

2009 WSU SPRING BARLEY TRIAL SUMMARY

Precipitation Zone= >20"

VARIETY NAME (6-row in italics)	FARMINGTON	COLFAX	PULLMAN	AVERAGE YIELD	FARMINGTON	COLFAX	PULLMAN	AVERAGE TEST WEIGHT	FARMINGTON	COLFAX	PULLMAN	AVERAGE PROTEIN
	YIELD (LBS/A)				TW (LBS/BU)				PROTEIN (%)			
LENETAH	6690	4520	5700	5640	50.2	51.2	53.0	51.5	13.1	12.6	12.5	12.7
CHAMPION	6900	4700	5030	5540	51.6	51.7	53.1	52.1	13.0	12.7	12.7	12.8
SPAULDING	5680	5010	5480	5390	51.4	52.7	54.2	52.8	12.5	12.4	12.0	12.3
RWA 1758	6440	4350	5320	5370	51.1	51.0	52.1	51.4	13.2	12.8	12.8	12.9
04WNZ-124	6590	4360	5120	5360	49.8	49.8	50.7	50.1	13.7	12.9	13.7	13.4
04WA-113.22	6320	4420	5120	5290	49.8	50.7	51.8	50.8	13.9	13.5	13.2	13.5
05WA-316.99	6300	4570	4980	5280	48.7	50.5	51.2	50.1	12.8	12.8	11.8	12.5
KENT	6610	4240	4950	5270	50.4	49.7	51.1	50.4	12.9	12.8	11.6	12.4
TETONIA	6620	4660	4480	5250	51.2	51.3	52.0	51.5	12.9	12.7	10.8	12.1
BARONESSE	6350	4370	4940	5220	50.2	51.0	51.1	50.8	13.5	12.9	12.2	12.9
04WA-102.49	6610	4160	4770	5180	50.6	50.5	51.3	50.8	13.3	13.1	12.9	13.1
05WA-316.K	5750	4600	5120	5160	49.9	50.5	51.0	50.5	13.1	12.8	12.3	12.7
RADIANT	6200	4370	4880	5150	50.1	50.5	50.7	50.4	13.2	12.7	11.5	12.5
HARRINGTON	6040	4190	5130	5120	50.0	50.4	52.3	50.9	13.5	13.0	12.5	13.0
CDC COPELAND	6110	4220	4900	5080	49.7	49.5	52.6	50.6	13.3	12.9	12.1	12.8
04WA-122.9	5910	4120	4760	4930	50.9	51.1	52.6	51.5	13.6	13.0	12.6	13.1
2004NZ223	5710	4200	4750	4890	50.8	51.4	52.9	51.7	14.7	13.7	12.8	13.7
2004NZ170	5570	3990	5090	4880	49.7	49.9	51.3	50.3	13.8	13.1	11.5	12.8
05WA-325.18	5900	4040	4630	4860	49.4	49.7	51.0	50.0	14.2	13.4	13.2	13.6
05WA-357.14	5800	3990	4670	4820	50.9	51.2	51.7	51.3	14.1	13.1	12.2	13.1
05WA-329.49	5850	4030	4510	4800	50.6	50.5	52.0	51.0	13.7	13.8	13.1	13.5
04WNZ-286	6080	3930	4400	4800	50.4	51.6	52.4	51.5	13.2	13.4	12.5	13.0
05WA-360.24	5490	3920	4890	4770	49.8	50.8	51.3	50.6	13.4	13.6	12.5	13.2
BOB	5460	3930	4780	4720	50.4	51.2	51.2	50.9	13.8	13.4	12.9	13.4
LEGACY	5480	3780	4220	4490	48.5	49.3	49.1	49.0	13.2	12.6	12.0	12.6
2004NZ160	5540	4090	3530	4390	51.0	52.1	52.4	51.8	14.1	13.3	11.5	13.0
2004NZ052	5150	3860	4050	4350	50.3	50.4	52.4	51.0	14.5	13.4	13.0	13.6
AC METCALFE	5100	3650	4280	4340	49.5	50.3	51.7	50.5	14.6	13.5	12.6	13.6
PINNACLE	4250	4040	4340	4210	48.1	51.3	52.1	50.5	12.5	12.1	11.4	12.0
HAXBY	3380	4180	4720	4090	50.4	52.6	54.0	52.3	14.4	13.0	11.8	13.1
<i>05WA-328.8</i>	4350	3430	4180	3990	47.2	48.6	49.0	48.3	14.6	13.7	13.4	13.9
Waxy Hulless												
CLEARWATER	4920	3820	4330	4360	52.5	57.1	57.3	55.6	14.3	13.3	12.2	13.3
WA 9820-98	4920	3890	3890	4230	56.0	56.6	57.1	56.6	15.1	13.6	12.9	13.9
03WA-204.22H	4870	3100	4490	4150	57.5	58.0	58.9	58.1	14.4	14.2	13.3	14.0
01WA-13860.5	4780	3630	3690	4030	50.9	57.7	57.1	55.2	14.7	13.7	13.2	13.9
MERESSE	3910	3060	3720	3560	56.4	57.3	54.9	56.2	15.0	14.9	14.6	14.8
	STATISTICS				STATISTICS				STATISTICS			
CV (%)	7	7	10	8	1.2	0.8	1.3	1.1	3.1	2.9	3.9	3.3
LSD (0.10)	520	420	650	310	0.9	0.6	0.9	0.5	0.6	0.5	0.7	0.3
Average	5660	4100	4660	4800	50.7	51.7	52.5	51.6	13.7	13.2	12.5	13.1
Highest	6900	5010	5700	5640	57.5	58.0	58.9	58.1	15.1	14.9	14.6	14.9
Lowest	3380	3060	3530	3560	47.2	48.6	49.0	48.3	12.5	12.1	10.8	12.0

2009 WSU Spring Barley Trial Summary Precipitation Zone >20" – Preliminary Data

1. Spring barley grain yield across three locations in the >20" precipitation zone averaged 4800 pounds/acre, 650 pounds/acre higher than the 2008 average. These trials were analyzed as Alpha Lattice designs that overall helped to account for within replication variation and reduced LSD and CV values. The highest value and other values within the LSD range are shown in bold for yield, test weight, and protein. In 2009, the two highest yielding cultivars were relatively recent releases and were significantly higher yielding than Baronesse.

2. Test weight averaged 51.6 lb/bu across locations and entries, with a range of 48.3 lb/bu to 58.1 lb/bu. Test weights averaged higher than last year. Grain protein averaged 13.1%.

2009 WSU SPRING BARLEY TRIAL SUMMARY
Precipitation Zone= 16"-20"

VARIETY NAME (6-row in italics)	DAYTON	MAYVIEW	REARDAN	ST. JOHN	WALLA WALLA	AVERAGE YIELD
YIELD (LBS/A)						
CHAMPION	2940	4480	4960	5620	7250	5050
LENETAH	3240	4130	5420	5160	7020	4990
TETONIA	3260	4410	4080	5390	7070	4840
SPAULDING	2520	3860	5170	5340	7200	4820
RADIANT	3120	4340	4400	5260	6930	4810
05WA-316.K	2940	3910	4940	5070	6810	4730
05WA-329.49	3180	3870	4120	5330	6910	4680
05WA-316.99	2410	3680	4570	5490	7170	4660
2004NZ170	2770	3990	4680	4940	6940	4660
04WA-113.22	2640	3750	4780	5210	6920	4660
BOB	3340	3720	4670	4960	6490	4640
RWA 1758	2990	4030	4780	4690	6620	4620
HAXBY	2860	3660	4240	5320	6800	4580
BARONESSE	3170	3810	4670	4820	6310	4560
KENT	3050	3950	4620	4670	6480	4550
04WA-122.9	2610	4260	4330	4880	6680	4550
04WZN-286	3140	3490	4350	5060	6650	4540
04WZN-124	2700	3750	4860	4870	6410	4520
05WA-325.18	3270	3880	4110	4950	6110	4460
2004NZ160	2860	3600	4170	4980	6600	4440
CDC COPELAND	2150	4130	4210	4770	6950	4440
05WA-360.24	2860	3630	4690	4420	6510	4420
05WA-357.14	3120	3820	3940	4510	6660	4410
04WA-102.49	2570	3470	4780	4820	6400	4410
2004NZ223	2750	3900	3970	4900	6400	4380
HARRINGTON	2440	4110	4270	4640	6230	4340
AC METCALFE	2110	3500	4300	4190	6630	4150
PINNACLE	1810	3160	3910	4750	6550	4040
LEGACY	2200	3460	3980	3990	6450	4020
2004NZ052	2250	3410	3480	4370	6250	3950
<i>05WA-328.8</i>	1640	2750	3660	4250	5760	3610
Waxy Hulless						
CLEARWATER	1930	3360	4090	4360	5890	3930
01WA-13860.5	2170	2930	4110	3800	6110	3820
03WA-204.22H	2270	2900	3900	3950	6100	3820
WA 9820-98	1980	3160	4160	4070	5350	3740
MERESSE	1960	2990	3200	3680	5200	3410
STATISTICS						
CV (%)	11	9	9	8	5	8
LSD (0.10)	400	550	550	530	490	210
Average	2650	3700	4350	4760	6520	4400
Highest	3340	4480	5420	5620	7250	5050
Lowest	1640	2750	3200	3680	5200	3410

DAYTON	MAYVIEW	REARDAN	ST. JOHN	WALLA WALLA	AVERAGE TEST WEIGHT
TEST WEIGHT (LBS/BU)					
50.1	52.3	51.2	50.3	52.9	51.4
49.3	51.6	51.9	50.1	51.9	51.0
48.2	51.9	50.7	49.7	52.4	50.6
49.9	52.8	52.6	52.1	52.6	52.0
48.4	50.9	50.8	48.8	51.0	50.0
48.7	51.4	49.8	47.1	51.6	49.7
49.1	51.8	50.7	49.6	51.6	50.6
47.2	49.9	49.9	48.0	50.3	49.1
48.0	51.0	49.6	48.6	50.0	49.4
49.5	51.7	50.2	49.5	50.9	50.4
49.2	52.0	51.1	49.2	51.3	50.6
49.6	52.1	50.5	49.3	51.5	50.6
51.2	52.7	52.5	51.2	52.7	52.1
48.3	51.8	50.8	47.6	50.6	49.8
47.9	51.3	50.0	47.5	48.5	49.0
49.0	52.3	50.5	50.4	51.4	50.7
50.2	52.2	51.4	50.9	52.4	51.4
48.5	50.3	49.5	48.4	49.7	49.3
46.9	50.6	48.8	48.8	49.7	49.0
49.9	52.7	52.0	50.8	52.6	51.6
45.8	49.8	50.4	48.6	50.8	49.1
48.1	51.4	51.0	49.5	52.2	50.4
49.7	51.9	51.0	49.6	53.0	51.0
48.9	50.8	50.0	48.3	49.8	49.6
51.0	52.4	51.5	50.8	51.1	51.4
46.6	50.7	50.1	48.7	49.5	49.1
47.9	51.2	50.9	49.4	53.1	50.5
50.0	52.3	51.6	48.8	51.3	50.8
48.0	50.6	49.1	47.1	48.7	48.7
49.5	51.1	49.8	49.2	51.5	50.2
48.2	50.2	49.1	47.2	49.2	48.8
STATISTICS					
1.4	0.9	1.4	2.7	1.8	1.7
0.9	0.7	1.0	1.8	1.3	0.5
49.8	52.7	51.4	49.9	52.1	51.2
56.9	61.0	57.1	55.7	59.4	57.4
45.8	49.8	48.8	47.1	48.5	48.7

DAYTON	MAYVIEW	REARDAN	ST. JOHN	WALLA WALLA	AVERAGE PROTEIN
PROTEIN (%)					
13.3	12.9	14.2	12.7	13.0	13.2
13.2	12.6	13.8	12.9	12.7	13.0
12.7	12.9	14.0	13.1	12.7	13.1
12.6	12.3	13.4	12.9	12.4	12.7
12.5	12.7	13.8	12.8	12.4	12.8
13.5	13.0	14.0	12.9	12.9	13.3
13.3	13.7	14.5	12.8	12.9	13.4
13.1	13.6	14.0	13.1	13.0	13.4
13.0	13.6	14.1	13.5	12.4	13.3
13.9	13.3	14.8	13.2	13.3	13.7
13.2	13.1	14.3	13.2	13.0	13.4
13.3	13.5	14.3	13.2	12.9	13.4
13.0	12.5	14.0	12.7	12.5	12.9
13.3	12.8	13.9	13.3	12.8	13.2
12.6	12.5	13.7	12.5	12.7	12.8
13.3	12.8	14.1	13.5	13.3	13.4
13.5	13.9	15.0	13.6	13.1	13.8
14.2	14.0	15.0	13.6	13.0	14.0
13.1	13.2	14.7	13.8	13.5	13.7
13.6	13.0	14.6	13.2	12.8	13.4
13.5	12.7	13.8	13.2	13.2	13.3
13.4	13.8	14.5	13.6	13.0	13.7
13.9	13.1	14.5	13.3	13.1	13.6
13.6	14.1	14.2	13.4	12.8	13.6
13.3	13.5	15.0	13.9	13.0	13.7
13.4	13.5	14.2	13.7	13.3	13.6
13.7	13.4	14.8	13.4	13.1	13.7
12.4	12.4	12.6	12.2	11.9	12.3
12.6	12.8	14.6	12.5	12.9	13.1
14.0	14.0	14.9	13.8	13.4	14.0
13.7	13.2	14.9	13.5	13.5	13.8
STATISTICS					
2.9	4.3	1.7	3.9	2.3	3.1
0.5	0.8	0.3	0.7	0.4	0.3
13.4	13.3	14.4	13.3	13.0	13.5
15.1	14.5	16.4	14.4	14.6	15.0
12.4	12.3	12.6	12.2	11.9	12.3

2009 WSU Spring Barley Trial Summary

Precipitation Zone 16"-20" – Preliminary Data

1. Spring barley grain yield across five locations in the 16"-20" precipitation zone averaged 4400 pounds/acre, 1340 pounds/acre higher than the 2008 average. These trials were analyzed as Alpha Lattice designs that overall helped to account for within replication variation and reduced LSD and CV values. The highest value and other values within the LSD range are shown in bold for yield, test weight, and protein. In 2009, the highest yielding cultivars were relatively recent releases and were significantly higher yielding than Baronesse, by up to 10%.
2. Test weight averaged 51.2 lb/bu across locations and entries, with a range of 48.7 lb/bu to 57.4 lb/bu. Test weights averaged higher than last year. Grain protein averaged 13.5%.

2009 WSU SPRING BARLEY TRIAL SUMMARY

Precipitation Zone= <16"

VARIETY NAME (6-row in italics)	ALMIRA	BICKLETON	LAMONT	AVERAGE YIELD	ALMIRA	BICKLETON	LAMONT	AVERAGE TEST WEIGHT	ALMIRA	BICKLETON	LAMONT	AVERAGE PROTEIN
	YIELD (LBS/A)				TW (LBS/BU)				PROTEIN (%)			
CHAMPION	3750	1940	3890	3190	49.6	50.2	49.9	49.9	13.9	12.9	13.9	13.6
SPAULDING	4490	2010	2950	3150	50.2	50.4	50.4	50.3	13.6	12.5	13.9	13.3
05WA-316.K	4070	1620	3730	3140	47.9	48.3	47.9	48.0	14.1	13.7	13.6	13.8
04WA-113.22	4360	1460	3550	3120	48.6	48.5	48.6	48.6	14.6	15.5	14.6	14.9
LENETAH	4520	1520	3300	3110	49.5	48.9	48.0	48.8	14.0	13.2	13.9	13.7
BARONESSE	4120	1550	3480	3050	48.0	47.7	48.6	48.1	14.1	13.8	14.3	14.1
04WA-122.9	3770	1840	3520	3040	48.6	48.3	49.6	48.8	13.8	14.0	13.6	13.8
04WZN-286	4030	1320	3740	3030	48.5	48.0	49.0	48.5	14.2	14.0	14.3	14.2
KENT	3650	1600	3820	3020	46.6	47.2	47.5	47.1	13.8	13.3	13.5	13.5
RADIANT	3740	1750	3540	3010	47.1	47.6	47.8	47.5	13.6	12.3	13.5	13.1
RWA 1758	3730	1570	3620	2970	48.1	48.8	48.6	48.5	13.9	13.8	13.8	13.8
TETONIA	3790	1540	3510	2950	48.0	47.8	47.8	47.9	14.0	13.5	13.6	13.7
HAXBY	3640	1900	3280	2940	50.0	50.1	49.4	49.8	13.9	13.3	13.8	13.7
05WA-316.99	4050	1790	2950	2930	47.8	47.1	47.0	47.3	13.6	13.6	13.7	13.6
05WA-329.49	3840	1590	3330	2920	49.1	48.7	48.6	48.8	14.1	13.8	14.2	14.0
05WA-360.24	3740	1220	3780	2910	47.9	48.0	49.6	48.5	14.3	15.0	14.0	14.4
BOB	4040	1480	3110	2880	48.6	48.4	49.5	48.8	14.3	14.0	14.1	14.1
05WA-357.14	4180	1600	2840	2870	49.3	47.9	48.0	48.4	13.8	13.4	14.4	13.9
HARRINGTON	3700	1530	3250	2830	46.7	47.6	47.8	47.4	14.2	13.6	13.6	13.8
04WA-102.49	3770	1360	3300	2810	47.5	47.9	47.1	47.5	14.2	14.1	14.2	14.2
2004NZ160	3860	1530	3050	2810	48.5	49.4	49.4	49.1	14.3	13.6	14.2	14.0
05WA-325.18	3630	1320	3380	2780	46.8	46.8	47.1	46.9	14.1	14.0	13.8	14.0
04WZN-124	3560	1540	3080	2730	46.7	47.9	46.4	47.0	14.7	14.8	15.1	14.9
2004NZ223	3600	1410	3180	2730	49.4	49.4	50.2	49.7	14.3	14.5	14.7	14.5
2004NZ170	3970	1270	2760	2670	47.2	48.5	47.0	47.6	14.1	14.3	14.3	14.2
LEGACY	3410	1680	2790	2630	45.2	47.5	47.6	46.8	13.8	12.7	13.5	13.3
AC METCALFE	3400	1390	2910	2570	47.9	47.6	48.5	48.0	14.3	14.4	14.1	14.3
CDC COPELAND	2970	1580	3020	2520	45.4	47.0	47.7	46.7	14.2	13.4	13.8	13.8
2004NZ052	3390	1350	2500	2410	47.8	48.9	47.4	48.0	14.1	14.3	14.6	14.3
PINNACLE	3290	1330	2480	2370	49.4	48.7	49.5	49.2	12.8	11.9	12.7	12.5
<i>05WA-328.8</i>	3340	1270	2420	2340	47.5	47.0	46.9	47.1	14.2	14.2	14.0	14.1
Waxy Hulled												
CLEARWATER	3580	1590	3520	2900	54.3	56.7	54.9	55.3	14.3	11.9	14.1	13.4
WA 9820-98	3230	1540	3640	2800	52.6	55.6	54.9	54.4	14.7	14.4	15.4	14.8
03WA-204.22H	3520	1250	2870	2550	54.8	56.6	56.2	55.9	14.8	15.7	14.8	15.1
MERESSE	2760	1680	2110	2180	52.5	55.4	53.3	53.7	15.7	15.9	15.9	15.8
01WA-13860.5	3020	1230	2140	2130	52.3	55.7	55.1	54.4	14.6	14.1	14.5	14.4
STATISTICS					STATISTICS		STATISTICS					
CV (%)	11	17	16	15	2.2	1.9	1.7	2.0	2.1	5.1	3.3	3.7
LSD (0.10)	580	370	700	320	1.5	1.3	1.1	0.7	0.4	1.0	0.6	0.4
Average	3710	1530	3180	2810	48.8	49.3	49.2	49.1	14.1	13.8	14.1	14.0
Highest	4520	2010	3890	3190	54.8	56.7	56.2	55.9	15.7	15.9	15.9	15.8
Lowest	2760	1220	2110	2130	45.2	46.8	46.4	46.7	12.8	11.9	12.7	12.5

2009 WSU Spring Barley Trial Summary Precipitation Zone <16" – Preliminary Data

1. Spring barley grain yield across three locations in the <16" precipitation zone averaged 2810 pounds/acre, 250 pounds/acre lower than the 2008 average. These trials were analyzed as Alpha Lattice designs that overall helped to account for within replication variation and reduced LSD and CV values. The highest value and other values within the LSD range are shown in bold for yield, test weight, and protein. For yield, there were 18 of the 36 cultivars within the top LSD group.
2. Hulless cultivars are listed separately at the bottom of the table, and 'Clearwater' is included in the top LSD group. Clearwater also has the low phytic acid trait that reduces phosphorus pass-through and increases phosphorus adsorption in monogastrics. Hulless cultivars usually yield less than hulled cultivars because their loose hulls are not harvested with the grain.
3. Test weight averaged 59.1 lb/bu across locations and entries, with a range of 46.7 lb/bu to 55.9 lb/bu. Test weights averaged higher than last year. Grain protein averaged 14.0%.

2009 WSU EXTENSION SPRING BARLEY NURSERY AT BICKLETON, WA.

Variety Name *6-Row Italicized	5 YEAR AVERAGE (LBS/A)	3 YEAR AVERAGE (LBS/A)	2 YEAR AVERAGE (LBS/A)	2009			
				YIELD (LBS/A)	TEST WT (LBS/BU)	PROTEIN (%)	PLANT HT
SPAULDING	--	--	2310	2008	50.4	12.5	15.3
CHAMPION	--	--	2808	1940	50.2	12.9	17.0
HAXBY	--	--	2481	1897	50.1	13.3	16.0
04WA-122.9	--	--	2442	1835	48.3	14.0	15.7
05WA-316.99	--	--		1786	47.1	13.6	16.0
RADIANT	--	--	2456	1745	47.6	12.3	14.7
MERESSE (Hulless)	--	--	2103	1684	55.4	15.9	13.3
<i>LEGACY</i>	--	--	2209	1682	47.5	12.7	19.0
05WA-316.K	--	--		1616	48.3	13.7	13.0
05WA-357.14	--	--		1604	47.9	13.4	15.7
KENT	--	--	2411	1597	47.2	13.3	13.3
CLEARWATER (Hulless)	--	--		1592	56.7	11.9	15.7
05WA-329.49	--	--		1587	48.7	13.8	15.0
CDC COPELAND	--	--	2103	1579	47.0	13.4	16.7
RWA 1758	--	--	2336	1568	48.8	13.8	13.7
BARONESSE	--	--	2342	1552	47.7	13.8	13.7
04WNZ-124	--	--	2285	1543	47.9	14.8	15.0
TETONIA	--	--		1540	47.8	13.5	14.0
WA 9820-98 (Hulless)	--	--	1929	1537	55.6	14.4	14.0
2004NZ160	--	--		1530	49.4	13.6	13.0
HARRINGTON	--	--	2104	1525	47.6	13.6	14.0
LENETAH	--	--	2437	1524	48.9	13.2	16.0
BOB	--	--	2458	1475	48.4	14.0	15.0
04WA-113.22	--	--	2276	1461	48.5	15.5	15.0
2004NZ223	--	--		1410	49.4	14.5	16.0
AC METCALFE	--	--	2042	1389	47.6	14.4	16.0
04WA-102.49	--	--	2102	1355	47.9	14.1	13.7
2004NZ052	--	--		1348	48.9	14.3	14.0
PINNACLE	--	--		1325	48.7	11.9	15.7
04WNZ-286	--	--	2174	1322	48.0	14.0	13.3
05WA-325.18	--	--		1320	46.8	14.0	15.0
<i>05WA-328.8</i>	--	--		1273	47.0	14.2	17.0
2004NZ170	--	--		1270	48.5	14.3	13.7
03WA-204.22H (Hulless)	--	--		1247	56.6	15.7	14.7
01WA-13860.5 (Hulless)	--	--	1662	1234	55.7	14.1	13.7
05WA-360.24	--	--		1221	48.0	15.0	15.3
C.V. %	--	--	14	17	1.9	5.1	7.8
LSD '@ .10'	--	--	276	367	1.3	1.0	1.6
Average	--	--	2260	1531	49.3	13.8	14.9
Highest	--	--	2808	2008	56.7	15.9	19.0
Lowest	--	--	1662	1221	46.8	11.9	13.0

Colfax Spring Barley – Preliminary Data

1. Grain yield in the Colfax spring barley trial averaged 4100 pounds/acre. This is a new location for a spring barley trial. The Colfax nursery was located between Colfax and Palouse about 3 miles west of Palouse, WA (Craig Walters, cooperator).
2. This nursery was seeded on 4 May, 2009 following winter wheat. Seed was placed at a 90#/acre seeding rate using a no-till plot drill fitted with cross-slot openers set on 10-inch spacing. Spring seeding conditions were good with moisture rated 10 out of 10. Base fertilizer was 90#N, 16#P, and 16#S per acre applied in the spring. The Alpha Lattice experimental designs improved variation allocation during statistical analysis and the CV by 53% compared to a RCBD design. The CV was 7%.
3. Yields ranged from 3060 lb/ac to 5010 lb/ac. Yield values within the LSD range of the highest yield are shown in bold and 4 of the 36 entries are in this group. Six-row entries are listed in *italic* and the hulless cultivars are designated.
4. Test weights were good with an average of 51.7 lb/bu and ranged from 48.6 lb/bu to 58.0 lb/bu. The hulless cultivars produce the highest test weights. Grain protein averaged 13.2%. The average plant height was 29 inches.