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INTRODUCTION

Content:

This report is intended to serve as a popularized 2007 summary of “primary” on-going cereal and oilseed crop variety investigations traditionally conducted on-station by the Agronomy Division at Northern Agricultural Research Center. These data represent approximately 19 percent of NARC-Agronomy’s total research project effort on-station at Havre, and approximately 22 percent of the cereal and oilseed variety evaluation effort on-station. The remaining 78 percent of the cereal and oilseed variety evaluation effort not reported here is associated with larger nurseries featuring early generation or other unnamed experimental materials not of general interest to the public. Long-term data summaries reported here are limited to the most recent ten years, largely due to need for report brevity and the fact that most varieties have approximately a 10-year life span before they are replaced in common use with newer materials having superior production characteristics. However, variety performance data has been continuously collected and maintained at the Havre station for 92 years beginning in 1916.

Detailed data pertaining to multiple performance characters, along with associated climatic and management inputs are presented for 2007. Abridged, multi-year summaries for each trial are limited to two crop characters. Individuals desiring detailed data for other than the current year may contact the research center or refer to previous editions of this report for the year(s) of interest.

2007 Data:

It should be noted that 2007 data tables in this report represent varietal performance for a single crop year at a single location only, and thus cannot be considered representative of performance expected when differing conditions due to location, year and management are imposed. Therefore, by itself, such 2007 data shall not constitute in any form a recommendation for or against any entry or practice included.

Multi-Year Summary Data:

Use of a “Comparable Average” provides a mechanism for “estimating” the performance of varieties over a period of time longer than that for which actual data is available for them. This is accomplished by comparing the performance of a “variety of interest” for the years it was actually tested with that of a designated long-term “check” or reference variety grown in the same trial in the same years. The performance of the variety is then expressed as a percent of the check variety’s performance. This actual percentage or index is then applied to the actual long-term performance of the check to estimate the performance of the variety of interest had it been grown over the same long term. The reliability of comparable average figures improves with increasing years of actual evaluation. For this reason, no entries with less than three years actual data have been included in long-term summaries.

Other References:

It is intended that this report be used as a supplement to variety performance summaries prepared by MSU’s Plant Science and Plant Pathology Department on statewide evaluations by MSU-Montana Agricultural Experiment Station:

Winter Wheat Varieties, Extension Service 2B 1098 (Revised February-March annually)
Spring Wheat Varieties, Extension Service 2B 1093 (Revised February-March annually)
Barley Varieties, Extension Service 2B 1094 (Revised February-March annually)

These summaries include performance data, descriptions, quality assessments, disease and insect considerations, cropping district recommendations, cultural practices, and general crop production management information. These publications are available from MSU-Extension Service offices and can further be accessed via the Internet at

<http://plantsciences.montana.edu/crops>

Summary of climatic data by months for the 2006-2007 crop year (September to August) and averages for the period 1916-2007 at the Northern Agricultural Research Center, Havre, Montana.

Month Year	Sep 2006	Oct 2006	Nov 2006	Dec 2006	Jan 2007	Feb 2007	Mar 2007	Apr 2007	May 2007	Jun 2007	Jul 2007	Aug 2007	Crop Year
Precipitation (inches)													<u>Total</u>
Current Year	1.16	0.71	0.38	0.37	0.41	0.82	0.76	2.07	2.27	2.06	1.03	0.38	12.42
92-Year Average (1916 to 2006-07)	1.14	0.66	0.42	0.44	0.43	0.32	0.55	0.97	1.76	2.55	1.43	1.20	11.89
Mean Temperature (°F)													<u>Average</u>
Current Year	57.7	44.8	28.8	25.9	22.6	17.8	40.1	42.0	55.8	63.7	76.8	69.1	45.4
92-Year Average (1916 to 2006-07)	56.1	45.9	30.0	19.7	15.3	20.0	30.0	43.6	54.1	61.9	69.2	67.3	42.7

Last killing frost in spring*

2007 _____ April 22th
Ave. 1916-2007 _____ May 13th

First killing frost in fall*

2007 _____ September 15th
Ave. 1916-2007 _____ September 19th

Frost free period

2007 _____ 145 days
Ave. 1916-2007 _____ 129 days

Growing degree days (base 50)

May 1-Oct 31, 2007 _____ 2517.0
Ave. 1951-2007 _____ 2387.7

Maximum summer temperature _____ 107 on July 24th

Minimum winter temperature _____ -25 on February 14th & 15th

*In this summary 32° is considered a killing frost.

**TABLE 1. Intrastate Winter Wheat Cultivar Evaluation Nursery Grown On-Station Under No-Till Dryland Fallow Conditions. Northern Agricultural Research Center. Havre, Montana. 2007.
(Exp# 07-3502-WW)**

ID	CULTIVAR or SELECTION	STAND %	1/ HEAD DATE	PLNT HT Inches	2/ YIELD Bu/Ac	MOISTURE %	TEST WT Lbs/Bu	3/ PROTEIN %	4/ SAWFLY %
CO0016	RIPPER	99.0	151.0	30.3	73.7	8.5	60.1	14.2	33.3
MTS0531	L'Govskaya 167//Rmp//MT94	95.8	157.3	31.8	70.1	8.9	60.4	14.0	2.3
MT0552	N95L159/CDC Clair	97.2	156.7	32.5	64.9	8.7	60.3	14.6	18.3
MT0495	MT9640/NB1133	96.6	158.0	33.1	62.6	8.4	58.5	14.6	25.0
MTS0532	L'Govskaya 167//Rmp//MT940	96.9	158.0	31.1	61.8	8.9	60.5	14.1	3.7
S94-4	CDC FALCON	96.2	157.7	29.3	61.4	8.6	59.0	14.2	26.7
BZ022051	BZ9W02-2051	95.1	159.3	31.9	61.3	8.7	60.0	14.0	35.0
MT0565	N93L068/MT9440	97.6	160.3	35.1	61.1	8.4	59.4	15.3	23.3
BZ96-788	LEDGER	96.9	159.0	30.3	61.1	8.8	60.6	13.4	13.3
SD98102	DARRELL	97.2	155.7	32.0	60.8	8.8	60.2	14.0	41.7
HATCHER	HATCHER	96.5	155.0	30.3	59.9	8.8	61.1	12.5	41.7
WENDY	WENDY	92.0	153.3	27.1	59.7	8.6	61.5	14.4	20.0
AP50W	NuDAKOTA	97.6	156.0	28.3	59.5	8.5	59.3	13.4	18.3
MTCL0477	MT9409*2//IMMIBC303//Neele	97.2	159.0	35.2	58.0	8.7	58.1	14.4	41.7
MT00159	YELLOWSTONE	95.5	159.7	33.8	58.0	8.3	58.3	14.9	40.0
PI593891	VANGUARD	99.0	159.7	37.2	57.5	8.5	59.3	15.0	6.7
BZ022060	CARTER	97.9	158.0	28.2	57.2	8.6	59.1	15.2	10.0
MTS0031	GENOU	98.3	158.3	35.4	57.0	8.7	59.7	14.8	5.0
CDCBUTEO	CDC BUTEO	96.2	159.0	34.3	57.0	8.8	61.6	14.3	43.3
98X43515	98x0435-15	97.2	151.7	29.6	56.6	8.7	61.6	13.7	21.7
MTI01159	MT1159CL	96.9	160.3	30.3	56.6	8.2	58.4	14.0	6.7
SD97W609	ALICE	95.1	153.3	28.3	56.5	8.7	62.0	13.9	8.3
MTCL0306	HYALITE	94.8	154.7	35.2	56.4	8.7	60.5	14.6	25.0
MTCL0316	NORRIS	95.5	154.0	35.4	56.0	8.5	61.3	13.9	23.3
PI593889	RAMPART	99.0	159.3	33.9	55.3	8.5	58.6	15.5	2.3
MT0585	HYB89F009/S86-736//BigSky	98.3	157.0	33.5	54.7	8.6	60.3	13.6	8.3
MT0419	Erhardt/KS92H21-4//Prongh	98.3	159.0	34.2	54.6	8.4	59.2	14.2	41.7
MTS04120	L'Govskaya 167//Rampart	96.5	158.3	34.7	54.6	8.8	59.9	14.6	5.0
BOND	BOND CL	95.1	153.0	33.0	54.4	8.8	60.4	12.5	25.0
JAGALENE	JAGALENE	95.8	155.7	31.2	54.4	8.9	61.7	14.2	23.3
PI619098	WAHOO	92.7	156.0	33.4	54.4	8.6	58.6	13.7	36.7
MTS04114	L'Govskaya 167//Rmp//MT940	97.6	158.3	31.3	54.1	8.9	60.3	14.5	7.0
MTW9441	NuSKY	96.5	160.0	34.3	54.0	8.6	59.5	14.6	63.3
MT 9432	BigSKY	97.6	158.7	37.8	53.7	8.5	59.3	15.8	15.0
MTCL0318	BYNUM	97.2	158.3	33.3	53.5	8.6	60.2	14.9	6.7
PI599336	MORGAN	97.6	161.0	35.7	53.2	8.3	58.2	14.8	26.7
ND9257	JERRY	95.5	160.0	35.0	52.9	8.5	58.0	14.5	45.0
WA007976	Estica/Finley	98.3	162.0	33.6	52.7	8.2	57.3	14.8	41.7
MT0554	Judith/W188-275//KS84HW11	91.7	159.3	33.9	52.4	8.5	57.6	14.6	18.3
PI517194	TIBER	96.6	159.7	36.6	52.3	8.5	60.0	15.0	41.7
MTCL0537	Fidel/4*Tiber	96.9	159.7	35.6	51.3	8.6	60.0	14.7	23.3
PI555458	PROMONTORY	96.2	157.7	34.2	50.7	8.5	61.2	13.8	56.7
CI 17879	ROCKY	96.5	156.7	37.0	49.9	8.9	61.3	13.8	30.0

TABLE 1. Intrastate Winter Wheat Cultivar Evaluation Nursery Grown On-Station Under No-Till Dryland Fallow Conditions. Northern Agricultural Research Center. Havre, Montana. 2007.
(Exp# 07-3502-WW)

ID	CULTIVAR or SELECTION	STAND %	1/ HEAD DATE	PLNT HT Inches	2/ YIELD Bu/Ac	MOISTURE %	TEST WT Lbs/Bu	3/ PROTEIN %	4/ SAWFLY %
CI 17860	NEELEY	95.8	160.3	32.9	49.8	8.6	59.2	14.4	28.3
BZ96-919	PRYOR	97.6	162.0	29.5	47.8	8.2	57.4	14.9	35.0
PI586806	NuWEST	97.2	159.3	34.4	46.8	8.5	59.2	14.8	53.3
MT0598	MT9659/S87-101//Pronghorn	97.9	160.0	36.3	46.6	8.4	56.8	14.1	30.0
WILLOWCR	WILLOW CREEK	97.2	168.0	42.3	41.5	8.3	58.9	16.2	60.0
FWW-25	FWW-25	98.6	163.3	44.9	30.6	8.1	54.8	15.3	41.7
EXPERIMENTAL MEANS		96.7	158.1	33.4	55.5	8.6	59.6	14.4	26.5
LSD (0.05)		3.4	1.7	2.8	8.7	0.2	1.2	-	21.7
C.V.2: (S of MEAN / MEAN)*100		1.3	0.4	3.0	5.6	0.9	0.7	-	29.1

1/ No. of Days from January 1 (158 = June 7).

2/ Volumetric yields are based on plot weights adjusted to uniform 12 percent grain moisture and 60 lbs/bu as the standard test weight for wheat.

3/ Protein values are adjusted to 12 percent grain moisture.

4/ Sawfly rating is reported as the percentage of cut stems.

Site Resource & Management Data: (Exp# 07-3502-WW)					
Field	A-4-4	SaltHaz(MMHOS/cm) 6-24	-	Dry Surf Soil (in.) @ Plnt'g	0.25
Quarter	NW	S (ppm) 0-24	190	2" Soil Temp (°F) @ Plnt'g	61
Section	33	Zn (ppm) 0-6	0.65	4" Soil Temp (°F) @ Plnt'g	58
Township	32N	Fe (ppm) 0-6	11.6	Fertilizer Formulation	Gran Blend
Range	15E	Mn (ppm) 0-6	6.15	Fertilizer Placement	Bnd at Plntg
Latitude	N48 29.450'	Cu (ppm) 0-6	1.55	Fert. Rate (lbs/ac) N	70
Longitude	W109 47.897'	CEC 0-6	28.5	Fert. Rate (lbs/ac) P2O5	40
Soil Series	Kevin Cl-Lm	Soil Texture 0-6	CL	Fert. Rate (lbs/ac) K2O	25
pH 0-6	8	Soil Texture 6-24	CL	Herbicide App. Date	4/30
Org.Matter (%) 0-6	1.9	Soil Texture 24-36	CL	Herbicide Product	Bronate Adv
N (lbs/ac) 0-6	30	Soil Texture 36-48	CL	Herbicide Rate (/ac)	16 oz
N (lbs/ac) 6-24	114	Init PAW (in.) 0-6"	1.23	Precip (in.) Plnt'g-Harvest	10.88
N (lbs/ac) 24-36	156	Init PAW (in.) 6-24"	3.72	Precip (>.1) Plnt'g-Harvest	9.02
N (lbs/ac) 36-48	116	Init PAW (in.) 24-36"	1.95	Harvest Date	7/25
N (lbs/ac) 0-48	416	Init PAW (in.) 36-48"	1.94	Rooting Depth (in.)	28"
P (ppm) Olsen 0-6	31	Init PAW (in.) 0-48"	8.85	Post PAW (in.) 0-6"	0.61
K (ppm) 0-6	346	Cropping System	NT-ChmFlw	Post PAW (in.) 6-24"	1.61
Ca (ppm)	4571	Previous Crop	Barley	Post PAW (in.) 24-36"	1.27
Mg (ppm) 0-6	554	Planting Date	9/29	Post PAW (in.) 36-48"	1.88
Na (ppm) 0-6	31	Planting Depth (in.)	1.50	Post PAW (in.) 0-48"	5.36
SaltHaz(MMHOS/cm)0-6	0.13	Moist Soil Depth @ Plnt'g	48+	Precip (>.1) Hvst-Post	0

TABLE 2. Ten-Year Yield Summary on Selected Entries from Dryland Intrastate Winter Wheat Nursery. Northern Agricultural Research Center. Havre, Montana. 1998-2007. (Exp# 3502-WW)

2/ VARIETY or SELECTION		No. of YEARS TESTED	1/ YIELD (Bushels Per Acre)										AVE. for YEARS TESTED	% of CHECK YIELD 3/	10-YR COMP. AVE. YIELD 4/
			1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
BOND	BOND CL (CL+)	3								74.1	57.3	54.4	61.9	118.1	55.5
MT00159	YELLOWSTONE (++)	6					39.6	30.2	70.3	58.7	65.6	58.0	53.7	114.4	53.8
PI619098	WAHOO (+)	6					39.8	28.5	72.8	54.7	69.0	54.4	53.2	113.3	53.3
S94-4	CDC FALCON (P+)	8			66.0	26.4	38.9	30.4	69.3	62.3	58.9	61.4	51.7	113.0	53.1
BZ9W96-919	PRYOR (P+)	8			71.0	23.6	39.0	37.7	73.1	63.6	57.5	47.8	51.7	112.9	53.1
BZ96-788	LEDGER (P+)	5						32.3	65.2	69.6	52.5	61.1	56.1	112.4	52.9
HATCHER	HATCHER (+)	3								53.2	59.9	59.9	57.7	110.0	51.7
MTCL0316	NORRIS (P, CL++)	3								62.8	54.0	56.0	57.6	109.9	51.7
MTS0031	GENOU (sawfly res.)(+)	6					32.6	28.7	68.7	63.8	54.7	57.0	50.9	108.5	51.0
GM10001	NUFRONTIER (HW)(P+)	7			63.5	22.7	35.3	34.5	69.7	58.4	54.6		48.4	108.0	50.8
MT9426	PAUL	8		70.0	65.4	21.8	33.6	33.3	65.0	54.8	57.8		50.2	107.8	50.7
CI 17879	ROCKY (P)	10	47.0	57.4	62.7	25.3	35.6	27.6	74.7	59.9	61.4	49.9	50.1	106.6	50.1
ABOVE	ABOVE (CL+)	5					28.1	34.5	70.6	54.5	53.9		48.3	105.3	49.5
MTW9441	NUSKY (HW)	9		61.1	59.7	25.3	42.5	28.1	63.4	49.4	56.8	54.0	48.9	103.6	48.7
PI555458	PROMONTORY	10	44.3	78.3	59.1	22.9	31.6	30.1	66.2	45.9	53.9	50.7	48.3	102.7	48.3
CI 17860	NEELEY	10	49.7	64.6	69.0	19.9	34.4	30.3	65.6	44.6	53.6	49.8	48.2	102.4	48.2
PI586806	NUWEST (HW)(P+)	10	45.9	62.3	57.9	25.2	40.5	24.2	63.9	55.2	58.5	46.8	48.0	102.2	48.0
MT9432	BIGSKY (+)	10	50.8	65.6	54.5	21.1	32.5	29.6	64.3	49.0	58.6	53.7	48.0	102.0	48.0
JAGALENE	JAGALENE (P+)	5						22.5	68.0	58.4	50.6	54.4	50.8	101.7	47.8
PI593889	RAMPART (sawfly res.)	10	50.0	51.9	55.8	22.4	36.8	32.4	63.2	60.6	49.0	55.3	47.7	101.5	47.7
PI517194	TIBER	10	45.1	59.1	61.8	22.5	32.1	26.8	65.5	49.1	55.9	52.3	47.0	100.0	47.0
PI593891	VANGUARD (sawfly res.)	10	42.4	48.7	52.4	22.5	30.8	30.8	61.7	65.3	51.2	57.5	46.3	98.6	46.3
ND9257	JERRY	7		49.1			42.9	25.5	60.6	48.6	55.9	52.9	47.9	98.4	46.3
PI599336	MORGAN (P+)	10	44.9	59.5	56.3	20.7	37.5	26.8	58.1	44.0	56.0	53.2	45.7	97.2	45.7
CI 17735	NORSTAR	8	53.4	36.0	49.0	20.9	40.2	19.0	47.4	46.3			39.0	86.3	40.6
MEANS (For Entries Listed)			47.1	60.0	60.2	22.7	36.1	29.6	66.0	56.7	56.5	54.3			49.8
April-July Precip. (in.)			8.78	8.57	6.01	4.81	8.87	7.07	8.64	7.37	5.71	7.43	7.33		
Total Annual Precip. (in.)			12.17	14.30	10.27	8.83	13.29	11.54	14.43	11.87	10.29	12.42	11.94		
Soil NO3 (lbs.) to SD at Planting			92	Pndg	Pndg	Pndg	110	150	418	138	390	416	245		
SD (Sampling Depth in Inches)			48	Pndg	Pndg	Pndg	48	48	48	48	48	48	48		
Fertilizer Applied															
	(# N)		70	70	70	70	70	70	70	70	70	70	70		
	(# P ₂ O ₅)		40	40	40	40	40	40	40	40	40	40	40		
	(# K ₂ O)		25	25	25	25	25	25	25	25	25	25	25		

Long-term check variety is Tiber.

1/ See MCES Bulletin 1098 or the Plant Sciences & Plant Pathology website at <http://plantsciences.montana.edu/> for evaluation of other important variety performance characteristics to include protein, quality, disease resistance, etc. before making cultivar selection decisions.

2/ P = Private Variety, + = Protected Variety, ++ = PVP Title 5 or Title 5 Pending, HW = Hard White Wheat, CL = Clearfield Line.

3/ Percent of Tiber yield or test weight for the same data years as those in which a given entry was tested.

4/ 10-Yr Comparable Average = (x/y) * z where x = average yield or test weight of a given entry for years tested, y = average yield or test weight for Tiber for the same years, and z = 10-Yr average yield or test weight for the check variety Tiber.

TABLE 3. Ten-Year Test Weight Summary on Selected Entries from Dryland Intrastate Winter Wheat Nursery. Northern Agricultural Research Center. Havre, Montana. 1998-2007. (Exp# 3502-WW)

2/ VARIETY or SELECTION		No. of YEARS TESTED	1/ TEST WEIGHT (Pounds Per Bushel)										AVE. for YEARS TESTED	% of CHECK TEST WT 3/	10-YR COMP. AVE. TEST WT 4/
			1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
MTCL0316	NORRIS (P, CL++)	3								63.2	63.5	61.3	62.7	102.3	62.8
JAGALENE	JAGALENE (P+)	5						60.7	62.4	62.1	64.2	61.7	62.2	102.0	62.6
CI 17879	ROCKY (P)	10	64.6	62.1	62.4	60.0	59.7	62.1	62.4	61.6	65.4	61.3	62.2	101.3	62.2
PI555458	PROMONTORY	10	64.2	64.0	62.6	61.0	59.9	61.4	60.9	61.3	64.1	61.2	62.1	101.1	62.1
BZ96-788	LEDGER (P+)	5						61.4	60.8	62.2	63.2	60.6	61.7	101.1	62.0
BOND	BOND CL (CL+)	3								61.4	63.8	60.4	61.9	101.1	62.0
GM10001	NUFRONTIER (HW)(P+)	7			63.6	61.3	57.7	62.1	62.3	60.8	63.9		61.7	100.9	61.9
HATCHER	HATCHER (+)	3								60.4	63.7	61.1	61.7	100.9	61.9
PI517194	TIBER	10	64.4	61.5	61.3	60.7	60.7	61.7	59.7	61.0	62.6	60.0	61.4	100.0	61.4
MT9432	BIGSKY (+)	10	64.2	62.7	61.3	60.8	60.9	61.3	58.5	59.9	63.1	59.3	61.2	99.7	61.2
MTW9441	NUSKY (HW)	9		61.3	61.8	60.3	60.0	60.7	59.3	60.3	62.6	59.5	60.7	99.4	61.0
PI586806	NUWEST (HW)(P+)	10	62.6	61.4	61.7	59.9	60.0	60.2	60.0	60.3	63.1	59.2	60.9	99.2	60.9
MTS0031	GENOU (sawfly res.)(+)	6					58.4	61.3	59.7	60.9	62.5	59.7	60.4	99.1	60.8
ABOVE	ABOVE (CL+)	5					57.9	59.6	61.6	61.0	62.9		60.6	99.1	60.8
PI593891	VANGUARD (sawfly res.)	10	63.7	60.6	60.1	58.6	58.1	61.0	60.0	61.2	62.0	59.3	60.5	98.5	60.5
CI 17860	NEELEY	10	63.1	62.5	61.7	58.2	57.0	61.2	59.2	60.2	62.3	59.2	60.5	98.5	60.5
CI 17735	NORSTAR	8	63.8	59.4	61.0	59.8	59.6	61.9	59.1	58.7			60.4	98.4	60.4
PI593889	RAMPART (sawfly res.)	10	64.2	60.8	59.8	58.3	58.8	61.1	59.1	60.5	62.5	58.6	60.4	98.4	60.4
S94-4	CDC FALCON (P+)	8			61.5	57.4	57.7	59.8	60.7	60.3	63.1	59.0	59.9	98.3	60.3
BZ9W96-919	PRYOR (P+)	8			61.8	59.1	58.8	61.9	58.4	59.3	62.1	57.4	59.8	98.2	60.2
PI599336	MORGAN (P+)	10	63.4	61.5	60.8	59.4	57.9	60.3	58.7	57.9	61.9	58.2	60.0	97.8	60.0
ND9257	JERRY	7		61.1			57.7	60.5	58.8	59.3	62.1	58.0	59.7	97.7	60.0
PI619098	WAHOO (+)	6					57.5	60.6	59.5	59.0	62.3	58.6	59.6	97.7	60.0
MT00159	YELLOWSTONE (++)	6					59.2	60.0	57.9	59.4	62.2	58.3	59.5	97.6	59.9
MT9426	PAUL	8		61.5	60.6	57.8	57.9	61.2	57.0	58.1	61.8		59.5	97.3	59.7
MEANS (For Entries Listed)			63.8	61.6	61.7	59.6	58.8	61.1	59.9	60.5	63.0	59.6			61.1
April-July Precip. (in.)			8.78	8.57	6.01	4.81	8.87	7.07	8.64	7.37	5.71	7.43	7.33		
Total Annual Precip. (in.)			12.17	14.30	10.27	8.83	13.29	11.54	14.43	11.87	10.29	12.42	11.94		
Soil NO3 (lbs.) to SD at Planting			92	Pndg	Pndg	Pndg	110	150	418	138	390	416	245		
SD (Sampling Depth in Inches)			48	Pndg	Pndg	Pndg	48	48	48	48	48	48	48		
Fertilizer Applied			(# N)	70	70	70	70	70	70	70	70	70	70		
			(# P ₂ O ₅)	40	40	40	40	40	40	40	40	40	40		
			(# K ₂ O)	25	25	25	25	25	25	25	25	25	25		

Long-term check variety is Tiber.

1/ See MCES Bulletin 1098 or the Plant Sciences & Plant Pathology website at <http://plantsciences.montana.edu/> for evaluation of other important variety performance characteristics to include protein, quality, disease resistance, etc. before making cultivar selection decisions.

2/ P = Private Variety, + = Protected Variety, ++ = PVP Title 5 or Title 5 Pending, HW = Hard White Wheat, CL = Clearfield Line.

3/ Percent of Tiber yield or test weight for the same data years as those in which a given entry was tested.

4/ 10-Yr Comparable Average = (x/y) * z where x = average yield or test weight of a given entry for years tested, y = average yield or test weight for Tiber for the same years, and z = 10-Yr average yield or test weight for the check variety Tiber.

TABLE 4. Advanced Yield Spring Wheat Cultivar Evaluation Nursery Grown On-Station Under No-Till Dryland Fallow Conditions. Northern Agricultural Research Center. Havre, Montana. 2007. (Exp# 07-3102-SW)

ID	CULTIVAR or SELECTION	STAND %	1/ HEAD DATE	PLNT HT Inches	2/ YIELD Bu/Ac	MOISTURE %	TEST WT Lbs/Bu	3/ PROTEIN %	4/ SAWFLY %
PI642366	VIDA	94.5	178.0	26.4	42.4	9.0	55.8	16.5	3.7
BZ996434	CORBIN	88.5	174.0	27.4	42.0	9.3	57.6	16.5	1.0
MT 0626	OUTLOOK//REEDER/SCHOLAR	95.1	173.3	26.2	40.2	9.1	56.7	15.9	11.7
MT 0413	REEDER//MCNEAL/MT9406	88.9	172.7	24.4	39.5	9.3	56.7	15.9	13.3
MT 0632	CHOTEAU/OXEN	92.4	175.7	24.0	39.4	9.2	56.7	15.8	15.0
MT 0516	REEDER/MT9929	88.2	174.0	27.1	39.2	9.0	56.5	16.7	13.3
MT 0414	MT9408/MT9406//REEDER	94.8	173.3	28.0	38.8	8.8	56.3	17.2	25.0
BZ902413	CONAN/AGAWAM	91.0	175.3	25.9	38.3	9.2	57.3	16.3	1.0
BZ9M1024	TRIANGLE*3/TEAL11-A	88.5	176.7	24.9	37.8	9.1	56.1	16.2	3.7
AGRIPRO6	KELBY	89.2	173.0	23.5	37.7	9.0	59.2	16.6	15.0
MT 0623	OUTLOOK//REEDER/MCNEAL	87.5	178.3	25.9	37.4	9.0	55.1	17.1	6.7
MT 0628	CHOTEAU/OXEN	91.3	177.3	26.3	37.4	9.0	55.6	16.9	10.3
MT 0608	MCNEAL//REEDER/SCHOLAR	93.4	175.0	29.8	37.2	9.2	57.0	17.0	10.0
MT 0416	REEDER//MT9410/MTRWA116	92.4	175.3	25.1	37.2	9.0	55.8	15.5	10.3
MT 0613	OXEN//REEDER/SCHOLAR	95.1	176.0	25.3	37.1	9.1	57.6	17.0	5.0
MT 0415	MT9408/MT9406//REEDER	94.5	175.3	29.5	37.0	9.0	57.2	17.1	23.3
AGRIPRO8	AP604 CL	92.4	172.0	26.3	36.9	9.3	57.9	16.6	20.0
MT 0336	MT9609/MT9806	91.7	176.3	26.3	36.7	9.2	56.1	15.9	5.3
MT 0638	CHOTEAU//REEDER/MCNEAL	91.7	175.7	26.2	36.6	9.3	57.3	16.5	15.0
MT 0515	REEDER/MT9929	92.7	178.3	24.8	36.5	9.1	56.3	16.9	4.0
ND 695	REEDER	95.1	177.0	26.9	36.2	8.9	56.8	16.9	13.3
BZ992588	CONAN	91.3	175.3	24.6	36.1	9.0	57.5	16.6	1.0
MT 0539	MT9874/MT0013	90.3	177.0	25.7	36.1	8.6	55.2	16.5	13.3
PI633974	CHOTEAU	82.6	177.7	24.1	36.0	9.0	55.7	16.9	1.0
MT 0624	OUTLOOK//MCNEAL/WA7802	92.0	175.3	28.5	36.0	9.1	57.1	15.7	23.3
AGRIPRO1	NORPRO	88.2	177.7	22.9	35.9	9.0	55.4	17.1	5.0
MT 0614	MT0113/RUSS	92.0	174.3	27.3	35.8	8.8	56.1	17.4	3.7
MT 0663	REEDER/MCNEAL//MCNEAL/WA7	92.7	175.0	23.8	35.8	9.4	57.2	16.4	18.3
PI632252	OUTLOOK	92.4	177.7	26.4	35.7	8.7	55.3	16.4	8.3
MT 0674	MCNEAL/WA7802//MT9754/SCH	93.1	173.7	25.7	35.7	8.9	55.4	16.9	13.3
MT 0657	REEDER/MCNEAL//MCNEAL/MN9	94.5	176.0	25.0	35.6	9.0	54.9	16.7	18.3
MT 0405	REEDER/MT9806	91.7	176.0	25.7	35.6	8.8	57.0	16.9	13.3
MT 0605	MCNEAL//REEDER/MCNEAL	94.8	177.0	23.6	35.5	8.9	55.5	17.2	10.0
PI574642	MCNEAL	93.1	176.7	26.4	35.4	8.7	54.5	17.3	15.0
MT 0607	MCNEAL//REEDER/MCNEAL	94.4	175.0	25.2	35.4	8.4	56.0	16.9	21.7
ACS52610	WPB GERMANY	94.1	178.7	25.6	35.1	9.2	57.5	17.0	13.3
MT 0606	MCNEAL//REEDER/MCNEAL	96.2	175.3	23.9	35.0	8.9	56.1	17.0	15.0
PI635044	CLEAR WHITE	87.2	173.7	22.1	35.0	9.0	54.4	15.2	15.0
MT 0562	MT0013//BZ992632/MT9619	93.4	176.7	26.2	35.0	9.0	56.4	16.6	1.0
MT 0659	REEDER/MCNEAL//MCNEAL/MN9	93.4	174.3	27.1	34.8	9.0	54.3	16.9	25.0
MTHW0471	MTHW9701/MTHW9904	89.2	178.0	28.9	34.7	9.5	57.7	16.9	2.3
MT 0669	MT9754/SCHOLAR//REEDER/MC	93.7	177.7	25.1	34.6	9.3	57.2	16.9	2.3
BZ9M1044	JEDD	88.5	173.3	22.8	34.4	9.2	58.1	16.3	6.7

TABLE 4. Advanced Yield Spring Wheat Cultivar Evaluation Nursery Grown On-Station Under No-Till Dryland Continued Fallow Conditions. Northern Agricultural Research Center. Havre, Montana. 2007. (Exp# 07-3102-SW)

ID	CULTIVAR or SELECTION	STAND %	1/ HEAD DATE	PLNT HT Inches	2/ YIELD Bu/Ac	MOISTURE %	TEST WT Lbs/Bu	3/ PROTEIN %	4/ SAWFLY %
MT 0631	CHOTEAU/OXEN	92.7	178.7	25.4	34.3	8.9	55.4	17.2	3.7
BZ992322	HANK	90.6	172.3	24.3	34.0	8.8	54.9	16.7	10.0
AGRIPRO3	FREYR	86.8	176.0	27.5	33.8	9.2	57.1	16.3	15.0
MT 0643	CHOTEAU/MCNEAL/WA7802	91.3	173.7	24.8	33.8	9.1	57.1	17.2	4.0
MT 0627	OUTLOOK/MCNEAL/MTHW9701	93.4	176.0	27.5	33.6	8.3	51.0	16.8	28.3
BZ999592	MCNEAL/906R	94.5	177.3	23.9	33.6	9.0	56.0	17.6	2.3
MT 0664	REEDER/MCNEAL/MCNEAL/WA7	94.4	175.0	26.3	33.6	8.9	55.3	17.3	23.3
MT 0602	MCNEAL/REEDER/MCNEAL	93.4	177.7	26.7	33.5	8.7	54.7	16.9	16.7
MT 0519	REEDER/MT9929	93.8	174.0	26.5	33.4	9.0	58.7	16.5	11.7
MT 0658	REEDER/MCNEAL/MCNEAL/MN9	96.5	176.0	26.2	33.3	9.3	56.8	16.5	18.3
MT 0667	REEDER/MCNEAL/MT9754/SCH	92.0	175.3	23.5	33.1	9.0	56.7	16.2	8.3
MT 0640	CHOTEAU/REEDER/MCNEAL	89.6	174.0	26.6	32.9	8.9	56.0	16.9	23.3
MT 0617	MCNEAL/WA7802/RUSS	91.0	174.3	25.1	32.8	8.5	54.7	16.6	21.7
MT 0645	CHOTEAU/ERNEST/MT8808	92.4	178.3	25.3	32.7	9.2	56.3	17.2	1.0
MT 0666	REEDER/MCNEAL/MT9754/SCH	95.1	176.3	25.9	32.6	9.1	54.1	16.9	21.7
PI592761	ERNEST	89.6	177.3	29.6	32.5	9.1	57.3	17.0	3.7
CI 13596	FORTUNA	92.7	174.3	29.2	31.5	9.3	56.8	15.6	5.0
PATWIN	PATWIN	91.7	180.0	20.5	31.3	8.4	52.8	18.6	1.0
AGRIPRO7	KUNTZ	89.9	178.3	24.9	31.3	9.1	56.3	16.3	16.7
MT 0550	MT9929/ND709-9	90.3	173.3	27.9	31.1	9.3	58.0	16.1	5.3
CI 10003	THATCHER	93.1	177.7	32.3	29.9	8.7	52.5	17.7	15.0
EXPERIMENTAL MEANS		91.9	175.8	25.9	35.5	9.0	56.2	16.7	11.4
LSD (0.05)		6.2	2.5	2.6	5.2	0.3	1.1	-	8.8
C.V.2: (S of MEAN / MEAN)*100		2.4	0.5	3.6	5.3	1.1	0.7	-	27.6

1/ No. of Days from January 1 (176 = June 25).

2/ Volumetric yields are based on plot weights adjusted to uniform 12 percent grain moisture and 60 lbs/bu as the standard test weight for wheat.

3/ Protein values are adjusted to 12 percent grain moisture.

4/ Sawfly rating is reported as the percentage of cut stems.

Site Resource & Management Data: (Exp# 07-3102-SW)							
Field	A-4-2		SaltHaz(MMHOS/cm) 6-24	0.28		Dry Surf Soil (in.) @ Plnt'g	0.25
Quarter	NW		S (ppm) 0-24	21		2" Soil Temp (°F) @ Plnt'g	64
Section	33		Zn (ppm) 0-6	0.97		4" Soil Temp (°F) @ Plnt'g	60
Township	32N		Fe (ppm) 0-6	12.9		Fertilizer Formulation	Gran Blend
Range	15E		Mn (ppm) 0-6	7.9		Fertilizer Placement	Bnd at Plntg
Latitude	N48 29.612'		Cu (ppm) 0-6	1.09		Fert. Rate (lbs/ac) N	70
Longitude	W109 47.871'		CEC 0-6	16.6		Fert. Rate (lbs/ac) P2O5	40
Soil Series	Joplin CL		Soil Texture 0-6	CL		Fert. Rate (lbs/ac) K2O	25
pH 0-6	7.2		Soil Texture 6-24	CL		Herbicide App. Date	6/3
Org.Matter (%) 0-6	1.6		Soil Texture 24-36	CL-		Herbicide Product	Bronate Ad
N (lbs/ac) 0-6	4		Soil Texture 36-48	CL-		Herbicide Rate (/ac)	20 oz
N (lbs/ac) 6-24	42		Init PAW (in.) 0-6"	1.20		Precip (in.) Plnt'g-Harvest	5.41
N (lbs/ac) 24-36	174		Init PAW (in.) 6-24"	4.39		Precip (>.1) Plnt'g-Harvest	4.82
N (lbs/ac) 36-48	-		Init PAW (in.) 24-36"	2.81		Harvest Date	8/11
N (lbs/ac) 0-48	220		Init PAW (in.) 36-48"	-		Rooting Depth (in.)	30
P (ppm) Olsen 0-6	29		Init PAW (in.) 0-48"	8.40		Post PAW (in.) 0-6"	0.03
K (ppm) 0-6	343		Cropping System	NT-ChmFlw		Post PAW (in.) 6-24"	1.76
Ca (ppm)	2309		Previous Crop	Barley		Post PAW (in.) 24-36"	0.78
Mg (ppm) 0-6	489		Planting Date	4/27		Post PAW (in.) 36-48"	-
Na (ppm) 0-6	26		Planting Depth (in.)	1.5		Post PAW (in.) 0-48"	2.57
SaltHaz (MMHOS/cm) 0-6	0.32		Moist Soil Depth @ Plnt'g	48+		Precip (>.1) Hvst-Post	0

TABLE 5. Ten-Year Yield Summary on Selected Entries from Dryland Advanced Spring Wheat Nursery. Northern Agricultural Research Center. Havre, Montana. 1998-2007. (Exp# 3102-SW)

2/ VARIETY or SELECTION		No. of YEARS TESTED	1/ YIELD (Bushels Per Acre)										AVE. for YEARS TESTED	% of CHECK YIELD 3/	10-YR COMP. AVE. YIELD 4/
			1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
PI642366	VIDA (+)	5						15.2	51.8	59.3	35.8	42.4	40.9	150.2	42.9
BZ9M1044	JEDD (P)	3								59.9	33.7	34.4	42.7	136.0	38.8
PI632252	OUTLOOK (+)	9		44.1	41.0	22.9	43.4	15.7	49.4	58.9	31.2	35.7	38.0	136.0	38.8
BZ996472	AGAWAM (P)	8		44.7	37.8	18.6	37.7	11.5	52.6	53.8	34.0		36.4	131.1	37.4
ND695	REEDER (+)	9		49.1	43.3	22.5	34.9	13.0	40.3	51.9	30.0	36.2	35.7	127.6	36.4
BZ992588	CONAN (P+)(sawfly tolerant)	9		47.8	36.0	20.4	33.7	13.9	42.7	57.1	32.9	36.1	35.6	127.4	36.3
PI574642	McNEAL	10	44.9	49.2	40.2	18.9	36.5	13.2	40.4	51.8	27.2	35.4	35.8	125.4	35.8
BZ992322	HANK (P+)	8			41.7	20.5	36.4	11.0	44.7	54.3	31.7	34.0	34.3	125.2	35.7
BZ996434	CORBIN (P+)(sawfly res.)	6				20.0	35.4	10.3	48.6		28.9	42.0	30.9	123.9	35.3
ACS52610	WPB GERMANY	3								53.0	28.4	35.1	38.8	123.8	35.3
PI633974	CHOTEAU (+)(sawfly res.)	8			34.2	19.3	35.7	12.7	43.2	58.0	32.1	36.0	33.9	123.7	35.3
PI607557	SCHOLAR (+)(mod sawfly res.)	9	45.5	42.2	38.5	21.0	36.8	11.0	44.1	45.8	26.0		34.5	121.7	34.7
PI549275	HI-LINE	7	40.0	45.3	37.6	19.7	36.0	11.1	40.7				32.9	120.4	34.4
AGRIPRO3	FREYR (P+)	4							40.6	48.8	31.9	33.8	38.8	120.0	34.2
CI17430	NEWANA	7	39.3	45.9	35.6	21.5	38.5	12.1	35.7				32.7	119.5	34.1
AGRIPRO1	NORPRO (P+)	6					35.5	8.9	39.9	50.3	30.0	35.9	33.4	117.6	33.6
PI619086	EXPLORER (HW)(+)	6				19.8	36.7	13.1	35.8	47.2	30.5		30.5	115.2	32.9
CI13596	FORTUNA (sawfly res.)	10	40.1	35.9	35.9	16.7	29.9	9.5	42.0	49.7	33.8	31.5	32.5	113.9	32.5
PI592761	ERNEST (+)(sawfly res.)	10	35.7	39.9	37.3	19.6	36.1	12.7	39.5	45.0	24.9	32.5	32.3	113.3	32.3
WB926	WESTBRED 926 (P)	7	33.7	41.9	38.0	18.7	30.4	9.8	42.0				30.7	112.2	32.0
CI17429	LEW (sawfly resistant)	4	38.3	37.2	35.5	17.9							32.2	112.1	32.0
AGRIPRO2	KNUDSON (P+)	5					31.6	7.6	38.8	46.7	28.0		30.5	108.7	31.0
PI527682	AMIDON (mod sawfly res.)	7	47.3	4.0	35.9	22.2	40.6	11.1	38.2				28.5	104.3	29.7
CI10003	THATCHER	10	33.6	32.5	30.4	18.4	34.2	6.9	35.2	39.3	24.9	29.9	28.5	100.0	28.5
MEANS (For Entries Listed)			39.8	40.0	37.4	19.9	35.8	11.5	42.2	51.1	30.2	35.5			34.4
April-July Precip. (in.)			8.78	8.57	6.01	4.81	8.87	7.07	8.64	7.37	5.71	7.43	7.33		
Total Annual Precip. (in.)			12.17	14.3	10.27	8.83	13.29	11.54	14.43	11.87	10.29	12.42	11.94		
Soil NO3 (lbs.) to SD at Planting			140	Pndg	Pndg	Pndg	98	44	86	142	119	220	121		
SD (Sampling Depth in Inches)			48	Pndg	Pndg	48	48	48	48	48	48	48	48		
Fertilizer Applied			(# N)	70	70	70	70	70	70	70	70	70	70		
			(# P2O5)	40	40	40	40	40	40	40	40	40	40		
			(# K2O)	25	25	25	25	25	25	25	25	25	25		

Long-term check variety is Thatcher.

1/ See MCES Bulletin 1093 or the Plant Sciences & Plant Pathology website at <http://plantsciences.montana.edu/> for evaluation of other important variety performance characteristics to include protein, quality, disease resistance, etc. before making cultivar selection decisions.

2/ P = Private Variety, + = Protected Variety, ++ = PVP Title 5 or Title 5 Pending, HW = Hard White Wheat.

3/ Percent of Thatcher yield or test weight for the same data years as those in which a given entry was tested.

4/ 10-Yr Comparable Average = (x/y) * z where x = average yield or test weight of a given entry for years tested, y = average yield or test weight for Thatcher for the same years, and z = 10-Yr average yield or test weight for the check variety Thatcher.

TABLE 6. Ten-Year Test Weight Summary on Selected Entries from Dryland Advanced Spring Wheat Nursery. Northern Agricultural Research Center. Havre, Montana. 1998-2007. (Exp# 3102-SW)

2/ VARIETY or SELECTION		No. of YEARS TESTED	1/ TEST WEIGHT (Pounds Per Bushel)										AVE. for YEARS TESTED	% of CHECK TEST WT 3/	10-YR COMP. AVE. TEST WT 4/
			1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
BZ996472	AGAWAM (P)	8		60.5	60.6	60.0	61.2	60.3	63.0	59.9	58.6		60.5	111.4	60.7
ACS52610	WPB GERMANY	3								60.1	56.4	57.5	58.0	109.1	59.4
AGRIPRO3	FREYR (P+)	4							61.0	58.8	55.1	57.1	58.0	108.8	59.3
BZ9M1044	JEDD (P)	3								59.9	55.5	58.1	57.8	108.8	59.3
BZ996434	CORBIN (P+)(sawfly res.)	6				57.4	60.9	57.7	60.1		54.7	57.6	58.1	108.4	59.0
PI607557	SCHOLAR (+)(mod sawfly res.)	9	62.3	58.1	60.7	59.4	61.3	57.3	58.7	58.3	55.8		59.1	108.1	58.9
BZ992588	CONAN (P+)(sawfly tolerant)	9		58.2	59.4	59.5	61.1	56.6	59.9	59.4	54.6	57.5	58.5	108.1	58.8
AGRIPRO2	KNUDSON (P+)	5					60.5	57.4	59.0	57.5	54.8		57.8	107.4	58.5
ND695	REEDER (+)	9		58.6	60.1	58.2	60.6	57.4	58.9	58.6	53.6	56.8	58.1	107.4	58.5
CI13596	FORTUNA (sawfly res.)	10	62.6	57.9	59.2	57.2	59.2	56.8	59.2	59.2	56.0	56.8	58.4	107.3	58.4
PI592761	ERNEST (+)(sawfly res.)	10	61.9	57.4	59.7	58.0	60.0	56.8	59.4	56.9	54.5	57.3	58.2	106.9	58.2
PI527682	AMIDON (mod sawfly res.)	7	60.9	57.0	59.1	57.7	59.8	57.1	59.1				58.7	106.7	58.1
CI17430	NEWANA	7	60.5	55.0	57.7	59.6	62.0	56.2	58.8				58.5	106.4	58.0
PI642366	VIDA (+)	5						55.9	58.6	57.8	52.0	55.8	56.0	106.3	57.9
PI633974	CHOTEAU (+)(sawfly res.)	8			58.5	57.0	60.2	57.8	59.5	58.7	52.8	55.7	57.5	106.2	57.8
PI619086	EXPLORER (HW)(+)	6				58.0	60.3	56.8	58.5	56.7	54.6		57.5	106.2	57.8
AGRIPRO1	NORPRO (P+)	6					61.8	57.1	58.4	56.8	51.9	55.4	56.9	106.1	57.8
WB926	WESTBRED 926 (P)	7	60.9	56.6	56.5	58.3	60.3	56.7	57.8				58.1	105.7	57.6
CI17429	LEW (sawfly res.)	4	61.3	57.0	58.5	58.1							58.7	105.5	57.4
PI549275	HI-LINE	7	61.6	57.1	56.0	56.4	60.7	56.6	56.9				57.9	105.2	57.3
BZ992322	HANK (P+)	8			57.3	57.7	59.6	56.5	58.3	55.2	53.7	54.9	56.7	104.6	57.0
PI632252	OUTLOOK (+)	9		56.6	56.9	56.9	59.9	54.3	57.6	58.0	51.3	55.3	56.3	104.1	56.7
PI574642	McNEAL	10	59.1	56.6	57.4	57.7	60.1	54.0	57.0	57.3	52.7	54.5	56.6	104.0	56.6
CI10003	THATCHER	10	57.5	53.8	55.9	55.5	58.3	50.3	53.8	55.8	51.1	52.5	54.5	100.0	54.5
MEANS (For Entries Listed)			60.9	57.2	58.3	57.9	60.4	56.5	58.7	57.8	54.0	55.9			57.9
April-July Precip. (in.)			8.78	8.57	6.01	4.81	8.87	7.07	8.64	7.37	5.71	7.43	7.33		
Total Annual Precip. (in.)			12.17	14.3	10.27	8.83	13.29	11.54	14.43	11.87	10.29	12.42	11.94		
Soil NO3 (lbs.) to SD at Planting			140	Pndg	Pndg	Pndg	98	44	86	142	119	220	121		
SD (Sampling Depth in Inches)			48	Pndg	Pndg	48	48	48	48	48	48	48	48		
Fertilizer Applied			(# N)	70	70	70	70	70	70	70	70	70	70		
			(# P2O5)	40	40	40	40	40	40	40	40	40	40		
			(# K2O)	25	25	25	25	25	25	25	25	25	25		

Long-term check variety is Thatcher.

1/ See MCES Bulletin 1093 or the Plant Sciences & Plant Pathology website at <http://plantsciences.montana.edu/> for evaluation of other important variety performance characteristics to include protein, quality, disease resistance, etc. before making cultivar selection decisions.

2/ P = Private Variety, + = Protected Variety, ++ = PVP Title 5 or Title 5 Pending, HW = Hard White Wheat.

3/ Percent of Thatcher yield or test weight for the same data years as those in which a given entry was tested.

4/ 10-Yr Comparable Average = (x/y) * z where x = average yield or test weight of a given entry for years tested, y = average yield or test weight for Thatcher for the same years, and z = 10-Yr average yield or test weight for the check variety Thatcher.

Table 7. Montana Spring Durum Cultivar Evaluation Nursery Grown On-Station Under No-Till Dryland Fallow Conditions. Northern Agricultural Research Center. Havre, Montana. 2007. (Exp# 07-9802-SW)

ID	CULTIVAR or SELECTION	STAND %	1/ HEAD DATE	PLNT HT Inches	2/ YIELD Bu/Ac	MOISTURE %	TEST WT Lbs/Bu	3/ PROTEIN %	4/ SAWFLY %
YU894-75	ALZADA	91.0	174.3	25.4	44.7	7.9	57.5	15.5	1.0
NORMANNO	NORMANNO	91.0	177.7	25.4	41.2	8.1	57.1	15.6	0.0
MT02525	MT02525	91.3	177.3	23.5	40.6	8.2	59.7	15.1	0.3
MT01695	MT01695	95.5	178.0	23.4	40.2	8.6	61.4	14.0	0.0
LEVANTE	LEVANTE	90.3	178.0	22.2	39.8	7.6	58.4	15.1	0.7
STRONGFIELD	STRONGFIELD	93.4	177.3	27.2	37.8	7.6	57.6	16.7	1.7
MT02DH82	MT02DH82	93.8	175.3	28.5	37.6	8.3	59.3	15.4	5.0
DIVIDE	DIVIDE	91.3	176.0	28.9	37.6	8.0	58.7	15.8	2.3
MT02302	MT02302	94.1	179.3	25.2	37.4	7.5	55.9	15.8	0.0
GRENORA	GRENORA	94.8	178.0	24.3	37.0	8.0	57.9	15.7	2.3
MT04174	MT04174	94.1	176.3	23.0	36.8	8.1	58.5	15.4	1.0
D901313	MOUNTRAIL	92.0	179.0	26.0	36.5	8.0	58.1	16.1	2.3
MT03012	MT03012	95.1	175.0	22.8	36.5	8.0	57.9	16.0	1.0
MT02298	MT02298	95.1	180.0	22.4	35.7	8.1	59.6	15.2	0.3
MT02DH55	MT02DH55	93.8	177.3	24.4	35.0	7.8	57.6	16.3	3.7
MT04317	MT04317	92.7	179.3	22.1	34.8	7.5	57.0	16.0	0.0
MT04315	MT04315	95.5	179.0	23.3	34.5	7.4	56.8	16.0	0.0
ALKABO	ALKABO	96.5	176.7	26.0	34.0	8.0	58.9	15.4	3.7
MT03108	MT03108	92.4	179.3	23.6	33.4	7.0	56.0	16.2	0.3
PIERCE	PIERCE	95.8	178.0	26.5	32.8	8.0	59.2	15.6	3.7
EXPERIMENTAL MEANS		93.5	177.6	24.7	37.2	7.8	58.2	15.7	1.5
LSD (0.05)		4.8	2.4	3.0	6.4	0.3	1.0	-	2.2
C.V.2: (S of MEAN / MEAN)*100		1.8	0.5	4.3	6.0	1.4	0.6	-	51.4

1/ No. of Days from January 1 (169 = June 18).

2/ Volumetric yields are based on plot weights adjusted to uniform 12 percent grain moisture and 60 lbs/bu as the standard test weight for durum

3/ Protein values are adjusted to 12 percent grain moisture.

4/ Sawfly rating is reported as the percentage of cut stems.

Site Resource & Management Data: (Exp# 07-9802-SW)							
Field	A-4-2		SaltHaz(MMHOS/cm) 6-24	0.28		Dry Surf Soil (in.) @ Plnt'g	0.25
Quarter	NW		S (ppm) 0-24	21		2" Soil Temp (°F) @ Plnt'g	51
Section	33		Zn (ppm) 0-6	0.97		4" Soil Temp (°F) @ Plnt'g	50
Township	32N		Fe (ppm) 0-6	12.9		Fertilizer Formulation	Gran Blend
Range	15E		Mn (ppm) 0-6	7.9		Fertilizer Placement	Bnd at Plntg
Latitude	N48 29.634'		Cu (ppm) 0-6	1.09		Fert. Rate (lbs/ac) N	70
Longitude	W109 47.872'		CEC 0-6	16.6		Fert. Rate (lbs/ac) P2O5	40
Soil Series	Joplin CL		Soil Texture 0-6	CL		Fert. Rate (lbs/ac) K2O	25
pH 0-6	7.2		Soil Texture 6-24	CL		Herbicide App. Date	6/3
Org.Matter (%) 0-6	1.6		Soil Texture 24-36	CL-		Herbicide Product	Bronate Ad
N (lbs/ac) 0-6	4		Soil Texture 36-48	CL-		Herbicide Rate (/ac)	20 oz
N (lbs/ac) 6-24	42		Init PAW (in.) 0-6"	1.20		Precip (in.) Plnt'g-Harvest	5.41
N (lbs/ac) 24-36	174		Init PAW (in.) 6-24"	4.39		Precip (>.1) Plnt'g-Harvest	4.82
N (lbs/ac) 36-48	-		Init PAW (in.) 24-36"	2.81		Harvest Date	8/11
N (lbs/ac) 0-48	220		Init PAW (in.) 36-48"	-		Rooting Depth (in.)	28
P (ppm) Olsen 0-6	29		Init PAW (in.) 0-48"	8.40		Post PAW (in.) 0-6"	0.33
K (ppm) 0-6	343		Cropping System	NT-ChmFlw		Post PAW (in.) 6-24"	1.79
Ca (ppm)	2309		Previous Crop	Barley		Post PAW (in.) 24-36"	1.48
Mg (ppm) 0-6	489		Planting Date	4/28		Post PAW (in.) 36-48"	1.78
Na (ppm) 0-6	26		Planting Depth (in.)	1.5		Post PAW (in.) 0-48"	5.38
SaltHaz (MMHOS/cm) 0-6	0.32		Moist Soil Depth @ Plnt'g	48+		Precip (>.1) Hvst-Post	0

TABLE 8. Nine-Year Yield Summary on Selected Entries from Dryland Montana Spring Durum Nursery. Northern Agricultural Research Center. Havre, Montana. 1998-2007. (Exp# 9802-SW)

2/ VARIETY or SELECTION		No. of YEARS TESTED	1/ YIELD (Bushels Per Acre)										AVE. for YEARS TESTED	% of CHECK YIELD 3/	9-Yr COMP. AVE. YIELD 4/
			1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
WPBLAKER	LAKER	6	33.5	45.7	37.1	22.2	39.9	12.7					31.8	109.1	36.3
YU894-75	ALZADA (P+)	7				18.9	39.2	9.1	47.7	46.2	30.6	44.7	33.8	105.9	35.2
PI574642	McNEAL (HRSW check)	8	39.6	43.8	39.4	18.9	39.1	15.6	41.1	49.0			35.8	105.8	35.2
ACAVONLE	AC AVONLEA (+)	6				21.4	40.3	8.1	44.7	49.9	31.2		32.6	104.7	34.8
D91080	PLAZA (+)	8		44.6	33.8	19.1	38.0	12.4	41.8	50.3	29.6		33.7	102.6	34.1
D89135	MAIER (+)	8		45.2	34.3	15.7	39.0	10.0	43.5	48.5	29.9		33.3	101.2	33.7
CANKYLE	KYLE	9	32.4	39.6	31.4	20.5	36.7	12.5	49.9	46.0	30.2		33.2	101.2	33.7
PI510696	RENVILLE	6	35.1	38.0	32.9	21.5	37.8	11.6					29.5	101.0	33.6
97DU2	UTOPIA	6	31.5	49.0	35.4	12.1	37.6	11.1					29.5	100.9	33.5
D901313	MOUNTRAIL (+)	9		41.4	34.6	18.9	39.5	11.6	44.3	46.7	25.8	36.5	33.3	100.0	33.3
DT433	MEDORA	5	34.7	40.1	34.8	16.5	39.5						33.1	98.6	32.8
D901442	LEBSOCK (+)	7		43.0	35.1	16.3	35.2	10.5	46.7	46.6			33.3	98.5	32.8
DILSE	DILSE	4						11.1	41.4	48.6	25.2		31.6	98.4	32.7
NDMUNICH	MUNICH (+)	8	32.7	42.6	36.0	17.0	38.7	10.6	40.4	44.9			32.9	97.1	32.3
CI15892	WARD	5	32.4	37.1	32.8	18.3	37.9						31.7	94.3	31.4
PI478289	MONROE	8	28.8	40.0	35.0	16.9	33.7	7.1	43.4	47.8			31.6	93.3	31.0
D87130	BEN (+)	8	36.5	38.9	33.8	15.8	35.9	8.4	41.3	41.2			31.5	93.0	30.9
PIERCE	PIERCE	5						11.6	40.6	41.9	25.3	32.8	30.4	92.3	30.7
CI17789	VIC	8	34.3	36.4	33.2	19.1	35.3	10.9	35.7	44.6			31.2	92.1	30.6
DT380	SCEPTRE	5	33.2	40.4	30.2	16.1	31.2						30.2	90.0	29.9
CANPLENTY	PLENTY	3	33.1	35.8	32.9								33.9	89.3	29.7
MEANS (For Entries Listed)			33.7	41.3	34.3	18.1	37.5	10.9	43.0	46.6	28.5	38.0			32.8
April-July Precip. (in.)			8.78	8.57	6.01	4.81	8.87	7.07	8.64	7.37	5.71	7.43	7.33		
Total Annual Precip. (in.)			12.17	14.30	10.27	8.83	13.29	11.54	14.43	11.87	10.29	12.43	11.94		
Soil NO3 (lbs.) to SD at Planting			140	Pndg	Pndg	Pndg	98	46	86	142	160	220	127		
SD (Sampling Depth in Inches)			48	Pndg	Pndg	48	48	48	48	48	48	48	48		
Fertilizer Applied															
	(# N)		70	70	70	70	70	70	70	70	70	70	70		
	(# P ₂ O ₅)		40	40	40	40	40	40	40	40	40	40	40		
	(# K ₂ O)		25	25	25	25	25	25	25	25	25	25	25		

Long-term check variety is Mountrail.

1/ See MCES Bulletin 1093 or the Plant Sciences & Plant Pathology website at <http://plantsciences.montana.edu/> for evaluation of other important variety performance characteristics to include protein, quality, disease resistance, etc. before making cultivar selection decisions.

2/ P = Private Variety, + = Protected Variety, ++ = PVP Title 5 or Title 5 Pending.

3/ Percent of Mountrail yield or test weight for the same data years as those in which a given entry was tested.

4/ 9-Yr Comparable Average = (x/y) * z where x = average yield or test weight of a given entry for years tested, y = average yield or test weight for Mountrail for the same years, and z = 9-Yr average yield or test weight for the check variety Mountrail.

First year of new long-term check (Mountrail) is 1999.

TABLE 9. Nine-Year Test Weight Summary on Selected Entries from Dryland Montana Spring Durum Nursery. Northern Agricultural Research Center. Havre, Montana. 1998-2007. (Exp# 9802-SW)

2/ VARIETY or SELECTION		No. of YEARS TESTED	1/TEST WEIGHT (Pounds Per Bushel)										AVE. for YEARS TESTED	% of CHECK TEST WT 3/	9-YR COMP. AVE. TEST WT 4/
			1998	1999	2000	2001	2002	2003	2004	2005	2006	2007			
CI17789	VIC	8	60.3	60.0	60.5	60.2	62.2	58.1	61.5	58.9			60.2	102.6	59.7
D901442	LEBSOCK (+)	7		59.4	60.4	61.2	62.3	58.2	61.4	58.2			60.2	102.5	59.7
WPBLAKER	LAKER	6	59.8	60.4	60.2	62.4	62.3	58.3					60.6	102.3	59.6
D87130	BEN (+)	8	60.9	59.5	60.0	60.6	62.3	57.5	60.8	57.9			59.9	102.1	59.5
CANKYLE	KYLE	9	58.7	59.2	59.1	61.7	62.9	57.7	59.7	58.8	55.2		59.2	101.7	59.2
PIERCE	PIERCE	5						57.4	60.8	57.5	54.6	59.2	57.9	101.7	59.2
ACAVONLE	AC AVONLEA (+)	6				61.2	62.8	56.8	60.2	56.5	56.2		58.9	101.5	59.1
DILSE	DILSE	4						56.9	59.7	57.6	55.4		57.4	101.4	59.0
D89135	MAIER (+)	8		59.9	59.1	60.8	62.1	56.6	60.0	57.7	55.8		59.0	101.3	59.0
97DU2	UTOPIA	6	61.0	59.1	59.2	60.2	61.6	57.9					59.8	101.1	58.9
PI510696	RENVILLE	6	60.4	59.7	59.4	60.3	61.7	57.4					59.8	101.1	58.8
D91080	PLAZA (+)	8		58.6	59.3	61.5	62.0	57.1	59.7	56.3	56.1		58.8	101.0	58.8
PI478289	MONROE	8	60.3	58.6	59.9	59.2	61.0	56.7	59.8	56.6			59.0	100.5	58.5
DT433	MEDORA	5	60.7	58.3	60.7	59.7	61.3						60.1	100.5	58.5
D901313	MOUNTRAIL (+)	9		58.8	58.8	60.1	61.7	56.7	59.2	55.6	55.0	58.1	58.2	100.0	58.2
YU894-75	ALZADA (P+)	7				60.9	61.4	58.1	58.8	55.3	53.8	57.5	58.0	99.9	58.1
CANPLENTY	PLENTY	3	57.9	58.5	59.4								58.6	99.6	58.0
NDMUNICH	MUNICH (+)	8	58.8	58.1	59.1	59.6	60.4	55.4	59.4	56.8			58.5	99.6	58.0
CI15892	WARD	5	60.1	55.5	59.8	60.3	61.6						59.5	99.3	57.8
PI574642	McNEAL (HRSW check)	8	57.4	57.3	57.0	58.8	60.2	55.2	60.3	56.7			57.9	98.6	57.4
DT380	SCEPTRE	5	57.6	58.2	58.9	59.2	60.7						58.9	98.4	57.3
MEANS (For Entries Listed)			59.5	58.8	59.5	60.4	61.7	57.2	60.1	57.2	55.3	58.3			58.7
April-July Precip. (in.)			8.78	8.57	6.01	4.81	8.87	7.07	8.64	7.37	5.71	7.43	7.33		
Total Annual Precip. (in.)			12.17	14.30	10.27	8.83	13.29	11.54	14.43	11.87	10.29	12.42	11.94		
Soil NO3 (lbs.) to SD at Planting			140	Pndg	Pndg	Pndg	98	46	86	142	160	220	127		
SD (Sampling Depth in Inches)			48	Pndg	Pndg	48	48	48	48	48	48	48	48		
Fertilizer Applied			(# N)	70	70	70	70	70	70	70	70	70	70		
			(# P ₂ O ₅)	40	40	40	40	40	40	40	40	40	40		
			(# K ₂ O)	25	25	25	25	25	25	25	25	25	25		

Long-term check variety is Mountrail.

1/ See MCES Bulletin 1093 or the Plant Sciences & Plant Pathology website at <http://plantsciences.montana.edu/> for evaluation of other important variety performance characteristics to include protein, quality, disease resistance, etc. before making cultivar selection decisions.

2/ P = Private Variety, + = Protected Variety, ++ = PVP Title 5 or Title 5 Pending.

3/ Percent of Mountrail yield or test weight for the same data years as those in which a given entry was tested.

4/ 9-Yr Comparable Average = (x/y) * z where x = average yield or test weight of a given entry for years tested, y = average yield or test weight for Mountrail for the same years, and z = 9-Yr average yield or test weight for the check variety Mountrail.

First year of new long-term check (Mountrail) is 1999.

TABLE 10. Intrastate Spring Barley Cultivar Evaluation Nursery Grown On-Station Under No-Till Dryland Fallow Conditions at Northern Agricultural Research Center. Havre, MT. 2007.
(Exp# 07-2102-SB)

ID	CULTIVAR or SELECTION	STAND %	1/ HEAD DATE	PLNT HT Inches	2/ YIELD Bu/Ac	MOIST %	TEST WT Lbs/Bu	PLUMP %	THIN %	3/ PROTEIN %
MT040231	MTLB 6/MT950186	78.1	179.7	22.0	76.1	9.2	49.0	76.8	5.9	15.6
MT040216	MT970086/MT950186	74.3	180.7	22.3	74.6	9.0	49.0	77.0	5.4	15.2
MT030079	MT950186/MT960225	82.3	183.3	25.1	74.5	9.3	50.9	84.5	3.2	15.2
MT040013	Baronesse/MT9600222	92.7	180.0	25.5	73.3	9.0	49.2	63.4	10.8	15.5
MT030042	MT910189/MT960099	78.5	180.0	22.4	72.7	9.4	50.8	66.3	13.6	14.7
MT030063	MT950155/Harrington	76.7	177.3	22.1	72.1	9.1	49.2	64.7	14.6	14.6
MT020155	MT960225/H1851195	76.7	174.7	26.3	72.0	8.8	47.5	75.4	6.2	15.0
6B952482	TRADITION	84.7	175.0	24.8	71.5	8.7	47.0	56.5	12.7	15.2
MT040136	MT960101/WC 1304	78.5	181.7	24.5	71.5	9.5	49.3	72.8	6.1	15.5
MT030144	MTLB 5/Harrington	85.7	180.7	23.0	70.8	9.1	50.2	77.0	6.2	15.3
MT040073	MT960045/Harrington	91.3	181.0	24.3	70.7	9.0	50.8	72.2	6.8	15.3
BZ596117	BOULDER	89.9	181.7	24.9	70.6	9.0	49.3	69.5	7.3	16.2
MT050030	GS 1750/Bearpaw	92.4	182.0	24.7	70.1	8.9	46.9	72.8	7.5	14.3
MT950186	HAXBY	89.9	179.3	25.1	69.9	8.9	50.7	70.2	6.6	15.1
MT040181	MT960228/MT920053	83.0	182.7	23.5	69.4	9.2	49.4	51.7	18.5	15.5
MT960228	ESLICK	89.9	183.7	22.8	68.8	8.8	48.9	56.3	15.6	16.0
MT050047	GS 1750/MT970116	89.9	178.7	27.2	68.2	8.9	50.8	86.1	4.3	14.7
MT040058	MT950155/MT950186	83.3	181.7	22.9	68.1	8.9	50.6	71.9	8.6	15.2
MT040024	GS 1750/MT950186	86.5	180.3	25.0	67.6	8.9	48.6	26.5	24.5	14.7
MT050088	Klages/MT970116	81.9	178.7	25.7	67.3	9.2	47.9	88.2	3.8	15.9
MT010160	MT920041/Harrington	86.1	179.3	25.9	67.0	9.2	47.9	69.8	9.0	16.0
PI568246	BARONESSE	92.4	182.3	23.3	66.8	9.2	48.7	56.6	13.6	16.3
MT030137	MTLB 2/MT940053	80.6	181.3	24.3	66.8	9.1	50.6	69.4	6.2	15.0
MT050187	MT970116/Chinook	84.7	175.7	28.0	66.5	8.9	51.8	81.4	4.9	15.9
MT050049	GS 1750/MT970116	85.4	180.7	25.9	65.1	9.0	49.5	78.8	6.8	14.7
MT040130	MT960101/WC 1304	92.0	182.7	23.9	64.9	9.0	48.0	57.4	16.8	16.3
MT040204	MT960228/GS 1750	92.0	183.7	24.3	64.7	8.7	47.5	39.4	20.2	15.4
SK 76333	HARRINGTON	86.1	182.3	23.1	64.6	8.8	47.2	68.8	10.6	15.8
MT040226	MT970086/MT950186	87.1	178.7	25.8	64.5	9.4	52.2	72.1	5.7	14.5
YU501385	Baronesse/Camas	88.2	178.0	24.4	64.4	9.3	50.3	72.6	6.2	14.6
MT970116	Klages/Baronesse	90.6	178.7	28.8	64.3	9.0	50.0	75.7	8.0	15.4
LR101 30	MT960101 LR 30	86.8	184.7	22.1	64.2	8.9	47.8	49.8	20.4	16.4
MT050201	MT970116/MT960222	85.8	180.3	27.0	64.1	9.2	51.2	80.9	5.2	14.8
MT020064	MT910160/H1851195	83.3	178.3	27.3	63.3	8.7	48.2	92.5	2.3	16.0
MT050182	MT970110/Stark	85.4	181.7	24.5	63.2	8.9	50.7	89.2	3.0	15.3
MT040106	MT960101/MT970177	84.0	183.0	25.3	63.0	9.0	48.7	82.2	6.4	15.8
MT050117	Metcalfe/MT960225	87.5	181.0	24.8	62.9	8.7	48.5	76.5	6.6	16.4
MT040220	MT970086/MT950186	88.9	184.3	24.0	62.8	8.9	47.7	51.4	18.8	16.8
MT010158	MT920041/Harrington	86.1	181.7	23.2	62.7	8.9	49.6	72.4	8.2	16.0
MT020205	MTLB 32/H1851195	80.9	175.7	23.4	62.3	8.7	48.7	74.8	8.8	16.6
MT040107	MT960101/MT970177	90.3	184.7	23.9	61.7	8.9	48.8	58.3	15.7	16.6
MT050050	GS 1750/MT970116	91.0	180.3	26.1	61.7	9.0	50.5	83.9	5.0	14.8
MT910189	ND 7923/Bearpaw	85.7	179.3	25.1	61.7	9.0	49.9	81.3	6.0	14.7

**TABLE 10. Intrastate Spring Barley Cultivar Evaluation Nursery Grown On-Station Under No-Till Dryland
Continued Fallow Conditions at Northern Agricultural Research Center. Havre, MT. 2007.
(Exp# 07-2102-SB)**

ID	CULTIVAR or SELECTION	STAND %	1/ HEAD DATE	PLNT HT Inches	2/ YIELD Bu/Ac	MOIST %	TEST WT Lbs/Bu	PLUMP %	THIN %	3/ PROTEIN %
MT050062	Harrington/MT960225	91.7	183.0	26.6	60.9	8.8	49.0	65.7	10.4	14.7
MT050048	GS 1750/MT970116	91.7	183.3	26.3	60.8	9.0	50.8	81.6	4.1	15.0
MT020162	MT960225/H1851195	84.4	181.7	24.3	59.8	8.9	48.9	63.7	10.7	16.1
MT050035	GS 1750/H3860224	90.6	183.7	26.6	59.3	9.1	48.4	82.2	6.0	15.5
MT960101	Manley/Baronesse	85.8	184.7	21.4	58.9	9.0	47.3	39.0	26.4	16.5
MT040110	MT960101/MT970177	86.8	183.7	23.3	58.7	9.1	48.6	67.1	14.0	17.0
2B965057	CONRAD	84.0	183.7	24.6	57.6	8.8	47.4	74.0	9.6	16.4
MT040209	MT960228/MT950186	85.1	184.3	22.7	57.0	8.8	48.0	47.2	18.3	16.3
MT050080	Harrington/Orfalt	88.9	181.7	24.9	56.9	9.0	49.4	80.5	5.8	16.3
LR116 6	MT970116 LR 6	92.4	178.3	27.7	56.7	9.1	49.2	79.7	6.8	15.1
MT020167	MT960225/H3860224	86.1	181.0	25.4	56.5	9.1	48.3	82.4	5.5	16.2
MT050082	Harrington/Orfalt	85.8	176.0	25.6	56.2	8.8	49.4	82.8	4.4	16.7
ND13299	CONLON	88.6	171.3	26.9	55.8	8.8	48.2	94.3	1.7	14.4
MT050184	MT970116/Chinook	85.4	178.3	26.2	55.5	9.0	50.7	75.6	7.5	16.2
MT020204	MTLB 32/H1851195	80.2	178.3	23.4	55.0	9.0	49.0	64.5	13.6	16.6
MT050104	Metcalfe/Harrington	88.5	176.3	24.8	54.8	8.9	49.7	91.8	1.9	15.8
2B992316	2B91-4947//2B91-4947/2B95	85.8	182.0	23.3	53.6	8.7	46.6	59.0	17.8	16.5
TR232	METCALFE	87.1	179.0	25.4	53.5	9.0	48.2	71.2	10.0	16.4
MT050110	Metcalfe/Harrington	81.3	177.7	25.3	53.0	8.8	48.3	90.6	2.1	15.9
MT050081	Harrington/Orfalt	80.9	180.7	25.2	51.0	8.9	49.4	76.5	6.4	16.7
2B992657	2B91-4947//2B91-4947/2B94	91.3	178.3	24.5	44.1	8.4	44.5	58.0	17.2	17.2
EXPERIMENTAL MEANS		86.1	180.4	24.7	63.6	9.0	49.1	71.0	9.4	15.7
LSD (0.05)		9.7	3.0	3.0	13.0	0.4	2.1	-	-	0.5
C.V.2: (S of MEAN / MEAN)*100		4.0	0.1	4.3	7.3	1.5	1.5	-	-	1.1

1/ No. of Days from January 1 (180 = June 29).

2/ Volumetric yields are based on plot weights adjusted to uniform 12 percent grain moisture and 48 lbs/bu as the standard test weight for barley.

3/ Protein values are reported on a 100% dry matter basis.

Site Resource & Management Data: (Exp# 07-2102-SB)							
Field	A-4-1		SaltHaz(MMHOS/cm) 6-24	0.26		Dry Surf Soil (in.) @ Plnt'g	0.25
Quarter	NW		S (ppm) 0-24	22		2" Soil Temp (°F) @ Plnt'g	64
Section	33		Zn (ppm) 0-6	0.37		4" Soil Temp (°F) @ Plnt'g	60
Township	32N		Fe (ppm) 0-6	7.5		Fertilizer Formulation	Gran Blend
Range	15E		Mn (ppm) 0-6	3.23		Fertilizer Placement	Bnd at Plntg
Latitude	N48 29.873'		Cu (ppm) 0-6	0.87		Fert. Rate (lbs/ac) N	70
Longitude	W109' 47.871		CEC 0-6	27.7		Fert. Rate (lbs/ac) P2O5	40
Soil Series	FtBentonFSL		Soil Texture 0-6	CL		Fert. Rate (lbs/ac) K2O	25
pH 0-6	8		Soil Texture 6-24	CL		Herbicide App. Date	6/3
Org.Matter (%) 0-6	1.1		Soil Texture 24-36	CL		Herbicide Product	Bronate Ad
N (lbs/ac) 0-6	3		Soil Texture 36-48	CL		Herbicide Rate (/ac)	20 oz
N (lbs/ac) 6-24	30		Init PAW (in.) 0-6"	1.0		Precip (in.) Plnt'g-Harvest	5.41
N (lbs/ac) 24-36	94		Init PAW (in.) 6-24"	3.3		Precip (>.1) Plnt'g-Harvest	4.82
N (lbs/ac) 36-48	144		Init PAW (in.) 24-36"	2.3		Harvest Date	8/12
N (lbs/ac) 0-48	271		Init PAW (in.) 36-48"	2.1		Rooting Depth (in.)	-
P (ppm) Olsen 0-6	11		Init PAW (in.) 0-48"	8.7		Post PAW (in.) 0-6"	0.32
K (ppm) 0-6	197		Cropping System	NT-ChmFlw		Post PAW (in.) 6-24"	1.09
Ca (ppm) 0-6	4660		Previous Crop	Barley		Post PAW (in.) 24-36"	-
Mg (ppm) 0-6	457		Planting Date	4/28		Post PAW (in.) 36-48"	-
Na (ppm) 0-6	13		Planting Depth (in.)	1.5		Post PAW (in.) 0-48"	1.42
SaltHaz (MMHOS/cm) 0-6	0.23		Moist Soil Depth @ Plnt'g	48+		Precip (>.1) Hvst-Post	0

TABLE 11. Nine-Year Yield Summary on Selected Entries from Dryland Intrastate Spring Barley Nursery. Northern Agricultural Research Center. Havre, Montana. 1998-2007. (EXP# 2102-SB)

2/ VARIETY or SELECTION		No. of YEARS TESTED	1/ YIELD (Bushels Per Acre)										AVE. for YEARS TESTED	% of CHECK YIELD 4/	9-YR COMP. AVE. YIELD 5/
			1998	1999	2000	2001	2002	2003	2004 3/	2005	2006	2007			
BZ596117	BOULDER (P+)	5				32.9	59.3			91.0	61.8	70.6	63.1	109.5	63.4
6B952482	TRADITION (P+)	5					54.5	8.8		81.3	66.7	71.5	56.6	104.7	60.6
MT960228	ESLICK (+)	8		80.6	63.5	28.1	59.7	11.2		77.2	65.5	68.8	56.8	100.9	58.4
PI568246	BARONESSE (P+)	9	70.6	85.3	62.5	32.2	57.2	14.2		82.4	49.7	66.8	57.9	100.0	57.9
MT950186	HAXBY	9	77.0	65.9	66.0	28.9	54.0	12.0		83.7	57.3	69.9	57.2	98.8	57.2
2B965057	CONRAD	3								78.9	54.7	57.6	63.8	96.2	55.7
BZ594-19	WPB XENA (P+)	6	77.3	65.2		29.0		10.7		73.6	65.4		53.5	96.1	55.6
MT981060	HAYS	3					55.1	12.1		79.9			49.1	95.7	55.4
PI605472	GARNET	3				32.9	50.5	13.6					32.4	93.7	54.2
PI610264	VALIER (+)	7	71.4	71.0	62.4	30.2	54.3	11.6		75.3			53.7	93.0	53.8
PI491534	GALLATIN	7	68.5	63.8	65.5	31.6	52.9	11.3		82.0			53.7	92.9	53.8
SK76333	HARRINGTON	9	58.6	71.8	53.5	31.2	54.5	12.8		71.8	63.6	64.6	53.6	92.6	53.6
11231-11	LOGAN (+)	3	72.0	66.1	63.7								67.3	92.4	53.5
CI15856	LEWIS	4	66.6	64.9	60.1	33.3							56.2	89.8	51.9
ND13299	CONLON (+)	4				30.1	54.6	10.8				55.8	37.8	88.8	51.4
ND9866	STARK	4	75.3	59.5	54.9	25.8							53.9	86.0	49.8
2B914947	MERIT (P+)	7	60.0	71.9	54.9	28.5	49.0	12.1		61.6			48.3	83.6	48.4
6B932978	LEGACY (P+)	5			53.8	21.9	51.8	7.9		61.9			39.5	79.4	46.0
CI15773	MOREX	4	67.7	43.1	54.6	20.7							46.5	74.3	43.0
MEANS (For Entries Listed)			69.5	67.4	59.6	29.2	54.4	11.5		77.0	60.6	65.7			53.9
April-July Precip. (in.)			5.65	8.78	8.57	6.01	4.81	8.87	8.64	7.37	5.71	7.43	7.18		
Total Annual Precip. (in.)			12.06	12.17	14.30	10.27	8.83	13.29	14.43	11.87	10.29	12.42	11.99		
Soil NO3 (lbs.) to SD at Planting			114	172	Pndg	Pndg	Pndg	102	120	184	352	271	188		
SD (Sampling Depth in Inches)			48	48	Pndg	Pndg	48	48	48	48	48	48	48		
Fertilizer Applied															
	(# N)		70	70	70	70	70	70	70	70	70	70	70		
	(# P2O5)		40	40	40	40	40	40	40	40	40	40	40		
	(# K2O)		25	25	25	25	25	25	25	25	25	25	25		

Long-term check variety is Baronesse.

1/ See MCES Bulletin 1094 or the Plant Sciences & Plant Pathology website at <http://plantsciences.montana.edu/> for evaluation of other important variety performance

characteristics to include protein, quality, disease resistance, etc. before making cultivar selection decisions.

2/ P = Private Variety, + = Protected Variety, ++ = PVP Title 5 or Title 5 Pending.

3/ Nursery not harvested due to field cleanup combining error.

4/ Percent of Baronesse yield or test weight for the same data years as those in which a given entry was tested.

5/ 9-Yr Comparable Average = (x/y) * z where x = average yield or test weight of a given entry for years tested, y = average yield or test weight for Baronesse for the same years, and z = 9-Yr average yield or test weight for the check variety Baronesse.

TABLE 12. Nine-Year Test Weight Summary on Selected Entries from Dryland Intrastate Spring Barley Nursery. Northern Agricultural Research Center. Havre, Montana. 1998-2007. (EXP# 2102-SB)

2/ VARIETY or SELECTION		No. of YEARS TESTED	1/ TEST WEIGHT (Pounds Per Bushel)										AVE. for YEARS TESTED	% of CHECK TEST WT 4/	9-YR COMP. AVE. TEST WT 5/
			1998	1999	2000	2001	2002	2003	2004 3/	2005	2006	2007			
MT950186	HAXBY	9	52.1	53.1	51.9	49.4	50.4	49.1		50.9	48.7	50.7	50.7	106.7	50.7
ND9866	STARK	4	51.1	51.9	51.1	49.4							50.9	105.0	49.9
11231-11	LOGAN (+)	3	50.2	51.9	50.1								50.7	104.4	49.6
CI15856	LEWIS	4	51.0	52.5	49.9	48.9							50.6	104.3	49.6
BZ596117	BOULDER (P+)	5				47.7	49.2			50.8	48.7	49.3	49.1	104.1	49.5
PI491534	GALLATIN	8	49.1	51.5	49.0	48.1	48.5	47.7		48.6			48.9	102.4	48.7
PI610264	VALIER (+)	8	49.5	51.4	49.0	48.5	49.8	46.8		46.9			48.8	102.2	48.6
MT960228	ESLICK (+)	8		51.4	49.3	47.7	49.6	46.3		47.1	46.1	48.9	48.3	101.5	48.2
ND13299	CONLON (+)	4				48.1	48.5	49.7				48.2	48.6	101.5	48.2
BZ594-19	WPB XENA (P+)	6	48.9	51.3		48.4		45.8		45.6	45.1		47.5	100.9	48.0
2B965057	CONRAD	3								47.1	45.7	47.4	46.7	100.9	47.9
PI568246	BARONESSE (P+)	9	47.0	51.2	47.6	48.1	48.9	46.0		45.8	44.5	48.7	47.5	100.0	47.5
6B952482	TRADITION (P+)	5					46.8	45.1		46.7	46.4	47.0	46.4	99.2	47.2
SK76333	HARRINGTON	9	46.0	49.1	46.8	46.2	48.4	45.5		44.9	44.6	47.2	46.5	97.9	46.5
PI605472	GARNET	3				46.7	48.0	45.2					46.7	97.9	46.5
CI15773	MOREX	4	49.4	48.3	45.4	43.5							46.6	96.2	45.7
2B914947	MERIT (P+)	8	43.6	49.0	46.8	46.6	47.3	44.4		41.4			45.6	95.4	45.3
MT981060	HAYS	3					45.3	43.0		44.1			44.1	94.1	44.7
6B932978	LEGACY (P+)	5			43.4	44.7	45.2	45.9		43.3			44.5	94.1	44.7
MEANS (For Entries Listed)			48.9	51.0	48.4	47.5	48.1	46.2		46.4	46.2	48.4			47.7
April-July Precip. (in.)			5.65	8.78	8.57	6.01	4.81	8.87	8.64	7.37	5.71	7.43	7.18		
Total Annual Precip. (in.)			12.06	12.17	14.30	10.27	8.83	13.29	14.43	11.87	10.29	12.42	11.99		
Soil NO3 (lbs.) to SD at Planting			114	172	Pndg	Pndg	Pndg	102	120	184	352	271	188		
SD (Sampling Depth in Inches)			48	48	Pndg	Pndg	48	48	48	48	48	48	48		
Fertilizer Applied															
	(# N)		70	70	70	70	70	70	70	70	70	70	70		
	(# P ₂ O ₅)		40	40	40	40	40	40	40	40	40	40	40		
	(# K ₂ O)		25	25	25	25	25	25	25	25	25	25	25		

Long-term check variety is Baronesse.

1/ See MCES Bulletin 1094 or the Plant Sciences & Plant Pathology website at <http://plantsciences.montana.edu/> for evaluation of other important variety performance characteristics to include protein, quality, disease resistance, etc. before making cultivar selection decisions.

2/ P = Private Variety, + = Protected Variety, ++ = PVP Title 5 or Title 5 Pending.

3/ Nursery not harvested due to field cleanup combining error.

4/ Percent of Baronesse yield or test weight for the same data years as those in which a given entry was tested.

5/ 9-Yr Comparable Average = (x/y) * z where x = average yield or test weight of a given entry for years tested, y = average yield or test weight for Baronesse for the same years, and z = 9-Yr average yield or test weight for the check variety Baronesse.

TABLE 13. Montana Safflower Cultivar Evaluation Nursery Grown On-Station Under No-Till Dryland Fallow Conditions at Northern Agricultural Research Center. Havre, Montana. 2007.
(Exp# 07-7702-SA)

ENTRY	CULTIVAR or SELECTION	STAND %	1/ FLWR	PLNT HT Inches	YIELD Lbs/Ac	MOIST %	TEST WT Lbs/Bu	OIL %		
			DATE					0%Mois.	8%Mois.	OIL Lbs/Ac 8%Mois.
HYBRID 9049	HYBRID 9049	87.3	196.3	25.7	1988.3	8.2	43.9	34.9	32.1	638.5
03B 5011	03B 5011	94.2	198.3	23.2	1768.2	8.4	42.6	39.6	36.5	644.4
03B 1149	03B 1149	94.9	199.3	26.1	1731.6	8.6	42.5	42.7	39.3	681.0
HYBRID 1601	HYBRID 1601	93.3	196.7	24.5	1694.8	8.2	41.5	39.3	36.1	612.3
MT 2004	MONTOLA 2004	93.0	196.0	22.9	1669.3	8.3	42.3	39.0	35.8	598.1
03B 4765	03B 4765	94.7	198.7	24.9	1642.0	8.6	40.7	41.6	38.2	628.2
02B 8350	02B 8350	92.6	200.7	24.0	1595.4	8.8	41.4	37.3	34.3	547.2
MON-DAK	MON-DAK	96.3	199.0	23.5	1583.5	8.1	41.1	39.8	36.7	580.2
WILL95FI	FINCH	94.4	199.3	24.0	1583.2	8.2	43.9	39.6	36.5	578.0
WILL	MONTOLA 2000	94.9	198.3	22.8	1540.0	8.2	40.5	42.0	38.6	595.1
02B 8670	02B 8670	91.5	199.0	26.5	1536.5	8.1	42.0	38.6	35.5	544.8
02B 6655	02B 6655	95.1	198.7	25.1	1529.7	8.2	37.7	45.8	42.1	644.2
01B 9104	01B 9104	91.7	199.3	25.6	1524.7	8.3	41.5	37.9	34.9	533.6
WILL	CENTENNIAL	94.0	199.3	24.5	1521.9	8.1	42.1	47.7	43.9	668.4
02B 8628	02B 8628	93.1	199.7	24.4	1513.8	8.4	42.8	39.8	36.7	554.8
01B 2159	01B 2159	93.1	200.0	24.4	1494.0	8.6	42.0	39.0	35.9	535.4
02B 8599	02B 8599	92.1	200.0	24.2	1491.4	8.4	43.2	39.1	35.9	535.8
02B 8632	02B 8632	92.8	199.7	25.6	1463.4	8.4	41.4	37.8	34.8	507.1
05B 3056	05B 3056	95.1	196.7	25.2	1451.0	8.1	42.2	40.3	37.0	538.1
97B 1286	97B 1286	96.5	198.3	24.9	1449.4	8.5	40.2	43.0	39.6	573.6
04B 6301	04B 6301	93.8	199.3	25.2	1411.0	8.6	37.2	44.3	40.8	576.8
02B 6081	02B 6081	92.4	199.0	25.2	1403.0	8.2	41.9	41.0	37.7	529.1
02B 7619	02B 7619	93.5	201.0	23.0	1400.7	8.7	42.2	39.6	36.4	509.6
05B 3232	05B 3232	92.4	196.0	23.0	1391.3	8.5	37.4	46.3	42.6	593.5
CARDINAL	CARDINAL	93.3	200.3	27.5	1384.3	8.6	44.4	39.3	36.1	500.7
01B 7113	01B 7113	95.6	198.7	24.4	1354.7	8.5	36.3	44.7	41.1	558.6
03B 5085	03B 5085	92.6	199.0	24.8	1335.7	7.5	38.7	44.8	41.2	551.0
05B 3284	05B 3284	94.9	199.0	24.4	1323.3	8.6	39.8	45.4	41.8	553.8
03B 6184	03B 6184	94.2	200.7	23.8	1312.9	8.4	41.5	39.1	36.0	472.7
MORLIN	MORLIN	96.1	201.0	24.2	1311.1	9.2	41.5	42.7	39.3	516.5
MT 2003	MONTOLA 2003	96.0	199.0	23.1	1301.2	8.5	41.4	40.1	36.8	479.7
05B 3190	05B 3190	93.3	200.7	25.7	1253.3	8.2	36.8	46.3	42.6	534.8
91B3842	NUTRA SAFF	93.3	199.0	26.0	1210.3	8.0	38.5	52.7	48.5	587.6
04B 6508	04B 6508	95.6	196.0	24.6	1196.7	8.1	37.4	46.6	42.9	513.3
02B 6381	02B 6381	94.4	198.0	23.7	1186.1	8.1	37.5	47.1	43.3	513.4
03B 6521	03B 6521	96.0	196.0	25.2	1121.6	7.9	36.8	45.0	41.4	465.1
EXPERIMENTAL MEANS		93.8	198.8	24.6	1463.0	8.4	40.7	41.9	38.6	561.0
LSD (0.05)		3.8	0.9	2.5	292.2	0.5	1.1	1.4	1.3	119.8
C.V.2: (S of MEAN / MEAN)*100		1.5	0.2	3.7	7.1	1.9	0.9	1.2	1.2	7.6

1/ No. of Days from January 1 (199 = July 18).

Site Resource & Management Data: (Exp# 07-7702-SA)							
Field	An-4-5		SaltHaz(MMHOS/cm) 6-24	-		Dry Surf Soil (in.) @ Plnt'g	1
Quarter	NW		S (ppm) 0-24	60		2" Soil Temp (°F) @ Plnt'g	51
Section	33		Zn (ppm) 0-6	0.6		4" Soil Temp (°F) @ Plnt'g	50
Township	32N		Fe (ppm) 0-6	8.4		Fertilizer Formulation	Gran Blend
Range	15E		Mn (ppm) 0-6	4.3		Fertilizer Placement	Bnd at Plntg
Latitude	N48 29.399'		Cu (ppm) 0-6	1.2		Fert. Rate (lbs/ac) N	0
Longitude	W109 47.872'		CEC 0-6	23.3		Fert. Rate (lbs/ac) P2O5	45
Soil Series	Kevin Cl-Lm		Soil Texture 0-6	CL		Fert. Rate (lbs/ac) K2O	0
pH 0-6	8.0		Soil Texture 6-24	CL		Herbicide App. Date	4/25
Org.Matter (%) 0-6	1.7		Soil Texture 24-36	CL		Herbicide Product	Sonolan PPI
N (lbs/ac) 0-6	27		Soil Texture 36-48	CL		Herbicide Rate (/ac)	32
N (lbs/ac) 6-24	69		Init PAW (in.) 0-6"	1.1		Precip (in.) Plnt'g-Harvest	7.68
N (lbs/ac) 24-36	16		Init PAW (in.) 6-24"	4.3		Precip (>.1) Plnt'g-Harvest	6.67
N (lbs/ac) 36-48	42		Init PAW (in.) 24-36"	3.7		Harvest Date	10/8
N (lbs/ac) 0-48	154		Init PAW (in.) 36-48"	2.8		Rooting Depth (in.)	-
P (ppm) Olsen 0-6	29		Init PAW (in.) 0-48"	11.8		Post PAW (in.) 0-6"	0.88
K (ppm) 0-6	318		Cropping System	CT-MechFlw		Post PAW (in.) 6-24"	1.42
Ca (ppm)	3895		Previous Crop	Barley		Post PAW (in.) 24-36"	-
Mg (ppm) 0-6	355		Planting Date	4/26		Post PAW (in.) 36-48"	-
Na (ppm) 0-6	13		Planting Depth (in.)	1		Post PAW (in.) 0-48"	2.30
SaltHaz (MMHOS/cm) 0-6	0.28		Moist Soil Depth @ Plnt'g	48+		Precip (>.1) Hvst-Post	0

TABLE 14. Nine-Year Yield Summary on Selected Entries from Dryland Safflower Nursery. Northern Agricultural Research Center. Havre, Montana. 1998-2007. (Exp# 7702-SA)

			YIELD (Lbs Per Acre)										AVE. for YEARS TESTED	% of CHECK YIELD 2/	9-YR COMP. AVE. YIELD 3/
VARIETY or SELECTION		No. of YEARS TESTED	1998	1999	2000	2001 1/	2002	2003	2004	2005	2006	2007			
HYBRID 9049	HYBRID 9049	3								1509.9	1433.7	1988.3	1644.0	124.5	1465.9
95B7181	99MTDSVT 228/107	6	1079.6	1245.5	1902.9		1541.5	676.7	1046.5				1248.8	113.0	1329.6
95B7446	99MTDSVT 218/108	7		1366.8	1496.5		1950.3	692.8	1229.7	1222.9	1000.4		1279.9	108.4	1275.9
00B8208	01DOL4 4126	4					1754.2	595.8	1343.8	1085.6			1194.8	105.0	1236.5
97B1744	99DLI2 319/107	6			1941.9		1785.7	451.7	1298.9	1150.4	833.9		1243.8	103.2	1214.8
Will 95FI	FINCH	9	1033.4	1267.5	1516.3		1383.7	564.1	1276.5	1214.2	1082.4	1583.2	1213.5	103.1	1213.5
WILL	MONTOLA 2004	6					1617.1	448.8	1257.3	1392.6	1158.3	1669.3	1257.2	102.9	1211.5
011-2180	MORLIN	9	937.3	1342.4	1313.2		1839.9	495.0	1359.6	1194.4	1013.9	1311.1	1200.8	102.0	1200.8
991-122-6503	MONTOLA 2001	6	854.2	1060.0	1571.6		1605.3	516.6	1074.0				1113.6	100.7	1185.7
95B3538	99MTDSVT 104	8	835.1	1160.7	1588.2		1832.6	480.4	1113.7	1215.6	886.4		1139.1	100.4	1182.4
WILL	CENTENNIAL	9	806.6	1034.6	1423.6		1744.7	493.5	1130.6	1181.1	1257.3	1521.9	1177.1	100.0	1177.1
97B1286	99MTDSVT 311/120	7		1347.7	1036.8		1791.8	447.3	1326.0	1261.8	962.8		1167.7	98.9	1164.1
02B 8599	02B 8599	4							1040.4	1453.4	997.8	1491.4	1245.7	97.9	1152.1
WILL	MONTOLA 2000	9	920.1	1152.1	1163.5		1787.3	479.2	1113.7	1160.5	1018.2	1540.0	1148.3	97.6	1148.3
00B7627	01DOL4 4115	4					1562.6	497.2	1265.8	1089.5			1103.8	97.0	1142.3
WILL	S-541	5					1848.6	413.9	1202.1	1061.7	1068.3		1118.9	96.3	1134.0
02B 6081	02B 6081	4							1175.4	1344.9	968.1	1403.0	1222.9	96.1	1131.0
02B 8628	02B 8628	3								1274.5	1013.3	1513.8	1267.2	96.0	1129.9
00B6878	01DOL3 3110	4					1666.2	413.4	1210.1	1038.1			1081.9	95.1	1119.6
91B2166	99DLI1 212/106	3	876.9				1552.8		1059.8				1163.1	94.8	1115.6
01B 9104	01B 9104	3								1150.6	1027.0	1524.7	1234.1	93.5	1100.4
Will WOMA2003	MONTOLA 2003	9	917.5	1311.4	758.9		1715.2	468.2	1110.2	1226.1	882.8	1301.2	1076.8	91.5	1076.8
01B 7113	01B 7113	3								1227.9	982.3	1354.7	1188.3	90.0	1059.6
02B 6655	02B 6655	3								1155.0	826.6	1529.7	1170.4	88.7	1043.6
02B 6381	02B 6381	3							1088.9		891.8	1186.1	1055.6	81.0	953.4
91B3842	NUTRASAF	9	740.8	879.4	833.1		1585.8	211.2	1048.9	1036.2	823.9	1210.3	930.0	79.0	930.0
99MTDSVT 224/130	ERLIN	8	565.1	882.3	759.0		1262.5	360.4	1376.7	828.3	817.4		856.5	75.5	889.0
MEANS (For Entries Listed)			869.7	1170.9	1331.2		1675.1	483.7	1188.6	1194.6	997.5	1475.2			1147.5
April-July Precip. (in.)			8.78	8.57	6.01		8.87	8.06	8.64	7.37	5.71	7.43	7.72		
Total Annual Precip. (in.)			12.17	14.30	10.27		13.29	12.51	14.43	11.90	10.29	12.42	12.40		
Soil NO3 (lbs.) to SD at Planting			n/a	n/a	n/a		n/a	78	214	708	157	154	262		
SD (Sampling Depth in Inches)			48	Pndg	Pndg		48	48	48	48	48	48	48		
Fertilizer Applied			(# N)	70	70	70	70	70	70	50	0	0	52		
			(# P2O5)	40	40	40	40	40	40	20	40	40	38		
			(# K2O)	25	25	25	25	25	25	10	0	0	18		

Long-term check variety is Centennial.

1/ The 2001 nursery was destroyed in October due to extreme stand variability caused by severe drought conditions prior to planting and throughout the growing season.

2/ 9-Yr Comparable Average = (x/y) * z where x = average yield or oil of a given entry for years tested, y = average yield or oil for Centennial for the same years, and z = 9-Yr average yield or oil for the check variety Centennial.

3/ Percent of Centennial yield or oil for the same data years as those in which a given entry was tested.

TABLE 15. Eight-Year Percent Oil Summary on Selected Entries from Dryland Safflower Nursery. Northern Agricultural Research Center. Havre, Montana. 1998-2007. (Exp# 7702-SA)

VARIETY or SELECTION		No. of YEARS TESTED	Oil (%) @ 8% Seed Moisture										AVE. for YEARS TESTED	% of CHECK OIL 2/	8-YR COMP. AVE. OIL 3/
			1998	1999 1/	2000	2001 1/	2002	2003	2004	2005	2006	2007			
91B3842	NUTRASAF	8	36.9		41.6		39.4	46.2	44.9	43.8	43.2	48.5	43.0	108.2	43.0
WILL	S-541	5					37.0	41.2	40.5	39.5	39.7		39.6	100.6	40.0
WILL	CENTENNIAL	8	36.5		41.3		37.2	40.1	40.1	39.5	39.9	43.9	39.8	100.0	39.8
01B 7113	01B 7113	3								40.6	38.4	41.1	40.0	97.5	38.8
02B 6381	02B 6381	3							42.2		35.1	43.3	40.2	97.3	38.7
02B 6655	02B 6655	3								39.9	37.8	42.1	40.0	97.3	38.7
99MTDSVT 224/130	ERLIN	7	34.6		39.7		34.7	36.4	37.7	37.3	36.2		36.6	93.5	37.2
97B1286	99MTDSVT 311/120	5			39.5		34.7	36.0	37.6	36.5	37.0		36.9	92.9	37.0
00B6878	01DOL3 3110	4					33.5	39.7	35.6	36.5			36.3	92.7	36.9
WILL	MONTOLA 2000	8	36.2		37.5		32.7	38.7	37.3	37.9	35.7	38.6	36.8	92.5	36.8
011-2180	MORLIN	8	34.4		38.9		33.8	37.3	37.1	36.4	36.9	39.3	36.8	92.3	36.8
WILL	MONTOLA 2001	4	35.9		35.7		33.1	39.1	35.5				35.9	91.9	36.6
91B2166	99DLI1 212/106	3	33.0				34.3		37.1				34.8	91.8	36.5
00B7627	01DOL4 4115	4					33.6	39.3	35.5	35.2			35.9	91.5	36.4
Will WOMA2003	MONTOLA 2003	8	36.5		36.7		32.4	37.8	34.9	36.2	34.8	36.8	35.8	89.9	35.8
95B7181	99MTDSVT 228/107	4	34.4		34.7		32.4	37.9	34.2				34.7	88.9	35.4
02B 6081	02B 6081	4							35.7	36.6	35.0	37.7	36.3	88.8	35.4
Will 95FI	FINCH	8	33.6		37.5		32.4	34.5	34.5	35.0	35.5	36.5	34.9	87.8	34.9
95B7446	99MTDSVT 218/108	5			35.5		31.7	37.8	34.8	34.8	33.9		34.7	87.6	34.9
95B3538	99MTDSVT 104	7	34.3		36.5		32.7	35.2	34.8	33.8	32.2		34.2	87.3	34.7
WILL	MONTOLA 2004	6					32.0	37.2	35.5	35.5	33.9	35.8	35.0	87.2	34.7
02B 8628	02B 8628	3								34.7	34.5	36.7	35.3	85.9	34.2
00B8208	01DOL4 4126	4					30.6	36.4	33.6	33.6			33.6	85.6	34.1
97B1744	99DLI2 319/107	5			36.3		32.3	34.6	34.9	33.8	31.8		33.9	85.6	34.1
02B 8599	02B 8599	4							33.6	34.2	32.6	35.9	34.1	83.4	33.2
01B 9104	01B 9104	3								33.8	33.3	34.9	34.0	82.7	32.9
HYBRID 9049	HYBRID 9049	3								31.9	31.0	32.1	31.7	77.1	30.7
MEANS (For Entries Listed)			35.1		37.8		33.7	38.1	36.7	36.4	35.6	38.9			36.2
April-July Precip. (in.)			8.78	8.57	6.01		8.87	8.06	8.64	7.37	5.71	7.43	7.72		
Total Annual Precip. (in.)			12.17	14.30	10.27		13.29	12.51	14.43	11.90	10.29	12.42	12.40		
Soil NO3 (lbs.) to SD at Planting			n/a	n/a	n/a		n/a	78	214	708	157	154	262		
SD (Sampling Depth in Inches)			48	Pndg	Pndg		48	48	48	48	48	48	48		
Fertilizer Applied			(# N)	70	70	70	70	70	7	50	0	0	45		
			(# P2O5)	40	40	40	40	40	40	20	40	45	38		
			(# K2O)	25	25	25	25	25	25	10	0	0	18		

Long-term check variety is Centennial.

1/ The 1999 oil results not reported. The 2001 nursery was destroyed in October due to extreme stand variability caused by severe drought conditions prior to planting and throughout the growing season.

2/ 10-Yr Comparable Average = $(x/y) * z$ where x = average yield or oil of a given entry for years tested, y = average yield or oil for Centennial for the same years, and z = 10-Yr average yield or oil for the check variety Centennial.

3/ Percent of Centennial yield or oil for the same data years as those in which a given entry was tested.