1.9	12.2	14.1	11.3	11.8	13.5	12.2	86	82	98	97	95	96
Tradition	72	78.6	122	123	81	108	46.6	47.4	49.5	50.6	49.1	49.7	1.0	0.8	0.9	12.5	14.1	11.7	12.4	13.4	12.5	76	87	98	96	93	96
Rasmusson	--	75.1	128	128	84	113	--	45.8	49.8	50.5	47.9	49.4	4.3	1.5	2.9	--	14.1	11.6	11.7	13.3	12.2	--	73	97	91	87	92
Celebration	--	--	126	116	71	104	--	--	49.4	49.5	47.8	48.9	6.3	1.3	3.8	--	--	11.8	12.8	15.1	13.2	--	--	98	92	89	93
Quest	--	--	--	120	81	--	--	--	--	48.4	46.7	--	2.3	3.0	--	--	--	--	12.3	13.6	--	--	--	--	87	80	--
Drummond	76	--	--	--	--	--	46.7	--	--	--	--	--	--	--	--	12.7	--	--	--	--	--	75	--	--	--	--	--
Legacy	63	--	--	--	--	--	45.2	--	--	--	--	--	--	12.6	--	--	--	--	--	78	--	--	--	--			
LSD 5%	4.1	7.2	NS	NS	NS	5.6	0.5	0.8	0.4	0.7	0.8	1.0	1.1	--	0.3	0.5	0.4	0.4	0.4	5.3	9.1	0.6	2.8	3.7	--		

*2-row barley

Oats Summary, Langdon 2007-2011																		
Variety	Yield (bu/a)						Test Weight (lbs/bu)						Days to Head					
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr
AC Pinnacle	149	197	222	175	184	194	37.8	36.0	34.7	33.7	37.1	35.2	68	71	61	73	61	65
Beach	133	183	190	174	147	170	39.6	38.8	38.9	37.3	41.9	39.3	65	69	59	70	58	62
Buff*	93	129	131	132	104	122	46.0	44.7	44.9	46.6	48.6	46.7	59	65	53	65	52	57
CDC Dancer	135	186	203	188	152	181	40.2	38.2	37.4	37.9	42.0	39.1	67	70	59	72	59	63
HiFi	161	175	197	204	177	193	40.0	38.4	38.4	40.1	40.7	39.7	66	69	59	71	58	63
Hytest	118	152	146	141	123	136	40.3	41.6	41.8	41.5	42.8	42.1	62	67	56	67	54	59
Jerry	122	170	152	140	121	138	39.3	39.1	38.6	38.4	40.2	39.1	61	66	56	67	55	59
Killdeer	135	185	176	172	158	169	36.9	37.5	37.2	35.9	38.3	37.1	63	68	57	68	55	60
Morton	141	166	181	143	130	151	40.4	39.2	39.1	37.4	40.5	39.0	64	68	59	70	57	62
Otana	105	186	149	123	112	128	32.8	38.1	35.1	29.9	36.5	33.8	66	71	62	71	59	64
Rockford	169	177	206	191	180	192	41.2	39.9	39.5	40.6	42.0	40.7	67	70	60	71	59	63
Souris	150	187	204	197	162	188	40.2	37.6	37.5	39.4	41.1	39.3	65	69	58	70	57	62
Stallion	153	171	168	176	157	167	39.6	40.3	39.1	39.0	42.3	40.1	65	69	60	69	57	62
Stark*	116	131	156	136	139	144	43.8	41.7	42.4	43.1	45.4	43.6	68	73	62	73	60	65
Youngs	143	183	189	140	131	153	37.9	36.9	36.7	33.4	39.1	36.4	68	71	60	72	59	64
Furlong	--	177	171	157	141	157	--	36.0	36.4	34.4	38.4	36.4	--	72	64	73	62	66
Minstrel CDC	--	185	180	157	154	164	--	35.9	34.7	32.3	36.3	34.4	--	69	57	70	57	61
Newburg	--	187	241	216	177	211	--	37.8	38.7	38.8	40.1	39.2	--	67	60	69	58	62
Leggett	--	--	207	212	185	202	--	--	36.5	38.1	41.3	38.6	--	--	59	72	58	63
Monida	--	--	--	116	119	--	--	--	--	29.0	34.0	--	--	--	--	72	57	--
Shelby 427	--	--	--	168	152	--	--	--	--	41.3	41.9	--	--	--	--	65	52	--
Streaker	--	--	--	120	113	--	--	--	--	48.7	49.5	--	--	--	--	65	53	--
Maida	131	156	165	152	--	--	38.9	37.4	36.7	38.5	--	--	62	69	58	70	--	--
Paul*	101	125	151	125	--	--	44.7	43.7	41.9	44.0	--	--	68	72	62	72	--	--
AC Assiniboia	105	--	--	--	--	--	35.1	--	--	--	--	--	68	--	--	--	--	--
AC Ronald	99	--	--	--	--	--	33.7	--	--	--	--	--	70	--	--	--	--	--
CDC Weaver	126	--	--	--	--	--	35.8	--	--	--	--	--	68	--	--	--	--	--
LSD 5%	15.3	15.5	23.5	18.1	13.4		1.1	0.9	1.3	1.7	1.1		1.7	1.5	1.2	1.0	1.1	

*Naked-hull variety

Oats Summary, Langdon 2007-2011																		
Variety	Yield (bu/a)						Test Weight (lbs/bu)						Days to Head					
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr
AC Pinnacle	149	197	222	175	184	194	37.8	36.0	34.7	33.7	37.1	35.2	68	71	61	73	61	65
Beach	133	183	190	174	147	170	39.6	38.8	38.9	37.3	41.9	39.3	65	69	59	70	58	62
Buff*	93	129	131	132	104	122	46.0	44.7	44.9	46.6	48.6	46.7	59	65	53	65	52	57
CDC Dancer	135	186	203	188	152	181	40.2	38.2	37.4	37.9	42.0	39.1	67	70	59	72	59	63
HiFi	161	175	197	204	177	193	40.0	38.4	38.4	40.1	40.7	39.7	66	69	59	71	58	63
Hyttest	118	152	146	141	123	136	40.3	41.6	41.8	41.5	42.8	42.1	62	67	56	67	54	59
Jerry	122	170	152	140	121	138	39.3	39.1	38.6	38.4	40.2	39.1	61	66	56	67	55	59
Killdeer	135	185	176	172	158	169	36.9	37.5	37.2	35.9	38.3	37.1	63	68	57	68	55	60
Morton	141	166	181	143	130	151	40.4	39.2	39.1	37.4	40.5	39.0	64	68	59	70	57	62
Otana	105	186	149	123	112	128	32.8	38.1	35.1	29.9	36.5	33.8	66	71	62	71	59	64
Rockford	169	177	206	191	180	192	41.2	39.9	39.5	40.6	42.0	40.7	67	70	60	71	59	63
Souris	150	187	204	197	162	188	40.2	37.6	37.5	39.4	41.1	39.3	65	69	58	70	57	62
Stallion	153	171	168	176	157	167	39.6	40.3	39.1	39.0	42.3	40.1	65	69	60	69	57	62
Stark*	116	131	156	136	139	144	43.8	41.7	42.4	43.1	45.4	43.6	68	73	62	73	60	65
Youngs	143	183	189	140	131	153	37.9	36.9	36.7	33.4	39.1	36.4	68	71	60	72	59	64
Furlong	--	177	171	157	141	157	--	36.0	36.4	34.4	38.4	36.4	--	72	64	73	62	66
Minstrel CDC	--	185	180	157	154	164	--	35.9	34.7	32.3	36.3	34.4	--	69	57	70	57	61
Newburg	--	187	241	216	177	211	--	37.8	38.7	38.8	40.1	39.2	--	67	60	69	58	62
Leggett	--	--	207	212	185	202	--	--	36.5	38.1	41.3	38.6	--	--	59	72	58	63
Monida	--	--	--	116	119	--	--	--	--	29.0	34.0	--	--	--	--	72	57	--
Shelby 427	--	--	--	168	152	--	--	--	--	41.3	41.9	--	--	--	--	65	52	--
Streaker	--	--	--	120	113	--	--	--	--	48.7	49.5	--	--	--	--	65	53	--
Maida	131	156	165	152	--	--	38.9	37.4	36.7	38.5	--	--	62	69	58	70	--	--
Paul*	101	125	151	125	--	--	44.7	43.7	41.9	44.0	--	--	68	72	62	72	--	--
AC Assiniboia	105	--	--	--	--	--	35.1	--	--	--	--	--	68	--	--	--	--	--
AC Ronald	99	--	--	--	--	--	33.7	--	--	--	--	--	70	--	--	--	--	--
CDC Weaver	126	--	--	--	--	--	35.8	--	--	--	--	--	68	--	--	--	--	--
LSD 5%	15.3	15.5	23.5	18.1	13.4		1.1	0.9	1.3	1.7	1.1		1.7	1.5	1.2	1.0	1.1	

*Naked-hull variety

Oat Disease Summary, 2009-10															
Variety	Crown Rust %			Variety	Crown Rust %			Variety	Crown Rust %			Variety	Crown Rust %		
	09	10	2yr		09	10	2yr		09	10	2yr		09	10	2yr
Beach	2	12	7	HiFi	0	0	0	Morton	1	26	14	Souris	0	1	1
Buff	1	4	3	Killdeer	4	28	16	Otana	53	73	63	Stallion	0	0	0
CDC Dancer	2	5	4	Leggett	0	0	0	Paul	0	1	1	Stark	1	1	1
Furlong	5	15	10	Maida	1	10	6	AC Pinnacle	2	4	3	Streaker	--	2	--
Hyttest	1	14	8	Minstrel CDC	7	47	27	Rockford	0	0	0	Youngs	1	7	4
Jerry	7	49	28	Monida	--	40	--	Shelby427	--	0	--	LSD 5%	12	8	

Crown Rust - % flag leaf

Flax Summary, Langdon 2007-2011																														
Variety	Yield (bu/a)						Test Weight (lbs/bu)						Lodging (0-9)						Height (in)						Days to Flower					
	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr	07	08	09	10	11	3yr
Bison	17	34	29	45	37	37	52.1	53.1	49.1	52.4	53.3	51.6	5.5	0	4.5	0.5	0	1.7	26	23	31	31	28	30	59	63	53	42	50	48
Carter*	36	34	37	47	41	42	53.6	53.7	50.8	53.0	53.5	52.4	0.5	0	1.5	0.0	0	0.5	27	23	30	29	28	29	60	65	53	42	50	48
CDC Arras	23	37	36	48	40	41	51.6	53.1	49.8	52.6	53.0	51.8	2.5	0	3.3	0.5	0	1.3	26	22	30	32	28	30	59	62	53	43	50	49
CDC Bethune	29	38	37	51	37	42	52.7	53.0	50.3	53.2	52.8	52.1	1.5	0	2.0	0.0	0	0.7	27	22	30	32	28	30	59	63	53	43	50	49
Hanley	29	36	35	51	41	42	53.0	53.6	50.1	53.0	53.1	52.1	2.8	0	2.5	0.5	0	1.0	26	21	26	30	29	28	57	63	52	41	50	48
Lightning	33	35	40	48	40	43	53.4	53.7	51.7	52.9	53.3	52.6	0.5	0	0.5	0.3	0	0.3	25	21	28	31	27	29	58	62	52	43	50	48
Linott	23	37	35	46	44	42	52.2	53.6	51.2	52.9	53.4	52.5	5.3	0	3.3	0.0	0	1.1	26	22	31	32	29	31	59	63	52	43	50	48
McGregor	30	36	38	51	44	45	52.8	53.7	51.5	53.2	53.4	52.7	1.0	0	2.8	0.0	0	0.9	27	22	31	31	28	30	61	65	54	43	50	49
Neché	19	37	42	50	37	43	51.9	53.6	52.1	52.8	53.0	52.6	6.3	0	2.0	0.2	0	0.7	26	22	32	33	29	31	59	63	53	43	51	49
Nekoma	30	36	40	49	38	42	53.5	53.7	52.5	53.2	53.1	53.0	2.0	0	2.8	0.2	0	1.0	27	22	31	30	28	30	58	63	53	42	49	48
Omega*	28	36	31	45	42	39	52.9	53.4	49.9	52.9	53.5	52.1	1.3	0	4.3	0.0	0	1.4	26	22	27	28	28	27	60	65	52	42	51	48
Pembina	35	35	40	49	45	45	53.1	53.6	52.9	52.7	53.1	52.9	1.0	0	1.0	0.3	0	0.4	27	22	31	32	29	31	59	63	53	42	50	48
Prairie Blue	32	38	41	50	44	45	52.8	52.9	50.0	52.6	53.0	51.9	0.0	0	1.5	0.7	0	0.7	25	21	30	31	27	30	61	64	54	43	51	50
Prairie Thunder	35	37	28	51	41	40	53.1	53.5	48.1	52.1	53.3	51.2	0.5	0	2.0	0.7	0	0.9	26	21	26	28	25	26	58	64	52	41	48	47
Rahab 94	32	36	40	50	40	43	53.2	53.0	51.0	52.5	53.0	52.2	1.3	0	2.0	0.0	0	0.7	26	22	29	29	25	28	58	62	53	43	50	49
Webster	33	37	37	54	43	45	52.7	53.8	51.4	53.6	53.6	52.9	2.5	0	3.3	0.0	0	1.1	27	21	32	33	30	31	59	63	54	43	52	50
York	30	37	42	48	44	44	53.6	54.3	52.1	52.4	53.3	52.6	3.3	0	2.5	0.0	0	0.8	27	20	31	30	28	29	60	64	53	42	50	49
CDC Sorrel	--	40	34	45	41	40	--	53.5	50.8	52.5	52.9	52.1	--	0	5.0	1.0	0	2.0	--	23	30	34	30	31	--	64	56	44	52	50
Prairie Grande	--	--	30	51	38	40	--	--	47.8	52.3	53.0	51.0	--	--	2.8	0.7	0	1.2	--	--	25	25	24	25	--	--	51	40	48	46
AC Watson	29	--	--	--	--	--	52.7	--	--	--	--	--	1.8	--	--	--	--	--	26	--	--	--	--	--	57	--	--	--	--	--
Scorpion*	29	--	--	--	--	--	52.7	--	--	--	--	--	0.5	--	--	--	--	--	23	--	--	--	--	--	58	--	--	--	--	--
LSD 5%	5.7	3.2	7.0	3.3	5.9		0.6	0.4	1.1	0.9	0.3		1.9	--	2.2	0.8	--		1.1	1.2	1.5	3.5	1.9		1.0	0.7	0.8	0.8	1.1	

*Yellow seeded.

Canola - Liberty Link, Clearfield Varieties - 2010-2011

Company/Brand	Variety	Type ¹	Blackleg Rating ²	Days to First Flower				Days to End Flower				Days to Mature				% Cover ⁵					
				10		11		2yr		10		11		2yr		10		11		2yr	
Bayer CropScience	InVigor 5440	H,LL,TR	R	48	43	46	70	58	64	94	84	89	59	92	76						
Bayer CropScience	InVigor 8440	H,LL,TR	R	46	44	45	66	56	61	92	83	87	61	91	76						
Bayer CropScience	InVigor L130	H,LL,TR	R	47	42	44	68	56	62	93	82	87	64	90	77						
Bayer CropScience	InVigor L150	H,LL,TR	R	47	45	46	69	60	64	93	85	89	59	88	74						
Bayer CropScience	InVigor L120	H,LL,TR	R	--	43	--	--	57	--	--	83	--	--	92	--						
Croplan Genetics	XCEED Oasis CL	OP,CL,TR	R	--	38	--	--	54	--	--	81	--	--	69	--						
Mycogen	2012 CL	H,CL,HO	R	--	43	--	--	57	--	--	84	--	--	96	--						
Mycogen	2014 CL	H,CL,HO	MR	--	45	--	--	60	--	--	85	--	--	91	--						
Pioneer	46H75	H,CL,TR	R	--	45	--	--	61	--	--	86	--	--	92	--						
Pioneer	45H73	H,CL,TR	R	45	42	44	65	57	61	92	83	88	59	91	75						
RR Check ⁴	HyClass 940	H,RR,TR	R	44	41	43	63	56	59	88	83	85	73	94	84						
RR Check ⁴	DKL 72-55	H,RR,TR	R	41	42	41	63	57	60	87	84	86	73	91	82						
LSD 5%				1.1	2.0		1.2	1.1		0.9	1.7		10.5	6.4							

¹H-Hybrid, OP-Open Pollinated, LL-Liberty Link, CL-Clearfield System

TR-Traditional Oil type, HO-High Oleic Oil Type

²Blackleg Rating: S-Susceptible, MS-Moderately Susceptible, MR-Moderately Resistant, R-Resistant, Provided by compa

⁴Roundup ready check variety.

⁵ % 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 - Liberty Link, Clearfield Varieties - 2009-2011

Lodging

Company/Brand	Variety	Height (in)		Oil ¹ (%)		Yield ¹ (lbs/a)							
		10	11	10	11	2009	2010	2011	2yr	3yr			
Bayer CropScience	InVigor 5440	50	39	45	2.0	43.6	48.9	46.3	3190	3381	2177	2779	2916
Bayer CropScience	InVigor 8440	47	37	42	1.0	45.5	49.2	47.4	3443	3445	1731	2588	2873
Bayer CropScience	InVigor L130	49	38	44	2.3	44.6	49.1	46.9	--	3294	1802	2548	--
Bayer CropScience	InVigor L150	50	39	44	2.0	44.5	51.2	47.9	--	3308	1910	2609	--
Bayer CropScience	InVigor L120	--	37	--	--	--	49.8	--	--	--	1946	--	--
Croplan Genetics	XCEED Oasis CL	--	33	--	--	--	46.1	--	--	--	925	--	--
Mycogen	2012 CL	--	36	--	--	--	48.6	--	--	--	1928	--	--
Mycogen	2014 CL	--	40	--	--	--	51.0	--	--	--	1927	--	--
Pioneer	46H75	--	40	--	--	--	50.2	--	--	--	2089	--	--
Pioneer	45H73	44	36	40	2.0	44.3	49.5	46.9	--	3099	1988	2543	--
RR Check	HyClass 940	42	35	38	3.5	44.5	48.9	46.7	3127	3090	2085	2587	2767
RR Check	DKL 72-55	42	37	39	3.0	44.8	51.2	48.0	3190	3090	2408	2749	2896
LSD 5%		2	3		0.8	1.8	1.6		NS	255	387		

¹ 8.5% moisture

No lodging in trial in 2011

Canola -Roundup Ready - 2010-2011

Blackleg

Company	Variety	Type ¹	Rating ²	Days to First Flower		Days to End Flower		Days to Mature		% Cover ³					
				10	11	2yr	10	11	2yr	10	11	2yr			
Brett Young	6070RR	H,TR	R	44	40	42	64	57	61	90	85	88	89	97	93
Brett Young	6040RR	H,TR	R	46	44	45	67	60	63	90	85	88	57	92	75
Cargill	v2035	H,HO	R	47	44	45	65	58	61	90	84	87	64	90	77
Cargill	V12-1	H,HO	R	--	44	--	--	60	--	--	85	--	--	98	--
Croplan Genetics	HyClass 940	H,TR	R	43	41	42	62	57	59	88	82	85	80	94	87
Croplan Genetics	HyClass 947	H,TR	R	44	43	44	65	60	62	90	85	87	61	96	79
Croplan Genetics	HyClass 955	H,TR	R	--	43	--	--	57	--	--	84	--	--	94	--
Croplan Genetics	HyClass 988	H,TR	R	45	43	44	68	60	64	90	88	89	63	97	80
Dekalb	DKL51-45	H,TR	R	43	41	42	63	56	59	88	84	86	65	93	79
Dekalb	DKL72-40	H,TR	R	44	43	43	64	57	61	89	84	87	54	92	73
Dekalb	DKL30-42	H,TR	R	42	41	42	62	56	59	89	83	86	75	95	85
Dekalb	DKL52-41	H,TR	R	--	43	--	--	58	--	--	84	--	--	96	--
Dekalb	DKL72-55	H,TR	R	41	43	42	62	57	60	89	84	87	81	94	88
Dekalb	DKL55-55	H,TR	R	--	41	--	--	56	--	--	82	--	--	91	--
Dekalb	DKL70-07	H,TR	R	--	42	--	--	58	--	--	84	--	--	93	--
Integra	7121 R	H,TR	R	43	43	43	64	59	61	89	85	87	61	88	75
Integra	7150 R	H,TR	R	43	41	42	63	56	59	90	83	86	60	92	76
Integra	7152 R	H,TR	R	44	41	42	63	56	60	88	83	85	56	95	76
Mycogen	1012 RR	H,HO	R	--	46	--	--	63	--	--	86	--	--	97	--
Mycogen	1014 RR	H,HO	MR	--	47	--	--	63	--	--	87	--	--	90	--
NDSU	ND-662c	OP,TR	R	49	43	46	64	58	61	89	85	87	65	91	78
Pioneer	46S53	H,TR	R	--	44	--	--	61	--	--	85	--	--	89	--
Pioneer	45S52	H,TR	MR	--	43	--	--	61	--	--	86	--	--	89	--
Pioneer	45H29	H,TR	R	44	43	44	65	60	62	90	85	87	63	93	78
Proseed	45 Caliber	H,TR	R	45	43	44	68	61	64	90	85	88	74	96	85
LSD 5%				2.1	0.9		1.0	1.9		1.5	1.6		1.5	6.8	

¹OP-Open Pollinated, H-Hybrid, TR-Traditional Oil Type, HO-High Oleic Oil Type

²Blackleg Rating: S=Susceptible, MIS=Moderately Susceptible, MR=Moderately Resistant, R=Resistant. Rating provided by company.

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 - 2009-2011

Lodging

Company	Variety	Height (in)			Oil ¹ (%)			Yield ¹ (lbs/a)					
		10	11	2yr	10	11	2yr	09	10	11	2yr	3yr	
Brett Young	6070RR	44	41	42	2.8	47.9	50.2	49.1	--	3694	2820	3257	--
Brett Young	6040RR	49	40	45	2.5	45.5	49.5	47.5	3070	2824	2297	2560	2730
Cargill	v2035	42	36	39	2.7	47.4	51.9	49.7	--	2950	2084	2517	--
Cargill	V12-1	--	42	--	--	--	49.3	--	--	--	2777	--	--
Croplan Genetics	HyClass 940	42	37	40	2.5	45.5	47.8	46.7	2984	3199	2412	2806	2865
Croplan Genetics	HyClass 947	44	41	42	2.2	48.3	52.3	50.3	--	3346	2386	2866	--
Croplan Genetics	HyClass 955	--	38	--	--	--	52.5	--	--	--	2686	--	--
Croplan Genetics	HyClass 988	48	42	45	2.4	47.2	50.0	48.6	--	3115	2650	2883	--
Dekalb	DKL51-45	40	35	38	3.3	47.2	51.0	49.1	--	3359	2385	2872	--
Dekalb	DKL72-40	42	39	40	2.7	47.2	51.8	49.5	--	3329	2320	2824	--
Dekalb	DKL30-42	39	36	37	3.0	46.4	51.3	48.9	3219	3565	2217	2891	3000
Dekalb	DKL52-41	--	39	--	--	--	49.3	--	--	--	2576	--	--
Dekalb	DKL72-55	40	38	39	2.8	47.3	52.4	49.9	3373	3257	2239	2748	2956
Dekalb	DKL55-55	--	37	--	--	--	52.7	--	--	--	1824	--	--
Dekalb	DKL70-07	--	36	--	--	--	51.9	--	--	--	2447	--	--
Integra	7121 R	41	37	39	2.3	45.2	48.8	47.0	3334	3134	2084	2609	2851
Integra	7150 R	41	37	39	1.8	48.6	51.9	50.3	3190	3590	2057	2823	2946
Integra	7152 R	41	37	39	2.6	48.4	51.5	50.0	--	3288	2159	2724	--
Mycogen	1012 RR	--	44	--	--	--	48.9	--	--	--	2332	--	--
Mycogen	1014 RR	--	40	--	--	--	48.8	--	--	--	2434	--	--
NDSU	ND-662c	41	37	39	4.0	48.1	50.6	49.4	--	3114	2117	2616	--
Pioneer	46S53	--	44	--	--	--	51.2	--	--	--	2355	--	--
Pioneer	45S52	--	39	--	--	--	50.2	--	--	--	2369	--	--
Pioneer	45H29	44	42	43	2.1	47.5	50.7	49.1	--	3436	2473	2955	--
Proseed	45 Caliber	46	40	43	2.4	46.4	50.0	48.2	--	3420	2168	2794	--
LSD 5%		3	3		1.0	1.9	1.3		392	344	396		

¹ 8.5% Moisture

No lodging in trial in 2011

Langdon - Drybean - 2008-2011

		Days to Mature		100 Seed Wt.		Dis. ¹	Yield					
Variety	Type	10	11	10	11	11	2008	2009	2010	2011	2	3
				----grams----			-----lbs/a-----					
GTS-907	Pinto	95	94	34	39	3	--	--	2780	3120	2950	--
LaPaz	Pinto	100	97	31	36	5	2874	3213	3100	3172	3136	3162
Lariat	Pinto	97	99	36	39	4	3162	2607	3208	3124	3166	2980
Medicine Hat	Pinto	95	94	36	40	4	--	--	2804	3024	2914	--
ND-307	Pinto	97	97	36	41	1	--	2465	2520	2428	2474	2471
Sante Fe	Pinto	99	101	39	47	4	--	--	2384	3461	2923	--
Stampede	Pinto	96	97	34	39	2	2658	2408	2384	3032	2708	2608
Windbreaker	Pinto	95	94	35	39	3	--	2894	2880	3076	2978	2950
Avalanche	Navy	97	98	19	22	5	2363	1824	3020	2868	2944	2571
Ensign	Navy	99	100	18	24	2	2539	2001	2816	3472	3144	2763
HMS Medalist	Navy	100	99	17	19	1	--	--	3512	3268	3390	--
Lightning	Navy	99	99	20	24	5	--	--	3172	3168	3170	--
Vista	Navy	98	102	17	19	4	2179	2142	3052	2564	2808	2586
Eclipse	Black	98	99	19	22	4	2511	1819	3016	3664	3340	2833
Zorro	Black	98	100	20	22	7	--	--	3336	3080	3208	--
Merlot	Sm. Red	98	103	34	35	7	2459	2402	2896	2700	2798	2666
Sedona	Pink	100	99	35	40	5	2187	2394	2856	2628	2742	2626
Mean		98	98	28	32	4	504	2335	2868	3050	--	--
C.V. %		1.2	1.2	3.5	4.3	76	12.4	11.1	8.2	14.3	--	--
LSD 10%		1.6	--	--	1.9	NS	--	--	--	604	--	--
LSD 5%		2.0	1.9	1.6	2.3	NS	504	429	385	NS	--	--

¹Disease=White Mold, 1-no disease, 9-most disease

Pembina County - Drybean - 2011

Variety	Type	Days to	100	Yield	Variety	Type	Days to	100	Yield
		Maturity	Seed Wt.	2011			Maturity	Seed Wt.	2011
			grams	lb/a				grams	lb/a
Avalanche	Navy	94	22.5	2514	COB-2824-99	Pinto	90	40.7	2751
Ensign	Navy	92	24.0	2544	COB-816-03	Pinto	94	38.8	2836
GTS-544	Navy	93	22.1	3137	Galeena	Pinto	93	34.7	2516
GTS-564	Navy	93	18.3	2696	GTS-904	Pinto	92	43.5	2981
HMS Medalist	Navy	93	20.0	2760	GTS-907	Pinto	93	40.9	2829
Lightning	Navy	92	22.7	2351	LaPaz	Pinto	91	38.8	2505
OB-5551-99	Navy	95	27.0	2820	Lariat	Pinto	93	40.8	3112
Rexeter	Navy	94	20.6	2806	Maverick	Pinto	91	40.3	2902
Skyline	Navy	93	21.9	2266	Medicine Hat	Pinto	91	41.5	2815
Viscount	Navy	94	18.4	2733	ND-307	Pinto	93	41.1	2990
Vista	Navy	94	20.2	2641	Santa Fe	Pinto	91	43.3	2996
Eclipse	Black	92	20.5	2458	Sonora	Pinto	92	35.5	2629
GTS-1103	Black	93	23.0	2419	Stampede	Pinto	93	40.8	2983
Jaguar	Black	92	20.9	2768	Windbreaker	Pinto	91	44.6	2883
Loreto	Black	94	21.8	2878	Merlot	Sm.Red	92	39.0	2260
Zorro	Black	92	21.6	2559	Sedona	Pink	93	36.6	2672
Mean		93	21.6	2647			92	40.1	2791
C.V. %		1.6	4.9	12.0			2.0	5.4	17.0
LSD 5%		NS	1.8	NS			NS	3.6	NS

Field Pea - Landgon - 2011

Variety	Days to 1st Flower	Days to Mature	Vine Length in	Canopy Ht at Harvest in	Height Index ¹ %	Harvest Ease ² 0-9	Protein %	Seeds/ Pound	1000 KWT gms	Test Weight lb/bu	Yield			Average year	
											2009	2010	2011		
Yellow Cotyledon Type															
Agassiz	52	89	44	19	44	4.0	25.8	1989	229	64.4	95.8	83.1	65.6	74.4	81.5
Audit	51	88	48	21	45	4.3	25.7	1970	231	63.7	--	90.7	62.9	76.8	--
Avantgarde	48	87	44	22	50	4.0	25.3	1667	273	64.1	--	96.8	74.0	85.4	--
CDC Golden	52	86	46	18	39	5.7	24.8	2306	197	65.2	82.1	81.5	71.3	76.4	78.3
DS Admiral	50	85	43	17	41	5.3	25.1	2038	224	64.1	80.2	84.7	58.4	71.6	74.4
LN 4217	52	87	41	27	67	2.3	23.5	2227	205	65.1	--	--	70.4	--	--
LN4206	50	88	47	27	58	2.3	24.7	1748	260	64.0	--	76.8	72.9	74.9	--
PST 1	48	85	44	15	33	6.3	25.3	1872	243	64.3	--	--	59.5	--	--
PST 3	52	89	46	15	32	6.7	25.8	2035	224	63.8	--	--	56.7	--	--
PST 7	52	87	44	17	39	5.0	24.5	1934	235	64.6	--	--	68.6	--	--
Spider	52	88	45	15	34	5.3	24.9	1980	230	64.5	--	--	68.8	--	--
Green Cotyledon Type															
CDC Striker	52	88	45	18	41	5.0	25.9	2225	205	64.7	89.3	83.0	56.9	70.0	76.4
Cruiser	51	85	48	16	34	6.3	24.9	2626	174	63.8	80.9	75.6	51.0	63.3	69.2
LN 1103	53	91	43	25	58	2.7	24.0	1835	248	64.7	84.3	83.0	72.1	77.6	79.8
LN 1116	51	91	44	26	59	3.0	26.3	1908	239	63.5	--	--	58.5	--	--
LN1115	50	87	41	26	66	2.3	24.4	1679	271	64.9	--	--	74.1	--	--
Majoret	51	85	41	15	37	6.7	25.8	1980	230	64.8	92.4	79.9	64.3	72.1	78.9
PST 5	49	93	44	19	44	4.0	24.7	2036	223	64.8	--	--	64.4	--	--
PST 9	53	87	44	14	33	7.0	25.1	2010	226	64.3	--	--	57.1	--	--
Mean	51	88	44	20	45	4.7	25.1	2003	230	64.4	89.9	82.3	64.6	--	--
C.V. %	0.9	1.7	5.6	19.7	19.7	26.1	1.9	5.7	5.1	0.6	5.3	9.7	8.7	--	--
LSD 5%	0.8	2.5	4.1	6.4	14.7	2	1.0	239	24.6	0.7	6.8	11.5	9.3	--	--

¹ Height Index: Plant height at time of harvest relative to plant height at the end of bloom

² Harvest Ease: 0=plants standing erect, 9=plants laying horizontal.

Langdon - Conventional Soybeans - 2011									
Brand	Variety	Maturity Group¹	Plant Height	Maturity Date³	Protein	Oil	Test Weight	Yield	
								2011	2-yr Avg
			in		%	%	lbs/bu		
Gowan Seed	GS 1001	000.4	27.2	8/28	34.4	18.2	57.8	37.6	--
Gowan Seed	GS 3514	000.7	28.5	8/31	35.4	18.1	58.0	39.9	--
Hefty Seed	H0212LL ⁴	0.2	30.6	9/12	32.1	19.8	58.7	44.4	--
Meridian Seeds	MSS-09-001 ²	00.9	35.1	9/9	36.3	18.5	57.8	42.3	--
Meridian Seeds	MSS-10-005 ²	0.1	31.2	9/13	37.9	17.5	57.7	33.5	--
NDSU	Cavalier	00.7	31.4	9/4	33.5	18.7	55.0	39.0	42.4
NDSU	Traill	0.0	31.6	9/8	33.1	19.3	56.9	41.5	44.4
Richland Organics	MK0205	0.2	35.1	9/14	33.4	18.7	54.0	36.1	--
SunOpta	Bravado	00.9	31.1	9/7	30.4	19.8	55.2	48.7	--
Trial Mean			32.1	9/8	33.3	19	57.2	40.6	--
C.V. %			3.8	1.0	2	1.7	2.0	4.6	--
LSD 5%			2.1	1.9	1.5	0.7	1.9	3.1	--

¹Maturity Group provided by company

All lines are commercially available except those designated experimental².

³Days to physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color.)

⁴Liberty Link

Yield, oil and protein reported at 13% moisture.

Walsh County - Conventional Soybeans - 2011									
Brand	Variety	Maturity Group¹	Plant Height	Maturity date²	Lodging 0-9	Protein %	Oil %	Test Weight	Yield
									2011
			in	date²	0-9	%	%	lbs/bu	bu/a
Hefty Seed	H0212LL ³	0.2	28.3	9/12	0.5	32.2	20.6	57.0	46.2
NDSU	Cavalier	00.7	25.1	9/6	0.0	32.1	20.3	56.5	44.8
NDSU	Traill	0.0	29.1	9/10	1.3	34.0	19.4	57.4	46.7
Peterson	L03-12N ³	0.3	28.8	9/14	0.5	32.2	20.4	57.1	49.3
Peterson	L05-11N ³	0.4	32.6	9/16	0.8	32.3	20.1	56.7	49.4
Richland Organics	MK0205	0.2	31.6	9/14	6.0	34.5	19.0	55.4	37.0
SunOpta	Bravado	00.9	28.2	9/8	1.3	31.0	20.0	56.5	49.6
Trial Mean			28.6	9/11	0.9	31.9	20.1	57.1	45.9
C.V. %			6.0	1.6	94.6	0.7	1.2	3.0	6.9
LSD 5%			2.5	2.3	1.3	0.5	0.5	NS	4.5

¹Maturity Group provided by company

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

³Liberty Link

Yield, oil and protein reported at 13% moisture.

Langdon - Roundup Ready Soybean - 2011

Brand	Variety	Maturity Group ¹	Plant Maturity date ³	Plant Height in	Lodging 0-9	Protein %	Oil %	Test Weight lbs/bu	Yield	
									2011	2-yr Avg.
ASGROW	AG00632	00.6	9/12	45	3.6	33.1	19.1	55.7	62.3	--
ASGROW	AG00931	00.9	9/14	40	6.8	33.6	19.4	57.2	62.7	51.6
ASGROW	AG00932	00.9	9/12	44	1.0	33.8	18.6	56.7	66.5	--
Croplan	R2T0091	00.9	9/14	44	4.8	32.0	19.9	57.4	69.3	--
Croplan	R2T0085	00.8	9/14	45	4.2	32.9	19.0	56.8	67.1	--
Croplan	RT0090	00.9	9/14	41	5.3	32.0	19.8	58.3	59.9	--
Croplan	RT0093	00.9	9/11	44	1.5	34.6	19.4	56.4	61.6	--
Dyna-Gro	30RY04	00.4	9/12	41	1.6	33.5	20.1	56.4	64.5	--
Dyna-Gro	30RY07	00.7	9/14	43	3.2	33.9	19.6	55.7	64.8	--
Dyna-Gro	30RY09	00.9	9/14	44	4.8	32.6	19.1	55.2	67.4	62.4
Dyna-Gro	35RY01	0.1	9/14	44	4.5	32.2	19.9	57.3	66.9	57.3
Gold Cntry	0071	00.7	9/15	45	4.3	32.0	19.1	56.3	66.2	--
Gold Cntry	0140	0.1	9/13	45	3.4	33.0	18.9	56.5	67.2	--
Hefty	H004Y12	00.4	9/10	41	0.8	33.1	20.0	57.0	56.3	--
Hefty	H007Y12	00.7	9/12	43	2.3	34.8	19.7	56.8	58.2	--
Hefty	H00Y12	0.0	9/14	37	0.3	34.5	19.5	56.9	61.9	--
Hefty	H01Y11	0.1	9/15	46	2.4	32.9	19.3	57.1	57.9	--
Hyland	HS 009RY01	00.9	9/14	45	4.1	32.9	18.9	57.4	61.9	59.4
Hyland	HS 01RY02	0.1	9/16	46	4.1	32.5	19.1	56.5	60.2	54.8
Integra	97001R	00.3	9/5	37	0.3	32.6	20.3	55.7	60.2	--
Integra	20052 R2Y	00.5	9/11	40	2.9	33.0	19.8	56.9	58.0	--
Integra	20073 R2Y	00.7	9/12	42	2.6	33.8	19.9	57.0	62.6	--
Integra	20090 R2Y	00.9	9/14	45	4.4	32.2	19.1	56.6	68.7	61.9
Integra	97009 R	00.9	9/11	43	1.5	32.5	20.2	57.2	67.8	--
Legend	003R21	00.3	9/12	41	1.4	33.9	19.8	56.5	66.7	--
Legend	004R21	00.4	9/12	44	1.8	34.6	19.8	56.9	66.8	--
Legend	007R20	00.7	9/14	44	4.3	32.7	18.6	56.8	67.1	--
Mustang	00971	00.9	9/14	44	4.4	32.5	19.1	56.5	70.7	65.5
Mustang	01212	0.1	9/15	37	0.1	34.1	19.4	57.0	61.9	--
Mustang	00913	00.9	9/13	41	3.3	34.0	18.9	56.6	67.1	--
Mycogen	5B005R2	00.5	9/12	42	1.3	33.3	20.3	56.5	65.0	--
Mycogen	5B007R2	00.7	9/13	42	1.9	33.4	19.9	56.6	66.2	--
Syng NK	S00-J9 Brand	00.9	9/12	43	1.4	34.9	19.7	57.7	67.8	--
Syng NK	S02-B4 Brand	0.2	9/14	44	5.3	31.8	20.1	57.4	67.3	--
Northstar	NS0057R2 ²	00.4	9/10	41	2.0	33.6	19.6	57.4	56.3	--
Northstar	NS0077R2 ²	00.7	9/13	43	2.4	33.8	19.8	57.2	58.6	--
NuTech	6003	00.5	9/15	43	4.5	32.3	19.5	56.7	56.2	--
NuTech	6011	0.1	9/16	41	2.7	32.6	19.3	57.5	56.7	51.2
NuTech-G2	6005	00.4	9/8	37	0.3	33.8	20.1	56.8	58.2	53.4
NuTech-G2	6009	0.1	9/13	41	2.9	32.8	20.3	56.3	67.2	--

Langdon - Roundup Ready Soybean - 2011 (continued)

Brand	Variety	Maturity Group ¹	Maturity date ³	Plant Height in	Lodging 0-9	Protein %	Oil %	Test Weight lbs/bu	Yield	
									2011	2-yr Avg.
NuTech-G2	0090RR	00.9	9/13	43	1.6	35.0	19.8	55.1	64.8	56.5
NuTech-G2	6012	0.1	9/12	43	2.8	31.2	20.3	56.1	61.6	--
NuTech-G2	6025	0.2	9/16	42	6.2	33.1	19.9	56.5	64.5	--
Peterson	12R005	00.5	9/13	44	2.3	34.0	19.6	55.9	61.4	--
Peterson	12R007	00.7	9/13	42	3.5	33.1	19.8	56.7	61.8	--
Peterson	11R01	0.1	9/18	44	5.5	31.7	20.0	57.0	66.1	59.9
Pioneer	900Y71	00.7	9/7	38	0.0	35.1	18.9	55.2	57.6	52.4
Pioneer	900Y81	00.8	9/15	46	2.3	32.2	19.1	58.4	59.2	--
Proseed	P2 11-05	00.5	9/9	40	1.0	32.2	20.4	57.0	59.3	--
Proseed	P2 11-07	00.7	9/12	43	1.4	33.1	20.2	56.9	62.3	--
Proseed	P2 10-08	00.8	9/14	45	3.1	32.4	19.0	57.0	66.8	64.5
REA	53G32	00.3	9/9	36	1.7	32.3	20.1	56.8	59.2	--
REA	55G22	00.5	9/12	42	1.5	32.6	20.2	56.5	64.6	--
REA	58G82	00.8	9/16	44	3.4	30.8	19.5	57.5	64.7	--
REA	59G51	00.9	9/13	43	3.2	32.2	19.4	57.3	63.8	61.3
Seeds 2000	0091 RR2Y	00.9	9/14	46	4.7	32.1	18.9	57.2	70.8	--
Thunder	30005RR	00.5	9/14	44	4.6	32.6	19.1	58.2	62.4	57.4
Thunder	32005R2Y	00.5	9/10	40	2.7	33.3	19.6	56.9	58.3	--
Thunder	31009R2Y	00.9	9/13	44	4.0	32.9	18.6	56.3	66.1	62.0
Thunder	3201R2Y	0.1	9/14	44	2.5	34.1	19.2	57.2	62.5	--
Thunder	3102R2Y	0.2	9/14	36	0.4	33.8	19.4	56.4	60.3	--
Wensman	W 30042R2	00.4	9/12	40	2.2	33.9	19.7	55.5	62.2	--
Wensman	W 30066R2	00.6	9/12	43	2.8	33.5	19.9	56.9	63.3	--
Wensman	W 30084R2	00.8	9/13	45	3.8	32.4	18.9	56.8	69.1	64.0
Wensman	W 30091R2	00.9	9/14	44	5.0	32.3	19.6	57.4	67.0	59.6
Trial Mean			9/13	42	2.7	33.1	19.6	56.7	63.4	--
C.V. %			1.1	4.1	50.6	1.6	1.5	2.0	6.2	--
LSD 5%			1.8	2.4	1.9	1.1	0.6	1.6	5.4	--

¹Maturity Group provided by company

All lines are commercially available except those designated experimental².

³Days to physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color.)

Yield, oil and protein reported at 13% moisture.

Frost between 29-32°F occurred on September 14-15 in the region. Limited damage on the trial appeared in the upper portions of the plant. Plants continued to mature and no green seed damage was visible.

Pembina County - Roundup Ready Soybeans - 2011

Brand	Variety	Maturity Group ¹	Maturity date ³	Plant Height in	Protein %	Oil %	Test Weight lbs/bu	Yield	
								2011	2 yr Avg.
ASGROW	AG00632	00.6	9/10	34	31.4	20.5	56.8	48.2	--
ASGROW	AG00931	00.9	9/15	37	31.8	20.5	56.9	51.3	54.6
ASGROW	AG00932	00.9	9/16	37	31.7	20.0	57.0	50.1	--
ASGROW	AG0131	0.1	9/14	38	33.1	20.0	56.7	47.1	58.4
Dyna-Gro	30RY04	00.4	9/11	32	32.6	20.9	55.1	49.1	--
Dyna-Gro	30RY07	00.7	9/14	33	32.8	20.9	55.7	52.0	--
Dyna-Gro	30RY09	00.9	9/19	37	31.5	20.2	57.1	53.7	60.6
Dyna-Gro	35RY01	0.1	9/15	39	31.4	20.8	56.2	53.8	59.7
Gold Cntry	0071	00.7	9/18	37	30.5	20.7	55.9	48.9	--
Gold Cntry	0140	0.1	9/15	38	31.0	20.6	56.3	53.0	61.1
Hefty	H004Y12	00.4	9/13	31	31.7	21.2	54.9	45.0	--
Hefty	H007Y12	00.7	9/11	33	33.2	21.1	55.9	48.6	--
Hefty	H00Y12	0.0	9/21	26	31.7	21.1	56.7	44.4	--
Hefty	H01Y11	0.1	9/16	33	32.1	20.1	56.8	41.7	--
Hyland	HS 009RY01	00.9	9/17	39	31.4	20.3	56.1	48.1	58.5
Hyland	HS 01RY02	0.1	9/20	38	31.9	20.2	56.5	49.5	57.2
Legend	003R21	00.3	9/12	34	32.3	21.0	55.6	48.4	--
Legend	004R21	00.4	9/12	37	33.0	21.0	56.0	51.8	--
Legend	007R20	00.7	9/18	38	31.5	20.4	56.3	48.5	--
Northstar	NS0057R2 ²	00.4	9/10	33	32.3	20.8	55.1	45.4	--
Northstar	NS0077R2 ²	00.7	9/11	32	33.5	20.6	56.1	45.4	--
NuTech	6003	00.5	9/18	35	30.0	21.2	56.8	49.8	--
NuTech	6011	00.6	9/19	33	30.5	20.7	56.0	44.8	50.4
NuTech-G2	6005	00.4	9/14	30	32.1	21.5	56.4	47.9	--
NuTech-G2	6009	00.9	9/15	36	32.1	21.2	56.6	43.9	--
NuTech-G2	0090RR	00.9	9/16	35	33.1	21.3	57.1	50.2	--
NuTech-G2	6012	0.1	9/15	33	30.6	21.1	57.3	48.7	--
NuTech-G2	6025	0.2	9/20	36	32.3	20.8	55.8	48.5	--
Peterson	12R005	00.5	9/13	32	32.6	21.1	55.8	47.1	--
Peterson	12R007	00.7	9/13	33	33.2	20.8	56.9	43.7	--
Peterson	11R01	0.1	9/18	38	31.7	21.0	56.4	52.4	58.2
Peterson	11R02	0.2	9/16	38	31.5	20.2	56.2	52.7	--
Peterson	12R02	0.2	9/23	34	32.2	20.0	56.3	44.6	--
Pioneer	900Y71	00.7	9/13	30	33.2	20.4	56.2	43.3	49.6
Pioneer	900Y81	00.8	9/20	38	32.3	19.6	57.0	50.1	--
Prairie Brand	PB-00560R2	00.5	9/11	32	32.7	20.7	54.9	50.6	--
Prairie Brand	PB-00950R2	00.9	9/16	37	31.9	20.3	56.5	56.0	62.8
Prairie Brand	PB-00870R2	00.7	9/12	35	30.6	21.8	55.5	55.7	--
Prairie Brand	PB-0111x ²	0.1	9/20	29	31.5	20.6	55.7	42.1	--
Prairie Brand	PB-0240R2	0.2	9/17	38	32.2	20.1	57.5	55.7	--

Pembina County - Roundup Ready Soybeans - 2011 (continued)

Brand	Variety	Maturity Group ¹	Maturity date ³	Plant Height in	Protein %	Oil %	Test Weight lbs/bu	Yield	
								2011	2 yr Avg.
Proseed	P2 11-05	00.5	9/13	32	31.6	20.9	55.7	40.6	--
Proseed	P2 11-07	00.7	9/11	33	32.6	21.1	55.8	46.6	--
Proseed	P2 10-08	00.8	9/19	36	31.7	20.3	56.7	45.6	54.7
REA	53G32	00.3	9/9	29	31.9	21.1	55.3	43.9	--
REA	55G22	00.5	9/11	32	31.8	21.1	56.6	46.1	--
REA	58G82	00.8	9/16	35	31.5	20.5	57.4	46.3	--
REA	59G51	00.9	9/18	40	31.3	20.3	56.4	52.1	58.7
REA	61G21	0.1	9/15	34	31.9	20.6	56.8	42.2	56.5
Seeds 2000	0091 RR2Y	00.9	9/18	38	31.0	20.5	56.4	54.3	--
Stine	01RC62	0.0	9/16	33	32.1	20.7	55.7	49.2	--
Stine	01RA06	0.1	9/22	35	31.6	20.1	56.1	40.3	--
Syng NK	S00-J9 Brand	00.9	9/11	34	34.2	20.1	56.9	50.7	--
Syng NK	S02-B4 Brand	0.2	9/18	39	31.6	20.6	56.7	58.6	--
Thunder	30005RR	00.5	9/15	31	32.0	20.7	57.1	41.6	55.7
Thunder	32005R2Y	00.5	9/10	34	32.4	20.4	55.6	48.7	--
Thunder	31009R2Y	00.9	9/18	38	31.0	20.5	55.7	50.3	57.1
Thunder	3201R2Y	0.1	9/20	29	31.9	20.9	56.1	42.4	--
Thunder	3102R2Y	0.2	9/18	37	33.0	20.1	55.2	45.1	--
Wensman	W 30042R2	00.4	9/12	30	32.4	21.3	55.2	43.2	--
Wensman	W 30066R2	00.6	9/14	30	32.8	20.9	56.7	39.7	--
Wensman	W 30084R2	00.8	9/14	34	31.4	20.7	56.5	49.2	56.3
Wensman	W 30091R2	00.9	9/14	36	30.5	21.3	56.6	50.8	59.4
Trial Mean			9/15	34	31.9	20.7	56.2	48.1	--
C.V. %			2.4	8.2	2.5	1.5	2.0	8.9	--
LSD 5%			3.4	3.9	1.6	0.6	NS	6.0	--

¹Maturity Group provided by company

All lines are commercially available except those designated experimental².

³Days to physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color.)

Yield, oil and protein reported at 13% moisture.

Frost between 25-32°F occurred on September 14-15 in the region. Some damage on the trial appeared in the upper portions of the plant. Plants continued to mature and no green seed damage was visible.

Walsh County - Roundup Ready Soybeans - 2011

Brand	Variety	Maturity	Maturity	Plant	Protein	Oil	Test	Yield
		Group ¹		Height			Weight	2011
			date ³	in	%	%	lbs/bu	bu/a
ASGROW	AG00632	00.6	9/5	31	31.9	20.6	56.0	49.7
ASGROW	AG00931	00.9	9/7	30	30.8	21.0	56.5	50.0
ASGROW	AG00932	00.9	9/6	32	31.6	20.3	55.8	50.4
ASGROW	AG0131	0.1	9/8	32	32.2	20.4	54.7	49.6
ASGROW	AG0231	0.2	9/9	32	31.6	20.3	56.9	53.6
Dyna-Gro	30RY04	00.4	9/7	31	31.3	21.0	55.7	49.9
Dyna-Gro	30RY07	00.7	9/6	30	31.0	21.5	54.9	50.1
Dyna-Gro	30RY09	00.9	9/10	31	30.8	20.8	56.9	51.3
Dyna-Gro	35RY01	0.1	9/7	32	30.1	20.9	55.5	50.2
Gold Cntry	0071	00.7	9/9	32	30.8	20.7	56.7	52.3
Gold Cntry	0140	0.1	9/9	31	30.7	20.9	56.2	50.4
Gold Cntry	0241	0.2	9/9	33	32.1	20.4	56.2	53.7
Hefty	H004Y12	00.4	9/5	25	31.2	20.9	56.9	40.3
Hefty	H007Y12	00.7	9/5	29	32.3	21.3	55.8	48.0
Hefty	H00Y12	0.0	9/10	25	32.0	21.0	55.9	49.2
Hefty	H01Y11	0.1	9/10	31	31.0	20.6	54.6	46.3
Hyland	HS 009RY01	00.9	9/8	31	31.8	20.5	57.2	49.4
Hyland	HS 01RY02	0.1	9/9	32	31.0	20.7	57.6	47.9
Integra	20073	00.8	9/5	31	32.3	20.9	54.5	47.0
Integra	97014R	0.0	9/8	29	32.1	21.5	54.9	50.8
Integra	20090	00.9	9/8	30	31.1	20.5	57.1	50.0
Integra	20100	0.1	9/12	25	32.2	20.8	55.6	50.6
Integra	79020R	0.2	9/14	30	32.5	20.1	58.3	45.2
Legend	007R20	00.7	9/10	30	30.9	20.7	55.7	48.6
Legend	009R20	00.9	9/7	32	30.3	21.0	54.9	50.6
Mustang	00971	00.9	9/8	30	31.3	20.5	57.4	51.8
Mustang	01212	0.1	9/11	26	32.1	20.8	55.9	52.3
Mustang	00913	00.9	9/8	31	32.1	20.1	55.0	50.9
Mycogen	5B005R2	00.5	9/5	29	32.2	21.1	55.1	47.8
Mycogen	5B007R2	00.7	9/6	31	31.3	21.4	55.4	50.6
Mycogen	5B024R2	0.2	9/9	34	31.8	20.5	55.8	55.2
Mycogen	5B009R2	00.9	9/8	31	30.4	20.7	55.9	49.7
Northstar	NS0077R2 ²	00.7	9/5	27	32.0	21.0	57.0	48.0
Northstar	NS0096R2 ²	00.9	9/7	32	30.4	20.9	55.8	48.6
NuTech	6011	0.1	9/13	29	31.6	20.7	56.8	48.5
NuTech-G2	6009	00.9	9/8	30	31.0	21.6	55.6	49.6
NuTech-G2	0090RR	00.9	9/8	31	32.2	21.4	55.7	51.6
NuTech-G2	6012	0.1	9/9	29	30.9	21.1	55.8	46.0
NuTech-G2	6025	0.2	9/11	27	32.4	21.2	53.9	47.6
NuTech-G2	6030	0.3	9/15	28	31.5	20.1	55.9	48.1

Walsh County - Roundup Ready Soybeans - 2011 (continued)

Brand	Variety	Maturity	Maturity	Plant	Protein	Oil	Test	Yield
		Group ¹		Height			Weight	2011
			date ³	in	%	%	lbs/bu	bu/a
Peterson	12R005	00.5	9/5	29	32.2	20.8	56.8	48.4
Peterson	12R007	00.7	9/6	28	32.0	21.4	53.1	45.1
Peterson	11R01	0.1	9/7	31	29.9	21.0	55.8	51.6
Peterson	11R02	0.2	9/9	31	31.2	20.6	55.8	51.5
Peterson	12R02	0.2	9/17	28	31.6	20.8	55.0	46.7
Pioneer	900Y71	00.7	9/6	27	31.9	20.4	55.6	44.7
Pioneer	900Y81	00.8	9/9	31	30.5	20.5	55.8	50.2
Prairie Brand	PB-00560R2	00.5	9/5	29	31.7	21.1	54.5	49.6
Prairie Brand	PB-00950R2	00.9	9/8	32	31.8	20.7	57.1	53.9
Prairie Brand	PB-00870R2	00.7	9/6	29	31.3	21.2	54.7	50.0
Prairie Brand	PB-0111x	0.41	9/12	25	31.8	21.1	56.7	48.7
Prairie Brand	PB-0240R2	0.2	9/8	33	31.8	20.9	55.2	54.0
Proseed	P2 11-10	0.1	9/12	25	32.0	20.8	56.4	49.5
Proseed	P2 10-20	0.2	9/9	31	31.2	20.6	55.4	48.4
Proseed	P2 11-30	0.3	9/14	30	31.6	20.1	56.6	47.4
REA	55G22	00.5	9/6	29	31.9	21.1	53.7	49.3
REA	58G82	00.8	9/9	32	31.1	20.8	56.4	52.4
REA	59G51	00.9	9/9	31	31.2	20.3	56.0	49.3
REA	61G21	0.1	9/7	31	30.0	20.8	55.0	48.8
REA	62G22	0.2	9/9	36	32.0	20.3	56.5	56.8
Seeds 2000	0091 RR2Y	00.9	9/9	30	31.3	20.7	56.0	48.4
Syng NK	S00-J9 Brand	00.9	9/7	30	33.1	20.9	54.9	50.8
Syng NK	S02-B4 Brand	0.2	9/7	33	30.3	21.0	56.4	50.8
Thunder	30005RR	00.5	9/6	26	31.6	20.9	54.6	42.7
Thunder	32005R2Y	00.5	9/5	26	31.6	21.0	55.2	43.9
Thunder	31009R2Y	00.9	9/8	32	31.2	20.5	55.3	50.0
Thunder	3201R2Y	0.1	9/9	33	31.8	21.0	57.3	47.7
Thunder	3102R2Y	0.2	9/12	25	31.6	20.7	56.9	48.9
Wensman	W 30042R2	00.4	9/6	28	31.9	21.2	53.7	47.7
Wensman	W 30066R2	00.6	9/6	30	31.1	21.2	55.4	50.1
Wensman	W 30084R2	00.8	9/8	33	31.1	20.5	56.4	52.8
Wensman	W 30091R2	00.9	9/7	32	30.2	21.0	55.7	50.6
Trial Mean			9/8	30	31.4	20.8	55.7	49.4
C.V. %			1.1	4.7	1.0	1.0	3.0	5.3
LSD 5%			1.5	2.0	0.6	0.4	2.4	3.6

¹Maturity Group provided by company

All lines are commercially available except those designated experimental².

³Days to physiological maturity at R7 stage (one brown pod on the main stem obtains mature brown or tan color.)

Yield, oil and protein reported at 13% moisture.

Nelson County - Roundup Ready Soybeans - 2011

Brand	Variety	Maturity Group ¹	Maturity date ²	Plant		Lodging	Protein %	Oil %	Test Weight lbs/bu	Yield	
				Height in	0-9					2011	2-yr Avg.
ASGROW	AG00931	00.9	9/15	40	3.1	32.3	19.3	56.3	50.8	--	
ASGROW	AG00932	00.9	9/16	40	1.3	32.7	18.8	56.2	45.3	--	
ASGROW	AG0131	0.1	9/16	40	0.1	32.8	19.1	56.1	47.3	--	
ASGROW	AG0231	0.2	9/17	41	0.5	31.5	18.8	58.9	51.0	--	
ASGROW	AG0430	0.4	9/22	42	0.3	32.0	18.7	55.3	43.4	--	
Dyna-Gro	30RY04	00.4	9/14	39	0.1	32.3	19.9	55.3	45.7	--	
Dyna-Gro	30RY07	00.7	9/16	40	0.5	31.3	19.6	56.6	46.9	--	
Dyna-Gro	30RY09	00.9	9/16	40	2.3	32.2	18.7	56.0	45.5	53.8	
Dyna-Gro	35RY01	0.1	9/18	41	1.8	31.0	19.3	57.2	43.4	52.2	
GCS	0140	0.1	9/16	40	1.5	31.6	19.1	57.5	50.4	56.1	
GCS	0241	0.2	9/21	42	0.8	32.1	18.5	57.3	44.5	--	
Hefty	H00Y12	0.0	9/21	42	0.0	33.0	19.2	55.0	43.1	--	
Hefty	H01Y11	0.1	9/16	40	1.8	30.7	19.6	57.1	41.3	--	
Hefty	H03Y12	0.3	9/22	42	0.1	31.8	18.9	55.9	41.2	--	
Hefty	H04Y12	0.4	9/22	42	0.0	33.5	18.0	56.5	40.3	--	
Integra	97001R	00.3	9/12	39	0.5	31.0	20.6	57.4	44.8	50.3	
Integra	20052	00.5	9/12	39	0.8	31.8	19.8	55.2	43.4	--	
Integra	20073	00.8	9/12	39	0.5	32.8	19.9	57.0	46.5	--	
Integra	20090	00.9	9/16	40	1.0	31.4	19.2	57.4	46.5	--	
Integra	20100	0.1	9/20	42	0.0	32.9	19.4	56.1	44.4	--	
Legend	007R20	00.7	9/18	41	2.5	30.9	19.4	57.2	44.4	--	
Legend	009R20	00.9	9/17	40	0.9	29.7	20.0	56.7	46.6	--	
Mycogen	5B024R2	0.2	9/19	41	1.5	31.5	19.0	56.5	45.9	--	
Mycogen	5B009R2	00.9	9/17	41	2.5	31.7	19.2	57.1	46.9	--	
Syng NK	S00-J9 Brand	00.9	9/15	40	0.6	32.9	19.6	57.8	48.7	--	
Syng NK	S02-B4 Brand	0.2	9/16	40	1.6	30.8	19.8	56.3	47.0	--	
Northstar	NS0096R2	00.9	9/17	40	1.3	30.3	19.6	56.9	43.6	52.2	
Northstar	NS0216R2	0.2	9/22	43	0.1	32.4	18.3	56.9	42.2	48.4	
NuTech	6011	0.1	9/21	42	0.2	31.0	19.2	56.2	44.0	50.4	
NuTech-G2	6009	00.9	9/17	41	0.8	31.4	20.3	56.0	42.5	--	
NuTech-G2	0090RR	00.9	9/16	40	1.8	32.2	20.0	57.1	43.8	49.5	
NuTech-G2	6012	0.1	9/16	40	0.4	30.2	20.1	57.9	41.6	--	
NuTech-G2	6025	0.2	9/21	42	0.8	32.1	19.7	57.2	43.1	--	
NuTech-G2	6030	0.3	9/22	43	0.1	31.1	18.8	56.9	40.0	45.9	
Peterson	12R005	00.5	9/14	39	0.1	32.1	19.9	57.1	46.1	--	
Peterson	12R007	00.7	9/16	40	0.6	30.9	20.2	56.7	41.9	--	
Peterson	11R01	0.1	9/17	41	1.7	29.5	20.0	57.7	44.4	--	
Peterson	11R02	0.2	9/17	41	2.1	30.8	19.2	57.3	46.6	54.2	
Peterson	12R02	0.2	9/24	43	0.1	31.5	18.5	57.1	38.5	53.8	

Nelson County - Roundup Ready Soybeans - 2011 (continued)

Brand	Variety	Maturity Group ¹	Maturity date ²	Plant		Lodging	Protein %	Oil %	Test Weight lbs/bu	Yield	
				Height in	0-9					2011	2-yr Avg.
Pioneer	900Y71	00.7	9/14	40	0.0	33.0	19.2	58.2	41.2	44.8	
Pioneer	900Y81	00.8	9/18	41	0.3	31.4	18.8	58.8	44.9	--	
Proseed	P2 11-10	0.1	9/21	42	0.1	32.9	19.4	57.4	43.0	--	
Proseed	P2 10-20	0.2	9/17	40	0.8	31.2	19.1	54.7	43.7	53.5	
Proseed	P2 11-30	0.3	9/23	43	0.1	31.8	18.8	56.1	40.4	--	
Proseed	P2 11-50	0.4	9/22	42	0.3	32.1	18.3	55.2	44.4	--	
REA	58G82	00.8	9/18	41	1.1	30.8	19.1	56.1	47.3	--	
REA	59G51	00.9	9/17	41	2.5	32.0	18.9	56.1	45.3	53.1	
REA	61G21	0.1	9/17	41	1.7	30.4	20.1	58.3	45.7	54.4	
REA	62G22	0.2	9/21	42	1.0	32.2	18.4	56.2	44.9	--	
REA	63G31	0.3	9/19	41	0.4	30.8	18.7	56.5	43.5	--	
Seeds 2000	0091 RR2Y	00.9	9/16	40	2.9	31.3	19.3	57.2	51.3	--	
Thunder	30005RR	00.5	9/21	42	1.3	30.9	19.9	57.3	39.1	47.2	
Thunder	32005R2Y	00.5	9/12	39	0.7	32.5	19.7	56.9	44.0	--	
Thunder	31009R2Y	00.9	9/17	40	2.4	31.8	19.0	55.6	44.1	52.4	
Thunder	3201R2Y	0.1	9/18	41	0.9	32.5	18.7	56.3	42.6	--	
Thunder	3102R2Y	0.2	9/21	42	0.1	32.3	19.5	56.8	43.9	--	
Wensman	W 30042R2	00.4	9/13	39	0.1	31.8	19.8	56.5	48.5	--	
Wensman	W 30066R2	00.6	9/14	40	0.8	32.5	19.5	56.5	47.9	--	
Wensman	W 30084R2	00.8	9/15	40	2.4	31.0	19.5	55.5	45.1	53.8	
Wensman	W 30091R2	00.9	9/17	41	1.5	30.2	19.8	57.9	45.3	53.4	
Trial Mean			9/18	41	1.0	31.6	19.3	56.7	44.7	--	
C.V. %			1.5	1.5	101.7	1.8	1.9	2.5	6.2	--	
LSD 5%			2.1	0.8	1.4	1.1	0.7	2.0	3.9	--	

¹Maturity Group provided by company

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

Yield, oil and protein reported at 13% moisture. 2 yr yield average includes Devils Lake 2010 data.

Frost between 29-32°F occurred on September 14-15 in the region. Limited damage on the trial appeared in the upper portions of the plant. Plants continued to mature and no green seed damage was visible.

Langdon - Oil Sunflower - 2011

Brand	Hybrid	Hybrid Type ¹	Status ²	Days to Plant		Oil ³ (%)	Test Weight (lb/bu)	Harvest Moist. %	Yield				
				Flower (days)	Height (inch)				@ 10% moisture 2009	2010	2011	Average 2yr 3yr	
Croplan Genetics	442 E NS	NS,EX	CA	74	64	41.1	28.0	16.8	--	--	1694	--	--
Croplan Genetics	460 E NS	NS,EX	CA	75	72	41.0	28.4	17.0	1336	1777	1682	1730	1598
Croplan Genetics	548 CL DMR NS	NS,CL,DMR	EXP	71	64	38.9	28.6	9.9	--	--	1641	--	--
Croplan Genetics	559 CL DMR NS	NS,CL,DMR	CA	74	76	41.9	29.1	11.6	--	2397	1440	1918	--
Dahlgren	DO-2012CL	HO,CL	CA	68	64	39.9	32.4	11.7	--	--	1664	--	--
Dahlgren	DO-4421CL	NS,CL	CA	68	68	35.4	30.2	11.4	1649	2304	1589	1947	1847
Elite Seeds	Pomar	Trad,DMR	CA	73	73	40.0	29.3	10.6	--	--	2040	--	--
Elite Seeds	Pacific	HO,DMR	CA	73	70	38.0	26.3	13.5	--	--	1931	--	--
Elite Seeds	Balistic	HO,DMR	EXP	72	72	35.6	28.0	17.6	--	--	1873	--	--
Elite Seeds	Ethic	HO	CA	74	76	39.7	28.8	11.0	--	--	1609	--	--
Genosys	8037	HO,CL,DMR	CA	75	72	36.8	31.2	13.0	--	1664	1531	1597	--
Genosys	9008	NS, DMR	CA	74	72	37.1	30.1	11.2	--	--	1829	--	--
Genosys	9319	NS, DMR	CA	75	69	40.3	30.3	11.9	--	--	1888	--	--
Integra	735 NSCLDM	NS,CL,DMR	CA	71	68	38.8	29.2	11.2	1124	1803	1654	1729	1527
Integra	IX09-95010 NSD	NS,CL,DMR	CA	75	66	40.4	28.4	16.0	729	1704	1651	1677	1361
Integra	IX10-94 NSSU	NS,EX,DMR	CA	74	67	38.6	28.1	12.0	--	1756	1542	1649	--
Mycogen Seeds	8N358CLDM	NS,CL,DMR	CA	72	68	41.6	28.3	14.1	1298	1961	1723	1842	1661
Mycogen Seeds	8N270CLDM	NS,CL,DMR	CA	69	66	41.2	31.4	11.9	1309	2265	1975	2120	1850
Mycogen Seeds	8D310	NS	CA	68	66	35.9	29.3	10.3	1678	2100	1776	1938	1851
Mycogen Seeds	8H288CLDM	HO,CL,DMR	CA	69	62	40.3	29.9	12.8	847	2060	1512	1786	1473
Pioneer	P63ME70	NS,EX,DMR	CA	72	69	41.2	26.6	13.1	--	1889	1902	1895	--
Pioneer	P63ME80	NS,EX,DMR	CA	70	71	43.2	30.9	9.8	--	--	1754	--	--
Pioneer	P64HE01	HO,EX,DMR	CA	72	69	38.4	31.8	10.3	--	2139	1560	1849	--
Pioneer	P63HE60	HO,EX,DMR	CA	72	71	39.8	30.1	12.7	--	--	2125	--	--
Proseed	E-10	NS	CA	76	72	37.0	24.5	16.1	--	--	1913	--	--
Proseed	E-14	NS	CA	73	69	38.9	32.0	11.9	--	--	1680	--	--
Proseed	E-21	NS,CL	CA	70	65	36.8	32.4	12.2	--	--	2118	--	--

Langdon - Oil Sunflower - 2011 (continued)

Brand	Hybrid	Hybrid Type ¹	Status ²	Days to Plant		Oil ³ (%)	Test Weight (lb/bu)	Harvest Moist. %	Yield			
				Flower (days)	Height (inch)				2009	2010	2011	Average
Proseed	E-22	NS,CL	CA	69	69	37.8	31.7	11.4	--	--	2349	--
Seeds 2000	Falcon	NS,EX	CA	73	71	40.8	31.1	13.3	--	--	1279	--
Seeds 2000	Camaro	NS,CL,DMR	CA	74	71	41.0	31.4	17.2	--	--	1790	--
Seeds 2000	Defender Plus	NS,DMR	CA	70	68	39.4	29.8	11.3	1158	1948	1715	1831
Seeds 2000	Cobalt	HO,CL,DMR	CA	72	65	37.9	31.9	14.1	--	--	1827	--
Syngenta	3158 NS/CL/DM	NS,CL,DMR	EXP	72	62	39.6	30.8	10.4	--	--	1510	--
Syngenta	NX01162	NS, CL,DMR	EXP	72	65	37.6	29.1	13.3	--	--	1715	--
Syngenta	NX82758	NS,CL,DMR	EXP	71	64	42.7	29.4	13.3	--	--	1965	--
Syngenta	3480 NS/CL/DM	NS,CL,DMR	CA	74	68	41.0	29.2	11.2	891	1869	1756	1812
Syngenta	3495 NS/CL/DM	NS,CL,DMR	CA	75	70	39.1	30.7	12.4	--	--	2175	--
Syngenta	3990 ND/CL/DM	NS,CL,DMR	CA	75	68	41.4	31.0	16.1	--	--	2412	--
Syngenta	3733 NS/DM	NS,DMR	CA	74	65	39.9	29.4	13.3	--	--	1768	--
Syngenta	3733 NS Coated	NS,DMR	EXP	77	66	38.5	29.2	14.1	--	--	2168	--
Syngenta	3995 ND/SU	NS,EX,	EXP	75	72	38.1	32.3	13.5	--	--	1258	--
Syngenta	4596 HO/DM	HO,DMR	CA	73	69	37.6	30.7	12.7	--	--	2048	--
Syngenta	3845 HO	HO	CA	73	62	38.5	30.2	11.5	--	--	1428	--
Syngenta	7120 HO/DM	HO	CA	71	63	38.8	30.1	11.4	877	1836	1513	1675
USDA	894	Trad	CK	70	66	38.7	30.0	10.9	986	1948	1288	1618
Trial Mean				73	68	39.4	29.7	13.0	1196	1934	1768	--
C.V. %				1.9	4.8	2.6	3.9	15.8	21.4	17.9	15.6	--
LSD 5%				2.2	5.3	1.7	1.9	3.3	417	562	449	--

¹Type: HO = High Oleic, NS = NuSun, Trad = Traditional, CL = Clearfield, EX= Express, DMR = Downy Mildew Resistant.

²Status: CA-Commercially available, EXP-Experimental, CK-Long term hybrid check

³Oils were adjusted to 10% moisture. Oil % of NuSun and Traditional hybrids were adjusted for oil type.

Maturity Checks: Days to Flower. Falcon-73, 8N270CLDM-69, 378HO-70

Langdon - Confection (non-oil) Sunflower - 2011

Brand	Hybrid	Status ⁴	Days to Plant				Harvest				Yield			
			Flower	Height	Test Weight	Moist.	22/64	20/64	18/64	2009	2010	2011	2 yr	3yr
			(days)	(inch)	(lbs/bu)	(%)	Seed over screen				@ 10% moisture			
			-----(% over)-----				------(lbs/a)-----							
Dahlgren	9530	CA	69	69	21.7	11.7	62	85	94	1570	2218	2463	2340	2084
Dahlgren	9530CL ¹	CA	73	71	21.2	15.4	57	87	96	1471	1698	2532	2115	1900
Dahlgren	Ex-610	EX	67	63	20.4	13.0	77	89	95	--	--	2297	--	--
Mycogen Seeds	8C451	CA	69	67	20.0	11.6	74	90	95	1707	1805	2436	2120	1983
Mycogen Seeds	8C410CL ¹	CA	71	70	21.7	18.1	57	83	95	--	--	2445	--	--
Red River Comm.	2215	CA	70	68	22.4	14.1	50	78	95	1632	2225	2404	2314	2087
Red River Comm.	2215CL ¹	CA	72	67	21.1	16.2	62	88	97	1665	2823	2244	--	--
Red River Comm.	2217	CA	69	62	20.7	11.4	68	87	95	1559	2105	2255	2180	1973
Seeds 2000	Jaguar ¹	CA	69	71	22.1	12.2	71	92	98	2136	1785	3035	2410	2319
Seeds 2000	Jaguar DMR ^{1,2}	CA	65	68	23.2	12.0	66	89	97	--	--	2992	--	--
Seeds 2000	6946 DMR ²	CA	69	68	24.4	11.0	11	44	90	--	1512	2992	2252	--
Seeds 2000	x3207 ²	EX	67	67	22.8	13.0	61	85	95	--	--	2733	--	--
Seeds 2000	x9180 ^{2,3}	EX	67	66	22.7	12.0	53	80	95	--	--	2434	--	--
USDA	924	CK	68	67	24.8	12.8	23	69	92	1167	2071	2720	2396	1986
Trial Mean			69	67	22.1	13.2	--	--	--	1614	1916	2612	--	--
C.V. %			1.8	5.1	4.3	8.8	--	--	--	13.5	13.3	12.6	--	--
LSD 10%			1.7	4.8	1.3	1.6	--	--	--	--	--	459	--	--
LSD 5%			2.0	NS	1.6	1.9	--	--	--	364	427	NS	--	--

¹ Clearfield hybrid

² Downy mildew resistant

³ Express hybrid

⁴ Status: CA-Commercially available, EXP-Experimental, CK-Long term hybrid check

Langdon - Corn Grain - 2011

Brand	Hybrid	RM	Days to Harvest		Test Weight	Yield	
			Silk	Moist.		2011	2 yr avg
				%	lbs/bu	-----bu/a-----	
Dekalb	DKC30-20	80	82	15.9	53.1	114.2	130.8
Dyna-Gro Seed	50K21	78	81	16.1	53.1	121.7	134.8
Dyna-Gro Seed	CX11179	79	81	17.5	52.4	122.0	--
Dyna-Gro Seed	51V45	82	82	19.5	49.9	105.4	125.6
G2 Genetics	5H-279	79	83	22.5	49.2	117.9	--
G2 Genetics	3A-080	80	83	16.8	49.2	119.7	--
G2 Genetics	5H-080	82	84	21.1	47.4	117.5	120.4
Gold Country Seed	81-21 VT3	81	82	22.6	51.0	119.5	139.2
Gold Country Seed	76-61	76	80	17.2	53.7	118.4	--
Gold Country Seed	82-32	82	85	19.7	50.9	116.2	--
Hyland Seeds	HL 3085	79	82	16.2	53.9	121.8	--
Hyland Seeds	8098	80	88	18.8	50.1	105.7	--
Hyland Seeds	HL B18R	78	78	18.6	57.3	117.4	135.3
Hyland Seeds	8105	81	84	17.9	52.1	121.5	--
Integra	9312 VT3	81	79	17.2	52.3	121.0	--
Integra	9290 VT3	79	80	18.4	52.7	116.6	--
Mustang Seed	2026GTCBLL	82	83	21.0	47.8	105.8	--
Mustang Seed	2203VT2	82	84	18.5	51.8	118.4	--
NuTech Seed	3A-183	82	83	20.7	48.4	111.2	--
NuTech Seed	5N-183	82	84	17.3	49.7	115.7	--
PFS	21A78	78	82	18.7	51.4	109.9	133.0
PFS	76F82	82	83	17.8	53.3	107.8	--
Pioneer	P7535HR	75	81	17.0	52.7	116.3	--
Pioneer	39D97	79	81	17.6	52.4	117.3	--
Pioneer	39V07	80	82	16.7	50.0	125.2	--
Proseed	981 GTCBLL	81	85	16.3	53.3	98.3	118.8
Proseed	1083 GT	82	84	23.7	47.1	105.8	--
REA Hybrids	1C101	76	81	18.0	48.5	115.6	--
REA Hybrids	1V115	78	80	17.4	52.6	134.5	--
REA Hybrids	1T345	79	84	25.5	50.2	100.0	121.6
Seeds 2000	2771RR	77	83	20.8	48.4	105.8	--
Seeds 2000	2823GTCBLL	82	84	22.8	47.0	116.9	130.8
Seeds 2000	X382G	82	83	14.2	50.7	107.0	--
Seeds 2000	8201 VT3	82	84	24.0	50.3	121.7	132.7
Terning	8002	81	85	22.3	50.0	106.5	--
Terning	8009	82	84	20.3	45.6	95.0	--
Wensman Seed	W 7080VT3	80	83	15.1	49.0	111.6	121.6
Wensman Seed	W 8074VT2PRO	81	83	15.5	52.8	98.1	--
Wensman Seed	W 7083VT3	80	83	22.8	51.7	122.5	--
Wensman Seed	W 6084RR	80	84	20.7	49.1	110.5	--
Trial Mean			83	19.0	50.9	113.8	
C.V. %			1.7	9.4	2.6	7.1	
LSD 5%			2.3	2.9	2.2	13.2	

Total GDD for the trial was 1698, 135 above normal. First killing frosts were Sept. 14-15.

Langdon - Camelina - 2008-2011									
Variety	1st	Plant	Test	Oil	Yield				
	Flower	Height	Weight		2008	2009	2010	2011	4yr
	days	in	lbs/bu	%	-----lbs/a-----				
Blaine Creek	46	35	53.0	39.8	2260	2208	2062	1688	2055
Calena	48	36	53.2	39.4	2555	2360	2113	1949	2244
Galena	46	35	53.3	40.1	2706	2413	2305	1870	2324
Ligena	48	36	52.2	40.1	2429	2316	2080	1825	2163
Robinson	46	36	53.1	39.8	2373	2302	2269	2286	2308
Suneson	45	36	53.3	39.9	2603	2169	2022	1865	2165
SO-30	44	37	53.0	40.4	--	--	--	2050	--
SO-40	46	37	52.2	38.9	--	--	--	1892	--
SO-50	47	36	53.1	40.6	--	--	--	1893	--
SO-60	46	37	52.5	40.2	--	--	--	2051	--
Trial Mean	46	36	52.9	39.9	2567	2271	2149	1924	--
C.V. %	2.4	3.7	0.3	1.6	10.0	8.7	13.3	17.3	--
LSD 5%	1.6	NS	0.2	NS	NS	NS	NS	NS	--

Oil at 8.0% moisture.

Langdon - Betaseed Energy Sugarbeet Trial - 2011					
Variety Entry ID	Sugar Content	Sugar Content	Root Yield TONS	Sugar Yield	Sugar Yield
	%	% check	tons/a	lb/a	% check
Check	20.1	100	26.0	10,433	100
1	21.2	106	28.3	11,996	115
2	20.5	102	28.4	11,655	112
3	21.4	107	24.9	10,634	102
4	20.5	102	23.7	9,724	93
5	20.4	102	27.4	11,210	107
Mean	20.7	--	26.5	10942	--
CV:	3.4	--	5.5	--	--
LSD 5%	1.79	--	3.4	--	--

Date Planted : 5/26/2011

Date Harvested: 10/10/2011

Seed Treatment to 'Faller' Hard Red Spring Wheat to Improve Stand, Plant Biomass, Yield and Test Weight Langdon, 2011

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MATERIALS AND METHODS

Loveland Products, Inc. provided seven treatments and rates, Table 1, to be applied to hard red spring wheat seed (HRSW) as protectants prior to planting in 2011. An untreated was included as a control. The seed treatments were individually applied with a syringe to 2 lb. lots of HRSW at Langdon with a Hege Model 11 liquid seed treater (Wintersteiger Inc., Salt Lake City, Utah). The investigator included an untested biological compound, Table 1, with an adhesive (gum arabica) and an adhesive only from the lab of Dr. Bruce Bleakley from South Dakota State University for a total of ten treatments. The biological and adhesive were applied by Dr. Bleakley to Faller HRSW from the same lot used for the entire study. Faller is the most commonly planted cultivar in northeast North Dakota. The trial site was previously cropped canola. Seed was planted at 1.5 million pure live seed per acre, determined by blotter paper germination in vitro before the seed treatment was applied. The trial design was a randomized complete block with eight replicates. . Liquid nitrogen fertilizer (N) (28-0-0) was fall and spring applied by broadcast method at N rate of 60 lb. /acre each time. The plots were seven rows wide six-inch row spacing and measured 20 feet long. An Almaco double-disk drill was used to seed the plots on 16 May. Stand was determined from two 36 inch segments of row at growth stage 1.25 leaves. Plant vigor was assessed at 4 leaf growth stage. No differences were determined. Plant biomass was calculated on a root and foliage sample from 36 inches of row differentiated by the soil line at 4 leaf growth stage. Sample values are reported wet and dry. After weighing, wet samples were dried in a convection oven at 110° F until all the samples had reached equilibrium and a dry weight was recorded, Table 1. A solution of Caramba fungicide and Induce adjuvant (Helena Chemical Co.) was applied at 14 fl. oz. /acre and 0.125%v/v at early anthesis growth stage with tractor mounted sprayer. Caramba fungicide (manufactured by BASF), applied at Feekes growth stage 10.51, is recommended to reduce the effects of FHB in small grains. Plots were harvested with an Almaco SPC 20 plot combine and yield and test weight determined. Data was analyzed with the general linear model (GLM) in SAS. Fischer's protected least significant differences (LSD) were used to compare means at the 5% probability level, Table 1.

RESULTS

Stand was positively affected by the addition of Foothold Extra, Bio-Forge and LI 6194 although not always statistically. LI 6132 and the biological adhesive and the biological experimental had a negative effect on stand, Table 1. No differences in root weight were determined. Wet and dry foliage biomasses were similarly affected. The biological fungicide treatments had lower biomass than the Loveland treatments. The LI 6132 was not statistically different from the other treatments but numerically ranked last in foliage biomass weight.

Several treatments increased yield over the untreated including the Foothold Extra and Stamina treatment and Foothold Extra. Although not statistically different from the untreated, the LI 6132 and Foothold Extra and LI 6194 and Foothold Extra had yields that were statistically the same as treatments from the two greatest yields. The Bio-Forge treatment was not different from the untreated yield. The biological

treatments had a negative effect on test weight decreasing it by about 0.5 lb. / bu. from most of the other treatments.

Table 1. Plant stand, wet and dry root and foliage weight, yield and test weight by seed treatment on hard red spring wheat, Langdon 2011.

Seed Treatment	Seed Treatment Rate	Plant Stand plts/acre	Root Wt.		Foliage Wt.		Yield bu/acre	Test Weight lb/bu
			Wet g	Dry g	Wet g	Dry g		
LI 6132	4 fl oz/cwt	1,156,155	33.1	3.25	92.2	16.6	67.2	62.1
LI 6132 + Foothold Extra	4 + 5 fl oz/cwt	1,259,610	37.8	3.70	105.6	17.1	69.9	62.1
LI 6194 + water	0.4 + 3.6 fl oz/cwt	1,272,315	37.9	4.21	109.2	19.1	65.4	62.2
LI 6194 + Foothold Extra	0.4 + 5.0 fl oz/cwt	1,314,060	39.4	3.84	102.6	18.1	69.1	62.1
Bio-Forge	4.0 fl oz/cwt	1,274,130	37.4	4.94	102.3	18.7	63.1	61.8
Foothold Extra	5.0 fl oz/cwt	1,341,285	41.7	4.93	111.9	19.8	70.9	62.1
Untreated		1,248,720	40.6	3.90	104.3	17.6	63.8	62.0
Gum arabica B		1,128,930	34.6	41.8	86.5	14.4	60.7	61.5
<i>Bacillus mojavensis</i> + gum arabica A		965,580	28.3	2.90	68.6	11.2	64.6	61.4
Foothold Extra + Stamina	5.0 + 0.4 fl oz/cwt	1,232,385	34.5	3.83	99.1	17.4	72.1	62.1
LSD _(0.05)		137,472	NS	NS	4.3	4.3	6.7	0.4
% C.V.		11.3	23.8	35.7	21.6	25.3	10.1	0.7

Durum Uniform Fungicide Study, Langdon 2011

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Objectives

The study objectives were to determine if fungicides in the strobilurin fungicide class increase deoxynivalenol concentration in the seed compared to an untreated and if a triazole fungicide applied after a strobilurin fungicide could negate or reduce the effect of the strobilurin on DON accumulation.

Materials and Methods

A field experiment was planted on 4 May at the North Dakota State University Langdon Research Extension Center located at Langdon in NE North Dakota. The trial was conducted using best management practices for hard red spring wheat including seeding date and rate, fertility, weed control and harvest management. The experiment was a randomized complete block design with four replications. The previous crop was small grains. The soil type was Svea-Barnes loam. Divide durum wheat cultivar was seeded at a rate of 1.5 million pure live seeds /acre. Plots seven rows wide by 20 ft. long, 6-in row spacing were planted with an Almaco plot planter equipped with double disk openers and press wheels. A border plot was planted between treated plots to minimize interference from spray drift. *Fusarium* inoculums consisting of several isolates were hand-broadcast at a rate of 150 grams /plot three and two weeks prior to flowering to encourage development of *Fusarium* head blight disease (FHB). After herbicide application was completed an overhead irrigation system was installed to provide supplemental water to wet the inoculum and the grain heads to encourage the development of FHB. Fungicide treatments, rates and application timings are listed in Table 1. The primary active ingredients for the treatments were Cogito-blend of propiconazole and tebuconazole, Caramba-metconazole, Prosaro-blend of tebuconazole and prothioconazole, Headline-pyraclostrobin, Quadris-azoxystrobin, Evito-fluoxastrobin, Stratego YLD-blend of trifloxystrobin and prothioconazole, Quilt-blend of propiconazole and azoxystrobin, Twinline-blend of pyraclostrobin and metconazole. The fungicides were applied with a CO₂-pressurized backpack sprayer operated at 40 psi and delivering 18.4 GPA. The sprayer was equipped with a three-nozzle boom, nozzles spaced 20 inches on center. The foliar treatments were made using Spraying Systems XR8002 nozzles oriented vertically. The flowering treatments were made using Spraying Systems XR8001 nozzles mounted on a double swivel and oriented to spray forward and backward 30 degrees downward from horizontal. The fungicide applications were made at Feekes growth stage 9. 10.5 or 10.51 on 27 June (wind NW speed 3 MPH, temperature 55° F at 10:15 a.m.), 8 July (wind SE speed 3 MPH, temperature 70° F at 8:00 a.m.) or 11 July (wind West speed 3 MPH, temperature 66° F at 10:30 a.m.) by maturity. *Fusarium* head blight (FHB) incidence (I), head severity (HS) and index (FS) were determined from a twenty grain head sample collected at Feekes 11.2 growth stage. Leaf severity was determined from a sample of five leaves at the same growth stage. Plots were harvested 22 Aug with a small plot combine and the yield and test weight determined. Deoxynivalenol accumulation (DON) was determined by the NDSU

Toxicology Lab. Data were analyzed with the general linear model (GLM) in SAS. Least significant (LSD) were used to compare means at the $P \leq 0.05$ level.

Results

Strobilurin fungicides are recommended by extension pathologists for control of foliar diseases in small grains. Some researchers have reported elevated DON levels when strobilurin fungicides have been applied for foliar disease control. Divide durum is one of the most resistant durum cultivars to FHB. Durum as a class is possibly the most susceptible wheat to FHB. Fungicide treatments that included a triazole fungicide increased yield compared to the untreated with the exception of Stratego YLD, Table 1. Treatments that were applied at Feekes' growth stage (GS) 10.51 increased test weight and 1000 seed weight. In addition, Headline applied at GS 10.5 increased seed weight. Fusarium head blight incidence was reduced by treatments applied at GS 10.51. The sequential treatment (Headline followed by Prosaro) was more effective than all other treatments in reducing FHB incidence. Fusarium head blight index and head severity were both reduced by the treatments applied at GS 10.51. No differences in leaf diseases were determined. Leaf disease severity was low. Only the Cogito treatment reduced the Fusarium damaged kernels (FDK) in the grain sample. However, there appeared to be a trend toward elevated FDK and DON levels compared to the untreated by many of the strobilurin treatments. Four treatments, Cogito, Caramba, Prosaro and Headline followed by Prosaro were very effective in reducing DON compared to the untreated and all other treatments.

Table 1. Yield, test weight and 1000 seed weight by treatment, fungicide rate and timing on Divide durum, Langdon 2011.

Treatment ^a	Fungicide Rate	Application	Yield Bu./acre	Test Weight Lb./bu.	1000 Seed Weight g
	Fl. oz. /acre + %v/v	Timing Feekes GS			
Untreated	Na	Na	37.1	56.8	35.3
Cogito	7	10.5.1	53.6	59.6	39.9
Caramba	14 + 0.125	10.5.1	62.7	60.1	39.8
Prosaro	6.5 + 0.125	10.5.1	57.5	60.1	40.7
Headline	6 + 0.125	9	38.2	56.0	34.9
Headline and Prosaro	6 + 0.125 and 6.5 + 0.125	9 and 10.5.1	64.2	59.9	39.5
Headline	6 + 0.125	10.5	52.2	57.8	37.3
Quadris	6.2 + 0.125	10.5	39.9	56.8	34.5
Evito	4 + 0.125	10.5	38.2	55.9	34.5
Stratego YLD	4 + 0.125	10.5	39.9	56.7	35.7
Quilt	10.5 + 0.125	10.5	42.6	57.1	33.9
TwinLine	9 + 0.125	10.5	48.3	57.8	37.1
LSD _(0.05)			9.2	1.1	2.0
Pr>F			<0.0001	<0.0001	<0.0001
% C.V.			13.3	1.3	3.7

^a Induce adjuvant added to all fungicides except Cogito. GS = growth stage.

Table 2. Fusarium head blight disease incidence, index and head severity, leaf disease, Fusarium damaged kernels and deoxynivalenol accumulation by treatment, fungicide rate and timing on Divide durum, Langdon, 2011

Treatment ^a	Fungicide Rate Fl. oz. /acre + %v/v	Application Timing Feekes GS	FHB			Leaf		
			Incidence %	Index %	Severity %	Disease %	FDK %	DON PPM
Untreated	Na	Na	98.8	40.7	42.6	42.4	7.0	12.9
Cogito	7	10.5.1	86.3	16.6	22.1	34.3	1.8	4.4
Caramba	14 + 0.125	10.5.1	82.5	10.8	15.3	39.6	2.6	2.1
Prosaro	6.5 + 0.125	10.5.1	81.3	11.9	17.0	42.5	2.8	1.8
Headline	6 + 0.125	9	96.3	51.4	54.2	38.3	7.7	14.8
Headline and Prosaro	6 + 0.125 and 6.5 + 0.125	9 and 10.5.1	65.0	5.7	12.2	30.6	3.0	2.7
Headline	6 + 0.125	10.5	91.3	24.9	29.9	30.7	6.8	11.8
Quadris	6.2 + 0.125	10.5	97.5	38.4	40.0	32.1	10.9	15.1
Evito	4 + 0.125	10.5	96.3	48.3	49.6	34.9	11.6	13.2
Stratego YLD	4 + 0.125	10.5	95.0	31.5	34.9	54.8	9.7	12.0
Quilt	10.5 + 0.125	10.5	96.3	42.9	45.0	39.4	10.1	12.4
TwinLine	9 + 0.125	10.5	92.5	25.7	29.4	37.7	8.9	11.8
LSD _(0.05)			10.5	18.7	18.6	NS	4.7	3.4
Pr>F			<0.0001	<0.0001	0.0003	0.3689	0.0003	<0.0001
% C.V.			8.1	44.7	39.5	33.0	47.6	24.6

^a Induce adjuvant added to all fungicides except Cogito. GS = growth stage. FDK = Fusarium damaged kernels. DON = deoxynivalenol accumulation in the seed.

Seeding Rate Effect on Yield and other Agronomic Traits of Soybean-2011

Bryan Hanson and Richard Wilhelmi, NDSU Langdon Research Extension Center

Seeding rate trials were embedded in the soybean variety trials at the Langdon Research Extension Center and the off-station trial in Walsh County near Voss. Seeding rates were adjusted for seed size and germination (90%) and ranged from 125,000 to 250,000 pure live seed per acre (pls/a). The variety Dyna-Gro 30RY04 (maturity group 00.4) was planted at Langdon while Dyna-Gro 30YR07 (maturity group 00.7) was planted at Voss. Planting dates were May 20 and June 1 for Langdon and Voss, respectively. Both locations were not affected by the frost and harvest dates were September 28 and September 29 for Voss and Langdon, respectively.

The LSD 5% and CV% were determined using all data from the entire variety trial at both locations. Seeding rate appeared to have little effect on maturity dates at both locations. Plant height, lodging, protein and oil differences among seeding rates were non-significant at both Langdon and Voss. The yield at the 125 and 150,000 pls/a seeding rates at Voss were significantly lower than 200, 225, and 250,000 pls/a seeding rates. The lowest seeding rate at Langdon had a significantly lower yield than the two highest seeding rates. There was no significant differences in yield between the 150 and 250,000 pls/a seeding rates. Results from these two studies indicate that a seeding rate between 175 and 200,000 pls/a would result in optimum yields.

Walsh County - Voss

Seeding Rate pls/a	Maturity Date	Height (in)	Protein %	Oil %	Yield bu/a	2-site Yield Average bu/a
125,000	7-Sep	28.9	31.4	21.3	46.2	52.8
150,000	8-Sep	30.5	31.5	21.3	46.4	53.7
175,000	7-Sep	28.9	31.4	21.3	48.9	56.3
200,000	7-Sep	29.5	31.3	21.5	50.6	57.7
225,000	7-Sep	30.1	31.0	21.4	50.5	57.9
250,000	7-Sep	29.1	31.4	21.3	50.5	58.1
Mean	7-Sep	29.5	31.3	21.4	48.9	
CV %	1.1	4.7	1.0	1.0	5.3	
LSD 5%	1.5	2.0	0.6	0.4	3.6	

Langdon

Seeding Rate pls/a	Maturity Date	Height (in)	Lodging 0-9	Protein %	Oil %	Yield bu/a
125,000	13-Sep	42.6	2.1	33.9	19.8	59.4
150,000	11-Sep	41.6	0.9	33.7	19.8	61.0
175,000	12-Sep	41.9	1.4	33.9	19.9	63.6
200,000	12-Sep	41.2	1.0	33.5	19.8	64.7
225,000	12-Sep	41.8	1.2	33.6	19.7	65.2
250,000	12-Sep	40.9	2.4	33.8	19.7	65.7
Mean	12-Sep	41.7	1.5	33.7	19.8	63.3
CV %	1.1	4.1	50.6	1.6	1.5	6.2
LSD 5%	1.8	2.4	1.9	1.1	0.6	5.4

Canola Seeding Date Effect on Yield and other Agronomic Traits-Langdon 2010-2011

Bryan Hanson and Richard Wilhelmi - NDSU Langdon Research Extension Center

Canola seeding date trials were established in 2010 and 2011 at the Langdon Research Extension Center. Two hybrid cultivars were used; Liberty Link InVigor 8440 and Roundup Ready DKL 30-42. The trial was conducted using best management practices for canola including seeding rate, fertility, weed control, fungicide and harvest management.

The trial in 2010 had poor emergence the first 3 dates. We received 2.04 inches of rains between the April 29 and May 10 seeding date. Rainfall between seeding dates of May 10 and May 21 was 0.81 inches. Rainfall between seeding dates of May 21 and June 1 was 2.80 inches. Planting depth was between 3/4 and 1 inch but was often deeper with soil washing after rains. Crusting was also a factor. Rainfall and temperatures were above normal for the growing season. Yields were very good despite the early poor stands which demonstrates canola's ability to compensate for poor stands.

Soil conditions were very saturated from fall rains and winter's snow in the 2011 trial. The first planting date of May 9 was much earlier than any canola that was planted in the area. Stands were very good with no soil crusting after each date. July and August were both 2.5 degrees above normal for temperatures. There was only one day with temperatures over 90 deg. The increase in average daily temperatures came from warmer nights. Moisture was near normal in June and July and 1.8 inches below normal in August. There was no apparent moisture stress in the trial.

Planting date effects on yield were non-significant in 2010. The May 19, June 9 and June 16 planting date in 2011 had significantly higher yields than the May 9 planting date. Percent oil tended to decrease with later planting dates. Canola performed very well at the later seeding dates under the environmental conditions observed in 2010 and 2011.

Canola Seeding Date Trial - 2010

Seeding date effect on canola yield and other agronomic traits averaged over cultivars.

Seeding Date	8.5% M Yield lbs/a	Stand Rating 0-100	1st Flower DAP ¹	End Flower DAP	Flower Duration Days	Maturity DAP	HT in	Lodging 0-9	8.5% M. Oil %	1000 KWT g
29-Apr	2967.6	52.5	52.3	72.1	19.9	97.8	40.8	2.5	45.0	3.51
10-May	3107.8	37.5	44.5	68.1	23.6	94.0	42.4	1.0	43.5	3.52
21-May	3559.9	26.3	43.5	64.8	21.3	94.0	42.4	1.8	43.5	3.50
1-Jun	3079.6	93.1	38.6	58.9	20.3	86.9	42.1	1.9	43.2	3.19
9-Jun	3160.9	85.6	38.5	61.9	23.4	87.3	43.9	4.3	41.0	3.31
LSD 5%	NS	21.8	0.5	1.0	0.9	0.8	NS	1.2	1.4	0.19
C.V. %	11.6	33.9	1.1	1.4	3.7	0.8	5.5	49.1	3.0	5.1

DAP=Days after planting.

Canola Seeding Date Trial - 2011

Seeding date effect on yield and other agronomic traits averaged over cultivars.

Planting Date	8.5% M Yield lbs/a	Stand Rating 0-100	1st Flower DAP ¹	End Flower DAP	Flower Duration Days	Maturity DAP	HT in	Lodging 0-9	8.5% M. Oil %	1000 KWT g
9-May	2840	100	51.3	65.6	14.4	93.5	28.0	0.0	47.2	3.16
19-May	3240	99	44.1	60.1	16.0	89.8	30.6	0.1	48.1	3.34
3-Jun	2951	98	36.9	55.4	18.5	81.9	33.5	0.8	47.5	3.44
9-Jun	3301	99	35.9	49.5	13.6	84.0	36.6	3.4	45.4	3.22
16-Jun	3430	99	32.8	49.3	16.5	84.0	39.5	1.4	46.3	3.26
LSD 5%	306	NS	0.7	0.8	0.9	1.2	0.4	0.8	0.6	NS
C.V. %	8.9	1.2	1.6	1.3	4.8	1.3	1.0	63.3	1.2	5.2

DAP=Days after planting.

LREC Foundation Seed Increase Program

The Langdon Research Extension Center produces, conditions, and sells Foundation grade seed for producers and seedsmen in the region. The varieties of crops that are available for the 2012 growing season are listed below:

HRSW – Glenn, Faller, Prosper

Durum – Lebsock

Barley – Celebration

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.edu/langdonrec/

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