



2004

**THE WESTERN REGIONAL
SPRING BARLEY NURSERY
AND
THE WESTERN REGIONAL
DRYLAND SPRING
BARLEY NURSERY**



UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH SERVICE
NORTHERN PLAINS AND PACIFIC WEST REGIONS
in cooperation with
State Agricultural Experiment Stations



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WESTERN REGIONAL SPRING BARLEY NURSERY
and the
WESTERN REGIONAL DRYLAND SPRING BARLEY NURSERY

2004

Compiled by C. A. Erickson, Agronomist, USDA-ARS

This report is compiled in electronic format intended for transmittal to the nursery cooperators. The files and their contents are as follows:

2004WRBNREPORT.doc: WORD[®] document explaining the contents of the report with the following sections:

- Cover Page and Contents Page
- Location of Experiments and Personnel
- Western Regional Spring Barley Nursery Narrative
 - Nursery contents and locations
 - General Information
 - Data Analysis
 - Data Highlights
 - Data Tables
- Western Regional Dryland Spring Barley Nursery Narrative
 - Nursery contents and locations
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 - Data Highlights
 - Data Tables

2004wrsbndata.xls: Excel[®] files containing data for the 2004 Western Regional Spring Barley Nursery in both English and metric format.

2004wrdsbndata.xls: Excel[®] files containing data for the 2004 Western Regional Dryland Spring Barley Nursery in both English and metric format.

This is a joint progress report of cooperative investigations underway in the State Agricultural Experiment Stations and the Agricultural Research Service of the U.S. Department of Agriculture. This report contains preliminary data which have not been sufficiently confirmed to justify general release; interpretations may be modified with additional experimentation. Confirmed results will be published through established channels. This report is primarily a tool for use by cooperators, their official staffs and those persons having direct and special interest in the development of agricultural research programs.

This report includes data furnished by the State Agricultural Experiment Stations as well as by the Agricultural Research Service and was compiled in the Northern Plains Area and the Pacific West Area, Agricultural Research Service, U.S. Department of Agriculture. The report is not intended for publication and should not be referred to in literature citations nor quoted in publicity or advertising. Use of the data may be granted for certain purposes upon written request to the agency or agencies involved.

National Small Grains Germplasm Research Facility, Aberdeen, Idaho, 2005

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2004 WESTERN REGIONAL SPRING BARLEY NURSERY

This nursery is intended to be grown under irrigation, or in areas of high rainfall. It contains both 2- and 6-rowed feed and malting barley.

2004 nursery sites that were harvested and summarized for yield from 13 locations are:

- | | | |
|---------------------|--|-------------------------------|
| (1) Tulelake, CA | (6) Fargo, ND | (12) Pullman, WA |
| (2) Aberdeen, ID | (7) Minot, ND | (13) Powell, WY |
| (3) Hazelton, ID | (8) Williston, ND | (14) Saskatoon, Sask., Canada |
| (4) Idaho Falls, ID | (9 & 10) Klamath Falls, OR (Mineral & Organic soils) | |
| (5) Fairfield, MT | (11) Logan, UT | |

General Information

The entry list for the 2004 Western Regional Spring Barley Nursery is shown in Table 1. In 2004, commercial cultivars were again entered into the nursery, including those from: Busch Agricultural Resources (5 lines); Fossum Seeds (1 line); Plant Breeders 1 (2 lines); and Western Plant Breeders (4 lines).

There were 36 entries in this nursery in 2004. Entries in the 2003 test that were dropped in 2004 were: 2B97-4299, 95SR316A, MT960099, MT960228, UT95B1216-4087, and WA8682-96(Bob), all tested 3 years; 2B98-5312, 6B98-9339, 6B98-9940, 98Ab12362, 98ID242, and 98-NZ 015, all tested 2 years; 97ID1269A, BZ596-189, YU599-006, and WA7194-98, all tested 1 year. New entries in the test were: 2B99-2316, 2B99-2657, 6B98-9022, 6B98-9170, 98Ab11993, 98ID251, 99NZ102, 00NZ772, BZ 598-036, YU 597-432, MT981091, MT981238, ND16301, ND19854, PB1-97-2R-7010, UT00B1712-627, UT00B1718-773, WA 8569-99, and WA 9701-99.

Data Analysis

Computer software, in Excel® format, was used to obtain the cultivar means and period of years summary for all characteristics. With this software, we were also able to calculate the coefficient of variation (C.V.) and the Least Significant Difference (LSD) at the .05 level for grain yield. These two statistics are included to provide some indication of the variability in the individual test locations and an indication of cultivar rank at each location and the overall average.

Data Highlights

Seasonal measurements for the check cultivars Baronesse, Morex, Stander, and Steptoe (Table 2), for 1999 through 2004, show that the checks mean yield value for the 2004 season was the highest of the six years tested. Test weight was lower than average, plant height was 10.0 cm higher than average, heading date was earlier than average, and percent plump barley was slightly higher than average.

In 2004 the highest yielding line over all locations was Steptoe, the six-rowed feed barley check, at 7.26 Mg ha⁻¹ (Table 3). The second highest yielding entry was 99NZ102, a six-rowed feed/malting barley at 7.11 Mg ha⁻¹, the third highest entry was YU 597-432, a two-rowed feed type, at 7.10 Mg ha⁻¹, and the fourth highest was PB1-95-2R-522, a two-rowed feed type at 7.09

Table 1: 2004 Western Regional Spring Barley Nursery, Entry List

Seed Source	Entry Number	Entry	Type	Parentage	Grade
WSU	1	Steptoe	6 row	CI 15229	feed
WPB	2	Baronesse	2 row	PI 568246	feed
USDA-ARS	3	Morex	6 row	CI 15773	malting
USDA-ARS	4	Stander	6 row	PI 564743	malting
USDA-ARS	5	Harrington	2 row		malting
BARI	6	2B97-4004	2 row	2B91-4947/TR129	malting
BARI	7 *	2B99-2316	2 row	2B91-4947//2B91-4947/2B95-8129	malting
BARI	8 *	2B99-2657	2 row	2B91-4947//2B91-4947/2B94-5744	malting
BARI	9 *	6B98-9022	6 row	6B92-7098/6B92-7166	malting
BARI	10 *	6B98-9170	6 row	6B92-7098//6B92-7098/M75	malting
USDA-ARS	11	94Ab13449	6 row	Russell/M64	malting
USDA-ARS	12 *	98Ab11993	2 row	90Ab241/Baronesse	malting
USDA-ARS	13	98Ab12905	6 row	88Y315/82Ab519//M64	malting
USDA-ARS	14 *	98ID251	2 row	Baronesse/3/Crystal//Klages*3/PI 366450	feed,
WPB	15 *	BZ 598-036	2 row	Baronesse/Gus	feed
WPB	16 *	YU 597-432	2 row	Baronesse/Orca	feed
WPB	17	YU598-043	2 row	Baronesse/Gus	feed,
MSU	18	MT970229	2 row	MT890021/Stark	feed/malting
MSU	19 *	MT981091	2 row	MT851195/MT140523	feed/malting
MSU	20 *	MT981238	2 row	ND112311/Lewis	feed/malting
NDSU	21 *	ND16301	6 row	Foster//ND12200(Bumper/Hazen//Azure)/6B88-3213	malting
NDSU	22 *	ND19854	2 row	ND15403/ND16462	feed
PB1	23	PB1-95-2R-522	2 row	PB1-88-2R-801/VD403582	feed
PB1	24 *	PB1-97-2R-7010	2 row	PB1-88-2R-801/ND 9147	feed/malting
Fossum	25	Samish 23	2 row	85Ab2323/Acclaim	feed/malting
USU	26	UT97B1480-1534	6 row	UT89B747-1263/UT90B774-2467	feed
USU	27 *	UT00B1712-627	6 row		feed
USU	28 *	UT00B1718-773	6 row		feed
WSU	29 *	WA 8569-99	2 row	7190-86/Baronesse(WA 7642-92)//C2-91-45-16-3	feed/malting
WSU	30	WA 8601-97	2 row	WA7758-89/Baronesse	feed/malting
WSU	31 *	WA 9701-99	2 row	9029-84/EBC-187(WA 7114-93)//Baronesse	feed/malting
WSU	32	WA 10497-97	2 row	WA9035-84/Baronesse	feed/malting
WSU	33 *	WA 10701-99	2 row	Clivia/9448-83(WA 7758-89)//Logan	feed/malting
WSU	34	Radiant (98-NZ 223)	2 row	ant29-667 [Harrington]/Baronesse	feed/malting
WSU	35 *	00NZ772	2 row	Ca803208/3/DB121//ant499(Apex)/Bancroft	feed/malting
WSU	36 *	99NZ102	6 row	12697-94[ant643]/939331-91	feed/malting

* new entries

Table 2: Check Seasonal Measurements (1999-2004) of the Western Regional Spring Barley Nursery

Average of adjusted means of checks Baronesse, Morex, Stander, and Steptoe

Yield		
Year	Station Years	Mg ha ⁻¹
2004	13	6.7
1999	12	6.2
2000	12	6.1
2003	13	6.0
2001	13	5.3
2002	11	4.5
Adj. Mean	73	5.83

Test Weight		
Year	Station Years	kg m ⁻³
2000	12	668.6
2003	13	665.2
2004	13	654.8
2001	13	653.8
2002	11	651.9
1999	12	647.5
Adj. Mean	73	656.5

Plant Height		
Year	Station Years	cm
2004	11	91.3
1999	12	85.2
2000	12	82.3
2003	12	79.0
2001	14	76.6
2002	11	75.8
Adj. Mean	71	81.3

Heading Date		
Year	Station Years	Julian
1999	12	182.4
2003	9	180.2
2002	10	176.6
2001	9	175.8
2000	12	173.9
2004	10	173.5
Adj. Mean	61	177.2

Percent Plump Barley		
Year	Station Years	%
2002	10	93.5
2004	13	90.5
1999	12	90.1
2000	10	89.8
2001	10	88.1
2003	12	87.1
Adj. Mean	66	89.7

Table 3: 2004 Western Regional Spring Barley Nursery, Means Summary

Entry Number	Variety or Selection	Grain Yield		Test Weight	Plant Height	Heading Date	Plump Barley*	Thin Barley**	Protein
		Mg ha ⁻¹	Rank	kg m ⁻³	cm	Julian	%	%	%
	Number of Locations	13		13	11	10	13	12	2
1	Steptoe, check	7.256	1	639.3	90.8	172.4	90.8	2.4	10.85
2	Baronesse, check	6.871	13	673.3	85.5	177.7	93.0	3.9	12.65
3	Morex, check	6.047	36	642.6	96.5	170.7	85.9	4.7	12.2
4	Stander check	6.721	23	663.9	92.4	173.1	92.1	2.5	11.45
5	Harrington, check	6.259	35	667.0	87.2	175.8	94.6	3.3	12.85
6	2B97-4004	6.941	10	657.1	87.8	177.7	91.3	5.2	12.2
7	2B99-2316	6.836	15	669.0	84.2	177.7	92.1	4.7	11.8
8	2B99-2657	6.992	6	647.7	87.7	176.4	91.6	6.0	11.8
9	6B98-9022	6.741	21	656.6	93.5	172.3	95.2	1.1	11.85
10	6B98-9170	6.797	17	655.7	94.7	171.9	93.7	1.7	11.5
11	94Ab13449	6.737	22	657.2	89.6	170.9	91.8	2.4	10.15
12	98Ab11993	7.080	5	664.8	83.8	177.6	94.0	3.8	12.15
13	98Ab12905	6.789	18	641.7	93.1	171.9	91.1	3.0	10
14	98ID251	6.525	26	672.2	87.9	176.7	94.9	2.9	13.15
15	BZ 598-036	6.765	19	674.3	86.8	177.6	95.3	2.5	12.05
16	YU 597-432	7.101	3	677.6	86.3	175.7	95.8	2.4	11.75
17	YU598-043	6.322	33	662.7	76.0	177.1	95.8	2.7	12.35
18	MT970229	6.555	25	683.6	88.2	175.8	96.7	1.7	11.55
19	MT981091	6.968	9	677.2	81.7	176.3	94.3	3.3	11.6
20	MT981238	6.333	32	687.5	87.3	173.3	95.4	2.4	12.25
21	ND16301	6.499	28	656.6	91.9	172.5	93.9	2.0	11.3
22	ND19854	6.827	16	677.4	85.4	170.7	96.8	1.9	11.35
23	PB1-95-2R-522	7.086	4	685.4	83.3	176.4	94.7	3.6	11.3
24	PB1-97-2R-7010	6.662	24	682.0	84.0	178.8	97.5	1.8	13.05
25	Samish 23	6.863	14	673.5	77.0	179.4	94.5	3.6	12.25
26	UT97B1480-1534	6.514	27	662.7	91.9	168.5	88.4	3.4	11
27	UT00B1712-627	6.481	29	636.9	91.8	170.7	94.9	1.5	11.8
28	UT00B1718-773	6.907	12	652.1	96.3	171.5	94.3	1.5	11.7
29	WA 8569-99	6.982	7	666.3	83.4	177.6	89.6	6.0	12.55
30	WA 8601-97	6.975	8	673.4	85.0	178.2	95.1	3.0	12.05
31	WA 9701-99	6.301	34	653.2	83.3	176.6	91.3	4.6	12.75
32	WA 10497-97	6.939	11	682.5	84.1	177.1	95.0	3.4	12.5
33	WA 10701-99	6.379	31	668.1	86.0	177.1	92.8	4.8	11.9
34	Radiant	6.757	20	675.3	82.6	178.9	90.5	5.8	12.2
35	00NZ772	6.437	30	672.6	69.4	181.0	92.5	5.1	12.8
36	99NZ102	7.106	2	628.5	87.2	173.7	86.4	4.6	12
	Entry Mean	6.732		664.4	86.8	175.2	93.2	3.3	11.9
	Check Mean	6.631		657.2	91.3	173.9	91.3	3.4	12.0
	C.V. (%)	9.858		2.34	6.5	1.3	6.8	68.2	6.3
	LSD .05	0.441		10.34	4.1	1.7	4.2	1.6	1.3

* Percent over sieve, 2-rowed >2.4mm, 6-rowed >2.2mm

** Percent through 2.2mm screen

Table 4: Summary Across Locations and Years, Western Regional Spring Barley Nursery, 2002-2004.

Entry Number	Variety or Selection	Station Years	Grain Yield		Test Weight	Plant Height	Heading Date	Plump Barley*	Thin Barley**	Protein
			Mg ha ⁻¹	RANK	kg m ⁻³	cm	Julian	%	%	%
1	Step toe	37	6.217	26	634.0	80.9	174.3	91.3	3.1	11.1
2	Baronesse	37	5.937	31	671.3	75.8	179.3	90.2	4.0	13.2
3	Morex	37	5.178	36	646.3	88.4	174.4	87.0	4.4	12.8
4	Stander	37	5.798	34	662.7	82.7	176.2	93.4	2.2	12.3
5	Harrington	37	5.433	35	663.9	78.8	179.1	89.4	4.4	13.1
6	2B97-4004	37	5.815	33	656.6	79.1	180.1	85.2	5.8	12.7
7	2B99-2316	13	6.836	9	669.0	84.2	177.7	92.1	4.7	11.8
8	2B99-2657	13	6.992	4	647.7	87.7	176.4	91.6	6.0	11.8
9	6B98-9022	13	6.741	13	656.6	93.5	172.3	95.2	1.1	11.9
10	6B98-9170	13	6.797	11	655.7	94.7	171.9	93.7	1.7	11.5
11	94Ab13449	37	5.824	32	660.4	78.6	174.4	93.0	2.4	10.4
12	98Ab11993	13	7.080	3	664.8	83.8	177.6	94.0	3.8	12.2
13	98Ab12905	37	6.005	28	647.6	81.5	174.1	92.7	2.6	10.5
14	98ID251	13	6.525	15	672.2	87.9	176.7	94.9	2.9	13.2
15	BZ 598-036	13	6.765	12	674.3	86.8	177.6	95.3	2.5	12.1
16	YU 597-432	13	7.101	2	677.6	86.3	175.7	95.8	2.4	11.8
17	YU598-043	26	5.996	29	660.5	72.1	178.7	93.8	2.7	12.3
18	MT970229	26	6.177	27	687.7	81.0	178.0	94.6	2.1	12.1
19	MT981091	13	6.968	6	677.2	81.7	176.3	94.3	3.3	11.6
20	MT981238	13	6.333	22	687.5	87.3	173.3	95.4	2.4	12.3
21	ND16301	13	6.499	16	656.6	91.9	172.5	93.9	2.0	11.3
22	ND19854	13	6.827	10	677.4	85.4	170.7	96.8	1.9	11.4
23	PB1-95-2R-522	37	6.245	25	690.5	76.6	178.7	88.7	4.3	11.9
24	PB1-97-2R-7010	13	6.662	14	682.0	84.0	178.8	97.5	1.8	13.1
25	Samish 23	26	6.386	20	672.6	73.3	181.2	87.6	4.9	12.8
26	UT97B1480-1534	26	6.292	24	666.5	83.4	172.1	87.5	3.6	11.5
27	UT00B1712-627	13	6.481	18	636.9	91.8	170.7	94.9	1.5	11.8
28	UT00B1718-773	13	6.907	8	652.1	96.3	171.5	94.3	1.5	11.7
29	WA 8569-99	13	6.982	5	666.3	83.4	177.6	89.6	6.0	12.6
30	WA 8601-97	26	6.488	17	668.7	79.8	180.1	91.7	3.4	12.4
31	WA 9701-99	13	6.301	23	653.2	83.3	176.6	91.3	4.6	12.8
32	WA 10497-97	13	6.939	7	682.5	84.1	177.1	95.0	3.4	12.5
33	WA 10701-99	13	6.379	21	668.1	86.0	177.1	92.8	4.8	11.9
34	Radiant	37	5.979	30	671.0	74.3	180.3	82.2	7.3	12.4
35	00NZ772	13	6.437	19	672.6	69.4	181.0	92.5	5.1	12.8
36	99NZ102	13	7.106	1	628.5	87.2	173.7	86.4	4.6	12.0
	Average		6.233		663.8	81.7	176.6	91.2	3.6	12.1
	Base Average†		5.782		653.6	81.9	176.1	90.5	3.4	12.4

* Percent over sieve, 2-rowed >2.4mm, 6-rowed >2.2mm

** Percent through 2.2mm screen

† Base Average is the average of the checks Munsing, Steptoe, and Clark

Table 5: 2004 Western Regional Spring Barley Nursery, Grain Yield (Mg ha⁻¹)

Entry Number	Selection or Variety	Tulelake CA	Aberdeen ID	Hazleton ID	Idaho Falls ID	Fairfield MT	Fargo ND	Minot ND	Williston ND	Klamath Falls-M OR	Logan UT	Pullman WA	Powell WY	Saskatoon SK	Regional Average		
		1	2	3	4	5	6	7	8	9	10	11	12	13	Ave.	Rank	Rank Ave
1	Steptoe	8.186	8.359	9.110	8.083	5.873	5.327	4.902	4.989	9.571	7.251	5.699	9.202	7.779	7.256	1	11.7
2	Baronesse	5.554	8.427	6.581	7.802	5.708	4.714	5.321	5.132	10.637	7.425	6.663	7.998	7.367	6.871	13	15.2
3	Morex	3.830	6.550	7.337	7.529	4.677	4.499	4.021	5.154	9.078	5.946	5.383	8.267	6.341	6.047	36	29.0
4	Stander	6.551	6.684	8.599	7.806	5.292	5.660	4.053	5.123	10.507	5.845	5.663	8.708	6.881	6.721	23	18.8
5	Harrington	7.167	7.488	5.789	7.433	5.614	4.838	4.660	5.080	8.447	5.568	5.761	7.170	6.357	6.259	35	25.8
6	2B97-4004	7.738	7.832	7.753	7.775	5.831	4.907	4.698	4.868	10.492	6.529	5.971	7.665	8.178	6.941	10	16.3
7	2B99-2316	6.573	7.954	7.396	7.153	6.022	4.848	5.182	5.700	10.599	6.675	5.998	7.358	7.406	6.836	15	15.9
8	2B99-2657	5.845	7.742	8.124	7.798	5.920	5.526	4.977	5.512	9.822	7.419	5.922	7.982	8.305	6.992	6	13.1
9	6B98-9022	5.901	7.047	7.503	7.538	5.643	6.085	5.149	5.289	11.644	5.231	5.748	8.003	6.849	6.741	21	18.5
10	6B98-9170	7.055	7.919	7.469	7.362	4.879	5.456	5.144	5.761	9.935	5.743	6.474	8.412	6.748	6.797	17	18.0
11	94Ab13449	6.495	6.820	7.739	8.121	5.947	5.391	3.752	5.592	9.135	5.898	5.924	9.498	7.264	6.737	22	16.7
12	98Ab11993	7.827	7.913	7.478	7.848	5.747	4.832	5.160	5.489	10.247	7.586	6.328	8.670	6.919	7.080	5	12.0
13	98Ab12905	7.122	6.771	7.328	7.927	5.545	4.655	4.488	5.578	10.151	6.312	5.520	9.433	7.422	6.789	18	18.8
14	98ID251	6.898	7.274	8.428	6.874	5.135	5.590	4.972	4.737	9.965	5.414	4.737	8.025	6.779	6.525	26	23.1
15	BZ 598-036	6.428	8.009	7.055	7.491	5.852	4.983	5.106	5.120	10.300	7.003	6.107	6.896	7.597	6.765	19	17.8
16	YU 597-432	7.413	8.451	8.212	7.447	6.168	5.133	4.563	4.958	11.292	7.035	6.612	8.170	6.858	7.101	3	13.9
17	YU598-043	7.615	7.046	6.048	6.334	5.322	4.741	4.440	4.639	10.030	5.797	5.213	8.278	6.682	6.322	33	26.9
18	MT970229	7.906	7.337	7.760	7.246	5.459	4.870	5.096	5.101	6.320	6.724	5.778	8.224	7.390	6.555	25	19.2
19	MT981091	7.559	7.134	8.268	7.772	5.118	5.741	5.165	5.413	10.970	7.060	5.691	8.482	6.206	6.968	9	14.8
20	MT981238	6.383	6.602	6.673	7.076	4.825	5.440	4.891	5.021	8.400	6.095	5.631	7.869	7.419	6.333	32	26.0
21	ND16301	6.103	7.349	7.900	7.863	5.283	5.703	4.451	5.445	8.590	6.228	5.929	7.009	6.632	6.499	28	20.5
22	ND19854	7.211	7.613	8.042	7.771	5.541	4.875	5.434	4.961	10.190	6.359	5.710	7.853	7.193	6.827	16	17.8
23	PB1-95-2R-522	7.491	8.111	7.070	8.051	5.561	5.160	5.622	5.339	9.552	6.546	6.543	8.455	8.619	7.086	4	12.3
24	PB1-97-2R-7010	6.170	7.057	7.634	7.173	5.533	5.429	4.929	5.120	10.981	5.505	5.768	7.418	7.894	6.662	24	20.2
25	Samish 23	7.155	7.602	7.165	7.805	5.584	4.434	4.821	4.767	11.237	7.380	5.709	8.906	6.649	6.863	14	19.1
26	UT97B1480-1534	6.887	6.696	7.569	7.404	5.170	5.020	3.827	5.442	9.720	6.764	5.613	7.831	6.733	6.514	27	24.2
27	UT00B1712-627	6.797	7.634	6.873	7.432	5.156	5.079	4.827	5.041	8.978	7.313	5.388	7.740	5.991	6.481	29	24.9
28	UT00B1718-773	8.219	8.459	7.899	7.736	6.016	5.354	4.327	5.232	7.214	7.492	5.705	8.562	7.573	6.907	12	13.2
29	WA 8569-99	6.047	8.092	7.648	7.502	5.967	4.542	4.709	5.321	10.620	7.753	6.831	8.519	7.212	6.982	7	14.5
30	WA 8601-97	7.144	8.748	7.518	7.569	5.410	5.004	4.934	5.059	10.384	8.156	5.905	7.525	7.320	6.975	8	16.3
31	WA 9701-99	5.442	6.932	7.302	7.507	5.253	4.424	4.993	5.062	5.525	7.327	6.650	8.536	6.966	6.301	34	22.6
32	WA 10497-97	6.450	7.971	7.762	7.517	5.964	4.230	5.198	5.469	9.981	6.859	7.113	8.380	7.314	6.939	11	14.5
33	WA 10701-99	5.935	7.045	7.877	7.589	5.474	4.671	4.386	5.292	8.976	6.833	5.547	7.579	5.726	6.379	31	24.8
34	Radiant	3.874	8.733	8.206	8.024	5.958	4.789	4.386	5.157	10.868	7.490	5.764	7.434	7.163	6.757	20	16.2
35	00NZ772	3.158	7.742	7.662	7.554	4.784	4.510	4.236	4.869	10.395	6.313	5.837	9.186	7.437	6.437	30	21.8
36	99NZ102	7.872	7.157	8.355	8.133	6.104	5.440	4.859	5.083	10.023	7.516	6.503	7.831	7.503	7.106	2	11.5
	Location Mean	6.607	7.564	7.587	7.585	5.537	5.053	4.768	5.192	9.809	6.678	5.967	8.143	6.945	6.732		
	Check Mean	6.030	7.502	7.483	7.731	5.433	5.007	4.591	5.096	9.648	6.407	5.834	8.269	6.945	6.631		
	C.V. (%)	14.10	7.73	14.04	4.79	6.83	9.80	11.50	4.36	6.08	7.40	7.46	4.12	14.10	9.86		
	LSD .05	1.523	0.796	1.472	0.591	0.522	0.683	0.779	0.369	0.468	0.569	0.596	0.989	0.400	0.441		

Table 6: 2004 Western Regional Spring Barley Nursery, Test Weight (kg m⁻³)

Entry Number	Selection or Variety	Tulelake CA	Aberdeen ID	Hazleton ID	Idaho Falls ID	Fairfield MT	Fargo ND	Minot ND	Williston ND	Klamath Falls OR	Logan UT	Pullman WA	Powell WY	Saskatoon SK	Average
1	Steptoe	678.2	628.1	623.3	668.0	624.2	604.9	643.5	624.2	698.2	675.7	615.6	622.9	603.6	639.3
2	Baronesse	707.9	671.2	670.5	700.1	678.2	643.5	669.2	670.5	703.0	697.2	664.5	625.5	651.8	673.3
3	Morex	700.1	644.1	640.1	656.4	622.5	604.9	630.6	638.4	666.0	689.9	644.8	595.9	620.5	642.6
4	Stander	707.9	676.3	653.4	656.4	661.9	643.5	656.4	658.9	711.1	697.2	656.8	608.8	641.8	663.9
5	Harrington	702.7	677.6	649.1	694.6	649.1	630.6	669.2	666.7	677.3	715.1	666.2	631.9	641.2	667.0
6	2B97-4004	706.6	666.0	627.2	671.8	639.2	643.5	643.5	643.5	698.2	702.3	643.5	615.2	641.6	657.1
7	2B99-2316	709.1	678.2	670.1	684.7	668.4	643.5	656.4	665.4	709.5	696.2	635.8	620.3	659.9	669.0
8	2B99-2657	710.4	647.4	651.7	659.8	609.2	643.5	643.5	622.9	707.9	703.7	613.9	558.6	647.4	647.7
9	6B98-9022	707.9	658.9	637.5	665.8	658.5	643.5	656.4	656.4	660.7	695.5	657.2	625.5	612.6	656.6
10	6B98-9170	707.9	666.7	642.6	659.4	638.8	630.6	656.4	655.1	658.0	703.0	646.5	626.8	632.1	655.7
11	94Ab13449	716.9	662.8	624.6	636.2	640.5	630.6	656.4	668.0	685.3	713.6	656.4	630.6	622.2	657.2
12	98Ab11993	713.0	684.0	646.1	691.1	643.9	630.6	656.4	655.1	701.4	686.0	645.2	652.5	636.6	664.8
13	98Ab12905	693.7	662.2	625.9	637.9	631.9	604.9	630.6	646.1	646.7	708.8	644.4	599.7	609.9	641.7
14	98ID251	720.7	682.8	658.1	683.4	678.7	643.5	669.2	673.1	643.5	700.1	667.5	662.8	655.7	672.2
15	BZ 598-036	709.1	682.8	668.8	690.7	662.4	643.5	669.2	660.2	699.8	704.6	659.8	648.6	666.8	674.3
16	YU 597-432	719.4	680.8	674.0	685.5	692.0	643.5	682.1	668.0	701.4	697.0	689.0	626.8	649.1	677.6
17	YU598-043	700.1	683.4	631.5	671.0	650.8	630.6	669.2	664.1	706.2	698.1	654.2	606.2	649.2	662.7
18	MT970229	725.9	693.7	690.3	698.4	704.4	643.5	695.0	688.5	585.6	724.1	684.7	660.2	692.5	683.6
19	MT981091	715.6	680.8	655.5	671.4	670.5	630.6	682.1	686.0	691.8	721.9	694.1	643.5	659.7	677.2
20	MT981238	723.3	695.0	683.0	690.3	684.3	656.4	695.0	698.8	656.4	724.2	691.5	668.0	672.0	687.5
21	ND16301	709.1	661.5	637.5	652.5	650.8	630.6	656.4	652.5	696.6	702.0	643.1	616.5	626.8	656.6
22	ND19854	724.6	682.8	659.8	673.5	680.4	643.5	682.1	702.7	678.9	714.9	685.1	635.8	641.7	677.4
23	PB1-95-2R-522	728.4	690.5	657.7	662.8	674.4	643.5	695.0	710.4	704.6	723.2	699.7	668.0	651.9	685.4
24	PB1-97-2R-7010	720.7	684.0	652.1	680.0	685.5	656.4	682.1	697.6	688.5	709.3	693.3	648.6	668.0	682.0
25	Samish 23	707.9	679.5	652.1	679.5	659.8	643.5	682.1	686.0	703.0	716.4	661.1	637.1	647.7	673.5
26	UT97B1480-1534	714.3	672.5	653.4	672.7	643.9	617.8	656.4	666.7	698.2	697.3	672.2	612.6	636.9	662.7
27	UT00B1712-627	684.7	642.9	584.3	628.1	642.6	579.2	643.5	653.8	714.3	682.9	647.8	598.5	577.9	636.9
28	UT00B1718-773	701.4	643.5	625.5	658.5	656.4	592.0	643.5	668.0	678.9	700.8	651.6	633.2	623.5	652.1
29	WA 8569-99	684.7	680.8	672.7	702.3	667.1	630.6	669.2	660.2	637.1	706.0	666.2	631.9	653.0	666.3
30	WA 8601-97	706.6	686.6	670.5	698.0	652.1	643.5	669.2	646.1	690.2	718.1	647.4	657.7	668.8	673.4
31	WA 9701-99	688.5	670.5	654.7	677.8	649.5	630.6	643.5	642.2	598.5	700.0	650.4	622.9	662.3	653.2
32	WA 10497-97	718.1	689.2	686.4	695.8	682.1	630.6	682.1	687.3	701.4	694.3	688.1	638.4	679.2	682.5
33	WA 10701-99	709.1	672.5	650.8	672.7	635.3	630.6	669.2	678.2	717.5	699.9	677.8	646.1	626.1	668.1
34	Radiant	714.3	685.3	672.2	700.6	668.4	643.5	669.2	666.7	704.6	693.8	674.0	634.5	651.8	675.3
35	00NZ772	686.0	682.8	648.6	679.5	649.5	643.5	669.2	682.1	701.4	709.7	678.7	642.2	670.5	672.6
36	99NZ102	680.8	621.0	619.5	657.7	635.8	579.2	617.8	631.9	666.0	651.2	624.2	583.0	603.1	628.5
	Location Mean	707.10	671.35	650.54	674.02	656.75	631.35	662.81	665.38	683.47	702.06	661.52	629.34	631.77	664.38
	Check Mean	699.36	659.46	647.28	675.07	647.19	625.48	653.80	651.74	691.12	695.03	649.59	616.99	631.77	657.22
	C.V. (%)			1.65	1.21	1.99			0.90	1.58					2.34
	LSD .05			14.78	11.24	18.03			12.87	14.39					10.34

Table 7: 2004 Western Regional Spring Barley Nursery, Plant Height (cm)

Entry Number	Selection or Variety	Tulelake CA	Aberdeen ID	Idaho Falls ID	Fairfield MT	Fargo ND	Minot ND	Williston ND	Klamath Falls OR	Logan UT	Pullman WA	Powell WY	Average
1	Steptoe	99.1	90.2	96.5	101.6	85.5	79.1	73.0	82.5	91.4	98.2	101.3	90.8
2	Baronesse	91.4	72.4	86.4	99.1	86.0	62.2	63.3	100.0	91.4	91.4	96.7	85.5
3	Morex	96.5	94.0	109.2	116.8	88.0	81.1	84.3	90.0	88.9	108.4	104.3	96.5
4	Stander	104.1	104.1	101.6	109.2	82.4	70.9	73.0	92.5	81.3	98.2	99.0	92.4
5	Harrington	83.8	94.0	94.0	101.6	82.3	63.7	67.7	92.5	86.4	93.1	100.0	87.2
6	2B97-4004	88.9	99.1	96.5	104.1	82.8	64.7	60.3	95.0	86.4	90.6	97.3	87.8
7	2B99-2316	91.4	86.4	88.9	94.0	83.6	68.3	64.7	90.0	88.9	83.8	85.7	84.2
8	2B99-2657	91.4	85.1	94.0	99.1	82.5	71.8	69.7	100.0	91.4	84.7	95.3	87.7
9	6B98-9022	109.2	92.7	99.1	104.1	82.3	77.4	71.7	95.0	91.4	108.4	97.3	93.5
10	6B98-9170	104.1	101.6	96.5	116.8	81.1	81.1	76.3	92.5	83.8	106.7	101.0	94.7
11	94Ab13449	109.2	90.2	88.9	106.7	77.9	65.7	69.0	95.0	94.0	94.8	94.3	89.6
12	98Ab11993	81.3	92.7	86.4	99.1	79.8	63.8	62.3	85.0	88.9	88.1	94.3	83.8
13	98Ab12905	104.1	105.4	94.0	101.6	87.4	71.7	74.7	97.5	83.8	101.6	102.3	93.1
14	98ID251	101.6	91.4	96.5	101.6	81.7	63.5	64.0	90.0	88.9	86.4	101.7	87.9
15	BZ 598-036	88.9	87.6	94.0	96.5	83.2	66.1	64.3	95.0	86.4	89.7	102.7	86.8
16	YU 597-432	91.4	86.4	99.1	96.5	78.3	62.6	60.3	90.0	91.4	92.3	101.3	86.3
17	YU598-043	76.2	81.3	81.3	78.7	75.0	52.9	51.0	87.5	86.4	75.4	90.7	76.0
18	MT970229	96.5	87.6	88.9	94.0	82.1	62.0	65.3	107.5	94.0	88.9	103.3	88.2
19	MT981091	86.4	82.6	73.7	88.9	78.0	66.8	68.3	90.0	83.8	90.6	90.0	81.7
20	MT981238	94.0	96.5	88.9	91.4	81.3	74.1	77.7	75.0	88.9	98.2	94.7	87.3
21	ND16301	106.7	94.0	101.6	104.1	77.2	73.8	71.0	90.0	88.9	100.8	102.3	91.9
22	ND19854	91.4	85.1	83.8	94.0	79.2	66.5	72.7	92.5	86.4	93.1	95.0	85.4
23	PB1-95-2R-522	91.4	78.7	83.8	94.0	79.9	71.6	69.0	82.5	83.8	89.7	91.7	83.3
24	PB1-97-2R-7010	83.8	91.4	81.3	101.6	81.1	63.1	56.7	95.0	78.7	96.5	95.3	84.0
25	Samish 23	81.3	80.0	76.2	83.8	80.4	58.0	60.7	87.5	73.7	76.2	88.7	77.0
26	UT97B1480-1534	106.7	94.0	96.5	99.1	82.0	70.9	74.7	92.5	86.4	105.0	102.7	91.9
27	UT00B1712-627	109.2	85.1	99.1	106.7	80.3	87.6	74.7	80.0	86.4	105.0	96.0	91.8
28	UT00B1718-773	106.7	96.5	106.7	109.2	80.6	75.6	74.7	107.5	91.4	105.8	104.0	96.3
29	WA 8569-99	86.4	85.1	88.9	99.1	82.6	60.2	62.7	82.5	88.9	90.6	91.0	83.4
30	WA 8601-97	83.8	88.9	88.9	101.6	85.7	63.8	57.7	80.0	94.0	88.9	101.3	85.0
31	WA 9701-99	83.8	83.8	83.8	88.9	80.8	58.9	59.7	102.5	88.9	88.9	96.0	83.3
32	WA 10497-97	81.3	86.4	88.9	96.5	79.2	57.1	62.7	95.0	88.9	94.8	94.3	84.1
33	WA 10701-99	91.4	92.7	88.9	99.1	81.8	60.3	61.3	95.0	91.4	94.0	90.0	86.0
34	Radiant	86.4	82.6	86.4	94.0	81.0	57.6	60.0	80.0	91.4	95.7	93.7	82.6
35	00NZ772	73.7	66.0	63.5	73.7	75.8	56.1	54.7	92.5	61.0	72.8	73.7	69.4
36	99NZ102	99.1	96.5	86.4	96.5	77.4	66.6	63.3	95.0	96.5	94.8	87.0	87.2
	Location Mean	93.98	89.11	90.52	98.43	81.30	67.10	66.60	91.63	87.35	93.98	96.00	86.76
	Check Mean	99.1	90.93	97.54	105.66	84.84	71.40	72.26	91.50	87.88	97.88	100.26	91.28
	C.V. (%)	91.4				7.20	7.60	4.10	6.90				6.49
	LSD .05	96.5				8.10	7.30	4.50	8.32				4.09

Table 8: 2004 Western Regional Spring Barley Nursery, Heading Date (Julian)

Entry Number	Selection or Variety	Tulelake	Aberdeen	Hazelton	Fargo	Minot	Williston	Klamath Falls	Logan	Pullman	Powell	Average
		CA	ID	ID	ND	ND	ND	OR	UT	WA	WY	
1	Step toe	171	167	164	177	179	182	189	162	164	169	172.4
2	Baronesse	175	174	169	181	190	190	186	169	167	176	177.7
3	Morex	169	169	162	175	177	181	185	161	160	169	170.7
4	Stander	172	171	164	177	180	183	189	161	162	172	173.1
5	Harrington	175	172	169	180	188	186	183	160	169	176	175.8
6	2B97-4004	175	173	169	181	191	186	189	168	169	176	177.7
7	2B99-2316	175	172	170	180	189	187	191	169	168	176	177.7
8	2B99-2657	173	173	171	181	187	186	183	164	168	177	176.4
9	6B98-9022	175	169	165	176	178	182	186	161	160	172	172.3
10	6B98-9170	173	170	164	174	179	183	183	162	160	172	171.9
11	94Ab13449	170	168	165	175	177	182	189	156	160	167	170.9
12	98Ab11993	175	171	167	181	191	189	189	169	168	176	177.6
13	98Ab12905	173	169	163	174	180	182	183	168	160	167	171.9
14	98ID251	174	172	169	179	190	189	188	158	172	176	176.7
15	BZ 598-036	175	173	170	181	191	189	186	166	169	176	177.6
16	YU 597-432	173	171	170	180	187	185	189	163	164	176	175.7
17	YU598-043	176	172	167	177	191	188	186	168	169	177	177.1
18	MT970229	175	170	168	180	190	187	185	160	168	176	175.8
19	MT981091	175	172	166	180	191	184	189	169	165	173	176.3
20	MT981238	173	168	167	179	178	183	189	162	162	172	173.3
21	ND16301	170	169	166	175	180	183	193	158	160	172	172.5
22	ND19854	171	166	166	174	178	180	185	158	161	168	170.7
23	PB1-95-2R-522	175	174	168	180	183	186	189	168	165	176	176.4
24	PB1-97-2R-7010	177	175	173	182	190	188	189	168	168	178	178.8
25	Samish 23	178	175	173	182	191	187	189	169	173	178	179.4
26	UT97B1480-1534	170	164	162	172	178	178	183	155	158	165	168.5
27	UT00B1712-627	170	165	162	175	177	180	189	160	159	169	170.7
28	UT00B1718-773	173	168	163	175	178	182	183	161	161	172	171.5
29	WA 8569-99	175	175	171	181	191	189	183	168	166	176	177.6
30	WA 8601-97	176	174	171	181	190	189	189	168	167	176	178.2
31	WA 9701-99	175	175	169	182	190	189	183	159	168	176	176.6
32	WA 10497-97	175	174	169	180	190	188	186	167	167	176	177.1
33	WA 10701-99	174	172	168	180	190	188	188	166	170	176	177.1
34	Radiant	175	173	170	182	190	189	196	168	170	176	178.9
35	00NZ772	182	177	173	184	190	190	188	167	175	184	181.0
36	99NZ102	175	172	164	177	184	183	186	162	162	172	173.7
	Location Mean	173.97	171.19	167.42	178.50	185.40	185.30	187.01	193.83	165.00	173.92	175.20
	Check Mean	172.40	170.53	165.60	177.78	182.86	184.46	186.30	162.60	164.40	172.40	173.93
	C.V. (%)				4.60	6.80	1.00	1.05				1.29
	LSD .05				1.70	3.10	1.10	2.78				1.71

Table 9: 2004 Western Regional Spring Barley Nursery, Percent Plump Barley*

Entry Number	Variety or Selection	Tulelake CA	Aberdeen ID	Hazleton ID	Idaho Falls ID	Fairfield MT	Fargo ND	Minot ND	Williston ND	Klamath Falls OR	Logan UT	Pullman WA	Powell WY	Saskatoon SK	Average
1	Step toe	95.8	98.0	98.4	99.5	98.1	71.0	53.0	83.5	98.7	96.7	94.0	99.8	94.0	90.8
2	Baronesse	92.7	93.0	93.6	98.5	94.3	93.0	97.0	86.5	98.5	91.0	84.0	97.7	89.6	93.0
3	Morex	90.0	98.0	98.7	99.2	93.8	66.0	55.0	59.4	96.9	91.6	75.0	99.1	94.6	85.9
4	Stander	97.0	98.0	98.8	99.5	98.5	84.0	71.0	77.1	97.6	90.1	89.0	99.6	97.3	92.1
5	Harrington	93.9	92.0	91.7	98.3	95.5	95.0	96.0	89.9	98.0	96.0	96.0	97.3	90.7	94.6
6	2B97-4004	90.2	89.5	84.5	97.8	92.0	97.0	96.0	75.0	98.5	91.6	87.0	96.0	91.6	91.3
7	2B99-2316	89.7	94.5	94.5	97.7	94.3	95.0	95.0	86.1	97.2	87.2	78.0	95.4	93.2	92.1
8	2B99-2657	91.1	98.0	91.9	97.4	90.5	95.0	94.0	78.0	97.8	82.4	85.0	95.2	94.2	91.6
9	6B98-9022	98.5	99.5	99.1	99.5	98.9	86.0	80.0	91.2	95.4	95.5	97.0	99.8	96.5	95.2
10	6B98-9170	98.1	98.5	99.1	99.4	97.9	82.0	78.0	81.1	95.6	95.2	97.0	99.7	96.9	93.7
11	94Ab13449	95.3	98.0	98.2	98.1	97.7	81.0	65.0	81.2	97.8	92.7	93.0	99.7	95.3	91.8
12	98Ab11993	97.9	98.0	93.5	98.3	94.1	96.0	98.0	88.9	97.7	82.4	88.0	98.2	91.6	94.0
13	98Ab12905	89.7	98.5	98.8	99.4	96.5	76.0	67.0	73.6	99.0	95.4	95.0	99.3	95.9	91.1
14	98ID251	97.3	97.0	95.1	98.7	95.9	97.0	97.0	85.2	95.8	89.8	93.0	99.1	92.4	94.9
15	BZ 598-036	92.9	96.5	97.1	98.6	94.1	97.0	98.0	89.3	98.0	95.5	90.0	97.7	93.6	95.3
16	YU 597-432	97.7	96.0	96.7	100.1	96.9	96.0	98.0	84.1	98.1	94.0	94.0	98.2	96.1	95.8
17	YU598-043	95.0	97.5	89.9	98.5	97.3	97.0	98.0	94.2	97.8	95.9	93.0	97.8	92.9	95.8
18	MT970229	97.6	97.5	98.0	98.9	98.1	95.0	98.0	96.7	89.0	98.6	96.0	99.3	94.5	96.7
19	MT981091	95.6	93.5	92.4	95.8	93.8	95.0	98.0	88.2	97.8	95.1	94.0	97.6	89.1	94.3
20	MT981238	96.4	94.0	96.7	96.6	95.5	97.0	99.0	91.5	94.6	94.9	95.0	98.6	90.8	95.4
21	ND16301	97.5	98.5	98.8	99.2	98.6	88.0	78.0	82.5	98.9	93.1	90.0	99.6	98.2	93.9
22	ND19854	96.8	94.5	95.8	97.4	96.4	96.0	100.0	96.3	98.2	97.8	98.0	98.9	92.9	96.8
23	PB1-95-2R-522	96.8	91.5	89.0	96.5	91.9	94.0	98.0	92.7	98.6	95.8	96.0	98.8	91.3	94.7
24	PB1-97-2R-7010	96.8	98.0	94.9	98.3	96.7	97.0	99.0	96.7	97.8	97.1	99.0	99.3	96.3	97.5
25	Samish 23	93.6	96.5	92.0	96.9	93.5	99.0	99.0	86.9	98.7	94.2	93.0	96.4	89.5	94.5
26	UT97B1480-1534	95.6	98.5	98.0	99.1	96.1	68.0	55.0	68.2	98.2	93.5	86.0	99.3	93.2	88.4
27	UT00B1712-627	97.9	99.0	98.9	99.3	98.6	82.0	80.0	89.2	97.4	97.5	98.0	99.6	95.8	94.9
28	UT00B1718-773	98.1	98.5	98.7	99.4	98.9	80.0	77.0	88.7	96.5	96.5	97.0	99.7	97.0	94.3
29	WA 8569-99	74.8	94.5	92.0	97.5	90.9	91.0	96.0	75.3	97.3	87.2	83.0	96.8	89.1	89.6
30	WA 8601-97	94.6	97.5	95.9	98.8	90.7	96.0	97.0	88.5	98.2	95.4	91.0	98.3	94.5	95.1
31	WA 9701-99	82.7	95.5	95.7	97.8	89.8	95.0	96.0	85.4	85.2	90.5	86.0	96.5	91.0	91.3
32	WA 10497-97	96.2	96.0	95.8	98.3	94.2	95.0	98.0	91.4	98.4	85.7	94.0	98.6	93.8	95.0
33	WA 10701-99	93.8	90.5	92.3	96.7	90.8	94.0	98.0	91.1	98.3	82.3	93.0	97.9	87.2	92.8
34	Radiant	90.9	92.5	91.8	97.2	88.6	93.0	96.0	72.2	98.4	82.4	86.0	96.4	91.1	90.5
35	00NZ772	72.5	95.5	87.3	97.9	88.2	96.0	98.0	90.1	97.9	94.0	93.0	97.7	94.3	92.5
36	99NZ102	93.8	95.5	97.4	99.3	96.9	76.0	43.0	58.5	97.8	92.5	78.0	99.5	94.9	86.4
	Location Mean	93.5	96.06	95.03	98.31	94.85	89.75	87.19	84.30	97.14	92.42	91.00	98.28	93.22	93.16
	Check Mean	93.88	95.80	96.23	98.97	96.05	81.80	74.40	79.28	97.93	93.08	87.60	98.70	93.22	91.30
	C.V. (%)			2.69	1.05	2.94			3.5	63.08					6.81
	LSD .05			3.54	1.42	3.85			5.9	NS					4.21

* Percent over sieve, 2-rowed >2.4mm, 6-rowed >2.2mm

Table 10: 2004 Western Regional Spring Barley Nursery, Percent Thin Barley*

Entry Number	Variety or Selection	Tulelake CA	Aberdeen ID	Hazelton ID	Idaho Falls ID	Fairfield MT	Fargo ND	Minot ND	Williston ND	Klamath Falls OR	Logan UT	Pullman WA	Powell WY	Average
1	Steptoe	2.7	2.0	1.6	0.4	1.7	5.0	5.0	4.1	0.3	3.3	2.0	0.2	2.4
2	Baronesse	4.3	2.0	6.5	1.5	5.5	7.0	3.0	2.5	0.4	9.0	5.0	0.6	3.9
3	Morex	7.4	2.0	1.1	0.7	5.7	11.0	4.0	10.8	0.7	8.4	4.0	0.9	4.7
4	Stander	2.3	2.0	1.2	0.5	1.7	2.0	2.0	5.8	0.6	9.9	2.0	0.4	2.5
5	Harrington	4.7	2.0	8.0	1.5	4.9	5.0	4.0	2.3	0.5	4.0	2.0	1.1	3.3
6	2B97-4004	7.0	3.0	15.2	1.9	7.3	3.0	4.0	7.4	0.4	8.4	4.0	1.0	5.2
7	2B99-2316	6.9	1.0	5.2	2.0	5.5	5.0	5.0	3.4	0.9	12.8	7.0	1.3	4.7
8	2B99-2657	5.8	2.0	7.8	2.5	9.5	5.0	6.0	7.3	0.8	17.6	5.0	2.3	6.0
9	6B98-9022	1.2	0.5	0.7	0.4	1.1	1.0	1.0	1.5	0.9	4.5	0.0	0.1	1.1
10	6B98-9170	1.4	1.5	0.7	0.5	1.9	2.0	1.0	4.3	0.9	4.8	1.0	0.3	1.7
11	94Ab13449	3.4	2.0	1.7	0.5	2.0	2.0	3.0	4.9	0.7	7.3	1.0	0.4	2.4
12	98Ab11993	1.3	0.5	6.1	1.5	5.8	4.0	2.0	3.1	0.7	17.6	3.0	0.6	3.8
13	98Ab12905	7.3	1.5	0.9	0.4	3.1	3.0	4.0	8.9	0.3	4.6	1.0	0.7	3.0
14	98ID251	1.4	0.5	4.7	1.3	3.6	3.0	3.0	3.0	0.9	10.2	3.0	0.3	2.9
15	BZ 598-036	4.2	1.0	2.7	1.4	5.6	3.0	2.0	1.9	0.6	4.5	3.0	0.7	2.5
16	YU 597-432	1.8	1.0	3.3	2.1	3.0	4.0	2.0	2.6	0.5	6.0	2.0	0.7	2.4
17	YU598-043	3.8	0.5	10.0	1.3	2.6	3.0	2.0	1.4	0.6	4.1	2.0	1.1	2.7
18	MT970229	1.8	0.5	2.1	1.1	1.9	5.0	2.0	0.9	2.9	1.4	1.0	0.3	1.7
19	MT981091	2.4	1.5	7.4	4.1	6.0	5.0	2.0	2.9	0.6	4.9	1.0	1.2	3.3
20	MT981238	2.4	1.5	3.2	3.1	4.2	3.0	1.0	2.0	1.2	5.1	1.0	0.6	2.4
21	ND16301	1.9	1.5	1.1	0.7	1.4	2.0	2.0	4.2	0.3	6.9	2.0	0.4	2.0
22	ND19854	2.5	2.0	4.1	2.4	3.3	4.0	0.0	0.8	0.4	2.2	1.0	0.5	1.9
23	PB1-95-2R-522	2.1	2.5	10.7	3.5	7.9	6.0	2.0	2.1	0.4	4.2	1.0	0.4	3.6
24	PB1-97-2R-7010	1.7	1.0	4.7	1.5	3.1	3.0	1.0	1.1	0.6	2.9	1.0	0.2	1.8
25	Samish 23	5.1	1.0	7.7	2.9	6.2	9.0	1.0	2.4	0.3	5.8	1.0	0.9	3.6
26	UT97B1480-1534	3.6	1.5	1.7	0.9	3.6	4.0	5.0	10.3	0.6	6.5	3.0	0.7	3.4
27	UT00B1712-627	1.6	1.0	0.9	0.7	1.0	3.0	2.0	3.0	0.7	2.5	1.0	0.4	1.5
28	UT00B1718-773	1.3	1.5	1.1	0.5	1.5	3.0	2.0	2.8	0.7	3.5	0.0	0.3	1.5
29	WA 8569-99	13.4	1.0	8.0	2.3	8.9	9.0	4.0	4.6	0.8	12.8	6.0	0.8	6.0
30	WA 8601-97	4.4	0.0	3.9	1.1	8.9	4.0	3.0	2.3	0.5	4.6	3.0	0.4	3.0
31	WA 9701-99	9.5	1.0	4.2	1.6	10.1	5.0	4.0	3.0	3.7	9.5	3.0	0.9	4.6
32	WA 10497-97	2.5	1.0	4.2	1.8	5.6	5.0	2.0	2.2	0.4	14.3	1.0	0.5	3.4
33	WA 10701-99	4.3	3.5	7.4	3.2	8.9	6.0	2.0	2.5	0.5	17.7	1.0	0.7	4.8
34	Radiant	5.9	1.5	7.9	2.6	11.1	7.0	4.0	6.1	0.5	17.6	4.0	1.0	5.8
35	00NZ772	16.8	1.0	12.5	1.9	11.6	4.0	2.0	2.3	0.6	6.0	2.0	0.6	5.1
36	99NZ102	4.3	4.5	2.5	0.7	2.7	4.0	10.0	13.0	0.5	7.5	5.0	0.5	4.6
	Location Mean	4.3	1.50	4.79	1.59	4.95	4.4	2.9	4.0	0.73	7.58	2.0	0.65	3.31
	Check Mean	4.27	2.00	3.67	0.92	3.88	6.00	3.60	5.10	0.50	6.92	3.00	0.64	3.37
	C.V. (%)			53.31	36.85	55.09			26.4	39.16				68.23
	LSD .05			3.53	0.81	3.77			2.1	1.48				1.56

* Percent through 2.2mm screen

Table 11: 2004 Western Regional Spring Barley Nursery, Lodging

Entry Number	Selection or Variety	Tulelake	Aberdeen	Fargo	Logan	Powell
		CA	ID	ND	UT	WY
		1-8	%	0-9	%	0-9
1	Step toe	1.7	1.7	5.4	20	1.0
2	Baronesse	4.7	0.0	6.8	0	1.3
3	Morex	6.3	100.0	6.0	45	3.7
4	Stander	3.3	90.0	4.1	5	1.0
5	Harrington	5.0	68.3	5.9	0	3.0
6	2B97-4004	3.3	5.0	5.1	60	1.0
7	2B99-2316	4.7	8.3	6.3	50	1.7
8	2B99-2657	4.3	6.7	5.9	0	3.0
9	6B98-9022	2.7	1.7	4.4	0	1.0
10	6B98-9170	3.3	56.7	4.2	0	1.0
11	94Ab13449	1.7	0.0	5.1	40	1.0
12	98Ab11993	6.0	31.7	7.0	0	1.0
13	98Ab12905	2.7	60.0	5.2	0	1.0
14	98ID251	3.0	3.3	4.6	0	1.0
15	BZ 598-036	3.3	13.3	6.4	0	3.0
16	YU 597-432	3.3	0.0	4.3	0	1.0
17	YU598-043	5.0	23.0	4.3	0	1.0
18	MT970229	2.3	0.0	5.5	0	1.0
19	MT981091	2.7	0.0	6.2	0	1.0
20	MT981238	4.3	33.3	4.9	0	1.3
21	ND16301	2.3	63.3	3.4	0	1.0
22	ND19854	2.3	0.0	5.6	0	1.0
23	PB1-95-2R-522	2.7	0.0	4.8	0	1.0
24	PB1-97-2R-7010	4.0	60.0	3.4	0	1.0
25	Samish 23	2.7	0.0	5.2	0	1.0
26	UT97B1480-1534	1.3	53.3	4.7	0	1.0
27	UT00B1712-627	2.3	26.6	4.0	0	1.0
28	UT00B1718-773	1.7	6.7	3.4	0	1.0
29	WA 8569-99	6.3	38.3	7.4	75	1.3
30	WA 8601-97	4.7	3.3	5.5	0	1.0
31	WA 9701-99	4.7	0.0	5.6	0	1.0
32	WA 10497-97	5.7	8.3	6.6	50	1.7
33	WA 10701-99	5.7	71.7	5.6	25	1.7
34	Radiant	5.3	13.3	5.6	50	2.0
35	00NZ772	7.3	0.0	5.2	0	1.0
36	99NZ102	3.3	63.3	3.1	0	1.0
Location Mean		3.80	25.31	5.20	11.67	1.35
Check Mean		4.20	52.00	5.64	14.00	2.00

Table 12: 2004 Western Regional Spring Barley Nursery, Percent Protein

Entry Number	Selection or Variety	Williston ND	Pullman WA	Average
1	Steptoe	11.2	10.5	10.85
2	Baronesse	12.7	12.6	12.65
3	Morex	13.7	10.7	12.20
4	Stander	12.3	10.6	11.45
5	Harrington	13.4	12.3	12.85
6	2B97-4004	13.6	10.8	12.20
7	2B99-2316	11.8	11.8	11.80
8	2B99-2657	12.6	11.0	11.80
9	6B98-9022	11.9	11.8	11.85
10	6B98-9170	12.5	10.5	11.50
11	94Ab13449	10.0	10.3	10.15
12	98Ab11993	12.3	12.0	12.15
13	98Ab12905	10.6	9.4	10.00
14	98ID251	13.0	13.3	13.15
15	BZ 598-036	12.6	11.5	12.05
16	YU 597-432	11.9	11.6	11.75
17	YU598-043	12.0	12.7	12.35
18	MT970229	12.1	11.0	11.55
19	MT981091	12.1	11.1	11.60
20	MT981238	13.2	11.3	12.25
21	ND16301	12.4	10.2	11.30
22	ND19854	10.9	11.8	11.35
23	PB1-95-2R-522	11.1	11.5	11.30
24	PB1-97-2R-7010	12.5	13.6	13.05
25	Samish 23	13.5	11.0	12.25
26	UT97B1480-1534	11.5	10.5	11.00
27	UT00B1712-627	12.3	11.3	11.80
28	UT00B1718-773	11.9	11.5	11.70
29	WA 8569-99	13.2	11.9	12.55
30	WA 8601-97	12.8	11.3	12.05
31	WA 9701-99	13.9	11.6	12.75
32	WA 10497-97	12.8	12.2	12.50
33	WA 10701-99	12.3	11.5	11.90
34	Radiant	12.9	11.5	12.20
35	00NZ772	13.5	12.1	12.80
36	99NZ102	13.4	10.6	12.00
	Location Mean	12.4	11.4	11.91
	Check Mean	12.66	11.34	12.00
	C.V. (%)	5.8		6.33
	LSD .05	1.5		1.28

Table 13: 2004 Western Regional Spring Barley Nursery, Disease Ratings

Entry Number	Variety or Selection	Tulelake, CA		Saskatoon, SK				
		Bacterial streak 1 to 8	Stripe Rust 1 to 8	Saskatoon Spot Blotch 0 to 9	Melfort Spot Blotch 0 to 9	Melfort Net Blotch 0 to 9	Brandon FHB 0 to 9	Disease Score 0 to 9
1	Step toe	1.0	7.7	7.0	5.0	2	4.5	6
2	Baronesse	1.0	3.7	7.0	5.0	2	4.0	6
3	Morex	1.3	4.3	4.5	4.0	0	2.5	5
4	Stander	1.0	2.3	6.0	4.0	3	4.0	6
5	Harrington	1.0	2.3	8.0	6.0	8	3.0	8
6	2B97-4004	1.7	1.7	6.0	4.0	5	3.0	5
7	2B99-2316	1.0	1.3	7.0	4.0	3	3.5	6
8	2B99-2657	1.3	3.3	6.0	4.0	1	3.0	5
9	6B98-9022	1.0	3.0	6.0	3.0	1	3.0	5
10	6B98-9170	1.0	4.3	5.0	4.0	3	3.5	6
11	94Ab13449	1.0	1.7	7.0	5.0	1	3.5	5
12	98Ab11993	1.0	1.0	7.0	4.5	2	4.0	6
13	98Ab12905	1.3	3.0	7.0	6.0	3	4.0	5
14	98ID251	1.3	4.7	6.0	4.0	4	4.0	5
15	BZ 598-036	1.3	1.7	6.5	5.0	4	3.5	6
16	YU 597-432	1.0	1.3	6.0	4.0	3	4.0	6
17	YU598-043	3.0	1.7	8.0	3.0	5	4.0	5
18	MT970229	1.3	2.3	8.0	5.0	5	4.0	7
19	MT981091	1.3	1.0	7.0	3.0	8	4.5	7
20	MT981238	1.0	3.0	7.0	5.5	2	4.0	6
21	ND16301	1.3	2.0	5.0	5.0	3	3.0	7
22	ND19854	2.0	1.3	8.0	5.0	6	3.0	6
23	PB1-95-2R-522	1.0	4.0	7.0	6.0	4	4.5	4
24	PB1-97-2R-7010	1.0	4.0	7.0	4.0	5	5.0	3
25	Samish 23	1.0	1.0	8.0	6.0	7	5.0	6
26	UT97B1480-1534	1.0	1.3	6.0	5.0	4	4.0	7
27	UT00B1712-627	1.7	5.3	7.0	4.0	1	3.5	7
28	UT00B1718-773	2.3	4.0	7.0	8.0	1	5.0	8
29	WA 8569-99	1.0	3.0	7.0	4.0	1	3.5	5
30	WA 8601-97	1.0	2.0	7.0	3.0	4	4.0	7
31	WA 9701-99	1.0	1.0	7.0	5.0	2	4.0	5
32	WA 10497-97	1.3	2.3	8.0	5.0	6	4.0	6
33	WA 10701-99	1.0	1.3	7.0	4.0	7	4.0	7
34	Radiant	1.0	2.0	8.0	5.5	5	4.0	6
35	00NZ772	1.7	5.0	6.0	4.0	6	5.0	5
36	99NZ102	2.0	2.3	6.0	3.0	4	4.0	5
Location Mean		1.3	2.7	6.5	4.8	3.0	3.6	5.8
Check Mean		1.20	2.86	6.30	4.60	3.60	3.30	6.00
C.V. (%)								11.4
LSD .05								0.9

Table 14: 2004 Western Regional Dryland Spring Barley Nursery, Entry List

Seed Source	Entry No.	Entry	Parentage	Type	Grade
USDA-ARS	1	Munsing	CI 6009	2 row	feed
WSU	2	Steptoe	CI 15229	6 row	feed
USDA-ARS	3	Clark	CI 15857	2 row	feed
USDA-ARS	4	Hector	CI 15514	2 row	feed
BARI	5	2B97-4004	2B91-4947/TR129	2 row	malting
BARI	6	* 2B99-2316	2B91-4947//2B91-4947/2B95-8129	2 row	malting
BARI	7	* 2B99-2657	2B91-4947//2B91-4947/2B94-5744	2 row	malting
BARI	8	* 6B98-9022	6B92-7098/6B92-7166	6 row	malting
BARI	9	* 6B98-9022	6B92-7098//6B92-7098/M75	6 row	malting
USDA-ARS	10	* 94Ab13449	Russell/M64	6 row	malting
USDA-ARS	11	95Ab11469	87Ab9561/ND9870	2 row	feed
USDA-ARS	12	* 98Ab11720	85Ab2323/Baronesse	2 row	feed
USDA-ARS	13	98Ab11993	90Ab241/Baronesse	2 row	malting
USDA-ARS	14	* 98BX 27-132	Otis*4/STARS 9301B	2 row	feed
USDA-ARS	15	98ID251	Baronesse/3/Crystal//Klages*3/PI 366450	2 row	feed
MSU	16	MT970229	MT890021/Stark	2 row	feed/malting
MSU	17	* MT981091	MT851195/MT140523	2 row	feed/malting
MSU	18	* MT981238	ND112311/Lewis	2 row	feed/malting
NDSU	19	ND19119	ND15403-3/ND15368//ND16453	2 row	feed
NDSU	20	* ND19854	ND15403/ND16462	2 row	feed
PB1	21	PB1-95-2R-522	PB1-88-2R-801/VD403582	2 row	feed
PB1	22	* PB1-97-2R-7010	PB1-88-2R-801/ND 9147	2 row	feed/malting
Fossum	23	Samish 23	85Ab2323/Acclaim	2 row	feed/malting
USU	24	UT97B1480-1534	UT89B747-1263/UT90B774-2467	6 row	feed
USU	25	UT97B1480-1632	UT89B747-1263/UT90B774-2467	6 row	feed

* new entries

Table 15: Check Seasonal Measurements (1980-2004) of the Western Regional Dryland Spring Barley Nursery

Average of Cultivars Munsing, Steptoe, Clark

Yield			Test Weight			Plant Height			Heading date			Plump		
Year	Station Years	Mg ha ⁻¹	Year	Station Years	kg m ⁻³	Year	Station Years	cm	Year	Station Years	Julian	Year	Station Years	%
2004	11	4.64	1980	15	665	2004	7	79.8	1996	8	188	1987	11	89.7
1997	8	4.63	1987	12	664	1998	9	78.9	1999	5	187	2004	11	86.7
1996	9	4.56	1982	13	658	1981	13	73.3	1995	8	185	1997	5	86.6
1998	10	4.44	1996	7	656	1993	6	72.8	2002	8	185	1996	6	85.1
1995	9	4.33	1988	11	654	1991	9	72.5	2000	6	184	1995	5	84.6
2000	7	4.22	1990	10	653	1994	9	72.3	2003	6	184	1993	3	84.5
2001	6	4.11	1983	14	652	1999	8	70.5	1982	9	183	1986	12	83.1
1982	14	4.02	1986	13	648	1982	11	69.9	1997	6	183	2000	5	82.1
1987	13	4.02	2000	6	646	1997	7	69.3	2004	9	182	1980	9	82.1
1999	9	3.94	1992	8	643	2001	5	68.8	1998	8	182	1982	10	80.3
1993	7	3.9	2004	11	642	2003	4	67.8	2001	5	182	2001	5	79.7
1980	15	3.78	1989	10	642	1983	10	65.8	1993	6	181	2002	7	79.5
1994	9	3.77	1984	14	638	1995	8	65.7	1991	8	180	1983	12	77.3
1991	9	3.73	1997	6	635	1980	10	64.9	1983	10	179	1998	7	76.9
1981	17	3.61	1998	9	634	1984	13	64.9	1984	10	179	1999	7	73.2
1986	14	3.58	1995	9	631	1990	9	64.6	1989	8	179	1998	8	71.8
1992	8	3.42	2001	6	630	1996	8	64.6	1990	9	179	1992	7	70.5
2003	8	3.26	1993	4	625	2000	6	62.7	1988	7	178	2003	8	70.5
1983	14	3.15	1994	9	624	1987	13	62.2	1994	8	178	1981	11	64.4
1990	10	3.13	2002	9	623	2002	8	61.6	1992	7	177	1989	8	59.9
2002	9	3.12	1985	16	622	1986	11	61.2	1981	12	176	1994	8	59.8
1984	16	3.09	1999	8	622	1992	8	60.5	1986	9	176	1990	8	59.5
1989	10	2.75	2003	8	621	1989	9	59.0	1980	9	171	1991	7	59.1
1988	11	2.39	1981	16	621	1985	17	53.0	1985	9	171	1984	11	58.9
1985	18	2.19	1991	9	616	1988	11	51.6	1987	9	170	1985	13	44.9
Ave	271	3.60	Ave	253	640	Ave	229	65.5	Ave	199	180	Ave	204	72.9

Table 16: 2004 Western Regional Dryland Spring Barley Nursery, Means Summary

Entry No.	Variety or Selection	Grain Yield		Test Weight	Plant Height	Heading Date	Plump Barley*	Thin Barley**	Protein
		Mg ha ⁻¹	Rank	kg m ⁻³	cm	Julian	%	%	%
	Number of Locations	12		12	7	9	11	9	2
1	Munsing	3.985	24	634.8	68.3	180.4	83.9	10.0	13.1
2	Steptoe	5.216	6	609.8	82.4	182.7	87.2	4.4	10.6
3	Clark	4.784	22	659.8	82.6	183.6	88.6	7.2	13.5
4	Hector	4.567	23	663.4	86.0	183.0	87.3	9.6	13.3
5	2B97-4004	4.907	17	644.2	81.0	185.1	87.2	7.6	13.1
6	2B99-2316	5.013	15	645.8	77.6	184.6	88.3	7.7	12.2
7	2B99-2657	5.086	10	634.6	80.7	184.8	85.7	10.0	12.6
8	6B98-9022	4.878	20	648.4	86.7	181.0	92.2	3.0	12.6
9	6B98-9170	5.042	13	644.4	88.7	180.1	90.8	3.6	12.3
10	94Ab13449	5.020	14	647.6	79.2	179.4	86.2	5.0	10.3
11	95Ab11469	4.920	16	657.9	81.7	181.3	94.4	3.7	11.9
12	98Ab11720	5.509	1	661.3	73.3	185.3	84.8	12.0	12.7
13	98Ab11993	4.882	19	649.3	74.2	185.3	91.4	5.2	12.6
14	98BX 27-132	3.729	25	648.2	81.6	177.6	95.0	2.7	14.0
15	98ID251	5.065	12	662.7	79.5	184.4	92.0	5.4	13.2
16	MT970229	5.273	3	673.5	80.0	183.0	95.1	2.5	12.7
17	MT981091	5.243	5	667.3	75.6	182.1	92.3	4.4	12.9
18	MT981238	5.103	9	681.6	88.4	180.4	93.9	4.0	13.5
19	ND19119	4.889	18	663.3	86.1	179.1	98.2	1.2	10.9
20	ND19854	5.156	8	666.9	80.6	178.6	95.7	2.7	10.8
21	PB1-95-2R-522	5.351	2	672.8	76.0	182.9	87.1	10.0	11.9
22	PB1-97-2R-7010	5.254	4	670.3	74.5	185.3	95.3	2.9	12.4
23	Samish 23	4.878	21	659.4	72.1	186.0	82.8	11.4	13.1
24	UT97B1480-1534	5.078	11	648.2	84.0	177.8	81.2	9.0	11.8
25	UT97B1480-1632	5.203	7	644.5	83.3	177.5	83.2	7.7	11.4
	LOCATION MEAN:	4.961		654.4	80.2	186.84	89.6	6.11	12.35
	CHECK MEAN:	4.638		641.97	79.83	182.44	86.7	7.82	12.60
	CV %	10.78		2.45	6.77	1.31	8.2	83.4	2.96
	LSD (.05)	0.389		11.7	4.9	1.97	5.36	4.10	0.62

* Percent over sieve, 2-rowed >2.4mm, 6-rowed >2.2mm

** Percent through 2.2mm screen

Table 17: Summary Across Locations and Years, Western Regional Dryland Spring Barley Nursery, 2002-2004.

ENTRY NO.	CULTIVAR/ DESIGNATION	STATION YEARS	YIELD		TEST WEIGHT	PLANT HEIGHT	HEADING DATE	PLUMP BARLEY*	THIN BARLEY**	PROTIEN
			Mg ha ⁻¹	Rank	kg m ⁻³	cm	julian	%	%	%
1	Munsing	28	3.398	25	636.6	61.3	182.2	74.7	13.0	15.0
2	Steptoe	28	4.177	18	603.1	72.2	182.3	86.1	6.4	11.9
3	Clark	28	3.722	22	641.1	73.2	185.4	78.4	12.6	15.5
4	Hector	28	3.637	24	646.5	76.0	184.8	75.5	14.2	15.2
5	2B97-4004	28	3.798	21	633.0	69.9	185.6	77.9	12.3	15.4
6	2B99-2316	11	5.013	9	645.8	77.6	184.6	88.3	7.7	12.2
7	2B99-2657	11	5.086	6	634.6	80.7	184.8	85.7	10.0	12.6
8	6B98-9022	11	4.878	11	648.4	86.7	181.0	92.2	3.0	12.6
9	6B98-9170	11	5.042	7	644.4	88.7	180.1	90.8	3.6	12.3
10	94Ab13449	11	5.020	8	647.6	79.2	179.4	86.2	5.0	10.3
11	95Ab11469	28	3.957	10	647.6	74.2	183.0	88.8	5.8	13.9
12	98Ab11720	11	5.509	1	661.3	73.3	185.3	84.8	12.0	12.7
13	98Ab11993	28	3.965	20	635.1	65.8	186.2	85.6	8.4	14.8
14	98BX 27-132	11	3.729	23	648.2	81.6	177.6	95.0	2.7	14.0
15	98ID251	11	5.065	15	662.7	79.5	184.7	92.0	5.4	13.2
16	MT970229	19	4.581	13	668.6	76.3	183.4	89.5	6.2	14.1
17	MT981091	11	5.243	3	667.3	75.6	182.1	92.3	4.4	12.9
18	MT981238	11	5.103	5	681.6	88.4	180.4	93.9	4.0	13.5
19	ND19119	19	4.245	17	654.9	82.0	180.6	94.8	3.2	11.9
20	ND19854	11	5.156	4	666.9	80.6	178.6	95.7	2.7	10.8
21	PB1-95-2R-522	19	4.614	12	670.8	73.4	183.7	80.9	12.4	13.6
22	PB1-97-2R-7010	11	5.254	2	670.3	74.5	185.3	95.3	2.9	12.4
23	Samish 23	19	4.049	19	651.5	69.4	185.6	76.8	14.8	14.7
24	UT97B1480-1534	19	4.309	16	636.4	79.2	179.1	73.9	14.2	13.4
25	UT97B1480-1632	19	4.381	14	636.2	78.9	178.5	78.5	11.4	12.7
	AVERAGE		4.310		646.0	74.8	183.0	84.5	8.9	13.7
	BASE AVERAGE†		3.766		627.0	68.9	183.7	79.7	10.7	14.1

* Percent over sieve, 2-rowed >2.4mm, 6-rowed >2.2mm

** Percent through 2.2mm screen

† Base Average is the average of the checks Munsing, Steptoe, and Clark

Table 18: 2004 Western Regional Dryland Spring Barley Nursery, Grain Yield (Mg ha⁻¹)

Entry Number	Selection or Variety	Potlatch ID	Soda Springs ID	Tetonia ID	Brady MT	Bozeman MT	Fargo ND	Hettinger ND	Langdon ND	Williston ND	Bluecreek UT	Saskatoon SK	Average	Rank	Rank Average
1	Munsing	5.146	6.836	4.152	3.981	7.045	5.730	3.881	5.332	5.702	3.891	5.951	3.985	24	9.7
2	Steptoe	5.984	6.480	3.583	4.328	7.450	6.026	3.472	3.118	5.418	4.354	5.538	5.216	6	11.1
3	Clark	5.096	4.740	3.839	3.904	6.932	4.569	3.913	5.327	5.219	4.376	6.211	4.784	22	14.2
4	Hector	4.836	6.622	3.685	4.562	6.864	5.488	3.924	4.934	3.739	4.554	5.923	4.567	23	12.2
5	2B97-4004	6.287	5.818	3.799	4.043	7.504	4.666	4.219	5.112	5.345	4.007	5.140	4.907	17	12.6
6	2B99-2316	6.097	5.949	4.245	4.183	7.041	5.268	2.897	4.752	4.815	4.605	5.202	5.013	15	13.1
7	2B99-2657	6.041	6.297	3.937	4.308	7.552	4.558	3.107	5.149	5.712	3.479	5.961	5.086	10	10.5
8	6B98-9022	4.278	6.335	3.464	4.033	7.511	3.913	4.021	4.563	5.240	4.038	5.612	4.878	20	15.3
9	6B98-9170	4.310	6.755	3.291	3.730	6.943	5.101	4.241	2.548	5.270	4.815	5.251	5.042	13	15.1
10	94Ab13449	4.573	7.005	4.007	4.139	8.177	2.000	3.741	5.381	5.409	4.146	3.511	5.020	14	12.1
11	95Ab11469	5.226	5.837	4.178	4.069	7.024	5.257	3.284	5.381	5.494	3.958	5.796	4.920	16	12.0
12	98Ab11720	6.906	5.632	3.803	3.902	6.796	5.139	3.204	5.563	4.971	4.992	5.824	5.509	1	13.2
13	98Ab11993	6.367	6.931	3.612	5.035	5.336	4.902	4.010	4.074	4.959	4.722	4.543	4.882	19	12.6
14	98BX 27-132	4.196	6.370	3.334	3.630	7.564	2.967	3.961	4.467	5.003	4.672	5.246	3.729	25	16.3
15	98ID251	5.185	7.231	4.118	4.130	7.461	5.515	3.671	4.537	5.460	4.112	5.358	5.065	12	10.4
16	MT970229	5.524	5.744	4.312	3.804	7.013	5.327	3.456	5.391	5.541	3.463	5.111	5.273	3	13.5
17	MT981091	5.554	5.575	3.689	4.931	7.849	5.106	3.257	4.865	5.153	5.435	3.734	5.243	5	12.5
18	MT981238	4.658	6.181	3.705	4.255	7.192	2.016	3.204	4.778	5.474	4.317	5.798	5.103	9	14.5
19	ND19119	5.013	6.236	3.951	3.859	7.400	5.837	3.085	6.165	4.565	4.161	5.036	4.889	18	13.6
20	ND19854	4.767	5.835	3.903	4.695	7.316	4.214	3.075	5.837	5.407	3.480	6.165	5.156	8	12.7
21	PB1-95-2R-522	5.340	5.781	3.900	4.150	7.654	4.601	2.709	5.692	5.027	4.504	6.118	5.351	2	12.1
22	PB1-97-2R-7010	5.566	6.274	3.933	4.072	5.536	5.805	3.655	4.859	5.248	2.157	6.665	5.254	4	12.4
23	Samish 23	4.715	5.547	3.966	4.004	7.197	4.252	3.999	5.536	5.476	3.347	6.035	4.878	21	13.3
24	UT97B1480-1534	4.555	6.097	3.615	4.237	7.239	4.757	2.720	5.811	5.182	4.572	5.783	5.078	11	14.0
25	UT97B1480-1632	4.906	6.172	3.503	4.367	6.640	4.709	3.601	4.633	4.683	3.959	5.859	5.203	7	16.1
	LOCATION MEAN:	5.245	6.171	3.821	4.195	7.130	4.709	3.531	4.951	5.165	4.165	5.228	4.961		
	CHECK MEAN:	5.265	6.082	3.972	4.009	6.841	3.669	3.523	4.074	5.045	3.698	4.838	4.638		
	CV %	8.30	5.40	7.09	7.51	6.83	12.10	14.00	9.50	5.51	8.82	7.581	10.78		
	LSD (.05)	0.713	0.548	0.437	0.516	0.887	0.785	0.812	0.650	0.467	0.518	0.678	0.389		

Table 19: 2004 Western Regional Dryland Spring Barley Nursery, Test Weight (kg m⁻³)

Entry Number	Selection or Variety	Potlatch ID	Soda Springs ID	Tetonia ID	Brady MT	Bozeman MT	Fargo ND	Hettinger ND	Langdon ND	Williston ND	Bluecreek UT	Saskatoon SK	Average	Rank
1	Munsing	688.5	692.4	629.3	608.8	686.0	566.3	597.2	604.9	646.1	644.4	619.24	634.8	23
2	Steptoe	653.8	655.1	599.7	544.4	631.9	592.0	534.1	617.8	615.2	660.6	603.26	609.8	25
3	Clark	698.8	700.1	622.9	618.6	709.1	630.6	642.2	630.6	660.2	686.5	658.36	659.8	11
4	Hector	704.0	707.9	656.4	612.6	698.8	617.8	648.6	630.6	673.1	700.2	647.72	663.4	7
5	2B97-4004	698.8	688.5	613.9	606.2	666.7	617.8	626.8	617.8	621.6	694.1	633.94	644.2	22
6	2B99-2316	704.0	664.1	626.8	584.7	692.4	617.8	638.4	617.8	649.9	655.4	652.72	645.8	19
7	2B99-2657	701.4	655.1	630.6	568.9	658.9	630.6	628.1	592.0	631.9	658.7	623.90	634.6	24
8	6B98-9022	691.1	686.0	637.1	577.0	686.0	630.6	607.5	643.5	643.5	692.3	637.76	648.4	15
9	6B98-9170	704.0	698.8	634.5	600.2	656.4	630.6	584.3	630.6	638.4	674.8	635.92	644.4	21
10	94Ab13449	700.1	705.3	662.8	584.3	683.4	617.8	599.7	617.8	640.9	672.6	638.60	647.6	18
11	95Ab11469	702.7	704.0	647.4	641.4	705.3	592.0	571.4	643.5	686.0	679.9	663.78	657.9	13
12	98Ab11720	695.0	713.0	631.9	622.9	710.4	630.6	646.1	617.8	666.7	690.7	649.36	661.3	10
13	98Ab11993	689.8	705.3	601.0	586.0	671.8	630.6	629.3	643.5	646.1	691.3	647.78	649.3	14
14	98BX 27-132	688.5	692.4	635.8	643.5	684.7	604.9	584.3	617.8	656.4	684.2	638.14	648.2	16
15	98ID251	695.0	704.0	631.9	627.6	718.1	643.5	619.0	643.5	668.0	679.9	658.76	662.7	9
16	MT970229	711.7	711.7	664.1	658.9	719.4	630.6	635.8	643.5	689.8	677.9	664.58	673.5	2
17	MT981091	709.1	710.4	669.2	658.9	714.3	630.6	624.2	630.6	673.1	664.5	655.24	667.3	5
18	MT981238	711.7	715.6	679.5	668.0	728.4	643.5	629.3	656.4	688.5	700.3	675.96	681.6	1
19	ND19119	710.4	705.3	678.2	642.6	704.0	630.6	588.2	617.8	691.1	669.9	657.64	663.3	8
20	ND19854	713.0	710.4	668.0	659.8	713.0	617.8	629.3	630.6	698.8	646.9	648.08	666.9	6
21	PB1-95-2R-522	722.0	722.0	661.5	629.8	695.0	643.5	642.2	630.6	696.3	690.9	667.40	672.8	3
22	PB1-97-2R-7010	701.4	698.8	652.5	639.2	715.6	669.2	592.0	643.5	691.1	697.1	673.14	670.3	4
23	Samish 23	695.0	698.8	651.2	613.9	684.7	643.5	643.5	617.8	678.2	677.5	649.66	659.4	12
24	UT97B1480-1534	697.6	701.4	598.5	590.3	689.8	630.6	586.9	630.6	665.4	685.5	653.38	648.2	17
25	UT97B1480-1632	701.4	701.4	612.6	579.2	679.5	617.8	592.0	630.6	657.7	672.4	644.98	644.5	20
	LOCATION MEAN:	699.6	697.9	639.9	615.1	692.1	624.5	612.6	628.1	664.1	677.9	647.97	654.4	
	CHECK MEAN:	686.3	688.9	627.1	596.1	681.5	601.7	605.5	621.0	648.6	672.9	632.15	641.97	
	CV %												2.45	
	LSD (.05)												11.7	

Table 20: 2004 Western Regional Dryland Spring Barley Nursery, Plant Height (cm)

Entry Number	Selection or Variety	Potlatch ID	Bozeman MT	Fargo ND	Hettinger ND	Langdon ND	Williston ND	Bluecreek UT	Average
1	Munsing	81.3	80.7	69.1	49.0	78.5	64.0	55.9	68.3
2	Steptoe	101.6	99.7	96.0	52.0	94.4	72.0	61.0	82.4
3	Clark	99.1	97.7	86.3	64.0	86.1	71.3	73.7	82.6
4	Hector	101.6	103.0	93.7	65.0	91.9	76.0	71.1	86.0
5	2B97-4004	101.6	90.3	87.9	59.0	87.1	64.7	76.2	81.0
6	2B99-2316	96.5	88.7	85.3	58.0	85.3	61.0	68.6	77.6
7	2B99-2657	96.5	90.7	88.1	57.0	86.6	64.7	81.3	80.7
8	6B98-9022	106.7	109.3	90.6	67.0	84.5	72.7	76.2	86.7
9	6B98-9170	104.1	114.3	91.2	63.0	87.3	77.0	83.8	88.7
10	94Ab13449	91.4	96.0	80.3	59.0	79.9	71.7	76.2	79.2
11	95Ab11469	88.9	93.7	91.4	59.0	88.8	73.7	76.2	81.7
12	98Ab11720	81.3	88.0	83.2	51.0	82.5	63.7	63.5	73.3
13	98Ab11993	88.9	83.7	81.8	56.0	79.9	60.3	68.6	74.2
14	98BX 27-132	96.5	85.0	89.2	59.0	83.2	79.3	78.7	81.6
15	98ID251	94.0	88.3	90.2	58.0	83.6	66.0	76.2	79.5
16	MT970229	94.0	88.0	89.2	60.0	86.0	66.3	76.2	80.0
17	MT981091	88.9	81.3	80.4	58.0	81.7	65.0	73.7	75.6
18	MT981238	101.6	98.3	94.0	68.0	93.5	74.7	88.9	88.4
19	ND19119	109.2	112.0	85.4	58.0	84.4	75.0	78.7	86.1
20	ND19854	104.1	87.3	84.7	58.0	79.0	72.3	78.7	80.6
21	PB1-95-2R-522	76.2	90.7	80.5	55.0	84.5	71.3	73.7	76.0
22	PB1-97-2R-7010	71.1	104.7	83.2	54.0	78.5	56.7	73.7	74.5
23	Samish 23	71.1	83.3	81.6	58.0	77.5	62.0	71.1	72.1
24	UT97B1480-1534	88.9	106.7	86.9	62.0	91.1	76.0	76.2	84.0
25	UT97B1480-1632	99.1	100.7	84.3	60.0	88.8	72.0	78.7	83.3
	LOCATION MEAN:	93.4	94.5	86.2	59.0	85.0	69.8	74.3	80.2
	CHECK MEAN:	95.9	95.3	86.3	57.5	87.7	70.8	65.4	79.83
	CV %			3.3		3.6	4.0		6.77
	LSD (.05)			4.0		4.6	4.6		4.9

Table 21: 2004 Western Regional Dryland Spring Barley Nursery, Heading Date (Julian)

Entry Number	Selection or Variety	Potlatch ID	Tetonia ID	Bozeman MT	Fargo ND	Hettinger ND	Langdon ND	Williston ND	Bluecreek UT	Saskatoon SK	AVERAGE
1	Munsing	174.5	190.0	175.3	176.0	172.0	190.8	183.0	167.5	194.5	180.4
2	Steptoe	171.0	188.0	176.7	176.7	172.0	193.4	182.3	191.0	193.5	182.7
3	Clark	173.5	196.0	180.0	177.7	177.0	193.3	185.7	171.0	198.5	183.6
4	Hector	173.0	192.0	180.7	178.7	175.0	195.1	183.3	170.8	198.5	183.0
5	2B97-4004	174.5	194.0	181.0	180.7	182.0	195.2	186.7	172.0	199.5	185.1
6	2B99-2316	173.0	194.0	180.0	181.0	181.0	195.6	186.7	170.5	199.5	184.6
7	2B99-2657	178.0	192.0	181.0	181.0	180.0	195.6	186.0	169.5	200.0	184.8
8	6B98-9022	172.5	194.0	178.3	176.3	171.0	192.4	182.3	165.3	197.0	181.0
9	6B98-9170	171.0	188.0	177.3	176.3	170.0	193.6	182.7	164.8	197.0	180.1
10	94Ab13449	173.5	185.0	176.3	175.3	167.0	192.6	181.3	167.5	196.0	179.4
11	95Ab11469	177.0	190.0	177.7	177.3	169.0	193.6	182.3	167.8	197.0	181.3
12	98Ab11720	173.0	196.0	182.3	181.3	180.0	195.4	189.3	169.5	200.5	185.3
13	98Ab11993	176.5	193.0	181.0	181.0	180.0	194.8	189.3	172.3	200.0	185.3
14	98BX 27-132	172.5	188.0	174.0	173.7	166.0	188.5	179.3	164.8	192.0	177.6
15	98ID251	176.0	191.0	180.3	179.7	177.0	195.0	189.0	172.5	199.5	184.4
16	MT970229	173.0	191.0	181.0	180.0	174.0	194.7	185.0	168.5	200.0	183.0
17	MT981091	173.5	191.0	178.0	179.7	175.0	194.3	183.3	167.8	196.5	182.1
18	MT981238	170.0	190.0	176.7	179.0	169.0	193.9	182.3	166.5	196.5	180.4
19	ND19119	169.5	190.0	175.0	175.3	167.0	191.7	181.7	166.8	194.5	179.1
20	ND19854	174.5	185.0	175.0	174.7	166.0	191.4	180.7	165.5	194.5	178.6
21	PB1-95-2R-522	175.0	191.0	181.0	179.3	175.0	194.1	185.0	166.0	199.5	182.9
22	PB1-97-2R-7010	173.5	197.0	182.0	181.7	179.0	195.5	187.7	171.3	200.0	185.3
23	Samish 23	178.0	196.0	183.0	182.0	179.0	196.0	186.3	173.5	200.0	186.0
24	UT97B1480-1534	173.5	184.0	174.0	174.1	166.0	191.0	179.0	164.0	195.0	177.8
25	UT97B1480-1632	174.5	184.0	173.3	174.0	166.0	190.5	178.0	163.0	194.5	177.5
	LOCATION MEAN:	173.78	190.80	178.44	178.10	173.00	193.50	183.70	169.17	189.58	186.84
	CHECK MEAN:	173.78	190.80	178.44	178.10	173.40	193.52	183.93	175.06	197.36	182.44
	CV %				3.20		1.40	1.00		0.39	1.31
	LSD (.05)				1.10		0.80	1.10		1.26	1.97

Table 22: 2004 Western Regional Dryland Spring Barley Nursery, Percent Plump Barley*

Entry Number	Selection or Variety	Potlatch ID	Soda Springs ID	Tetonia ID	Brady MT	Bozeman MT	Fargo ND	Hettinger ND	Langdon ND	Williston ND	Bluecreek UT	Saskatoon SK	Average
1	Munsing	99.0	99.0	86.0	63.5	77.9	89.0	92.0	94.0	60.4	92.8	69.1	83.9
2	Steptoe	98.0	97.0	77.0	92.3	93.8	71.0	91.0	83.0	85.9	86.6	83.1	87.2
3	Clark	100.0	99.0	81.0	80.9	82.2	95.0	96.0	97.0	80.6	86.5	76.8	88.6
4	Hector	100.0	100.0	89.0	65.3	86.9	88.0	95.0	95.0	87.5	79.5	74.1	87.3
5	2B97-4004	99.0	98.0	79.0	83.4	67.8	94.0	92.0	98.0	74.7	91.0	82.3	87.2
6	2B99-2316	99.0	93.0	84.0	78.0	79.9	94.0	92.0	97.0	81.4	91.3	81.8	88.3
7	2B99-2657	99.0	93.0	83.0	71.8	67.2	93.0	94.0	98.0	79.2	81.4	83.0	85.7
8	6B98-9022	99.0	95.0	87.0	93.6	98.6	82.0	98.0	90.0	90.9	88.3	92.1	92.2
9	6B98-9170	96.0	96.0	83.0	97.5	96.8	88.0	97.0	93.0	79.8	82.2	89.7	90.8
10	94Ab13449	94.0	92.0	78.0	89.3	93.8	78.0	95.0	84.0	75.2	85.2	83.2	86.2
11	95Ab11469	100.0	100.0	95.0	91.9	93.7	93.0	94.0	97.0	96.2	91.3	86.2	94.4
12	98Ab11720	100.0	100.0	75.0	71.5	83.9	93.0	96.0	97.0	77.5	61.3	77.5	84.8
13	98Ab11993	100.0	100.0	85.0	82.3	77.2	97.0	97.0	99.0	88.5	93.5	85.6	91.4
14	98BX 27-132	100.0	100.0	95.0	96.5	95.2	94.0	96.0	98.0	89.7	95.1	85.2	95.0
15	98ID251	100.0	100.0	86.0	92.4	93.4	97.0	95.0	96.0	84.5	83.7	84.3	92.0
16	MT970229	100.0	100.0	96.0	94.3	94.7	96.0	94.0	98.0	95.9	93.9	82.8	95.1
17	MT981091	100.0	100.0	95.0	93.1	93.3	94.0	94.0	97.0	84.2	85.3	79.9	92.3
18	MT981238	100.0	100.0	98.0	93.7	94.1	95.0	92.0	95.0	91.6	84.4	88.9	93.9
19	ND19119	100.0	100.0	98.0	98.8	99.1	99.0	97.0	99.0	97.2	95.8	96.1	98.2
20	ND19854	100.0	100.0	99.0	96.7	94.7	96.0	96.0	98.0	97.2	87.4	87.5	95.7
21	PB1-95-2R-522	100.0	100.0	83.0	74.8	74.5	94.0	95.0	97.0	91.4	63.8	85.1	87.1
22	PB1-97-2R-7010	100.0	100.0	94.0	90.1	97.0	97.0	93.0	99.0	95.8	95.0	87.2	95.3
23	Samish 23	98.0	100.0	75.0	74.4	52.3	93.0	95.0	98.0	86.3	63.5	75.4	82.8
24	UT97B1480-1534	95.0	99.0	37.0	87.2	94.3	75.0	90.0	85.0	70.5	75.3	84.7	81.2
25	UT97B1480-1632	97.0	96.0	43.0	89.0	90.4	77.0	92.0	90.0	76.4	80.4	84.2	83.2
	LOCATION MEAN:	98.9	98.3	83.2	85.8	86.9	90.5	94.0	94.9	84.7	84.6	83.4	89.6
	CHECK MEAN:	99.3	98.8	83.3	75.5	85.2	85.8	93.5	92.3	78.6	86.4	75.8	86.7
	CV %				10.7					3.5			8.2
	LSD (.05)				12.79					6.00			5.36

* Percent over sieve, 2-rowed >2.4mm, 6-rowed >2.2mm

Table 23: 2004 Western Regional Dryland Spring Barley Nursery, Percent Thin Barley*

Entry Number	Selection or Variety	Potlatch ID	Soda Springs ID	Tetonia ID	Brady MT	Bozeman MT	Fargo ND	Langdon ND	Williston ND	Bluecreek UT	AVERAGE
1	Munsing	1.0	1.0	14.0	35.7	0.9	11.0	6.0	13.2	7.2	10.0
2	Steptoe	0.0	1.0	5.0	7.6	2.0	5.0	2.0	3.9	13.4	4.4
3	Clark	0.0	1.0	19.0	18.6	0.9	5.0	3.0	4.1	13.5	7.2
4	Hector	0.0	0.0	11.0	34.5	0.3	12.0	5.0	3.2	20.5	9.6
5	2B97-4004	1.0	2.0	21.0	17.6	2.1	6.0	2.0	7.4	9.0	7.6
6	2B99-2316	1.0	7.0	16.0	21.7	0.9	6.0	3.0	4.7	8.7	7.7
7	2B99-2657	1.0	7.0	17.0	28.0	1.9	7.0	2.0	7.4	18.6	10.0
8	6B98-9022	0.0	1.0	2.0	6.3	0.2	3.0	1.0	1.4	11.7	3.0
9	6B98-9170	0.0	1.0	4.0	2.3	0.4	2.0	1.0	4.3	17.8	3.6
10	94Ab13449	1.0	2.0	5.0	10.5	1.2	2.0	2.0	6.5	14.8	5.0
11	95Ab11469	0.0	0.0	5.0	7.9	0.3	7.0	3.0	1.3	8.7	3.7
12	98Ab11720	0.0	0.0	25.0	28.3	0.5	7.0	3.0	5.6	38.7	12.0
13	98Ab11993	0.0	0.0	15.0	17.5	0.9	3.0	1.0	3.0	6.5	5.2
14	98BX 27-132	0.0	0.0	5.0	3.4	0.2	6.0	2.0	2.4	4.9	2.7
15	98ID251	0.0	0.0	14.0	7.4	0.2	3.0	4.0	3.4	16.3	5.4
16	MT970229	0.0	0.0	4.0	5.5	0.1	4.0	2.0	1.0	6.1	2.5
17	MT981091	0.0	0.0	5.0	6.9	0.2	6.0	3.0	3.8	14.7	4.4
18	MT981238	0.0	0.0	2.0	6.1	0.2	5.0	5.0	1.9	15.6	4.0
19	ND19119	0.0	0.0	2.0	1.3	0.1	1.0	1.0	1.0	4.2	1.2
20	ND19854	0.0	0.0	1.0	3.3	0.2	4.0	2.0	0.8	12.6	2.7
21	PB1-95-2R-522	0.0	0.0	17.0	24.9	0.5	6.0	3.0	2.4	36.2	10.0
22	PB1-97-2R-7010	0.0	0.0	6.0	9.7	0.1	3.0	1.0	1.5	5.0	2.9
23	Samish 23	2.0	0.0	25.0	25.3	2.6	7.0	2.0	2.5	36.5	11.4
24	UT97B1480-1534	1.0	0.0	27.0	12.5	1.1	4.0	1.0	10.1	24.7	9.0
25	UT97B1480-1632	0.0	1.0	24.0	10.7	1.8	3.0	1.0	7.9	19.6	7.7
	LOCATION MEAN:	0.32	0.96	11.64	13.98	0.79	5.12	2.44	4.20	15.42	6.11
	CHECK MEAN:	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82	7.82
	CV %				65.9				26.8		83.4
	LSD (.05)				12.87				2.30		4.10

*Percent through 2.2mm screen

Table 24: 2004 Western Regional Dryland Spring Barley Nursery, Lodging

Entry Number	Selection or Variety	Potlatch ID	Tetonia ID	Bozeman MT	Fargo ND	Langdon ND	Williston ND
		%	%	0-10*	0-9**	0-9**	0-10*
1	Munsing	80.0	85.0	6.0	9.1	8.8	7.7
2	Steptoe	0.0	3.3	0.0	5.3	4.0	2.7
3	Clark	0.0	3.3	0.7	7.3	4.6	1.7
4	Hector	0.0	6.7	0.0	8.0	5.2	1.3
5	2B97-4004	0.0	0.0	0.0	5.6	3.3	0.7
6	2B99-2316	0.0	0.0	0.0	6.7	4.0	0.0
7	2B99-2657	0.0	0.0	0.0	7.1	3.4	0.7
8	6B98-9022	0.0	3.3	0.0	3.3	0.8	1.0
9	6B98-9170	0.0	8.3	0.0	3.3	1.0	1.7
10	94Ab13449	0.0	1.7	0.0	3.1	1.1	1.0
11	95Ab11469	0.0	3.3	0.0	6.0	1.7	0.3
12	98Ab11720	0.0	0.0	0.0	6.9	2.3	0.7
13	98Ab11993	0.0	0.0	0.0	6.7	6.2	1.3
14	98BX 27-132	90.0	48.3	3.0	9.0	8.4	3.3
15	98ID251	0.0	0.0	0.0	4.4	2.0	0.3
16	MT970229	0.0	0.0	0.0	4.7	3.7	0.7
17	MT981091	0.0	0.0	0.0	4.7	1.6	0.7
18	MT981238	0.0	0.0	0.0	4.4	2.8	0.7
19	ND19119	0.0	0.0	0.0	5.9	3.6	0.3
20	ND19854	0.0	0.0	0.0	3.7	2.2	1.0
21	PB1-95-2R-522	0.0	0.0	0.0	5.0	2.1	0.0
22	PB1-97-2R-7010	0.0	0.0	0.0	4.3	1.7	1.0
23	Samish 23	0.0	0.0	0.0	3.2	1.3	0.0
24	UT97B1480-1534	0.0	0.0	0.0	2.9	1.7	3.7
25	UT97B1480-1632	0.0	0.0	0.0	3.9	1.1	3.7
	LOCATION MEAN:		6.53	0.39	5.4	3.1	1.5
	CV %				13.0	34.0	45.2
	LSD (.05)				1.0	1.5	1.1

* 0.0 to 10.0 where 0.0 = no lodging, 10.0 = complete lodging,

** 0.0 to 9.0 where 0.0 = no lodging, 9.0 = complete lodging

Table 25: 2004 Western Regional Dryland Spring Barley Nursery, Percent Protein

Entry Number	Selection or Variety	Hettinger MT	Williston ND	AVERAGE
1	Munsing	12.2	14.0	13.1
2	Steptoe	10.2	10.9	10.6
3	Clark	13.1	13.9	13.5
4	Hector	12.8	13.7	13.3
5	2B97-4004	12.7	13.4	13.1
6	2B99-2316	12.0	12.3	12.2
7	2B99-2657	12.6	12.5	12.6
8	6B98-9022	12.3	12.8	12.6
9	6B98-9170	12.1	12.4	12.3
10	94Ab13449	9.8	10.7	10.3
11	95Ab11469	11.8	12.0	11.9
12	98Ab11720	12.4	13.0	12.7
13	98Ab11993	11.7	13.4	12.6
14	98BX 27-132	13.3	14.7	14.0
15	98ID251	12.9	13.4	13.2
16	MT970229	12.3	13.0	12.7
17	MT981091	12.4	13.3	12.9
18	MT981238	13.3	13.6	13.5
19	ND19119	10.9	10.9	10.9
20	ND19854	10.9	10.6	10.8
21	PB1-95-2R-522	11.2	12.6	11.9
22	PB1-97-2R-7010	12.1	12.7	12.4
23	Samish 23	12.6	13.5	13.1
24	UT97B1480-1534	11.5	12.1	11.8
25	UT97B1480-1632	10.9	11.9	11.4
	LOCATION MEAN:	12.00	12.70	12.35
	CHECK MEAN:	12.08	13.13	12.60
	CV %			2.96
	LSD (.05)			0.62

Table 26: 2004 Western Regional Dryland Spring Barley Nursery, Disease Ratings

Entry Number	Selection or Variety	Fargo ND	Langdon ND	Saskatoon SK			
		Net Blotch	Net Blotch	Saskatoon Spot Blotch	Melfort Spot Blotch	Melfort Net Blotch	Brandon FHB
		1-9	1-9	(0-9)	(0-9)	(0-9)	(1-5)
1	Munsing	4.6	4.0	5.0	5.5	3.0	3.0
2	Step toe	2.4	4.7	6.0	3.0	6.0	5.0
3	Clark	4.9	6.0	7.0	5.0	5.0	2.0
4	Hector	7.6	5.7	7.0	4.0	5.0	3.0
5	2B97-4004	4.0	2.0	6.0	4.0	4.0	3.0
6	2B99-2316	3.1	2.0	8.0	4.0	5.0	2.5
7	2B99-2657	2.6	2.0	7.0	5.0	2.0	2.5
8	6B98-9022	1.6	3.3	7.0	3.0	1.0	3.0
9	6B98-9170	2.1	3.0	6.0	4.0	2.0	3.0
10	94Ab13449	2.0	1.7	6.5	3.0	0.0	4.0
11	95Ab11469	7.1	8.0	8.0	3.0	7.0	3.5
12	98Ab11720	2.7	5.7	7.0	5.0	2.0	4.0
13	98Ab11993	2.5	4.3	7.0	3.0	2.0	4.5
14	98BX 27-132	4.4	3.7	7.0	4.0	1.0	4.0
15	98ID251	2.1	4.0	7.0	5.0	1.0	2.5
16	MT970229	3.6	5.7	8.0	6.0	5.0	3.0
17	MT981091	5.0	6.3	7.0	4.0	8.0	3.5
18	MT981238	2.3	2.3	7.0	6.0	1.0	4.0
19	ND19119	1.9	3.0	7.0	4.0	5.0	2.0
20	ND19854	3.0	4.7	8.0	5.0	5.0	2.0
21	PB1-95-2R-522	2.4	3.7	7.0	6.0	3.0	4.0
22	PB1-97-2R-7010	2.6	2.3	7.0	6.0	5.0	3.5
23	Samish 23	4.3	3.3	8.5	6.0	7.0	4.0
24	UT97B1480-1534	4.6	5.3	6.5	3.0	5.5	4.0
25	UT97B1480-1632	1.8	3.0	5.0	4.5	2.0	4.0
	LOCATION MEAN:	3.4	4.0	6.9	4.4	3.7	3.3
	CV %	22.0	25.0				
	LSD (.05)	1.1	1.4				