

2011

WESTERN REGIONAL SPRING BARLEY NURSERY



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



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WESTERN REGIONAL SPRING BARLEY NURSERY

2011

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

2011WRBNREPORT.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

2011WRSBNDATA.xls: Excel® files containing data for the 2011 Western Regional 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, 2011

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Locations are shown on Fig. 1, page 19.

2011 WESTERN REGIONAL SPRING BARLEY NURSERY

The **Western Regional Spring Barley Nursery** is intended to be grown under all climatic conditions in the Pacific Northwest and Northern Great Plains. It contains both 2- and 6-rowed feed and malting barley.

2011 nursery sites that were harvested and summarized for yield and/or agronomic characters from 13 locations are:

- | | | |
|---------------------|-----------------------|--------------------|
| (1) Aberdeen, ID | (7) Minot, ND | (13) Saskatoon, SK |
| (2) Idaho Falls, ID | (8) Williston, ND | |
| (3) Tetonia, ID | (9) Logan, UT | |
| (4) Bozeman, MT | (10) Mt. Stirling, UT | |
| (5) Conrad, MT | (11) Pullman, WA | |
| (6) Hettinger, ND | (12) Powell, WY | |

Observation nurseries were grown at St. Paul, MN, Pullman, WA, and Mt. Vernon, WA. Data was not available from the Fairfield, MT and Langdon, ND locations. Yield data from Minot, ND was not reported due to spot flooding and dye-back. Data from Hettinger, ND and Powell, WY were not included in the data analysis but are shown in the tables. The Ug99 disease ratings were not available from St. Paul at the time of publication.

General Information

The entry list for the 2011 Western Regional Spring Barley Nursery is shown in Table 1. In 2011, commercial cultivars were again entered into the nursery, including those from Busch Agricultural Resources (6 lines), and Western Plant Breeders (1 check).

There were 31 entries in this nursery in 2011. 16 of the 27 entries (besides checks) in the 2010 WRSBN nursery were dropped in 2011. These were: MT020155, MT020204, MT030042, all tested 4 years; 2Ab04-X00017-4, BZ505-172, BZ505 192, MT040073 , UT99B1670-3530, 04WA-113.22, 04WZN-124, CDC Meredith, CDC Coalition, and CDC Austenson, all tested 2 years; and 2B07-1562, 2ND26328, and 05WA-329.49, all tested 1 year. New entries in the test were: 2B07-1516, 01Ab9663, 2Ab04-X01084-27, MT020162, MT061169, MT070111, 2ND24388, 2ND25272, 2ND26333, ND23898, UT6R2120-14, 06WA-412.4, WAS 2, 2004NZ151, 2004NZ163, and CDC Kindersley.

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, Steptoe, Harrington, and CDC Metcalfe (Table 2), for 2009 through 2011, show that the check's mean grain yield for the 2011

season was lower than average for the years tested and lowest of the three years; 1.14 Mg ha⁻¹ lower than 2009, and 0.82 Mg ha⁻¹ lower than 2010. Test weight was lower than average and 2009, plant height was shorter than the previous two years, heading date was later than average and the previous years, percent plump barley was 8.00 percent lower than average, and protein was the second highest recorded of the three years and 0.31 percent higher than average.

In 2011 the highest yielding entry over all locations was the 6-rowed feed cultivar UT04B2041-42 at 4.92 Mg ha⁻¹ (Table 3), followed by 2004NZ151, a 2-rowed feed cultivar, at 4.90 Mg ha⁻¹. The next highest was UT6R2120-14, a 6-rowed feed type, at 4.89 Mg ha⁻¹, and the fourth highest was Baronesse, the 2-rowed feed check, at 4.87 Mg ha⁻¹. The highest yielding malting type barley was 02Ab17271, ranked 9th at 4.73 Mg ha⁻¹. The next highest yielding malting barley was 2B04-175, ranked 10th at 4.66 Mg ha⁻¹. The top 14 entries had statistically equal yields at the 95% confidence level. Except for Baronesse, the check cultivars ranked 20th or less. 2004NZ163 had the highest test weight at 686.3 kg m⁻³. 2ND24388 had the highest percent plump barley at 93.0%.

In the period of years summary for 2009 through 2011 (Table 4), Baronesse was the highest yielding entry with at least two years data at 5.65 Mg ha⁻¹. UT04B2041-42 (6-rowed feed type) was the next highest yielding entry with 2 years data at 5.63 Mg ha⁻¹. 2B04-175, a 2-rowed malting type, was next highest at 5.44 Mg ha⁻¹. Of the lines tested at least 2 years, Baronesse had the highest test weight at 678.0 kg m⁻³, and 2ND25276 had the highest percent plump barley at 92.3%.

Tables 5 through 12 present the 2011 WRSBN data summarized over locations for grain yield, test weight, height, heading date, plump barley, lodging, percent protein, and disease ratings.



Table 1: 2011 Western Regional Spring Barley Nursery, Entry List

Seed Source	Entry Number	Entry	Parentage	TYPE	Grade
WSU	1	Steptoe	CI 15229	6 row	feed
WPB	2	Baronesse	PI 568246	2 row	feed
USDA-ARS	3	Harrington		2 row	malting
USDA-ARS	4	AC Metcalfe		2 row	malting
BARI	5	2B04-0175	2B97-4719/2B97-4004	2 row	malting
BARI	6	2B05-0811	2B99-2763/2B00-0719	2 row	malting
BARI	7	2B06-0929	2B97-4004//2B00-0784/2B99-2771	2 row	malting
BARI	8	2B06-0933	2B97-4004//2B97-4299/2B99-2763	2 row	malting
BARI	9	* 2B07-1516		2 row	malting
BARI	10	2B07-1590	MERIT 16/2B01-2005	2 row	malting
USDA-ARS	11	* 01Ab9663	93Ab375//92Ab5189/M83	6 row	malting
USDA-ARS	12	02Ab17271	85Ab2323/Merit	2 row	malting
USDA-ARS	13	* 2Ab04-X01084-27	98Ab11993/Garnet	2 row	malting
MSU	14	* MT020162		2 row	feed
MSU	15	* MT061169		2 row	feed
MSU	16	* MT070111		2 row	feed
NDSU	17	2ND25276	ND20802/3/ND1922//ND19929/ND20177	2 row	malting
NDSU	18	* 2ND24388	ND17274/ND19119//ND19854	2 row	malting
NDSU	19	* 2ND25272	ND20802/3/ND19922//ND19929/ND20177	2 row	malting
NDSU	20	* 2ND26333	ND22032-2/ND21972	2 row	malting
NDSU	21	ND22421	ND18546/ND19656	6 row	malting
NDSU	22	* ND23898	Drummond/ND17643	6 row	malting
USU	23	UT04B2041-42	Goldeneye/Columbia	6 row	feed
USU	24	* UT6R2120-14		6 row	feed
WSU	25	05WA-316.K	Baronesse/PB1-95-2R-522	2 row	feed
WSU	26	05WA-316.99	Baronesse/PB1-95-2R-522	2 row	feed
WSU	27	* 06WA-412.4	Bob/Baronesse//Xena/3/WA 10497-97	2 row	feed
WSU	28	* WAS 2	Bastama/Meresse	2 row	waxy
WSU	29	* 2004NZ151	00NZ304xCellar	2 row	feed
WSU	30	* 2004NZ163	00NZ304x85Ab2323	2 row	feed
USASK	31	* CDC Kindersley	SM00490/BM9647D-64	2 row	malting

* new entries

Table 2: Check Seasonal Measurements (2009-2011) of the Western Regional Spring Barley Nursery

Average of adjusted means of checks Baronesse, Steptoe, Harrington, and AC Metcalfe

Variety or Selection	Grain Yield	Test Weight	Heading Date	Plant Height	Plump Barley*	Protein
	Mg ha ⁻¹	kg m ⁻³	From 1/1	cm	%	%
2009						
Number of Locations	16	12	12	14	10	5
Steptoe	5.624	625.6	181.7	73.5	93.9	10
Baronesse	6.141	687	187.4	72.3	93.5	10.5
Harrington	5.395	672.5	186.5	78.4	93	10.8
AC Metcalfe	5.307	678.1	185.96	80	92.97	11.09
2009 AVERAGE	5.617	665.80	185.39	76.05	93.34	10.60
2010						
Number of Locations	13	11	12	13	9	2
Steptoe	5.451	623.3	180.2	85.9	85.3	12.6
Baronesse	5.651	669.2	184	78.4	85.3	15.1
Harrington	5.042	655.1	184.3	82.2	85.1	15.2
AC Metcalfe	5.068	657.2	183.5	84	84.2	15.8
2010 AVERAGE	5.303	651.20	183.00	82.63	84.98	14.68
2011						
Number of Locations	10	9	8	8	9	3
Steptoe	4.459	614.5	185	71.4	87.6	11.2
Baronesse	4.867	676.7	189	66.8	87.3	12.5
Harrington	4.291	655.4	189	66.6	87.6	12.4
AC Metcalfe	4.302	662.1	189	70.5	85.3	12.7
2011 AVERAGE	4.480	652.17	187.98	68.84	86.97	12.20
AVERAGE						
Number of Locations	39	33	33	35	28	12
Steptoe	4.866	611.9	180.4	78.4	88.9	11.4
Baronesse	5.153	665.6	185.0	73.6	88.7	13.1
Harrington	4.570	652.0	184.7	79.0	88.6	12.9
AC Metcalfe	4.970	666.42	185.80	79.31	87.50	12.52
BASE AVERAGE	5.221	656.95	185.14	76.84	88.43	11.89

Table 3: 2011 Western Regional Spring Barley Nursery, Means Summary

Entry	CULTIVAR/ DESIGNATION	GRAIN YIELD		TEST WEIGHT	HEADING DATE	PLANT HEIGHT	PLUMP BARLEY*	PROTEIN
Number		Mg ha ⁻¹	Rank	kg m ⁻³	From 1/1	cm	%	%
	Number of Locations**	10		9	8	8	9	3
1	Step toe	4.459	20	614.5	185	71.4	87.6	11.2
2	Baronesse	4.867	4	676.7	189	66.8	87.3	12.5
3	Harrington	4.291	25	655.4	189	66.6	87.6	12.4
4	AC Metcalfe	4.302	23	662.1	189	70.5	85.3	12.7
5	2B04-0175	4.662	10	669.0	189	68.6	89.2	12.5
6	2B05-0811	4.657	11	655.7	189	69.2	87.6	12.4
7	2B06-0929	4.513	18	645.8	188	63.0	86.6	12.9
8	2B06-0933	4.596	15	654.4	189	63.5	82.7	12.9
9	2B07-1516	4.623	14	655.3	191	68.6	87.5	13.1
10	2B07-1590	4.582	17	655.6	188	65.2	87.7	13.3
11	01Ab9663	4.298	24	660.2	188	72.4	86.8	10.3
12	02Ab17271	4.728	9	662.0	192	70.2	82.4	13.1
13	2Ab04-X01084-27	4.587	16	654.1	189	65.4	86.7	13.0
14	MT020162	4.642	13	681.2	190	70.0	85.8	12.9
15	MT061169	4.461	19	678.0	189	65.2	88.0	13.5
16	MT070111	4.656	12	681.3	189	66.7	88.2	12.4
17	2ND25276	4.224	27	670.1	188	69.3	92.3	11.0
18	2ND24388	4.185	29	667.9	185	68.8	93.0	12.1
19	2ND25272	4.197	28	671.7	185	63.0	91.0	11.3
20	2ND26333	4.078	30	677.9	187	63.6	92.9	12.9
21	ND22421	4.290	26	642.8	184	63.0	87.9	12.3
22	ND23898	3.942	31	664.1	185	75.0	84.2	12.1
23	UT04B2041-42	4.921	1	646.0	179	67.0	83.5	12.0
24	UT6R2120-14	4.891	3	639.7	184	67.4	83.0	12.2
25	05WA-316.K	4.829	6	673.3	188	64.4	87.3	12.4
26	05WA-316.99	4.832	5	665.2	188	68.9	87.7	12.5
27	06WA-412.4	4.738	8	683.4	189	61.6	87.7	12.5
28	WAS 2	4.395	21	680.4	187	54.5	91.6	14.0
29	2004NZ151	4.904	2	681.8	190	58.6	87.2	11.9
30	2004NZ163	4.760	7	686.3	191	57.3	83.5	12.2
31	CDC Kindersley	4.394	22	661.9	188	68.5	81.0	13.1
MEAN:		4.532		663.67	187.73	66.28	87.13	12.44
CHECK'S MEAN:		4.480		652.17	187.98	68.84	86.97	12.20
CV %		9.301		2.14	2.18	7.55	4.80	6.54
LSD (.05)		0.320		11.36	3.47	4.24	3.34	1.13

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

Table 4: Summary Across Locations and Years, Western Regional Spring Barley Nursery, 2009-2011.

Entry Number	CULTIVAR/ DESIGNATION	Grain Yield			Test Weight	Heading Date	Plant Height	Plump Barley*	Protein
		Station Years	Mg ha ⁻¹	RANK	kg m ⁻³	From 1/1	cm	%	%
1	Step toe	39	5.268	8	621.7	182.0	77.6	89.1	10.9
2	Baronesse	39	5.651	1	678.0	186.5	73.3	88.9	12.0
3	Harrington	39	4.994	13	661.7	186.3	77.1	88.7	12.2
4	AC Metcalfe	39	4.970	14	666.4	185.8	79.3	87.7	12.5
5	2B04-0175	39	5.436	3	672.4	185.8	80.1	90.1	12.4
6	2B05-0811	39	5.392	5	661.7	186.1	75.5	89.3	12.0
7	2B06-0929	23	5.170	9	654.6	185.2	73.2	87.4	13.6
8	2B06-0933	23	5.152	10	657.2	185.8	74.7	83.6	13.8
9	2B07-1516	23	5.141	11	660.6	186.3	75.1	88.0	13.7
10	2B07-1590	23	5.096	12	658.7	185.4	75.3	88.8	14.2
11	01Ab9663	10	4.298	26	660.2	188.0	72.4	86.8	10.3
12	02Ab17271	39	5.370	6	667.3	189.3	77.3	87.3	12.4
13	2Ab04-X01084-27	10	4.587	22	654.1	189.0	65.4	86.7	13.0
14	MT020162	10	4.642	21	681.2	190.0	70.0	85.8	12.9
15	MT061169	10	4.461	23	678.0	189.0	65.2	88.0	13.5
16	MT070111	10	4.656	20	681.3	189.0	66.7	88.2	12.4
17	2ND25276	10	4.224	27	670.1	188.0	69.3	92.3	11.0
18	2ND24388	10	4.185	29	667.9	185.0	68.8	93.0	12.1
19	2ND25272	10	4.197	28	671.7	185.0	63.0	91.0	11.3
20	2ND26333	10	4.078	30	677.9	187.0	63.6	92.9	12.9
21	ND22421	23	4.838	17	651.5	182.1	71.9	88.7	13.0
22	ND23898	10	3.942	31	664.1	185.0	75.0	84.2	12.1
23	UT04B2041-42	39	5.629	2	649.5	182.2	77.9	85.3	11.4
24	UT6R2120-14	10	4.891	16	639.7	184.0	67.4	83.0	12.2
25	05WA-316.K	23	5.395	4	672.7	184.6	72.6	86.1	13.2
26	05WA-316.99	23	5.311	7	660.0	184.9	77.4	86.7	13.2
27	06WA-412.4	10	4.738	19	683.4	189.0	61.6	87.7	12.5
28	WAS 2	10	4.395	24	680.4	187.0	54.5	91.6	14.0
29	2004NZ151	10	4.904	15	681.8	190.0	58.6	87.2	11.9
30	2004NZ163	10	4.760	18	686.3	191.0	57.3	83.5	12.2
31	CDC Kindersley	10	4.394	25	661.9	188.0	68.5	81.0	13.1
MEAN:			5.070		662.75	185.89	73.77	87.80	12.42
CHECK'S MEAN:			4.480		652.17	187.98	68.84	88.43	12.20

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

Table 5: 2011 Western Regional Spring Barley Nursery, Grain Yield (Mg ha⁻¹)

Entry NO.	CULTIVAR/ DESIGNATION	AVERAGE		Rank Ave.	Aberdeen	Idaho Falls	Tetonia	Bozeman	Conrad	Hettinger	Williston	Logan	Mt. Stirling	Pullman	Powell	Saskatoon
		Mg ha ⁻¹	Rank		ID	ID	ID	MT	MT	MT	ND	UT	UT	WA	WY	SK
1	Steptoe	4.459	20	15.3	6.735	8.365	2.354	4.228	4.885	3.972	3.215	4.931	2.012	4.432	7.934	3.435
2	Baronesse	4.867	4	10.1	7.998	8.336	3.381	4.910	4.441	2.995	3.109	5.121	2.265	5.296	7.891	3.816
3	Harrington	4.291	25	21.5	7.509	7.515	2.741	4.457	4.191	3.938	2.737	4.477	2.008	4.322	6.832	2.955
4	AC Metcalfe	4.302	23	20.5	8.122	6.767	3.015	4.274	4.129	3.823	2.703	4.695	1.366	4.715	6.950	3.231
5	2B04-0175	4.662	10	13.9	8.170	8.137	3.311	3.981	4.604	3.112	2.751	5.164	2.004	5.169	8.057	3.326
6	2B05-0811	4.657	11	13.2	7.751	8.657	3.080	4.157	4.855	4.371	3.130	4.786	1.355	5.095	6.912	3.708
7	2B06-0929	4.513	18	17.4	7.751	7.906	3.032	4.397	4.778	3.185	2.664	4.319	1.546	5.042	8.014	3.700
8	2B06-0933	4.596	15	16.0	8.095	7.572	3.467	4.425	4.265	3.407	2.935	4.864	1.651	4.901	6.606	3.790
9	2B07-1516	4.623	14	14.6	7.944	7.630	3.870	4.531	4.543	3.838	2.504	4.475	2.133	4.961	7.272	3.638
10	2B07-1590	4.582	17	15.3	7.487	8.164	3.214	3.734	4.793	3.386	2.950	4.612	2.138	5.092	7.278	3.633
11	01Ab9663	4.298	24	19.5	8.466	8.043	2.924	3.962	4.280	3.554	2.683	2.805	1.605	4.276	6.977	3.941
12	02Ab17271	4.728	9	12.9	8.573	8.471	3.359	4.372	4.705	3.600	2.110	4.932	1.913	5.076	6.971	3.767
13	2Ab04-X01084-27	4.587	16	15.4	7.638	8.502	3.015	4.874	4.697	3.778	2.332	4.176	2.194	5.081		3.366
14	MT020162	4.642	13	13.6	7.762	7.905	3.295	5.103	4.514	4.259	2.529	4.584	1.900	5.110	7.466	3.717
15	MT061169	4.461	19	16.0	6.611	7.928	2.677	4.673	4.155	3.979	2.879	5.009	2.377	5.016	8.089	3.290
16	MT070111	4.656	12	14.3	7.127	8.718	2.983	4.855	4.348	4.211	2.829	4.955	1.802	5.304	6.950	3.633
17	2ND25276	4.224	27	20.8	7.278	6.802	2.999	4.159	4.299	3.520	3.501	3.459	2.021	4.219	5.601	3.499
18	2ND24388	4.185	29	23.6	7.611	7.310	2.956	3.598	3.780	3.542	2.862	4.654	1.547	4.052	6.305	3.479
19	2ND25272	4.197	28	19.9	8.530	6.730	3.080	3.379	3.849	3.047	3.467	2.836	1.832	4.592	7.192	3.678
20	2ND26333	4.078	30	22.3	7.912	6.927	2.795	2.995	3.978	3.168	2.857	3.900	1.646	3.950	7.821	3.820
21	ND22421	4.290	26	20.2	7.627	8.214	2.301	3.770	4.229	3.527	2.670	4.554	1.499	4.137	8.057	3.896
22	ND23898	3.942	31	26.0	6.826	6.163	2.806	4.127	4.115	3.072	3.023	3.839	1.729	3.560	5.294	3.234
23	UT04B2041-42	4.921	1	11.6	9.154	8.472	3.386	4.781	4.519	3.241	2.953	5.875	2.223	4.592	7.579	3.259
24	UT6R2120-14	4.891	3	10.4	8.057	9.047	2.956	5.041	4.485	2.927	3.232	5.641	2.410	4.051	8.057	3.989
25	05WA-316.K	4.829	6	9.1	7.950	8.204	3.327	5.018	4.699	4.115	3.247	4.428	2.621	5.203	8.003	3.594
26	05WA-316.99	4.832	5	9.3	7.939	8.632	3.596	5.080	4.687	4.513	3.109	4.539	1.816	5.142	7.127	3.784
27	06WA-412.4	4.738	8	10.7	7.848	8.344	3.564	4.726	4.288	4.110	2.995	5.081	2.305	4.686	8.783	3.545
28	WAS 2	4.395	21	19.0	7.654	7.361	3.359	4.619	3.849	3.305	2.858	5.212	1.723	4.296	7.342	3.016
29	2004NZ151	4.904	2	6.9	7.654	8.551	3.596	4.983	4.603		3.141	4.990	2.095	5.495	9.116	3.928
30	2004NZ163	4.760	7	9.9	7.939	8.001	3.531	5.279	4.776		3.142	3.860	1.965	4.946	8.482	4.166
31	CDC Kindersley	4.394	22	22.1	7.504	8.430	2.860	4.259	4.232	3.120	2.690	4.366	1.403	4.623	6.633	3.572
	Location Mean	4.532			7.791	7.912	3.132	4.411	4.411	3.599	2.904	4.553	1.907	4.727	7.385	3.594
	Check's Mean	4.480			7.591	7.746	2.873	4.467	4.412	3.682	2.941	4.806	1.913	4.691	7.402	3.359
	C.V. (%)	9.301			7.817	4.136	9.805	7.56	6.247	8.00	7.030			8.801	10.53	6.00
	LSD .05	0.320			0.834	0.534	0.415	0.462	0.450	0.475	0.336			0.576	1.274	0.294
	Replications	10*			3	3	3	3	3	3	3			3	3	3

*Average does not include Hettinger and Powell.

Table 6: 2011 Western Regional Spring Barley Nursery, Test Weight (kg m⁻³)

Entry Number	CULTIVAR/ DESIGNATION	Average*		Aberdeen	Idaho Falls	Bozeman	Conrad	Hettinger	Williston	Logan	Mt. Stirling	Pullman	Powell	Saskatoon
		kg m ⁻³	RANK	ID	ID	MT	MT	ND	ND	UT	UT	WA	WY	SK
1	Steptoe	614.5	31	631.9	612.9	635.2	589.8	509.5	494.2	685.3	642.2	629.3	616.5	610.0
2	Baronesse	676.7	9	695.0	669.5	683.7	643.2	577.7	595.9	729.5	706.9	683.4	651.2	683.0
3	Harrington	655.4	23	686.0	644.0	673.5	632.0	522.7	595.9	705.9	647.7	656.4	622.9	657.0
4	AC Metcalfe	662.1	17	701.4	624.3	674.8	628.2	562.7	597.2	724.7	664.7	676.5	639.6	667.0
5	2B04-0175	669.0	13	704.0	659.6	665.9	638.4	550.6	593.3	732.0	676.2	686.0	649.9	666.0
6	2B05-0811	655.7	21	680.8	649.3	653.9	603.0	617.1	616.5	727.3	657.5	656.8	626.8	656.0
7	2B06-0929	645.8	28	677.0	634.2	663.9	594.9	608.0	597.2	688.4	645.1	659.4	631.9	652.0
8	2B06-0933	654.4	25	687.3	646.7	669.3	593.8	567.1	604.9	714.3	647.9	664.5	584.3	661.0
9	2B07-1516	655.3	24	686.0	633.2	656.1	582.0	635.4	625.5	728.3	670.2	653.8	612.6	663.0
10	2B07-1590	655.6	22	683.4	649.7	668.9	592.5	545.3	621.6	712.2	674.5	654.7	630.6	643.0
11	01Ab9663	660.2	20	695.0	647.5	654.9	630.2	561.9	620.3	703.0	682.5	664.1	657.7	644.0
12	02Ab17271	662.0	18	679.5	647.5	667.4	606.3	546.8	648.6	717.6	657.8	664.1	621.6	669.0
13	2Ab04-X01084-27	654.1	26	673.1	649.8	659.3	618.1	579.2	580.4	718.0	668.4	674.0		646.0
14	MT020162	681.2	5	709.1	672.2	682.9	634.5	568.6	619.0	737.9	700.1	689.8	678.2	685.0
15	MT061169	678.0	7	710.4	673.5	690.9	635.5	533.3	615.2	732.5	687.6	685.1	660.2	671.0
16	MT070111	681.3	4	707.9	665.0	682.9	648.3	607.9	640.9	728.3	688.7	691.1	649.9	679.0
17	2ND25276	670.1	12	689.8	646.6	657.4	632.3	594.2	660.2	730.4	687.6	676.5	622.9	650.0
18	2ND24388	667.9	14	692.4	659.7	670.5	640.0	533.8	642.2	743.2	645.3	662.8	651.2	655.0
19	2ND25272	671.7	11	689.8	659.1	672.9	655.9	605.5	661.5	702.4	664.7	687.3	655.1	652.0
20	2ND26333	677.9	8	704.0	654.1	687.1	641.1	550.2	639.6	745.1	684.5	666.7	648.6	679.0
21	ND22421	642.8	29	670.5	641.8	659.6	618.9	520.3	574.0	698.7	608.5	656.8	633.2	656.0
22	ND23898	664.1	16	693.7	646.2	670.3	631.4	535.3	613.9	710.1	679.4	667.5	635.8	664.0
23	UT04B2041-42	646.0	27	671.8	643.8	657.9	600.8	536.2	589.4	709.9	636.2	649.9	651.2	654.0
24	UT6R2120-14	639.7	30	664.1	628.6	663.9	593.3	530.5	547.0	693.5	662.7	668.8	647.4	635.0
25	05WA-316.K	673.3	10	692.4	664.0	687.7	646.5	549.5	619.0	715.4	702.5	683.0	635.8	649.0
26	05WA-316.99	665.2	15	688.5	653.9	670.0	627.4	572.7	590.7	719.0	688.2	673.1	629.3	676.0
27	06WA-412.4	683.4	2	713.0	680.6	691.4	655.9	558.6	631.9	732.6	675.8	690.3	686.0	679.0
28	WAS 2	680.4	6	704.0	676.6	692.1	649.3	541.2	634.5	724.7	673.8	683.8	666.7	685.0
29	2004NZ151	681.8	3	701.4	668.0	691.4	649.8		628.1	730.0	698.1	681.3	660.2	688.0
30	2004NZ163	686.3	1	707.9	674.6	697.9	666.7		635.8	700.0	710.3	692.4	691.1	691.0
31	CDC Kindersley	661.9	19	696.3	683.3	680.5	638.4	545.6	601.0	690.2	618.3	673.1	649.9	676.0
Location Mean		663.67		689.70	652.54	672.07	626.00	560.23	611.15	717.11	669.49	670.97	643.50	662.60
Check's Mean		652.17		678.57	637.68	666.80	623.33	543.15	570.78	711.34	665.37	661.41	632.56	654.25
C.V. (%)		2.14				0.73		9.10	1.40			1.20	3.20	2.65
LSD_{.05}		11.36				6.83		ns	18.02			11.12	33.46	0.00
Replications		9*				3		3	2			3	3	1

*Average does not include Hettinger and Powell

Table 7: 2011 Western Regional Spring Barley Nursery, Plant Height (cm)

Entry Number	CULTIVAR/ DESIGNATION	Average		Aberdeen	Idaho Falls	Bozeman	Hettinger	Minot	Williston	Logan	Mt. Stirling	Powell	Saskatoon
		cm	RANK	ID	ID	MT	ND	ND	ND	UT	UT	WY	SK
1	Step toe	71.4	29	101.6	104.0	53.3	81.3	61.3	67.7	88.9	48.3	108.2	81.0
2	Baronesse	66.8	16	96.5	93.0	57.0	69.3	71.3	67.7	76.2	43.2	99.8	74.0
3	Harrington	66.6	14	96.5	96.0	62.0	76.3	79.0	67.7	66.0	38.1	101.3	80.0
4	AC Metcalfe	70.5	28	104.1	95.0	66.0	76.7	75.7	68.0	71.1	43.2	100.1	90.0
5	2B04-0175	68.6	20	104.1	92.0	61.0	79.7	73.0	65.3	78.7	40.6	104.4	81.0
6	2B05-0811	69.2	24	96.5	91.0	62.0	75.5	72.7	73.0	83.8	40.6	105.2	78.0
7	2B06-0929	63.0	6	83.8	87.0	61.0	68.0	66.2	63.3	71.1	38.1	95.5	75.0
8	2B06-0933	63.5	8	78.7	89.0	61.0	79.3	71.2	67.3	71.1	40.6	91.2	74.0
9	2B07-1516	68.6	21	83.8	99.0	61.0	78.7	76.7	62.7	76.2	48.3	104.4	93.0
10	2B07-1590	65.2	11	88.9	95.0	58.0	76.0	70.3	64.3	68.6	43.2	100.3	78.0
11	01Ab9663	72.4	30	96.5	109.0	60.7	76.7	66.7	61.7	88.9	53.3	107.2	85.0
12	02Ab17271	70.2	27	96.5	100.0	61.7	74.7	78.2	61.7	83.8	45.7	105.4	88.0
13	2Ab04-X01084-27	65.4	13	94.0	96.0	57.7	67.0	72.8	62.7	73.7	40.6	74.0	74.0
14	MT020162	70.0	26	101.6	97.0	61.3	78.0	70.8	65.0	81.3	43.2	103.4	85.0
15	MT061169	65.2	12	83.8	105.0	57.3	70.0	68.2	65.0	68.6	38.1	97.8	78.0
16	MT070111	66.7	15	86.4	100.0	64.3	77.0	77.3	66.7	76.2	40.6	98.0	73.0
17	2ND25276	69.3	25	94.0	99.0	68.3	85.7	73.7	72.7	61.0	50.8	99.8	80.0
18	2ND24388	68.8	22	91.4	99.0	61.7	78.7	76.7	67.7	86.4	38.1	98.3	80.0
19	2ND25272	63.0	7	86.4	87.0	51.3	76.3	64.8	63.3	78.7	40.6	94.2	72.0
20	2ND26333	63.6	9	86.4	95.0	52.7	70.0	64.0	64.7	73.7	35.6	93.5	75.0
21	ND22421	63.0	5	86.4	96.0	52.3	66.3	66.7	58.7	81.3	33.0	97.0	73.0
22	ND23898	75.0	31	104.1	115.0	64.7	81.0	70.3	69.7	91.4	45.7	118.9	82.0
23	UT04B2041-42	67.0	17	91.4	103.0	56.3	81.3	66.8	61.7	88.9	40.6	110.5	70.0
24	UT6R2120-14	67.4	18	86.4	100.0	57.0	76.0	70.5	69.7	78.7	43.2	104.6	77.0
25	05WA-316.K	64.4	10	81.3	90.0	59.7	74.3	67.5	63.0	76.2	40.6	99.3	80.0
26	05WA-316.99	68.9	23	91.4	100.0	62.7	77.3	69.7	67.7	83.8	43.2	103.6	76.0
27	06WA-412.4	61.6	4	88.9	85.0	52.7	67.0	58.2	63.0	71.1	30.5	94.5	77.0
28	WAS 2	54.5	1	73.7	77.0	52.7	60.3	59.8	55.7	61.0	30.5	87.6	64.0
29	2004NZ151	58.6	3	73.7	79.0	54.7		65.7	61.0	66.0	40.6	83.3	70.0
30	2004NZ163	57.3	2	76.2	75.0	53.7		64.7	58.7	66.0	38.1	77.7	68.0
31	CDC Kindersley	68.5	19	101.6	90.0	57.0	78.3	75.5	66.7	81.3	38.1	103.1	87.0
Location Mean		66.28		90.54	94.77	58.80	75.1	69.9	64.90	76.4	41.1	99.6	78.00
Check's Mean		68.84		99.70	97.00	59.58	75.90	71.83	67.78	75.57	43.18	102.36	81.25
C.V. (%)		7.55				4.97	6.1	5.74	5.10			7.30	8.24
LSD .05		4.24				4.05	7.6	6.6	5.40			11.9	0.00
Replications		8*				3	3	3	3			3	1

*Average does not include Hettinger and Powell

Table 8: 2011 Western Regional Spring Barley Nursery, Heading Date (Days after Jan. 1)

Entry Number	CULTIVAR/ DESIGNATION	Average		Aberdeen	Idaho Falls	Bozeman	Hettinger	Minot	Williston	Logan	Pullman	Powell	Saskatoon
		From 1/1	RANK	ID	ID	MT	ND	ND	ND	UT	WA	WY	SK
1	Step toe	185	6	178	176	191	184	200	179	185	184	176	186
2	Baronesse	189	23	181	184	192	189	202	187	189	186	180	192
3	Harrington	189	22	181	183	193	192	203	186	189	186	180	192
4	AC Metcalfe	189	18	181	183	192	188	205	185	189	186	178	190
5	2B04-0175	189	24	182	184	192	187	205	186	189	186	180	191
6	2B05-0811	189	21	181	182	193	192	205	184	188	188	181	192
7	2B06-0929	188	14	180	182	192	191	203	182	188	186	179	191
8	2B06-0933	189	17	179	183	192	188	205	184	188	186	180	191
9	2B07-1516	191	29	183	185	194	192	205	188	190	189	182	195
10	2B07-1590	188	16	182	182	192	188	202	183	189	186	178	191
11	01Ab9663	188	11	178	181	192	186	203	184	186	184	179	192
12	02Ab17271	192	31	183	184	194	195	205	188	191	191	182	196
13	2Ab04-X01084-27	189	25	180	183	193	192	205	187	188	186		192
14	MT020162	190	27	182	183	194	191	206	186	189	184	179	193
15	MT061169	189	19	181	183	192	191	203	187	189	185	178	191
16	MT070111	189	20	182	184	191	190	204	186	188	186	181	191
17	2ND25276	188	10	182	180	190	186	204	182	187	185	180	190
18	2ND24388	185	5	179	175	189	181	203	179	185	183	177	185
19	2ND25272	185	7	174	176	191	184	201	181	186	184	177	188
20	2ND26333	187	8	178	176	190	186	204	182	187	186	177	191
21	ND22421	184	3	176	174	186	183	200	181	187	184	176	188
22	ND23898	185	4	176	175	190	184	201	181	185	181	177	189
23	UT04B2041-42	179	1	178	178	191	186	202	182	186	123	177	189
24	UT6R2120-14	184	2	175	175	190	182	200	178	185	183	175	187
25	05WA-316.K	188	12	178	179	190	189	204	187	186	186	178	191
26	05WA-316.99	188	15	179	180	192	192	205	186	188	186	178	189
27	06WA-412.4	189	26	181	183	193	191	206	187	188	186	180	191
28	WAS 2	187	9	178	178	191	192	203	186	189	186	177	188
29	2004NZ151	190	28	182	185	194		204	186	190	187	181	193
30	2004NZ163	191	30	182	186	194		206	188	190	187	181	196
31	CDC Kindersley	188	13	178	180	191	191	203	186	189	186	180	190
Location Mean		187.73		179.68	180.71	191.57	188.00	203.42	184.25	187.84	183.65	178.80	190.67
Check's Mean		187.98		180.25	181.50	191.92	188.25	202.50	184.18	188.00	185.58	178.50	189.92
C.V. (%)		2.18				0.61	0.80	3.43	1.20		10.42		1.66
LSD_{.05}		3.47				1.61	3.00	161.49	126.10		26.51		1.15
Replications		8				3	3	3	3		3	1	3

*Average does not include Hettinger and Powell

Table 9: 2011 Western Regional Spring Barley Nursery, Percent Plump Barley*

Entry Number	CULTIVAR/ DESIGNATION	Average		Aberdeen	Idaho Falls	Bozeman	Conrad	Hettinger	Williston	Logan	Mt. Stirling	Pullman	Powell	Saskatoon
		Percent	RANK	ID	ID	MT	MT	ND	ND	UT	UT	WA	WY	SK
1	Step toe	87.6	13	91.7	96.1	94.3	88.6	66.5	42.2	98.0	95.5	95.3	98.85	86.9
2	Baronesse	87.3	17	92.1	96.4	95.2	76.3	65.9	43.2	98.0	97.0	94.7	94.50	93.1
3	Harrington	87.6	14	89.9	95.9	91.0	92.1	70.3	55.5	97.0	91.5	91.0	95.10	84.5
4	AC Metcalfe	85.3	24	94.3	87.1	92.7	82.8	73.3	50.0	99.0	87.6	93.7	96.00	80.8
5	2B04-0175	89.2	6	97.4	96.8	93.5	88.2	67.8	54.3	98.3	93.8	96.0	95.00	84.3
6	2B05-0811	87.6	15	93.8	96.1	88.8	83.1	87.6	58.6	98.7	90.0	91.3	92.70	87.7
7	2B06-0929	86.6	22	94.3	95.6	93.4	86.0	61.0	47.1	92.5	92.2	92.7	95.50	85.6
8	2B06-0933	82.7	29	91.3	93.7	87.9	80.6	69.0	39.3	96.7	84.2	89.3	92.30	81.4
9	2B07-1516	87.5	16	95.9	96.0	94.0	85.4	80.3	47.9	98.6	94.2	94.7	91.20	80.6
10	2B07-1590	87.7	10	95.1	96.4	92.7	86.2	73.1	49.8	97.1	92.2	94.3	96.60	86.0
11	01Ab9663	86.8	20	92.8	95.7	83.6	93.5	73.0	46.4	96.4	95.4	96.3	99.10	81.2
12	02Ab17271	82.4	30	89.4	95.3	87.5	70.9	72.1	47.9	94.2	89.6	92.7	89.10	74.3
13	2Ab04-X01084-27	86.7	21	87.0	96.3	92.1	88.2	80.7	50.7	96.6	94.2	95.7		79.4
14	MT020162	85.8	23	93.9	96.0	90.6	78.1	70.7	43.6	98.7	87.5	94.7	95.80	89.0
15	MT061169	88.0	8	95.6	96.7	93.1	86.0	74.0	49.8	99.0	93.4	95.7	94.10	83.0
16	MT070111	88.2	7	94.8	94.4	93.1	86.8	77.8	52.6	99.0	96.4	91.0	95.50	85.3
17	2ND25276	92.3	3	95.3	95.6	94.2	94.9	70.5	75.4	99.5	93.7	96.0	97.30	85.8
18	2ND24388	93.0	1	97.4	97.7	97.4	97.8	70.2	62.8	99.5	95.4	98.0	98.20	91.3
19	2ND25272	91.0	5	93.8	96.9	91.5	94.8	79.0	70.4	93.7	94.6	97.0	98.90	85.9
20	2ND26333	92.9	2	97.7	97.7	96.7	95.0	73.9	62.9	99.3	97.7	97.3	97.90	92.0
21	ND22421	87.9	9	95.0	98.1	95.2	89.7	59.0	39.5	98.6	91.0	91.0	99.10	93.2
22	ND23898	84.2	25	90.9	95.8	88.0	79.3	76.1	39.5	98.8	96.2	86.7	97.50	82.6
23	UT04B2041-42	83.5	26	92.6	95.6	89.2	80.1	64.4	37.7	96.2	92.2	89.0	98.00	79.0
24	UT6R2120-14	83.0	28	92.4	95.3	90.6	69.6	65.0	32.8	96.4	95.5	94.0	97.40	80.6
25	05WA-316.K	87.3	18	89.4	96.0	95.5	88.0	64.3	46.9	97.3	96.5	97.0	94.40	78.9
26	05WA-316.99	87.7	12	89.1	96.0	91.2	85.6	82.8	51.2	97.9	95.0	95.7	97.00	87.4
27	06WA-412.4	87.7	11	93.5	97.0	93.2	85.9	76.1	52.9	98.8	89.2	96.3	97.00	82.8
28	WAS 2	91.6	4	96.9	98.7	97.4	87.5	69.0	64.9	99.5	92.6	97.3	98.40	89.8
29	2004NZ151	87.2	19	96.7	96.6	93.0	87.5		42.7	98.4	93.5	88.3	93.00	87.9
30	2004NZ163	83.5	27	93.9	95.0	89.2	83.7		40.1	86.7	88.5	90.7	95.60	83.8
31	CDC Kindersley	81.0	31	90.9	97.4	87.7	74.0	66.6	43.1	86.2	82.1	89.0	93.50	78.6
Location Mean		87.13		93.38	95.94	92.05	85.36	71.50	49.95	96.93	92.53	93.62	95.82	84.60
Check's Mean		86.97		92.00	93.90	93.30	84.95	69.00	47.73	98.00	92.91	93.67	96.11	86.33
C.V. (%)		4.80				1.51		12.6	8.90			2.88	2.30	5.39
LSD .05		3.34				1.92		ns	9.30			3.73	3.50	0.00
Replications		9**				3		3	2			3	3	1

* Percent over sieve, 2-rowed >2.4mm, 6-rowed >2.2mm, **Average does not include Hettinger and Powell

Table 10: 2011 Western Regional Spring Barley Nursery, Percent Protein

Entry Number	CULTIVAR/ DESIGNATION	Average		Bozeman	Hettinger	Williston	Pullman
		Percent	RANK	MT	ND	ND	WA
1	Step toe	11.16	29	11.5	12.5	12.6	9.4
2	Baronesse	12.49	15	13.0	13.7	15.1	9.4
3	Harrington	12.41	18	12.9	13.0	15.7	8.6
4	AC Metcalfe	12.73	12	13.5	13.9	15.9	8.8
5	2B04-0175	12.47	16	13.3	13.8	15.6	8.5
6	2B05-0811	12.42	17	13.0	13.9	14.6	9.6
7	2B06-0929	12.86	11	13.7	13.5	15.4	9.5
8	2B06-0933	12.88	9	13.3	13.8	15.8	9.5
9	2B07-1516	13.11	4	13.0	13.9	16.9	9.4
10	2B07-1590	13.32	3	13.9	13.6	16.0	10.1
11	01Ab9663	10.32	31	10.8	12.6	11.7	8.5
12	02Ab17271	13.07	6	13.1	14.1	17.3	8.8
13	2Ab04-X01084-27	13.02	7	12.8	14.6	16.2	10.0
14	MT020162	12.89	8	12.8	14.1	16.3	9.6
15	MT061169	13.53	2	14.0	13.8	15.6	11.0
16	MT070111	12.39	19	12.9	13.5	15.0	9.3
17	2ND25276	11.03	30	11.3	11.2	12.4	9.4
18	2ND24388	12.11	24	13.0	12.2	13.5	9.9
19	2ND25272	11.34	28	11.8	11.7	12.7	9.6
20	2ND26333	12.88	10	14.1	13.3	14.9	9.6
21	ND22421	12.26	21	13.2	13.4	14.3	9.3
22	ND23898	12.09	25	13.0	13.8	14.3	9.0
23	UT04B2041-42	11.96	26	12.7	14.1	15.1	8.0
24	UT6R2120-14	12.22	22	12.5	12.9	13.4	10.8
25	05WA-316.K	12.39	20	13.0	13.2	14.6	9.5
26	05WA-316.99	12.50	14	12.5	12.9	14.3	10.7
27	06WA-412.4	12.50	13	13.0	14.1	15.2	9.3
28	WAS 2	14.02	1	14.8	13.8	17.0	10.3
29	2004NZ151	11.90	27	12.5		14.6	8.6
30	2004NZ163	12.20	23	12.7		15.3	8.6
31	CDC Kindersley	13.07	5	13.2	13.4	16.1	9.9
Location Mean		12.44		12.93	13.40	14.7	9.43
Check's Mean		12.20		12.71	13.28	14.83	9.06
C.V. (%)		6.54		2.38	2.6	2.7	6.32
LSD .05		1.13		0.43	0.6	0.8	0.83
Replications		3*		3	3	2	3.00

*Average does not include Hettinger.

Table 11: 2011 Western Regional Spring Barley Nursery, Lodging, 1-10*

Entry Number	CULTIVAR/ DESIGNATION	AVERAGE		Aberdeen	Idaho Falls	Minot
		Rating	Rank	ID	ID	ND
1	Steptoe	3.7	31	8.0	0.0	5.7
2	Baronesse	1.8	24	3.0	0.0	3.3
3	Harrington	2.7	29	5.0	1.0	4.7
4	AC Metcalfe	2.4	28	1.0	6.0	2.7
5	2B04-0175	1.1	14	0.0	2.0	2.3
6	2B05-0811	1.0	13	0.0	0.0	4.0
7	2B06-0929	0.8	6	0.0	0.0	3.0
8	2B06-0933	0.8	7	0.0	0.0	3.0
9	2B07-1516	1.3	19	0.0	1.0	4.3
10	2B07-1590	0.8	10	0.0	0.0	3.3
11	01Ab9663	1.7	23	4.0	0.0	2.7
12	02Ab17271	2.7	30	6.0	0.0	4.7
13	2Ab04-X01084-27	2.3	27	6.0	0.0	3.3
14	MT020162	0.8	8	1.0	0.0	2.0
15	MT061169	1.3	20	1.0	0.0	4.3
16	MT070111	1.2	16	1.0	0.0	3.7
17	2ND25276	1.3	18	1.0	0.0	4.0
18	2ND24388	1.1	15	2.0	0.0	2.3
19	2ND25272	0.7	5	0.0	0.0	2.7
20	2ND26333	0.5	2	0.0	0.0	2.0
21	ND22421	1.2	17	0.0	0.0	4.7
22	ND23898	0.8	11	1.0	0.0	2.3
23	UT04B2041-42	1.4	21	1.0	0.0	4.7
24	UT6R2120-14	0.9	12	1.0	0.0	2.7
25	05WA-316.K	1.5	22	2.0	0.0	3.3
26	05WA-316.99	2.1	25	3.0	0.0	4.3
27	06WA-412.4	0.5	3	1.0	0.0	1.0
28	WAS 2	0.3	1	0.0	0.0	1.3
29	2004NZ151	0.8	9	0.0	0.0	3.0
30	2004NZ163	0.5	4	0.0	0.0	2.0
31	CDC Kindersley	2.2	26	5.0	0.0	3.7
Location Mean		1.35		1.71	0.32	3.3
Check's Mean		2.65		4.25	1.75	4.10
C.V. (%)		95.53				32.48
LSD_{.05}		ns				1.7
Replications		3				3

* The scoring system is 0.0 to 10.0 where 0.0 = no lodging, 10.0 = complete lodging

Table 12: 2011 Western Regional Spring Barley Nursery, Disease Ratings

Entry Number	CULTIVAR/ DESIGNATION	Stem Rust						Other Diseases Mt. Vernon
		Pullman		Mt. Vernon				
		7/19		6/28		7/15		
		Flowering		Stem Elongation		Milk		
IT*	%*	IT	%	IT	%			
1	Step toe	8	20	0	0	0	0	SC 4%, PM 60%
2	Baronesse	0	0	0	0	3	5	
3	Harrington	0	0	0	0	0	0	
4	AC Metcalfe	0	0	0	0	0	0	
5	2B04-0175	0	0	0	0	0	0	
6	2B05-0811	0	0	0	0	8	20	PM 30%
7	2B06-0929	8	2	0	0	0	0	
8	2B06-0933	8	5	0	0	5	20	
9	2B07-1516	0	0	0	0	0	0	
10	2B07-1590	0	0	0	0	0	0	
11	01Ab9663	0	0	0	0	0	0	
12	02Ab17271	0	0	0	0	0	0	
13	2Ab04-X01084-27	0	0	0	0	0	0	
14	MT020162	0	0	0	0	0	0	
15	MT061169	0	0	0	0	0	0	
16	MT070111	0	0	0	0	0	0	
17	2ND25276	8	40	3	20	5	20	
18	2ND24388	8	5	8	20	8	30	
19	2ND25272	8	1	0	0	7	20	
20	2ND26333	0	0	0	0	0	0	PM 50%
21	ND22421	8	2	0	0	0	0	PM 60%
22	ND23898	0	0	0	0	0	0	PM 60%
23	UT04B2041-42	0	0	0	0	8	20	PM 60%
24	UT6R2120-14	8	2	0	0	8	5	
25	05WA-316.K	8	10	0	0	5	2	
26	05WA-316.99	8	5	0	0	8	10	
27	06WA-412.4	8	10	0	0	0	0	
28	WAS 2	0	0	0	0	8	20	
29	2004NZ151							
30	2004NZ163							
31	CDC Kindersley	0	0	0	0			

* IT = Infection type, %= percent leaf area infected.

NOTE: Because barley stripe rust was low at both Pullman and Mt. Vernon locations, no matter of severity, entries with IT 8 should be considered susceptible.

Entries without rust (0) may not be resistant.

Figure 1: Test locations (past and present)

