

PROJECT TITLE: Statewide Barley Performance

PROJECT LEADER: Tom Blake, Barley Breeder/Geneticist - Bozeman

LOCATIONS:

Bozeman:	Irrigated and Dryland
Conrad:	Irrigated and Dryland
Havre:	Dryland
Huntley:	Irrigated and Dryland
Kalispell:	Non-Irrigated, High Rainfall
Moccasin:	Dryland
Sidney:	Irrigated and Dryland

PERSONNEL:

Bozeman:	Pat Hensleigh (Project Research Associate)
Conrad:	Greg Kushnak
Havre:	Gregg Carlson
Huntley:	Ken Kephart
Kalispell:	Bob Stougaard
Moccasin:	Dave Wichman
Sidney:	Joyce Eckhoff

OBJECTIVE:

To evaluate new and existing cultivars and experimental lines of barley under various growing conditions and environments in Montana.

RESULTS:

The Statewide (Intrastate) Barley Variety Nursery was grown at the seven locations listed above with some locations having both irrigated and dryland nurseries. The Moccasin was not harvested due to hail damage.

An overall dryland and irrigated summary is presented in Table 1. while separate overall summaries for performance under dryland conditions and performance under irrigated conditions are presented in Tables 2 and 3. Summaries by location and cropping system for yield, test weight, plump percent, plant height, heading date and protein percent are presented in Tables 4, 5, 6, 7, 8 and 9, respectively.

SUMMARY:

Baronesse, Valier and many of the experimental lines yielded higher than the statewide mean, and some of the experimental lines equaled or surpassed the yield of Baronesse. MT950186 was similar to Baronesse for yield and percent plump, but was 2 lbs/bu higher in test weight, 3 inches taller, and 3 days earlier to head. The excellent performance of MT950186 has been consistent over the past three years. The malt variety Harrington yielded 4 bu less than the average of all varieties.

Table 1. 2000 Montana Spring Barley Dryland and Irrigated Intrastate. Overall Summary.

ID	Pedigree	Yield	Test Weight	Plump	Heading	Plant Height	Protein
				Percent over #6	Date From Jan 1.		Percent Dry Wt
		bu/ac	lb/bu	%		inches	%
MT960099	Manley/Baronesse	116.8	52.1	61.3	173.4	28.0	13.5
MT960228	Stark/Baronesse	112.6	51.9	71.8	172.2	30.1	13.2
MT981006	Baronesse/H2860224	112.3	52.3	75.4	171.4	29.5	13.7
MT970228	MT890021/Stark	111.8	52.0	78.3	172.3	29.9	13.6
MT981030	Baronesse/MT910160	111.5	53.6	68.9	173.8	30.1	12.9
MT960101	Manley/Baronesse	111.2	52.1	65.6	174.3	28.6	13.7
MT970229	MT890021/Stark	111.0	54.0	84.1	173.0	30.7	13.5
MT970148	MT861596/ND 11120	110.1	52.1	77.8	171.6	28.3	13.2
MT981042	H5860219/Baronesse	110.0	53.0	67.6	173.3	29.1	13.4
PI568246	Baronesse	109.8	52.7	74.4	173.2	28.1	13.7
MT960226	Stark/Baronesse	109.8	52.9	81.9	171.5	30.9	12.8
MT960100	Manley/Baronesse	109.6	52.8	61.5	173.7	28.3	14.0
MT981004	Baronesse/H2860224	109.2	51.9	74.6	172.0	30.2	13.3
MT981080	MT140523/Baronesse	109.1	50.8	73.4	172.7	29.6	13.9
MT960222	Stark/Baronesse	108.8	53.2	79.6	172.4	32.3	13.0
MT981177	MT910033/Targhee	108.3	52.3	77.9	170.9	29.1	13.6
MT960225	Stark/Baronesse	107.8	53.4	77.9	172.1	32.4	12.9
MT950186	MT860756/MT83533	107.4	54.5	72.9	170.6	31.2	13.2
MT981091	MT851195/MT140523	107.1	53.0	76.9	170.0	28.1	13.1
MTLB 30	Valier	107.1	53.2	71.6	173.2	30.4	13.9
MT981222	ND112311/Baronesse	107.0	51.7	72.6	169.2	32.5	13.9
MT981210	MT910150/Stark	106.8	52.9	82.8	171.2	31.3	13.7
MTLB 5	Lewis/Baronesse #5	106.5	53.6	68.4	173.4	31.0	14.3
MT970155	MT886610/MT140523	106.2	52.5	77.0	174.2	29.6	13.5
MT981242	Targhee/Gallatin	105.7	54.1	80.0	168.9	30.3	14.2
MT981212	MT910150/Stark	105.7	53.4	83.4	168.8	31.4	13.6
MT981025	Baronesse/MT910160	105.7	52.5	75.0	172.5	30.6	14.4
MT970110	Klages/Baronesse	105.2	52.0	75.4	173.6	30.6	13.5
MT981238	ND112311/Lewis	104.8	53.2	80.6	168.6	32.7	13.9
MT970107	Harrington/Stark	104.7	52.8	79.5	171.8	33.0	13.5
MT970205	MT890008/Dominique	104.6	51.1	81.6	173.6	29.7	13.1
MT981029	Baronesse/MT910160	104.6	52.5	83.0	172.8	31.4	13.7
SITMEAN	Site Mean	104.5	52.4	76.1	171.2	30.4	13.7
MT910189	ND 7293/Bearpaw	104.2	53.1	81.2	168.8	30.4	13.3
MT981055	Harrington/MT889106	104.0	51.9	68.9	172.6	29.6	14.3
MT981213	MT910150/Stark	103.9	52.8	81.6	167.8	31.1	13.7
MT970026	Baronesse/MT860756	103.5	53.2	80.9	170.8	31.7	13.6
MTLB 6	Lewis/Baronesse # 6	103.5	53.5	79.2	171.5	29.8	14.3
MT970116	Klages/Baronesse	103.3	53.5	82.4	170.5	34.0	13.7
MT981248	Stark/Gallatin	102.7	51.7	84.6	171.3	32.3	13.6
AC99 11	NO 95 218D5	102.6	51.5	78.2	172.9	26.9	12.9
MTLB 13	Lewis/Baronesse #13	102.6	51.9	67.4	171.9	28.7	14.2
MT981083	MT851195/Baronesse	102.3	51.0	63.4	171.7	27.2	13.4
MT981116	MT890008/MT851195	102.3	52.5	87.5	167.0	29.9	13.8
PI491534	Gallatin	102.3	53.0	69.2	170.1	31.4	13.7
B2L20-36	BCL20/MOREX BC2F4	102.3	49.9	67.3	164.9	31.9	13.9
MT981039	H5860219/Baronesse	102.1	52.6	71.1	174.9	29.8	14.1
MT981180	MT910150/Gallatin	102.0	53.5	72.8	166.8	32.9	14.0
MT940214	MT860756/Lewis	101.6	52.4	78.2	170.2	29.7	13.7
MT981009	Baronesse/MT860326	101.6	52.5	68.8	171.0	30.1	13.5
CI 15856	Lewis	100.7	53.3	74.9	171.5	31.2	14.0
SK 76333	Harrington	100.7	51.2	72.1	172.2	30.7	13.6
ND 9866	Stark	100.3	53.5	84.7	168.2	32.7	13.8
11232-11	Logan	99.1	53.1	82.1	166.5	30.8	14.1
2B914947	Merit	98.8	50.8	71.1	173.5	29.6	14.5

Table 1 continued on next page.

Table 1 continued.

ID	Pedigree	Yield	Test Weight	Plump Percent over #6	Heading Date From Jan 1.	Plant Height	Protein Percent Dry Wt
MT981201	MT910150/MT889106	96.6	53.0	89.3	167.1	30.6	13.7
6B932978	BARI 6B93-2978	94.7	48.5	59.8	170.2	33.0	13.6
2B965119	BARI 2B96-5119	94.1	52.5	82.5	172.7	30.1	13.8
B2L20-42	BCL20/MOREX BC2F4	94.1	48.8	78.8	165.1	34.5	13.5
CI 15773	Morex	88.1	49.7	67.2	165.7	36.2	14.1
2B965038	BARI 2B96-5038	86.5	51.8	89.8	174.6	28.7	13.3

Table 2. 2000 Montana Spring Barley Dryland Intrastate . Overall Summary

ID	Pedigree	Yield	Test	Plump	Heading	Plant	Protein
			Weight	Percent	Date		Height
		bu/ac	lb/bu	over #6	From Jan 1.	Height	Dry Wt
				%		inches	%
MT981212	MT910150/Stark	79.6	52.4	80.0	170.6	29.4	13.1
MT960099	Manley/Baronesse	78.9	50.9	45.7	176.4	25.7	13.5
MT981180	MT910150/Gallatin	78.4	52.5	65.6	167.7	30.9	13.8
MT960228	Stark/Baronesse	78.0	50.7	61.7	175.1	28.2	12.9
MT981210	MT910150/Stark	78.0	51.9	77.1	173.6	29.4	13.2
MT960222	Stark/Baronesse	77.9	51.8	72.8	174.5	30.7	13.2
MT970229	MT890021/Stark	77.6	53.1	75.7	175.5	28.7	13.5
MT981213	MT910150/Stark	77.6	51.7	76.0	169.2	29.3	13.1
MT960101	Manley/Baronesse	77.4	50.5	50.9	177.4	26.5	13.8
MT981042	H5860219/Baronesse	77.4	51.3	52.5	176.3	26.9	13.5
MT981181	MT910150/Gallatin	77.4	51.8	62.9	173.5	28.5	13.6
MT981177	MT910033/Targhee	77.2	51.1	72.3	174.1	27.2	13.2
MT970107	Harrington/Stark	77.1	51.3	72.0	174.7	30.9	13.1
MT960226	Stark/Baronesse	77.0	51.3	77.9	173.9	29.5	12.9
MT981080	MT140523/Baronesse	76.8	49.8	65.0	175.7	26.7	13.6
MT981030	Baronesse/MT910160	76.8	52.0	52.9	176.1	27.6	13.2
MT960225	Stark/Baronesse	76.7	52.6	72.7	174.7	30.3	12.5
MT970228	MT890021/Stark	76.7	50.6	70.3	174.7	28.0	13.4
MT920073	MT81161/MT 83518	76.5	51.6	78.5	171.1	28.2	13.4
MT950186	MT860756/MT83533	76.3	53.7	61.1	173.0	29.1	13.0
MT910189	ND 7293/Bearpaw	76.0	52.3	75.0	171.2	28.9	12.5
MT981091	MT851195/MT140523	75.8	52.3	69.0	172.3	26.2	12.7
MT940214	MT860756/Lewis	75.6	51.2	70.8	172.4	27.7	13.4
PI568246	Baronesse	75.5	50.6	60.3	176.0	26.6	14.0
MTLB 5	Lewis/Baronesse #5	75.5	52.7	52.9	176.5	28.7	14.2
MT981004	Baronesse/H2860224	75.3	49.9	63.3	175.1	28.9	13.4
MT981025	Baronesse/MT910160	75.0	51.2	63.0	175.2	28.1	14.3
MT981174	MT910033/Targhee	74.5	51.8	88.7	173.9	26.7	13.5
MT981242	Targhee/Gallatin	74.5	52.9	73.6	171.4	28.4	13.8
MT981222	ND112311/Baronesse	74.3	49.9	59.2	171.6	31.0	13.4
MTLB 30	Valier	73.6	52.0	55.1	176.3	28.1	13.9
MT970205	MT890008/Dominique	73.3	48.9	73.1	176.2	27.3	13.2
MT970148	MT861596/ND 11120	73.3	50.6	69.2	174.6	26.2	13.2
SITEMEAN	SiteMean	73.3	51.1	67.0	173.6	28.5	13.5
MT970155	MT886610/MT140523	73.2	51.6	67.3	177.4	27.9	13.9
MT981006	Baronesse/H2860224	73.2	50.0	62.6	174.1	27.5	14.0
MT970026	Baronesse/MT860756	73.1	51.6	73.5	173.1	29.9	13.0
MT970116	Klages/Baronesse	73.1	52.5	76.4	172.9	32.4	13.4
PI491534	Gallatin	73.0	51.4	56.8	172.4	29.0	13.6
MT981009	Baronesse/MT860326	72.7	52.0	56.4	173.8	28.1	13.8
MT981238	ND112311/Lewis	72.4	52.1	73.0	170.8	30.2	13.6
MT960100	Manley/Baronesse	72.4	51.7	47.5	175.8	26.6	13.8
MT981201	MT910150/MT889106	72.1	52.1	88.6	169.4	28.8	13.2
11232-11	Logan	72.1	52.1	75.9	168.0	29.8	13.6
MT981116	MT890008/MT851195	72.1	52.3	86.7	169.6	28.3	13.5
MT970110	Klages/Baronesse	71.5	50.4	63.5	176.2	28.1	14.4
MT981083	MT851195/Baronesse	71.4	50.3	51.4	175.1	24.8	13.1
MT981055	Harrington/MT889106	71.2	50.0	56.5	175.0	27.1	13.8
MT981248	Stark/Gallatin	71.0	50.5	81.6	173.9	30.5	13.3
MT981039	H5860219/Baronesse	70.7	51.8	61.5	177.9	27.1	14.5
MT981029	Baronesse/MT910160	70.0	51.6	76.4	175.7	29.0	13.6
AC99 11	NO 95 218D5	69.9	50.1	70.8	174.8	25.6	13.1
MTLB 6	Lewis/Baronesse # 6	69.8	51.8	71.0	174.7	27.9	14.1
CI 15856	Lewis	69.7	51.7	66.4	174.6	28.4	13.7
BZ594-19	WPB Xena	69.5	50.9	69.8	175.1	28.8	14.4

Table 2 continued on next page.

Table 2 continued.

ID	Pedigree	Yield	Test Weight	Plump Percent over #6	Heading Date From Jan 1.	Plant Height	Protein
							Percent Dry Wt
		bu/ac	lb/bu	%		inches	%
ND 9866	Stark	69.4	52.2	82.3	170.9	30.6	13.1
MTLB 13	Lewis/Baronesse #13	69.4	50.7	51.9	174.8	26.6	14.4
B2L20-36	BCL20/MOREX BC2F4	69.3	48.4	54.2	166.1	30.3	12.9
SK 76333	Harrington	69.0	49.2	60.4	175.0	28.2	13.2
2B965119	BARI 2B96-5119	68.0	51.4	76.1	175.7	28.7	13.8
B2L20-42	BCL20/MOREX BC2F4	67.5	47.2	72.8	166.4	33.7	12.9
2B914947	Merit	67.0	49.5	54.3	176.2	27.0	14.2
6B932978	BARI 6B93-2978	65.0	45.5	46.4	172.8	30.7	13.2
CI 15773	Morex	61.4	48.0	53.6	166.8	33.5	13.4
2B965038	BARI 2B96-5038	58.9	50.6	86.6	178.0	26.7	13.3

Table 3. 2000 Montana Spring Barley Irrigated Intrastate . Overall Summary

ID	Pedigree	Yield	Test Weight	Plump Percent over #6	Heading Date	Plant Height	Protein Percent Dry Wt
MT960099	Manley/Baronesse	154.7	53.0	77.0	169.8	30.3	12.3
MT981006	Baronesse/H2860224	151.4	54.0	88.3	168.1	31.6	12.0
MT960228	Stark/Baronesse	147.2	52.9	81.8	168.7	32.1	12.4
MT970228	MT890021/Stark	146.9	53.1	86.4	169.3	31.8	12.4
MT970148	MT861596/ND 11120	146.9	53.2	86.3	167.8	30.5	12.1
MT960100	Manley/Baronesse	146.7	53.7	75.5	171.1	30.0	12.7
MT981030	Baronesse/MT910160	146.3	54.9	84.9	171.0	32.6	11.3
MT960101	Manley/Baronesse	145.0	53.4	80.4	170.5	30.8	12.3
MT970229	MT890021/Stark	144.3	54.8	92.5	170.0	32.8	12.2
PI568246	Baronesse	144.1	54.4	88.6	169.8	29.6	12.1
MT981004	Baronesse/H2860224	143.0	53.5	85.8	168.2	31.6	11.7
MT960226	Stark/Baronesse	142.6	54.1	86.0	168.3	32.4	11.5
MT981042	H5860219/Baronesse	142.5	54.4	82.7	169.5	31.3	11.9
MT981080	MT140523/Baronesse	141.4	51.6	81.8	169.0	32.5	13.0
MTLB 30	Valier	140.6	54.2	88.1	169.4	32.7	12.4
MT981222	ND112311/Baronesse	139.7	53.1	85.9	166.2	34.1	13.1
MT960222	Stark/Baronesse	139.7	54.3	86.4	169.8	34.0	11.5
MT981177	MT910033/Targhee	139.4	53.2	83.5	166.8	31.0	12.8
MT981029	Baronesse/MT910160	139.2	53.3	89.6	169.2	33.8	12.5
MT970155	MT886610/MT140523	139.1	53.2	86.7	170.1	31.4	11.8
MT970110	Klages/Baronesse	139.0	53.3	87.3	170.3	33.1	11.3
MT960225	Stark/Baronesse	138.8	54.1	83.0	168.8	34.4	12.3
MT950186	MT860756/MT83533	138.5	55.0	84.8	167.7	33.3	12.3
MT981091	MT851195/MT140523	138.3	53.6	84.7	167.0	30.0	12.3
MTLB 5	Lewis/Baronesse #5	137.5	54.4	83.8	169.6	33.3	13.1
C 22	Moravian 22	137.4	51.4	89.5	172.7	28.7	12.4
MTLB 6	Lewis/Baronesse # 6	137.3	54.9	87.5	167.6	31.6	13.0
MT981238	ND112311/Lewis	137.2	54.1	88.2	165.9	35.1	12.8
MT981055	Harrington/MT889106	136.9	53.4	81.2	169.5	32.1	13.4
MT981242	Targhee/Gallatin	136.9	55.0	86.5	165.9	32.3	13.2
C 37	Coors C37	136.7	53.9	88.6	171.2	28.3	12.2
MT981025	Baronesse/MT910160	136.4	53.5	87.1	169.2	33.1	13.1
PI601736	Galena	136.1	52.5	82.2	173.4	29.0	12.6
SITMEAN	Site Mean	135.8	53.4	85.1	168.2	32.3	12.5
MT970205	MT890008/Dominique	135.8	52.8	90.0	170.4	32.0	11.9
MTLB 13	Lewis/Baronesse #13	135.7	52.8	82.9	168.2	30.8	12.8
MT981210	MT910150/Stark	135.6	53.7	88.5	168.3	33.2	12.8
B2L20-36	BCL20/MOREX BC2F4	135.3	51.1	80.5	163.4	33.5	13.7
AC99 11	NO 95 218D5	135.3	52.6	85.6	170.5	28.2	11.5
MT981248	Stark/Gallatin	134.3	52.6	87.6	168.1	34.1	12.7
C 32	Coors C32	134.1	52.3	80.9	171.3	26.9	12.1
MT970026	Baronesse/MT860756	134.0	54.4	88.3	167.8	33.5	12.9
MT981039	H5860219/Baronesse	133.6	53.2	80.8	171.2	32.4	12.4
MT970116	Klages/Baronesse	133.5	54.3	88.3	167.5	35.7	12.7
MT981083	MT851195/Baronesse	133.3	51.6	75.5	167.5	29.5	12.3
MT981116	MT890008/MT851195	132.5	52.7	88.2	163.7	31.6	12.8
MT910189	ND 7293/Bearpaw	132.4	53.8	87.4	165.7	31.8	13.0
MT970107	Harrington/Stark	132.4	54.0	87.0	168.2	35.2	12.6
SK 76333	Harrington	132.4	52.9	83.9	168.8	33.3	12.5
MT981212	MT910150/Stark	131.9	54.3	86.7	166.6	33.4	12.9
CI 15856	Lewis	131.8	54.6	83.4	167.7	34.0	13.0
PI491534	Gallatin	131.7	54.3	81.6	167.2	33.8	12.5
ND 9866	Stark	131.1	54.6	87.1	164.7	34.8	13.2
2B914947	Merit	130.6	51.8	87.8	170.1	32.2	13.3
MT981009	Baronesse/MT860326	130.5	52.9	81.1	167.5	32.1	12.0

Table 3 continued on next page.

Table 3 continued.

ID	Pedigree	Yield	Test Weight	Plump Percent over #6	Heading Date From Jan 1.	Plant Height	Protein Percent Dry Wt
		bu/ac	lb/bu	%		inches	%
MT981213	MT910150/Stark	130.1	53.7	87.2	166.0	32.9	13.1
MT940214	MT860756/Lewis	127.6	53.3	85.6	167.5	31.6	12.8
11232-11	Logan	126.1	53.9	88.2	164.6	31.8	13.3
MT981180	MT910150/Gallatin	125.6	54.3	80.1	165.7	35.0	12.9
6B932978	BARI 6B93-2978	124.4	50.9	73.2	166.9	35.2	12.6
MT981201	MT910150/MT889106	121.2	53.7	89.9	164.1	32.5	13.0
B2L20-42	BCL20/MOREX BC2F4	120.7	50.1	84.8	163.5	35.2	12.8
2B965119	BARI 2B96-5119	120.3	53.4	88.9	168.9	31.5	12.5
CI 15773	Morex	114.7	51.1	80.8	164.2	38.8	13.3
2B965038	BARI 2B96-5038	114.1	52.7	93.0	170.4	30.8	12.1

Table 4. 2000 Montana Spring Barley Dryland and Irrigated Intrastate. Yield (bu/ac).

ID	Pedigree	Kalispell										AVG Overall	BYX	RSQ
		Havre Dry	Sidney Dry	Huntley Dry	Conrad Dry	Bozeman Dry	High Moist	Sidney Irr	Huntley Irr	Conrad Irr	Bozeman Irr			
----- bushels per acre -----														
11232-11	Logan	63.7	85.3	36.0	52.4	122.9	186.7	120.6	101.5	75.8	145.7	99.1	0.98	0.97
2B914947	Merit	54.9	80.1	41.6	45.5	112.7	181.5	113.5	129.4	88.3	140.0	98.8	0.97	0.99
2B965038	BARI 2B96-5038	42.1	57.6	38.4	40.0	116.6	167.5	96.4	99.7	57.4	149.7	86.5	0.98	0.93
2B965119	BARI 2B96-5119	56.5	71.5	44.6	45.1	122.0	170.7	114.8	93.7	80.0	142.3	94.1	0.90	0.95
6B932978	BARI 6B93-2978	53.8	78.4	40.2	39.9	112.9	167.6	135.6	105.0	71.4	142.2	94.7	0.94	0.94
AC99 11	NO 95 218D5	57.8	79.0	31.0	52.7	129.0	182.5	100.1	136.5	101.9	155.7	102.6	1.03	0.96
B2L20-36	BCL20/MOREX BC2F4	58.1	87.7	26.1	60.3	114.3	201.0	142.2	97.3	82.0	153.8	102.3	1.08	0.92
B2L20-42	BCL20/MOREX BC2F4	65.1	79.5	28.7	44.9	119.4	185.7	122.2	97.9	70.7	126.7	94.1	0.97	0.94
CI 15773	Morex	54.6	70.0	18.0	48.8	115.6	161.9	125.3	107.8	59.6	119.0	88.1	0.93	0.94
CI 15856	Lewis	60.1	85.3	31.6	49.4	122.0	181.0	122.3	124.4	98.0	133.2	100.7	0.97	0.99
MT910189	ND 7293/Bearpaw	65.8	83.3	48.8	61.4	120.8	192.3	108.2	131.7	85.9	143.9	104.2	0.94	0.97
MT940214	MT860756/Lewis	58.6	87.0	44.8	58.7	128.9	182.1	112.5	128.0	78.5	137.0	101.6	0.93	0.98
MT950186	MT860756/MT83533	66.0	86.7	33.0	62.8	133.3	196.9	130.6	120.5	88.6	155.7	107.4	1.06	0.99
MT960099	Manley/Baronesse	64.5	97.4	54.3	52.3	126.0	200.2	135.8	156.6	119.9	161.0	116.8	1.05	0.96
MT960100	Manley/Baronesse	60.7	82.2	57.3	44.4	117.7	193.9	133.5	148.6	99.8	157.5	109.6	1.04	0.95
MT960101	Manley/Baronesse	56.8	90.7	63.2	47.7	128.7	187.1	127.3	142.1	107.2	161.3	111.2	0.99	0.96
MT960222	Stark/Baronesse	64.1	92.7	45.0	51.8	135.9	179.8	131.2	137.6	97.6	152.2	108.8	0.98	0.99
MT960225	Stark/Baronesse	60.8	89.1	40.5	57.3	135.8	195.3	131.1	125.2	100.1	142.6	107.8	1.02	0.99
MT960226	Stark/Baronesse	61.8	87.6	51.7	51.1	132.9	192.7	131.9	123.0	114.4	150.7	109.8	0.99	0.97
MT960228	Stark/Baronesse	63.5	92.5	42.5	58.8	132.5	190.7	132.0	152.4	111.1	150.1	112.6	1.02	0.97
MT970026	Baronesse/MT860756	62.8	81.3	34.2	54.1	133.1	208.9	124.5	107.1	80.8	148.5	103.5	1.10	0.96
MT970107	Harrington/Stark	60.4	85.9	53.5	54.1	131.7	178.6	124.9	151.8	70.7	135.9	104.7	0.94	0.92
MT970110	Klages/Baronesse	55.5	85.3	32.1	60.3	124.2	186.7	128.2	120.5	103.2	156.3	105.2	1.03	0.99
MT970116	Klages/Baronesse	66.7	82.7	32.5	54.6	129.1	185.6	125.6	117.5	82.5	156.4	103.3	1.03	0.99
MT970148	MT861596/ND 11120	59.3	89.2	38.1	52.5	127.3	188.4	136.9	137.3	104.3	167.7	110.1	1.08	0.98
MT970155	MT886610/MT140523	60.6	87.4	40.9	48.1	128.9	201.3	130.9	128.4	92.2	142.9	106.2	1.07	0.99
MT970205	MT890008/Dominique	58.0	76.1	43.9	58.3	130.2	185.5	109.7	129.5	91.8	162.5	104.6	1.01	0.97
MT970228	MT890021/Stark	62.7	88.9	48.5	58.3	125.4	188.7	133.7	134.5	108.2	169.4	111.8	1.02	0.98
MT970229	MT890021/Stark	60.6	85.2	51.4	61.3	129.6	193.9	122.5	140.2	102.7	162.1	111.0	1.02	0.99
MT981004	Baronesse/H2860224	58.7	89.7	44.0	55.3	129.1	194.0	136.4	127.8	96.5	160.4	109.2	1.06	1.00
MT981006	Baronesse/H2860224	61.4	88.3	35.2	51.7	129.5	200.5	140.2	142.4	111.1	162.9	112.3	1.14	0.99
MT981009	Baronesse/MT860326	59.8	91.1	29.8	56.8	126.3	179.4	119.2	123.9	88.7	141.5	101.6	0.97	0.99
MT981025	Baronesse/MT910160	58.7	90.0	40.4	61.8	124.0	171.3	126.9	127.9	108.8	147.3	105.7	0.90	0.97
MT981029	Baronesse/MT910160	59.4	81.8	22.7	60.9	125.3	195.0	124.9	134.4	97.8	143.9	104.6	1.08	0.99
MT981030	Baronesse/MT910160	62.9	88.4	42.8	61.8	128.0	193.0	129.4	146.7	108.7	153.5	111.5	1.02	0.98
MT981039	H5860219/Baronesse	56.6	85.3	37.0	51.4	123.1	165.1	123.6	142.8	107.2	129.1	102.1	0.89	0.93
MT981042	H5860219/Baronesse	60.6	92.5	43.6	58.1	132.3	190.1	126.5	131.6	106.4	157.9	110.0	1.01	0.99
MT981055	Harrington/MT889106	55.8	84.9	35.1	59.7	120.7	187.0	120.2	119.4	96.3	161.4	104.0	1.02	0.98
MT981080	MT140523/Baronesse	67.1	89.7	41.1	53.0	133.3	194.8	129.0	160.5	86.8	135.7	109.1	1.04	0.94
MT981083	MT851195/Baronesse	59.0	81.3	37.8	55.4	123.3	194.4	109.2	135.0	92.2	135.5	102.3	1.01	0.98

Table 4 continued on next page.

Table 4 continued.

ID	Pedigree	Havre Dry	Sidney Dry	Huntley Dry	Conrad Dry	Bozeman Dry	Kalispell					AVG Overall	BYX	RSQ
							High Moist	Sidney Irr	Huntley Irr	Conrad Irr	Bozeman Irr			
----- bushels per acre -----														
MT981091	MT851195/MT140523	66.2	87.4	36.8	58.4	130.5	202.1	128.2	104.8	91.1	165.5	107.1	1.07	0.96
MT981116	MT890008/MT851195	61.8	80.5	38.9	59.7	119.9	196.3	113.9	118.5	81.1	152.9	102.3	1.02	0.98
MT981177	MT910033/Targhee	61.1	91.3	52.7	55.0	125.9	203.1	123.6	132.2	93.1	145.3	108.3	1.01	0.98
MT981180	MT910150/Gallatin	65.3	93.3	45.0	59.0	129.3	172.4	126.0	121.5	92.3	116.1	102.0	0.81	0.94
MT981201	MT910150/MT889106	62.8	86.0	36.6	57.2	117.6	184.1	107.1	85.2	82.5	147.2	96.6	0.91	0.91
MT981210	MT910150/Stark	66.8	92.5	42.4	58.2	130.0	194.1	123.8	122.0	88.1	149.7	106.8	1.00	1.00
MT981212	MT910150/Stark	73.4	87.6	41.0	61.2	134.7	184.2	125.6	103.6	86.2	159.9	105.7	0.95	0.95
MT981213	MT910150/Stark	56.6	87.2	46.7	63.3	134.2	180.2	124.4	113.7	84.4	148.0	103.9	0.93	0.98
MT981222	ND112311/Baronesse	67.3	91.2	29.0	51.8	132.2	178.8	122.9	137.9	105.0	153.7	107.0	1.01	0.97
MT981238	ND112311/Lewis	63.6	80.2	38.4	56.5	123.3	189.8	125.3	132.9	81.9	156.3	104.8	1.04	0.99
MT981242	Targhee/Gallatin	62.2	84.7	43.6	56.0	126.0	195.6	114.3	133.4	92.1	149.1	105.7	1.02	0.99
MT981248	Stark/Gallatin	57.4	85.9	29.6	56.2	125.9	197.3	114.7	126.5	84.9	148.3	102.7	1.08	0.99
MTLB 5	Lewis/Baronesse #5	63.3	90.1	39.0	63.3	121.8	182.1	132.0	134.9	96.5	142.2	106.5	0.94	0.98
MTLB 6	Lewis/Baronesse # 6	56.9	82.2	36.1	58.8	115.0	179.4	119.9	145.1	94.0	147.9	103.5	0.98	0.97
MTLB 13	Lewis/Baronesse #13	58.3	86.5	23.5	54.1	124.7	179.4	125.7	122.4	97.8	153.3	102.6	1.03	0.98
MTLB 30	Valier	62.4	79.9	38.9	62.9	123.9	179.0	124.2	124.8	113.1	161.8	107.1	0.96	0.96
ND 9866	Stark	54.9	77.1	30.1	55.2	129.8	199.5	115.0	112.8	82.5	145.6	100.3	1.08	0.98
PI491534	Gallatin	65.5	87.4	38.6	50.9	122.7	184.5	115.4	132.6	88.4	137.6	102.3	0.96	0.99
PI568246	Baronesse	62.5	93.3	34.4	57.8	129.7	184.6	133.3	135.3	104.4	163.1	109.8	1.04	0.99
SK 76333	Harrington	53.5	84.6	35.3	53.2	118.7	197.3	113.6	130.7	80.7	139.6	100.7	1.05	0.98
SITMEAN	Site Mean	60.8	85.4	39.2	55.2	125.9	186.8	122.7	127.1	92.8	149.6	104.5	1.00	1.00
L.S.D.	L.S.D.(.05)	8.10	9.34	13.35	7.92	9.58	15.03	11.57	25.83	18.23	16.61			
C.V.	Coefficient of Variation	7.69	6.31	20.40	8.38	4.48	4.98	5.61	12.21	11.55	6.87			

Table 5. 2000 Montana Spring Barley Dryland and Irrigated Intrastate. Test Weight (lb/bu).

ID	Pedigree	Kalispell										AVG Overall	BYX	RSQ
		Havre Dry	Sidney Dry	Conrad Dry	Bozeman Dry	High Moist	Sidney Irr	Huntley Irr	Conrad Irr	Bozeman Irr				
----- pounds per bushels -----														
11232-11	Logan	50.1	51.8	50.4	56.2	54.4	51.0	53.0	56.6	54.6	53.1	0.89	0.96	
2B914947	Merit	46.8	50.5	48.9	51.8	53.7	48.2	51.2	53.9	52.1	50.8	0.85	0.89	
2B965038	BARI 2B96-5038	48.5	49.5	51.3	53.1	54.4	49.2	51.8	54.3	54.0	51.8	0.78	0.82	
2B965119	BARI 2B96-5119	49.3	51.7	49.5	55.3	54.3	50.5	52.1	56.3	54.0	52.5	0.93	0.97	
6B932978	BARI 6B93-2978	43.4	43.8	44.2	50.8	52.6	46.7	51.1	52.1	51.9	48.5	1.32	0.82	
AC99 11	NO 95 218D5	47.5	49.2	50.6	53.0	55.0	47.0	52.5	55.4	53.3	51.5	1.04	0.83	
B2L20-36	BCL20/MOREX BC2F4	45.2	47.8	46.6	53.8	51.9	46.7	50.4	54.0	52.6	49.9	1.24	0.98	
B2L20-42	BCL20/MOREX BC2F4	44.7	46.5	43.7	53.8	52.0	44.2	50.1	52.5	52.0	48.8	1.46	0.95	
CI 15773	Morex	45.4	47.5	45.4	53.7	52.4	45.7	51.3	53.1	52.8	49.7	1.32	0.96	
CI 15856	Lewis	49.9	52.3	47.8	56.9	55.5	49.8	53.8	59.6	54.4	53.3	1.33	0.90	
MT910189	ND 7293/Bearpaw	50.2	51.2	50.8	57.0	56.1	48.8	53.1	56.2	54.9	53.1	1.07	0.92	
MT940214	MT860756/Lewis	48.4	52.0	49.9	54.6	55.2	49.5	53.2	54.5	54.2	52.4	0.92	0.95	
MT950186	MT860756/MT83533	51.9	52.2	53.8	57.1	55.5	51.3	54.0	58.6	55.7	54.5	0.82	0.80	
MT960099	Manley/Baronesse	47.6	51.0	51.2	53.8	54.3	49.0	52.9	55.4	53.5	52.1	0.89	0.88	
MT960100	Manley/Baronesse	48.1	51.5	53.2	53.9	55.8	50.5	53.3	55.2	53.6	52.8	0.74	0.70	
MT960101	Manley/Baronesse	47.3	51.7	49.2	54.0	55.2	49.8	52.8	55.3	54.0	52.1	1.03	0.95	
MT960222	Stark/Baronesse	49.5	52.2	50.4	55.3	54.9	50.8	53.8	57.2	54.8	53.2	0.95	0.97	
MT960225	Stark/Baronesse	50.0	52.2	52.2	56.0	55.3	51.0	53.1	56.8	54.5	53.4	0.83	0.93	
MT960226	Stark/Baronesse	48.3	51.5	50.7	54.8	55.2	51.3	52.9	57.2	54.1	52.9	0.97	0.92	
MT960228	Stark/Baronesse	49.3	51.3	46.6	55.5	54.8	48.7	53.0	55.6	52.7	51.9	1.13	0.89	
MT970026	Baronesse/MT860756	50.0	51.7	49.0	55.8	55.9	51.7	53.9	56.4	54.4	53.2	0.97	0.93	
MT970107	Harrington/Stark	49.9	51.7	47.2	56.6	56.0	50.5	54.2	55.0	54.1	52.8	1.09	0.86	
MT970110	Klages/Baronesse	47.9	51.8	47.3	54.6	54.5	51.2	52.4	53.5	55.1	52.0	0.95	0.81	
MT970116	Klages/Baronesse	50.8	53.0	50.6	55.8	56.2	50.8	53.8	55.7	55.2	53.5	0.85	0.97	
MT970148	MT861596/ND 11120	47.9	51.8	47.6	55.2	54.0	50.2	52.4	54.8	54.8	52.1	1.05	0.93	
MT970155	MT886610/MT140523	48.6	52.0	50.8	55.1	55.4	50.7	52.9	53.4	53.9	52.5	0.77	0.86	
MT970205	MT890008/Dominique	47.3	48.3	45.9	54.1	54.5	49.2	50.9	55.1	54.5	51.1	1.26	0.92	
MT970228	MT890021/Stark	48.6	50.7	49.6	53.7	54.2	50.5	52.1	54.5	54.0	52.0	0.81	0.97	
MT970229	MT890021/Stark	50.6	52.8	52.8	56.3	55.9	51.7	54.3	55.6	56.5	54.0	0.76	0.90	
MT981004	Baronesse/H2860224	47.5	51.0	46.4	54.8	54.7	50.3	52.9	55.4	54.2	51.9	1.18	0.92	
MT981006	Baronesse/H2860224	46.8	50.7	47.3	55.3	54.2	50.8	53.3	56.5	55.4	52.3	1.27	0.92	
MT981009	Baronesse/MT860326	49.1	51.3	51.1	56.6	54.8	49.5	52.9	54.2	53.1	52.5	0.86	0.86	
MT981025	Baronesse/MT910160	48.5	51.8	50.3	54.2	55.2	50.3	52.6	54.8	54.4	52.5	0.86	0.95	
MT981029	Baronesse/MT910160	48.5	51.8	51.9	54.2	54.1	51.0	52.8	54.5	53.9	52.5	0.67	0.85	
MT981030	Baronesse/MT910160	48.9	52.3	51.3	55.4	55.7	51.0	54.8	57.5	55.7	53.6	1.02	0.94	
MT981039	H5860219/Baronesse	48.2	52.2	52.2	54.5	55.2	50.5	53.0	55.5	52.0	52.6	0.75	0.75	
MT981042	H5860219/Baronesse	47.6	51.5	49.9	56.1	55.7	50.5	52.9	57.4	55.6	53.0	1.23	0.97	
MT981055	Harrington/MT889106	47.6	51.2	46.5	54.7	54.7	49.2	51.9	56.7	54.5	51.9	1.29	0.95	
MT981080	MT140523/Baronesse	46.4	50.5	48.2	54.1	54.1	49.2	51.5	52.1	51.3	50.8	0.88	0.84	
MT981083	MT851195/Baronesse	47.5	49.5	50.4	54.0	53.5	47.8	50.0	53.3	53.4	51.0	0.87	0.85	

Table 5 continued on next page.

Table 5 continued.

ID	Pedigree	Kalispell									AVG Overall	BYX	RSQ
		Havre Dry	Sidney Dry	Conrad Dry	Bozeman Dry	High Moist	Sidney Irr	Huntley Irr	Conrad Irr	Bozeman Irr			
----- pounds per bushels -----													
MT981091	MT851195/MT140523	50.8	51.3	51.5	55.6	54.7	49.5	53.0	56.6	54.3	53.0	0.84	0.89
MT981116	MT890008/MT851195	49.7	53.8	50.4	55.3	54.7	48.8	51.9	53.3	54.8	52.5	0.76	0.72
MT981177	MT910033/Targhee	47.3	52.0	49.2	56.0	55.4	49.2	52.6	55.6	53.2	52.3	1.14	0.95
MT981180	MT910150/Gallatin	50.0	53.2	49.5	57.2	55.5	51.3	53.9	56.0	54.7	53.5	0.97	0.93
MT981201	MT910150/MT889106	51.0	51.7	49.7	56.1	55.0	51.2	52.1	54.5	55.6	53.0	0.80	0.86
MT981210	MT910150/Stark	50.1	52.7	49.5	55.2	55.3	50.8	53.2	55.3	53.9	52.9	0.83	0.96
MT981212	MT910150/Stark	51.5	52.5	49.3	56.1	55.4	50.7	53.8	56.3	55.2	53.4	0.90	0.91
MT981213	MT910150/Stark	49.3	51.0	50.5	56.2	54.9	49.8	53.3	56.1	54.4	52.8	0.99	0.97
MT981222	ND112311/Baronesse	47.8	49.7	47.0	55.2	54.8	49.3	52.2	53.9	55.1	51.7	1.17	0.92
MT981238	ND112311/Lewis	51.4	52.0	48.7	56.2	55.0	51.2	53.7	54.7	56.2	53.2	0.86	0.81
MT981242	Targhee/Gallatin	51.5	53.3	49.6	57.3	55.0	51.3	54.5	58.3	55.8	54.1	1.02	0.90
MT981248	Stark/Gallatin	49.2	50.5	47.3	55.2	54.5	49.2	52.2	53.7	53.5	51.7	0.97	0.90
MTLB 5	Lewis/Baronesse #5	49.5	52.3	53.2	55.7	54.7	51.5	53.2	58.6	53.8	53.6	0.83	0.74
MTLB 6	Lewis/Baronesse # 6	49.4	51.3	50.2	56.2	54.5	51.2	53.2	59.8	55.6	53.5	1.16	0.87
MTLB 13	Lewis/Baronesse #13	47.6	49.7	49.9	55.8	54.3	49.7	52.1	54.7	53.5	51.9	1.02	0.94
MTLB 30	Valier	49.0	50.7	52.7	55.5	54.6	51.3	52.8	56.5	55.9	53.2	0.86	0.81
ND 9866	Stark	51.1	51.5	50.4	55.7	55.5	51.3	53.7	57.8	54.9	53.5	0.92	0.92
PI491534	Gallatin	49.0	52.5	48.5	55.8	55.1	50.7	52.9	58.6	54.3	53.0	1.18	0.92
PI568246	Baronesse	47.6	51.5	48.7	54.4	54.5	51.7	53.1	58.5	54.2	52.7	1.13	0.85
SK 76333	Harrington	46.8	50.8	45.9	53.2	55.2	49.5	51.6	55.8	52.3	51.2	1.19	0.88
SITMEAN	Site Mean	48.7	51.2	49.4	55.2	54.7	49.7	52.7	55.6	54.2	52.4	1.00	1.00
L.S.D.	L.S.D.(.05)	1.20	1.82	7.92	0.86	1.32	~~	0.90	~~	1.74			
C.V.	Coefficient of Variation	1.43	2.20	8.38	0.97	1.64	~~	1.00	~~	1.61			

Table 6. 2000 Montana Spring Barley Dryland and Irrigated Intrastate. Percent Plump (over #6 screen).

ID	Pedigree	Havre Dry	Sidney Dry	Huntley Dry	Conrad Dry	Bozeman Dry	Kalispell					AVG Overall	BYX	RSQ
							High Moist	Sidney Irr	Huntley Irr	Conrad Irr	Bozeman Irr			
11232-11	Logan	48.3	94.0	86.8	62.0	88.5	96.1	87.0	88.1	86.0	83.9	82.1	0.80	0.88
2B914947	Merit	23.4	89.0	50.7	67.0	41.3	97.4	81.0	94.3	91.0	75.5	71.1	1.19	0.71
2B965038	BARI 2B96-5038	84.1	89.0	89.6	90.0	80.4	99.1	90.0	95.3	92.0	88.6	89.8	0.19	0.41
2B965119	BARI 2B96-5119	48.4	90.0	85.6	83.0	73.6	97.1	87.0	92.5	91.0	77.1	82.5	0.70	0.79
6B932978	BARI 6B93-2978	15.1	91.0	58.5	38.0	29.7	94.4	80.0	91.9	56.0	43.7	59.8	1.44	0.80
AC99 11	NO 95 218D5	46.5	95.0	83.0	59.0	70.4	98.3	78.0	94.1	81.0	76.4	78.2	0.91	0.96
B2L20-36	BCL20/MOREX BC2F4	17.4	88.0	50.2	39.0	76.2	94.2	81.0	87.8	66.0	73.8	67.3	1.26	0.82
B2L20-42	BCL20/MOREX BC2F4	30.8	92.0	77.5	81.0	82.7	97.2	77.0	91.3	79.0	79.4	78.8	0.87	0.71
CI 15773	Morex	17.6	86.0	61.4	25.0	78.3	93.1	77.0	91.0	70.0	73.0	67.2	1.36	0.85
CI 15856	Lewis	25.6	93.0	73.9	56.0	83.5	96.4	83.0	85.6	83.0	68.9	74.9	1.13	0.91
MT910189	ND 7293/Bearpaw	51.3	96.0	92.9	45.0	90.0	97.5	77.0	92.2	86.0	84.3	81.2	0.91	0.75
MT940214	MT860756/Lewis	55.9	94.0	71.2	61.0	71.9	97.2	86.0	89.4	89.0	66.4	78.2	0.78	0.88
MT950186	MT860756/MT83533	28.8	91.0	70.4	43.0	72.1	95.3	83.0	87.6	85.0	73.2	72.9	1.19	0.97
MT960099	Manley/Baronesse	14.2	89.0	61.5	24.0	40.1	94.9	72.0	85.4	84.0	48.5	61.3	1.57	0.95
MT960100	Manley/Baronesse	12.1	91.0	77.8	23.0	33.7	96.2	72.0	73.1	84.0	52.2	61.5	1.58	0.89
MT960101	Manley/Baronesse	9.3	88.0	73.9	35.0	48.2	95.5	79.0	87.8	81.0	58.7	65.6	1.54	0.98
MT960222	Stark/Baronesse	60.5	91.0	89.0	54.0	69.4	98.2	85.0	90.6	84.0	74.1	79.6	0.75	0.84
MT960225	Stark/Baronesse	53.3	92.0	83.9	68.0	66.5	94.4	81.0	87.9	91.0	60.7	77.9	0.74	0.81
MT960226	Stark/Baronesse	59.7	94.0	89.5	75.0	71.4	97.6	86.0	89.6	87.0	69.8	81.9	0.63	0.82
MT960228	Stark/Baronesse	37.1	95.0	72.1	41.0	63.1	97.7	72.0	88.3	92.0	59.2	71.8	1.19	0.93
MT970026	Baronesse/MT860756	52.2	93.0	83.6	66.0	72.9	96.8	88.0	93.8	89.0	73.9	80.9	0.80	0.97
MT970107	Harrington/Stark	41.1	95.0	88.9	58.0	76.8	98.4	82.0	94.8	87.0	72.9	79.5	1.01	0.97
MT970110	Klages/Baronesse	13.7	96.0	88.8	46.0	72.9	98.4	85.0	95.8	79.0	78.2	75.4	1.44	0.92
MT970116	Klages/Baronesse	54.1	91.0	89.6	75.0	72.3	98.6	84.0	92.9	87.0	79.3	82.4	0.69	0.90
MT970148	MT861596/ND 11120	38.1	95.0	74.9	61.0	77.0	93.8	86.0	87.4	86.0	78.4	77.8	0.95	0.96
MT970155	MT886610/MT140523	35.3	95.0	83.6	52.0	70.7	97.2	91.0	89.9	84.0	71.2	77.0	1.11	0.96
MT970205	MT890008/Dominique	40.8	92.0	82.7	76.0	74.2	96.8	81.0	90.5	93.0	88.8	81.6	0.83	0.82
MT970228	MT890021/Stark	55.3	95.0	89.5	49.0	62.6	95.7	75.0	89.8	93.0	78.3	78.3	0.88	0.80
MT970229	MT890021/Stark	57.1	97.0	93.2	57.0	74.0	98.2	90.0	93.1	94.0	87.3	84.1	0.84	0.88
MT981004	Baronesse/H2860224	34.1	93.0	83.6	45.0	60.6	97.3	87.0	90.7	90.0	64.2	74.6	1.22	0.95
MT981006	Baronesse/H2860224	32.8	93.0	76.5	40.0	70.6	96.2	87.0	91.6	91.0	75.6	75.4	1.23	0.95
MT981009	Baronesse/MT860326	27.4	93.0	54.9	27.0	79.9	91.0	78.0	89.4	83.0	64.1	68.8	1.29	0.84
MT981025	Baronesse/MT910160	40.9	92.0	79.1	43.0	59.8	95.1	82.0	92.6	93.0	72.8	75.0	1.12	0.93
MT981029	Baronesse/MT910160	60.6	96.0	94.7	68.0	62.7	98.4	87.0	95.5	95.0	72.1	83.0	0.76	0.77
MT981030	Baronesse/MT910160	10.9	93.0	78.9	32.0	49.9	98.3	79.0	91.2	87.0	69.0	68.9	1.61	0.97
MT981039	H5860219/Baronesse	31.3	94.0	70.2	48.0	63.8	96.9	79.0	90.8	84.0	53.3	71.1	1.20	0.95
MT981042	H5860219/Baronesse	12.6	90.0	62.9	25.0	72.2	96.7	82.0	86.4	78.0	70.2	67.6	1.51	0.93
MT981055	Harrington/MT889106	19.7	91.0	74.9	44.0	53.0	94.8	80.0	82.5	84.0	64.7	68.9	1.32	0.97
MT981080	MT140523/Baronesse	29.6	95.0	81.5	55.0	64.1	96.9	77.0	87.1	88.0	60.0	73.4	1.17	0.95
MT981083	MT851195/Baronesse	18.9	89.0	44.8	38.0	66.2	90.4	67.0	80.7	71.0	68.2	63.4	1.21	0.86

Table 6 continued on next page.

Table 6 continued.

ID	Pedigree	Havre Dry	Sidney Dry	Huntley Dry	Conrad Dry	Bozeman Dry	Kalispell					AVG Overall	BYX	RSQ
							High Moist	Sidney Irr	Huntley Irr	Conrad Irr	Bozeman Irr			
		----- percent -----												
MT981091	MT851195/MT140523	46.4	90.0	65.9	64.0	78.9	93.3	80.0	87.2	90.0	72.9	76.9	0.79	0.89
MT981116	MT890008/MT851195	77.3	95.0	93.1	86.0	82.3	96.2	82.0	92.0	82.0	88.7	87.5	0.25	0.47
MT981177	MT910033/Targhee	38.3	92.0	87.5	64.0	79.6	94.6	73.0	88.9	91.0	69.9	77.9	0.92	0.88
MT981180	MT910150/Gallatin	24.6	96.0	68.0	64.0	75.3	92.2	79.0	88.6	81.0	59.5	72.8	1.10	0.87
MT981201	MT910150/MT889106	86.2	95.0	90.5	82.0	89.4	96.8	80.0	92.4	92.0	88.4	89.3	0.19	0.40
MT981210	MT910150/Stark	60.0	94.0	79.2	79.0	73.5	96.1	87.0	94.1	88.0	77.4	82.8	0.59	0.86
MT981212	MT910150/Stark	67.8	95.0	86.1	72.0	79.1	97.4	77.0	92.1	90.0	77.2	83.4	0.53	0.85
MT981213	MT910150/Stark	66.2	94.0	81.9	55.0	82.9	95.2	84.0	92.7	88.0	76.1	81.6	0.65	0.80
MT981222	ND112311/Baronesse	20.8	91.0	65.7	51.0	67.6	95.7	81.0	87.6	87.0	78.4	72.6	1.25	0.95
MT981238	ND112311/Lewis	47.8	91.0	70.9	73.0	82.4	94.8	81.0	90.7	86.0	88.3	80.6	0.70	0.79
MT981242	Targhee/Gallatin	55.0	90.0	80.5	62.0	80.6	93.5	82.0	89.6	89.0	78.3	80.0	0.70	0.97
MT981248	Stark/Gallatin	63.6	94.0	90.3	77.0	83.1	96.5	84.0	93.6	91.0	72.8	84.6	0.56	0.86
MTLB 5	Lewis/Baronesse #5	8.7	89.0	76.3	34.0	56.6	96.2	81.0	89.2	91.0	61.8	68.4	1.59	0.98
MTLB 6	Lewis/Baronesse # 6	32.4	94.0	80.3	71.0	77.1	96.2	83.0	88.6	87.0	82.9	79.2	0.96	0.88
MTLB 13	Lewis/Baronesse #13	18.4	93.0	47.0	28.0	73.1	92.9	81.0	87.6	84.0	68.8	67.4	1.42	0.86
MTLB 30	Valier	19.6	93.0	70.7	39.0	53.1	95.0	86.0	87.8	91.0	80.6	71.6	1.41	0.92
ND 9866	Stark	67.3	96.0	88.4	76.0	84.0	97.3	80.0	89.9	91.0	77.5	84.7	0.50	0.86
PI491534	Gallatin	23.1	86.0	65.8	40.0	69.2	93.9	76.0	87.0	88.0	63.0	69.2	1.26	0.97
PI568246	Baronesse	31.4	94.0	73.4	44.0	58.8	97.0	88.0	93.9	90.0	73.9	74.4	1.27	0.96
SK 76333	Harrington	26.1	93.0	80.4	51.0	51.7	97.0	82.0	92.2	88.0	60.2	72.1	1.29	0.94
SITMEAN	Site Mean	39.5	92.6	77.3	55.3	70.3	96.1	81.1	90.1	86.1	72.2	76.1	1.00	1.00
L.S.D.	L.S.D.(.05)	~~	~~	11.43	~~	10.37	~~	~~	7.98	~~	13.23			
C.V.	Coefficient of Variation	~~	~~	8.66	~~	6.87	~~	~~	5.27	~~	9.17			

Table 7. 2000 Montana Spring Barley Dryland and Irrigated Intrastate. Plant Height (inches).

ID	Pedigree	Kalispell										AVG Overall	BYX	RSQ
		Havre Dry	Sidney Dry	Huntley Dry	Conrad Dry	Bozeman Dry	High Moist	Sidney Irr	Huntley Irr	Conrad Irr	Bozeman Irr			
11232-11	Logan	27.4	25.6	27.9	31.0	37.1	31.1	33.1	28.7	29.0	37.0	30.8	0.87	0.92
2B914947	Merit	24.5	24.1	23.8	27.0	35.5	33.1	32.0	29.0	29.0	37.7	29.6	1.11	0.97
2B965038	BARI 2B96-5038	23.4	23.0	25.4	26.0	35.4	30.4	30.3	29.9	28.0	35.6	28.7	1.01	0.96
2B965119	BARI 2B96-5119	27.4	24.8	26.6	30.0	34.7	31.3	31.3	29.0	28.0	37.9	30.1	0.88	0.94
6B932978	BARI 6B93-2978	27.0	27.5	26.4	34.0	38.9	35.3	34.7	32.9	32.0	41.1	33.0	1.11	0.94
AC99 11	NO 95 218D5	24.2	22.5	23.8	25.0	32.8	29.6	26.6	25.9	27.0	31.8	26.9	0.77	0.93
B2L20-36	BCL20/MOREX BC2F4	28.6	26.7	29.2	29.0	38.3	35.0	33.1	31.8	28.0	39.5	31.9	0.98	0.90
B2L20-42	BCL20/MOREX BC2F4	31.9	29.4	31.6	35.0	40.8	34.9	33.2	33.5	32.0	42.4	34.5	0.89	0.87
CI 15773	Morex	30.6	29.3	31.3	34.0	42.5	41.3	35.8	34.9	35.0	47.1	36.2	1.29	0.94
CI 15856	Lewis	25.8	24.0	25.9	30.0	36.1	33.4	34.1	31.4	32.0	39.2	31.2	1.10	0.95
MT910189	ND 7293/Bearpaw	26.7	23.2	29.1	30.0	35.6	32.8	29.8	29.4	29.0	38.1	30.4	0.93	0.90
MT940214	MT860756/Lewis	26.5	24.7	25.6	27.0	34.9	30.2	31.7	29.8	28.0	38.6	29.7	0.98	0.94
MT950186	MT860756/MT83533	26.5	25.6	27.0	29.0	37.2	34.5	32.6	31.7	30.0	37.7	31.2	0.98	0.97
MT960099	Manley/Baronesse	22.9	21.5	25.1	26.0	33.2	29.0	30.7	28.5	29.0	34.1	28.0	0.92	0.92
MT960100	Manley/Baronesse	25.6	22.7	25.8	26.0	32.8	28.2	29.1	29.6	28.0	35.3	28.3	0.81	0.91
MT960101	Manley/Baronesse	23.7	22.3	24.7	28.0	33.8	29.9	31.0	29.2	28.0	35.7	28.6	0.97	0.97
MT960222	Stark/Baronesse	28.2	27.1	25.0	33.0	40.0	34.0	33.9	30.0	33.0	39.0	32.3	1.06	0.89
MT960225	Stark/Baronesse	26.1	27.1	29.1	29.0	40.0	33.7	34.7	31.6	31.0	41.1	32.4	1.15	0.95
MT960226	Stark/Baronesse	27.2	24.9	26.5	30.0	38.8	30.8	32.3	30.6	30.0	38.5	30.9	1.05	0.96
MT960228	Stark/Baronesse	26.6	25.0	26.3	27.0	36.2	32.2	31.6	32.5	27.0	37.1	30.1	0.96	0.90
MT970026	Baronesse/MT860756	27.8	26.9	25.8	30.0	39.0	35.6	35.0	29.8	29.0	38.2	31.7	1.06	0.91
MT970107	Harrington/Stark	28.5	26.7	28.1	31.0	40.0	36.3	36.5	33.5	28.0	41.6	33.0	1.19	0.91
MT970110	Klages/Baronesse	25.6	25.1	25.2	28.0	36.7	34.3	32.5	29.8	31.0	37.8	30.6	1.06	0.96
MT970116	Klages/Baronesse	30.1	28.7	29.2	34.0	39.9	34.6	35.3	33.5	33.0	42.1	34.0	0.99	0.97
MT970148	MT861596/ND 11120	25.1	21.8	23.8	26.0	34.3	31.1	29.2	28.3	29.0	34.8	28.3	0.97	0.96
MT970155	MT886610/MT140523	24.8	24.0	24.0	30.0	36.7	32.0	30.1	27.1	30.0	37.7	29.6	1.09	0.94
MT970205	MT890008/Dominique	25.7	24.8	22.9	27.0	36.3	30.7	31.8	31.3	30.0	36.4	29.7	1.01	0.91
MT970228	MT890021/Stark	26.0	23.6	26.7	29.0	34.8	32.4	30.2	29.6	29.0	37.9	29.9	0.97	0.97
MT970229	MT890021/Stark	24.9	25.0	28.3	29.0	36.2	32.0	31.5	31.1	31.0	38.2	30.7	0.96	0.95
MT981004	Baronesse/H2860224	26.0	25.0	26.9	30.0	36.8	31.5	32.2	26.2	30.0	37.9	30.2	0.99	0.91
MT981006	Baronesse/H2860224	24.3	23.9	24.8	29.0	35.4	31.0	31.4	28.2	31.0	36.5	29.5	0.99	0.95
MT981009	Baronesse/MT860326	24.7	25.2	26.4	27.0	37.3	31.9	31.9	28.0	30.0	38.7	30.1	1.10	0.95
MT981025	Baronesse/MT910160	24.6	25.0	25.4	29.0	36.3	31.2	34.4	30.8	31.0	38.2	30.6	1.06	0.93
MT981029	Baronesse/MT910160	26.0	24.6	26.1	32.0	36.2	31.5	33.1	32.3	31.0	41.2	31.4	1.11	0.92
MT981030	Baronesse/MT910160	26.0	24.2	23.7	27.0	37.1	33.0	32.0	30.2	29.0	38.7	30.1	1.17	0.97
MT981039	H5860219/Baronesse	24.8	23.2	22.9	28.0	36.9	32.2	31.9	29.0	31.0	37.8	29.8	1.19	0.96
MT981042	H5860219/Baronesse	23.8	23.5	22.6	28.0	36.6	30.7	32.2	27.4	29.0	37.3	29.1	1.18	0.96
MT981055	Harrington/MT889106	24.3	24.0	24.1	27.0	35.9	32.7	31.1	30.5	29.0	37.4	29.6	1.10	0.97
MT981080	MT140523/Baronesse	25.0	23.9	23.3	26.0	35.2	31.9	32.7	31.1	27.0	40.0	29.6	1.22	0.93
MT981083	MT851195/Baronesse	24.0	22.0	21.6	25.0	31.4	28.7	29.6	27.4	28.0	33.9	27.2	0.89	0.92

Table 7 continued on next page.

Table 7 continued.

ID	Pedigree	Havre Dry	Sidney Dry	Huntley Dry	Conrad Dry	Bozeman Dry	Kalispell					AVG Overall	BYX	RSQ
							High Moist	Sidney Irr	Huntley Irr	Conrad Irr	Bozeman Irr			
MT981091	MT851195/MT140523	25.2	22.8	23.7	26.0	33.6	30.3	28.9	27.3	30.0	33.7	28.1	0.85	0.92
MT981116	MT890008/MT851195	26.5	23.5	27.6	28.0	35.9	33.2	31.1	29.1	27.0	37.4	29.9	0.99	0.94
MT981177	MT910033/Targhee	24.8	22.7	26.9	28.0	33.8	31.5	31.1	29.3	27.0	36.1	29.1	0.92	0.94
MT981180	MT910150/Gallatin	29.6	25.5	28.3	32.0	38.9	36.6	33.7	30.6	33.0	41.1	32.9	1.09	0.95
MT981201	MT910150/MT889106	27.5	24.4	26.6	29.0	36.8	34.4	31.4	29.4	28.0	39.1	30.6	1.07	0.95
MT981210	MT910150/Stark	28.0	26.1	26.7	29.0	37.1	32.9	32.4	32.1	31.0	37.5	31.3	0.90	0.97
MT981212	MT910150/Stark	27.9	25.3	27.8	28.0	38.0	33.9	32.3	31.5	32.0	37.5	31.4	0.96	0.95
MT981213	MT910150/Stark	26.0	25.6	27.7	30.0	37.3	33.9	32.9	29.1	30.0	38.5	31.1	1.01	0.97
MT981222	ND112311/Baronesse	27.7	27.4	29.0	31.0	39.6	35.8	33.0	29.4	31.0	41.1	32.5	1.09	0.95
MT981238	ND112311/Lewis	28.1	26.0	27.5	32.0	37.5	34.9	35.1	32.1	33.0	40.4	32.7	1.04	0.96
MT981242	Targhee/Gallatin	26.8	23.5	28.3	28.0	35.3	32.6	31.8	30.6	29.0	37.5	30.3	0.93	0.94
MT981248	Stark/Gallatin	28.0	27.4	28.7	31.0	37.7	33.6	34.1	31.8	32.0	39.1	32.3	0.90	0.99
MTLB 5	Lewis/Baronesse #5	25.4	24.9	24.7	33.0	35.7	32.6	32.9	31.2	30.0	39.6	31.0	1.07	0.90
MTLB 6	Lewis/Baronesse # 6	24.9	24.3	26.6	29.0	34.9	31.4	29.5	31.9	28.0	37.1	29.8	0.92	0.92
MTLB 13	Lewis/Baronesse #13	23.6	23.5	23.5	27.0	35.5	31.8	30.4	29.4	27.0	35.6	28.7	1.05	0.97
MTLB 30	Valier	25.5	24.2	25.6	30.0	35.1	32.3	31.4	30.3	31.0	38.5	30.4	1.01	0.96
ND 9866	Stark	27.5	26.6	28.9	31.0	39.2	35.1	33.1	33.0	32.0	40.9	32.7	1.08	0.99
PI491534	Gallatin	26.7	26.0	26.7	30.0	35.6	35.0	34.2	30.1	31.0	38.6	31.4	0.97	0.95
PI568246	Baronesse	26.1	23.2	23.4	26.0	34.2	29.6	29.5	25.4	28.0	35.6	28.1	0.94	0.93
SK 76333	Harrington	25.8	24.2	25.0	28.0	38.2	34.7	31.9	29.8	30.0	40.0	30.7	1.25	0.98
SITMEAN	Site Mean	26.2	24.8	26.2	29.0	36.5	32.4	31.8	29.9	29.6	37.8	30.4	1.00	1.00
L.S.D.	L.S.D.(.05)	1.43	1.62	2.47	~~	1.95	2.23	2.29	2.70	~~	1.66			
C.V.	Coefficient of Variation	2.14	3.75	5.64	~~	3.21	4.26	4.27	5.33	~~	2.71			

Table 8. 2000 Montana Spring Barley Dryland and Irrigated Intrastate. Heading date (days from Jan. 1).

ID	Pedigree	Kalispell									AVG Overall	BYX	RSQ
		Havre Dry	Sidney Dry	Huntley Dry	Conrad Dry	Bozeman Dry	High Moist	Sidney Irr	Huntley Irr	Bozeman Irr			
----- Julian days -----													
11232-11	Logan	185.6	162.0	152.1	173.0	167.3	171.3	160.6	155.1	171.3	166.5	1.05	0.89
2B914947	Merit	191.5	167.6	171.7	179.0	171.3	176.3	166.6	161.6	176.0	173.5	0.93	0.98
2B965038	BARI 2B96-5038	201.2	169.0	169.0	178.0	172.6	174.7	166.4	163.1	177.3	174.6	1.18	0.95
2B965119	BARI 2B96-5119	196.7	166.4	167.4	179.0	169.0	173.3	163.6	163.0	175.7	172.7	1.12	0.97
6B932978	BARI 6B93-2978	182.5	163.9	169.0	178.0	170.7	172.0	163.4	156.6	175.7	170.2	0.82	0.88
AC99 11	NO 95 218D5	191.6	165.3	168.1	178.0	170.8	173.7	164.0	168.3	176.0	172.9	0.88	0.92
B2L20-36	BCL20/MOREX BC2F4	175.7	160.4	152.5	174.0	168.0	168.7	160.0	153.1	172.0	164.9	0.83	0.76
B2L20-42	BCL20/MOREX BC2F4	174.9	160.2	152.8	178.0	166.1	169.0	159.7	153.6	171.7	165.1	0.84	0.72
CI 15773	Morex	177.0	161.5	153.4	174.0	168.3	169.0	160.7	154.0	173.0	165.7	0.83	0.78
CI 15856	Lewis	193.9	165.0	167.0	178.0	169.3	174.0	163.3	159.7	173.7	171.5	1.10	0.99
MT910189	ND 7293/Bearpaw	186.5	162.8	165.8	174.0	167.1	171.0	161.0	159.0	171.7	168.8	0.90	0.98
MT940214	MT860756/Lewis	187.3	165.6	162.4	178.0	168.6	173.7	163.0	159.7	173.7	170.2	0.95	0.98
MT950186	MT860756/MT83533	185.6	164.9	167.0	177.0	170.4	173.0	164.3	157.6	176.0	170.6	0.89	0.96
MT960099	Manley/Baronesse	197.0	167.1	167.7	179.0	171.1	175.0	167.0	161.1	176.0	173.4	1.12	0.98
MT960100	Manley/Baronesse	194.0	167.3	167.5	178.0	172.3	176.3	167.7	163.3	177.0	173.7	0.99	0.99
MT960101	Manley/Baronesse	196.6	167.8	170.6	180.0	172.1	175.7	167.7	162.7	176.0	174.3	1.06	0.98
MT960222	Stark/Baronesse	188.0	166.6	167.7	179.0	171.1	175.3	166.6	162.1	175.3	172.4	0.86	0.99
MT960225	Stark/Baronesse	191.0	166.2	167.6	179.0	169.6	173.3	165.3	161.6	175.0	172.1	0.96	0.99
MT960226	Stark/Baronesse	191.4	164.7	166.6	178.0	169.0	172.7	166.0	161.0	173.7	171.5	0.98	0.99
MT960228	Stark/Baronesse	192.7	165.5	167.9	178.0	171.3	172.3	166.3	160.0	176.0	172.2	1.02	0.99
MT970026	Baronesse/MT860756	186.7	165.3	165.6	179.0	169.1	172.3	164.7	158.6	175.7	170.8	0.92	0.97
MT970107	Harrington/Stark	191.4	165.0	168.1	178.0	170.9	174.3	165.0	158.3	175.0	171.8	1.03	0.99
MT970110	Klages/Baronesse	190.3	166.9	172.3	180.0	171.7	176.3	166.3	161.7	177.0	173.6	0.91	0.96
MT970116	Klages/Baronesse	189.1	163.9	168.7	174.0	169.0	171.7	164.0	160.0	174.3	170.5	0.91	0.97
MT970148	MT861596/ND 11120	192.6	165.6	168.0	178.0	168.9	173.0	163.7	161.0	173.3	171.6	1.02	0.98
MT970155	MT886610/MT140523	195.5	167.1	172.4	180.0	172.0	175.0	166.7	163.4	175.3	174.2	1.01	0.96
MT970205	MT890008/Dominique	194.1	167.3	168.5	180.0	171.0	176.0	167.4	162.4	176.0	173.6	1.02	0.99
MT970228	MT890021/Stark	194.7	165.2	165.7	178.0	169.7	174.7	166.3	160.1	176.0	172.3	1.11	0.99
MT970229	MT890021/Stark	195.2	165.6	167.3	178.0	171.4	176.3	166.3	161.3	176.0	173.0	1.09	0.99
MT981004	Baronesse/H2860224	196.9	164.2	166.4	179.0	169.0	173.3	164.0	160.3	175.0	172.0	1.19	0.98
MT981006	Baronesse/H2860224	194.8	163.9	164.8	178.0	169.1	173.3	163.7	160.4	175.0	171.4	1.14	0.99
MT981009	Baronesse/MT860326	190.2	165.2	167.0	179.0	167.6	173.0	163.3	161.0	172.7	171.0	0.97	0.97
MT981025	Baronesse/MT910160	193.3	165.3	167.7	178.0	171.6	175.0	165.3	159.7	176.7	172.5	1.07	1.00
MT981029	Baronesse/MT910160	193.4	166.7	169.4	177.0	171.9	175.3	165.3	160.3	176.0	172.8	1.02	0.98
MT981030	Baronesse/MT910160	191.0	168.5	169.4	179.0	172.7	177.3	167.3	160.4	179.0	173.8	0.95	0.97
MT981039	H5860219/Baronesse	198.2	167.7	170.6	181.0	172.0	177.7	166.9	162.7	177.7	174.9	1.14	0.99
MT981042	H5860219/Baronesse	194.8	166.2	171.7	178.0	170.6	174.3	166.0	162.0	175.7	173.3	1.02	0.96
MT981055	Harrington/MT889106	192.3	167.0	168.2	178.0	169.5	173.7	166.7	160.7	177.0	172.6	0.99	0.99
MT981080	MT140523/Baronesse	193.9	166.7	167.8	179.0	170.9	174.7	165.6	159.7	176.0	172.7	1.08	1.00
MT981083	MT851195/Baronesse	195.8	165.4	169.0	176.0	169.2	174.3	163.4	158.7	173.7	171.7	1.13	0.96

Table 8 continued on next page.

Table 8 continued.

ID	Pedigree	Kalispell										BYX	RSQ
		Havre Dry	Sidney Dry	Huntley Dry	Conrad Dry	Bozeman Dry	High Moist	Sidney Irr	Huntley Irr	Bozeman Irr	AVG Overall		
----- Julian days -----													
MT981091	MT851195/MT140523	186.8	164.3	165.6	177.0	167.9	173.3	163.7	157.7	173.3	170.0	0.94	0.99
MT981116	MT890008/MT851195	186.9	162.6	157.9	173.0	167.7	169.0	161.0	153.9	171.0	167.0	1.04	0.97
MT981177	MT910033/Targhee	193.0	164.1	167.3	177.0	169.0	170.7	163.7	159.7	173.3	170.9	1.05	0.97
MT981180	MT910150/Gallatin	179.6	163.6	152.7	174.0	168.4	171.3	162.7	155.7	173.0	166.8	0.85	0.78
MT981201	MT910150/MT889106	186.8	161.2	157.4	173.0	168.8	169.3	160.7	154.4	172.0	167.1	1.06	0.97
MT981210	MT910150/Stark	188.8	165.9	166.0	178.0	169.3	174.0	164.1	159.7	175.3	171.2	0.96	1.00
MT981212	MT910150/Stark	186.6	163.3	158.4	176.0	169.0	172.0	163.7	156.9	173.7	168.8	1.00	0.95
MT981213	MT910150/Stark	187.3	163.4	153.5	174.0	167.6	172.7	161.3	157.3	172.7	167.8	1.06	0.90
MT981222	ND112311/Baronesse	181.9	163.4	165.7	178.0	169.0	171.7	162.7	157.3	173.3	169.2	0.82	0.92
MT981238	ND112311/Lewis	184.4	163.4	164.4	173.0	168.7	172.0	161.7	156.4	173.7	168.6	0.89	0.98
MT981242	Targhee/Gallatin	189.2	162.5	165.0	173.0	167.1	172.3	162.4	156.3	172.7	168.9	1.02	0.98
MT981248	Stark/Gallatin	192.9	165.3	165.3	177.0	169.0	171.3	166.6	160.0	174.3	171.3	1.03	0.98
MTLB 5	Lewis/Baronesse #5	195.3	166.3	168.8	180.0	172.0	173.3	166.7	161.0	177.3	173.4	1.08	0.98
MTLB 6	Lewis/Baronesse # 6	195.3	165.3	165.8	178.0	169.0	173.0	163.3	158.9	175.0	171.5	1.16	0.99
MTLB 13	Lewis/Baronesse #13	194.8	165.7	166.6	178.0	169.0	173.3	163.4	161.3	174.7	171.9	1.10	0.99
MTLB 30	Valier	195.6	167.2	167.4	179.0	172.1	174.0	166.1	161.0	176.7	173.2	1.09	0.99
ND 9866	Stark	189.0	162.4	163.3	173.0	166.9	168.3	161.7	157.6	171.3	168.2	0.99	0.98
PI491534	Gallatin	182.8	164.6	167.5	178.0	168.9	173.3	163.7	157.6	174.3	170.1	0.82	0.93
PI568246	Baronesse	195.5	166.3	169.0	179.0	170.0	175.7	166.4	160.7	176.7	173.2	1.10	0.99
SK 76333	Harrington	192.5	166.0	167.7	178.0	170.9	172.7	166.3	159.7	176.3	172.2	1.02	0.99
SITMEAN	Site Mean	190.6	165.1	165.6	177.3	169.7	173.5	164.5	159.9	175.0	171.2	1.00	1.00
L.S.D.	L.S.D.(.05)	4.66	1.16	1.55	~~	0.38	1.90	1.16	2.15	~~	1.19		
C.V.	Coefficient of Variation	1.43	0.41	0.56	~~	1.08	0.68	0.41	0.82	~~	0.42		

Table 9. 2000 Montana Spring Barley Dryland and Irrigated Intrastate. Percent Protein (dry weight basis).

ID	Pedigree	Havre Dry	Sidney Dry	Huntley Dry	Conrad Dry	Bozeman Dry	Kalispell					AVG Overall	BYX	RSQ
							High Moist	Sidney Irr	Huntley Irr	Conrad Irr	Bozeman Irr			
11232-11	Logan	16.3	13.0	16.0	14.5	14.4	14.5	14.0	11.9	9.6	13.6	13.8	0.86	0.89
2B914947	Merit	17.9	13.0	17.4	14.7	15.9	14.7	14.6	10.3	11.5	11.8	14.2	1.14	0.94
2B965038	BARI 2B96-5038	16.3	12.7	15.6	13.8	13.9	13.5	13.7	10.5	12.3	12.2	13.4	0.73	0.86
2B965119	BARI 2B96-5119	16.8	13.0	16.6	14.6	14.6	14.1	13.9	10.0	11.3	12.3	13.7	0.98	0.95
6B932978	BARI 6B93-2978	16.4	11.0	16.3	14.6	15.4	14.6	13.9	9.7	11.1	12.6	13.6	1.07	0.94
AC99 11	NO 95 218D5	15.0	11.2	16.9	14.2	14.3	13.6	13.8	9.8	9.3	11.9	13.0	1.10	0.96
B2L20-36	BCL20/MOREX BC2F4	15.8	12.2	16.0	12.7	14.3	14.8	14.2	12.6	10.6	13.0	13.6	0.72	0.81
B2L20-42	BCL20/MOREX BC2F4	14.6	13.0	15.3	13.5	14.5	14.0	13.6	11.1	11.0	13.2	13.4	0.63	0.91
CI 15773	Morex	15.6	13.0	16.2	14.1	15.3	15.2	13.8	12.3	9.7	13.5	13.9	0.83	0.85
CI 15856	Lewis	16.2	11.7	17.0	15.3	14.8	15.3	15.2	12.3	10.0	13.4	14.1	0.97	0.89
MT910189	ND 7293/Bearpaw	15.4	11.3	14.5	13.3	13.7	13.7	13.9	11.1	10.3	12.2	12.9	0.74	0.92
MT940214	MT860756/Lewis	16.9	11.7	16.3	13.9	14.3	14.2	14.5	10.7	11.8	11.4	13.6	0.94	0.90
MT950186	MT860756/MT83533	14.9	12.3	15.4	14.0	13.9	13.9	13.8	11.4	8.7	12.3	13.1	0.86	0.87
MT960099	Manley/Baronesse	16.0	11.2	17.2	15.0	14.4	13.8	13.8	9.4	11.1	11.5	13.3	1.11	0.93
MT960100	Manley/Baronesse	17.3	11.7	16.9	15.4	15.3	14.2	14.0	11.6	10.1	12.1	13.9	1.11	0.96
MT960101	Manley/Baronesse	18.9	11.4	15.9	15.0	15.0	14.0	13.4	9.5	10.5	11.8	13.5	1.26	0.91
MT960222	Stark/Baronesse	16.0	10.9	17.4	13.7	14.2	13.9	12.8	9.9	10.0	11.6	13.0	1.15	0.98
MT960225	Stark/Baronesse	15.7	11.1	14.9	12.7	12.8	13.7	12.6	9.5	10.8	11.3	12.5	0.85	0.91
MT960226	Stark/Baronesse	15.8	11.5	15.2	13.9	14.4	13.6	12.9	9.1	9.2	11.8	12.7	1.07	0.97
MT960228	Stark/Baronesse	15.6	11.6	16.0	13.4	13.9	13.8	13.7	10.3	10.9	12.1	13.1	0.87	0.97
MT970026	Baronesse/MT860756	15.1	11.9	16.2	13.9	14.4	14.3	13.5	10.1	10.5	12.9	13.3	0.89	0.96
MT970107	Harrington/Stark	15.8	11.5	15.9	14.2	14.3	14.6	12.8	11.9	9.9	12.7	13.3	0.87	0.92
MT970110	Klages/Baronesse	17.7	12.2	19.0	15.0	14.7	14.6	13.7	9.7	9.1	11.4	13.7	1.47	0.97
MT970116	Klages/Baronesse	16.4	12.6	16.6	13.4	14.5	14.8	14.0	10.2	9.2	11.9	13.3	1.11	0.94
MT970148	MT861596/ND 11120	16.8	11.2	15.2	14.5	13.9	13.2	12.9	10.7	11.2	11.3	13.1	0.89	0.88
MT970155	MT886610/MT140523	16.6	11.2	18.4	15.2	15.2	14.7	13.4	9.8	9.4	12.5	13.6	1.37	0.98
MT970205	MT890008/Dominique	16.1	11.9	16.1	13.7	14.1	13.7	13.4	10.4	8.7	12.4	13.0	1.06	0.95
MT970228	MT890021/Stark	16.1	11.4	16.7	14.7	15.4	14.3	13.1	10.5	10.9	12.4	13.5	1.02	0.97
MT970229	MT890021/Stark	15.6	12.5	16.5	14.9	14.2	13.9	14.0	10.9	11.3	11.6	13.5	0.87	0.94
MT981004	Baronesse/H2860224	16.1	11.3	16.8	15.1	14.9	13.4	12.3	9.2	10.7	11.8	13.2	1.13	0.92
MT981006	Baronesse/H2860224	17.3	11.0	18.3	15.4	15.1	15.2	14.1	9.6	10.7	11.6	13.8	1.36	0.97
MT981009	Baronesse/MT860326	16.3	11.9	17.3	15.2	14.4	14.2	13.5	9.8	10.9	12.5	13.6	1.08	0.96
MT981025	Baronesse/MT910160	16.7	13.5	18.3	14.9	15.4	14.5	14.9	10.1	11.5	13.3	14.3	1.07	0.92
MT981029	Baronesse/MT910160	16.1	11.3	18.2	13.9	14.7	14.4	13.0	10.0	11.0	12.9	13.5	1.11	0.92
MT981030	Baronesse/MT910160	17.2	11.4	16.0	13.4	14.8	13.9	12.5	10.1	10.4	12.2	13.2	1.05	0.93
MT981039	H5860219/Baronesse	17.9	11.0	19.2	16.4	14.8	14.3	13.3	10.3	8.8	12.3	13.8	1.54	0.95
MT981042	H5860219/Baronesse	15.5	11.5	16.4	15.9	15.0	14.5	13.2	9.7	9.5	11.5	13.3	1.17	0.93
MT981055	Harrington/MT889106	17.2	12.6	17.3	13.8	15.3	14.9	13.8	11.2	11.9	12.6	14.0	0.95	0.93
MT981080	MT140523/Baronesse	16.2	11.2	17.0	15.5	14.8	14.8	13.7	11.1	10.8	13.0	13.8	1.02	0.96
MT981083	MT851195/Baronesse	16.4	11.2	16.3	13.6	14.6	13.7	14.5	11.3	10.6	13.1	13.5	0.92	0.92

Table 9 continued on next page.

Table 9 continued.

ID	Pedigree	Havre Dry	Sidney Dry	Huntley Dry	Conrad Dry	Bozeman Dry	Kalispell					AVG Overall	BYX	RSQ
							High Moist	Sidney Irr	Huntley Irr	Conrad Irr	Bozeman Irr			
MT981091	MT851195/MT140523	14.8	11.1	15.4	14.0	14.4	14.2	13.2	10.0	11.1	12.6	13.1	0.82	0.93
MT981116	MT890008/MT851195	16.5	12.9	15.7	14.2	14.9	14.7	14.2	12.0	10.7	12.9	13.9	0.80	0.95
MT981177	MT910033/Targhee	16.9	11.5	16.0	13.4	14.5	13.9	14.2	10.9	10.5	13.3	13.5	0.94	0.92
MT981201	MT910150/MT889106	16.0	12.4	15.3	13.9	14.2	14.2	13.7	11.7	10.6	13.4	13.5	0.73	0.94
MT981210	MT910150/Stark	16.8	11.4	16.6	13.3	15.3	14.8	14.3	10.5	10.0	13.1	13.6	1.08	0.94
MT981212	MT910150/Stark	15.9	12.2	15.4	14.0	14.6	14.3	14.7	11.0	10.6	12.6	13.5	0.84	0.95
MT981213	MT910150/Stark	15.2	12.2	16.1	13.6	14.9	15.2	14.5	11.0	10.2	13.0	13.6	0.87	0.90
MT981222	ND112311/Baronesse	15.9	11.5	17.1	14.3	14.9	14.9	14.2	10.9	11.0	12.5	13.7	0.99	0.96
MT981238	ND112311/Lewis	16.1	13.1	16.3	14.2	14.9	15.1	14.9	12.4	9.7	13.4	14.0	0.85	0.85
MT981242	Targhee/Gallatin	15.8	13.0	16.6	14.8	15.3	14.2	15.1	12.3	10.2	12.6	14.0	0.86	0.89
MT981248	Stark/Gallatin	15.2	12.7	15.9	14.5	14.5	15.2	13.7	11.3	10.7	13.0	13.7	0.79	0.94
MTLB 5	Lewis/Baronesse #5	16.7	12.2	17.5	16.2	15.1	15.1	13.5	11.4	10.5	14.2	14.2	1.04	0.92
MTLB 6	Lewis/Baronesse # 6	17.1	12.9	16.8	15.5	15.7	15.1	14.4	12.4	11.9	13.3	14.5	0.85	0.99
MTLB 13	Lewis/Baronesse #13	17.2	13.0	17.9	15.5	14.9	14.6	13.7	10.9	10.1	13.2	14.1	1.14	0.96
MTLB 30	Valier	17.4	11.3	17.4	15.4	15.5	15.2	13.5	11.2	11.4	11.9	14.0	1.12	0.94
ND 9866	Stark	16.0	11.9	15.4	13.9	14.2	14.8	14.0	11.1	11.6	12.2	13.5	0.78	0.94
PI491534	Gallatin	16.5	11.9	16.1	15.2	14.3	13.9	13.5	12.0	9.3	12.0	13.5	0.99	0.90
PI568246	Baronesse	16.6	11.5	18.5	15.5	14.8	13.6	12.5	9.1	9.9	11.7	13.4	1.36	0.94
SK 76333	Harrington	15.7	11.5	16.7	14.5	14.7	14.0	14.2	10.6	10.4	12.0	13.4	1.01	0.98
SITMEAN	Site Mean	16.3	11.9	16.6	14.5	14.7	14.3	13.8	10.7	10.5	12.4	13.6	1.00	1.00
L.S.D.	L.S.D.(.05)	~~	~~	1.4	~~	0.7	~~	~~	1.5	~~	1.3			
C.V.	Coefficient of Variation	~~	~~	4.8	~~	2.3	~~	~~	8.4	~~	5.2			