2009 WSU HARD SPRING WHEAT TRIAL SUMMARY
Precipitation Zone= >20"

VARIETY NAME	FARMINGTON	PULLMAN	AVERAGE YIELD	FARMINGTON	PULLMAN	AVERAGE TEST WEIGHT	FARMINGTON	PULLMAN	AVERAGE PROTEIN
Hard Red Spring	**YIELD (BU/A)**			**TW (LBS/BU)**			**PROTEIN (%)**		
SCARLET	83	68	75	60.0	60.0	60.0	14.5	15.6	15.1
BULLSEYE	82	69	75	62.6	63.1	**62.9**	13.9	14.9	14.4
UI WINCHESTER	85	65	75	60.9	62.0	61.5	13.5	14.8	14.2
WA008074	81	68	74	61.2	62.0	61.6	13.9	14.8	14.4
TARA 2002	84	61	73	60.9	61.3	61.1	14.2	15.1	14.7
LASSIK	77	68	73	60.6	62.0	61.3	13.7	14.8	14.3
JEFFERSON	81	64	73	61.0	61.8	61.4	14.3	15.7	15.0
HOLLIS	78	64	71	60.7	61.1	60.9	15.2	15.9	**15.6**
WESTBRED 926	80	61	71	60.2	60.2	60.2	14.4	15.8	15.1
BUCK PRONTO	76	65	70	59.8	60.7	60.3	15.1	16.2	**15.7**
NPBHR70	77	62	70	60.0	60.7	60.4	14.5	15.7	15.1
WA008027	80	59	70	60.7	60.7	60.7	15.4	16.3	**15.9**
HANK	77	61	69	59.1	60.6	59.9	13.8	15.0	14.4
KELSE	73	64	68	60.8	61.1	61.0	14.6	15.4	15.0
OR4990114	76	61	68	59.7	61.2	60.5	13.5	14.7	14.1
WA008072	77	59	68	60.4	61.7	61.1	14.1	15.3	14.7
JEDD	76	60	68	61.4	62.2	61.8	13.2	14.9	14.1
WA008075	76	59	68	61.0	61.6	61.3	14.8	15.9	15.4
VOLT	75	59	67	61.2	62.8	62.0	14.5	14.7	14.6
WA008076	72	61	67	61.5	61.8	61.7	14.2	15.3	14.8
Hard White Spring									
WA008079	82	80	**81**	60.2	61.2	60.7	11.9	12.7	12.3
WA008100	81	78	**79**	61.4	62.8	62.1	12.0	12.4	12.2
OTIS	88	70	**79**	61.6	62.5	62.1	11.8	13.3	12.6
WA008078	85	72	**78**	61.2	61.5	61.4	12.9	14.0	13.5
WA008101	83	69	**76**	61.1	61.6	61.4	12.3	13.0	12.7
BZ903-445WP	79	67	73	59.2	61.1	60.2	13.0	14.4	13.7
MACON	80	61	71	59.4	61.4	60.4	12.5	12.9	12.7
RSI10348W	80	59	69	59.5	61.6	60.6	13.2	14.0	13.6
CLEAR WHITE	73	59	66	60.0	60.8	60.4	12.6	13.4	13.0
BLANCA GRANDE	62	53	58	61.0	62.2	61.6	14.5	14.6	14.6
	STATISTICS			**STATISTICS**			**STATISTICS**		
CV (%)	7	10	8	0.9	0.8	0.8	3.0	2.3	2.7
LSD (0.10)	7	9	6	0.7	0.7	0.5	0.6	0.5	0.4
Average	79	64	71	60.6	61.5	61.1	13.7	14.7	14.2
Highest	88	80	81	62.6	63.1	62.9	15.4	16.3	15.8
Lowest	62	53	58	59.1	60.0	59.9	11.8	12.4	12.2

1. Hard spring wheat (including red and white) grain yield across two locations, 20 hard red entries, and 10 hard white entries in the >20” precipitation zone averaged 71 bu/ac, 13 bu/ac 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 hard white, while in 2008 the hard red and white averaged nearly the same.
2. Test weight averaged 61.1 lb/bu across locations and entries, with a range of 59.9 lb/bu to 62.9 lb/bu. Test weights averaged 1.2 lb/bu higher than last year. Grain protein averaged 14.2% with a range of 12.2% to 15.8%, 1.7% higher than last year’s average.

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

VARIETY NAME	DAYTON	MAYVIEW	REARDAN	ST. JOHN	WALLA WALLA	AVERAGE YIELD	DAYTON	MAYVIEW	REARDAN	ST. JOHN	WALLA WALLA	AVERAGE TEST WEIGHT	DAYTON	MAYVIEW	REARDAN	ST. JOHN	WALLA WALLA	AVERAGE PROTEIN
Hard Red Spring	**YIELD (BU/A)**						**TEST WEIGHT (LBS/BU)**						**PROTEIN (%)**					
BULLSEYE	40	56	49	79	92	63	59.9	62.9	63.2	62.8	62.5	**62.3**	14.9	14.1	14.9	14.3	12.7	14.2
SCARLET	37	60	47	79	89	62	57.1	59.1	61.1	60.1	59.6	59.4	15.3	14.2	15.8	15.5	13.7	14.9
HANK	40	51	51	76	88	61	58.6	60.3	61.2	59.9	60.4	60.1	15.9	14.9	15.6	14.5	13.5	14.9
LASSIK	40	54	40	85	88	61	59.4	61.3	61.2	61.1	60.9	60.8	14.4	14.7	15.0	13.7	12.7	14.1
JEFFERSON	37	52	50	78	88	61	59.8	60.9	61.6	61.1	60.7	60.8	14.8	14.9	16.0	15.2	13.8	14.9
KELSE	40	47	48	79	89	60	58.5	60.9	61.6	60.7	61.1	60.6	16.0	15.4	16.1	15.7	14.0	15.4
JEDD	35	51	50	78	87	60	60.1	62.0	62.9	61.9	62.4	61.9	14.8	14.9	15.1	13.9	12.9	14.3
VOLT	36	54	49	72	88	60	59.0	61.9	61.7	62.0	61.9	61.3	14.2	14.7	15.5	14.7	12.8	14.4
UI WINCHESTER	32	54	49	76	85	59	60.1	61.4	62.0	61.1	61.7	61.3	15.4	14.5	15.1	14.3	13.3	14.5
BUCK PRONTO	33	51	47	75	82	58	58.1	60.1	60.9	60.2	60.4	59.9	17.0	16.2	17.1	16.2	15.2	**16.3**
WA008027	32	46	47	71	85	56	58.4	60.4	60.8	60.7	61.4	60.3	16.2	16.6	16.5	16.4	14.7	16.1
TARA 2002	25	47	47	74	87	56	58.1	61.0	60.9	61.0	60.6	60.3	16.0	15.3	15.7	14.8	14.1	15.2
WA008074	29	52	49	65	84	56	58.9	61.5	61.9	61.6	61.2	61.0	15.1	14.5	15.3	15.4	13.7	14.8
HOLLIS	32	48	45	74	79	56	58.8	60.2	61.1	60.5	60.8	60.3	15.6	15.8	15.7	16.0	14.4	15.5
WA008072	27	46	50	69	85	55	58.7	60.7	61.9	61.2	61.2	60.7	15.3	15.3	16.1	15.2	13.5	15.1
WESTBRED 926	27	48	47	67	83	54	58.0	60.2	60.5	60.0	60.4	59.8	16.6	15.8	16.0	15.6	14.2	15.6
NPBHR70	29	48	45	67	81	54	58.0	60.1	60.7	60.1	60.3	59.8	15.8	14.9	15.9	15.5	14.3	15.3
WA008075	30	46	47	66	80	54	59.1	61.1	62.1	61.5	61.9	61.1	16.3	16.1	16.2	15.8	14.4	15.8
WA008076	29	43	47	68	82	54	58.3	60.9	62.1	61.3	61.3	60.8	15.3	15.3	16.0	15.2	14.5	15.3
OR4990114	29	47	44	61	81	52	58.4	60.5	61.9	60.4	60.5	60.3	15.0	14.9	15.7	14.7	12.9	14.6
Hard White Spring																		
WA008079	43	61	60	84	100	**70**	57.9	61.0	62.0	61.0	61.0	60.6	13.6	12.8	13.8	13.0	11.5	12.9
BZ903-445WP	39	58	56	88	102	**68**	57.9	60.3	60.7	60.0	60.2	59.8	14.6	13.8	15.2	13.9	12.5	14.0
OTIS	42	60	56	87	95	**68**	58.5	61.3	62.6	61.8	61.3	61.1	13.8	13.4	14.1	13.3	11.5	13.2
WA008101	34	53	62	81	95	65	59.0	61.1	62.0	61.7	61.0	61.0	12.8	13.5	13.6	12.8	12.0	12.9
WA008100	36	52	59	87	89	64	57.3	61.4	61.5	61.2	61.1	60.5	12.6	13.1	13.6	12.8	11.3	12.7
WA008078	33	51	60	78	92	63	58.9	61.3	61.7	61.0	61.5	60.9	14.8	14.1	14.8	14.1	12.7	14.1
MACON	34	53	54	73	87	60	58.6	60.8	61.8	60.8	61.0	60.6	13.7	13.1	13.8	12.8	12.0	13.1
RSI10348W	34	53	50	75	85	59	59.7	61.8	62.1	60.9	61.7	61.2	14.1	13.9	14.8	13.6	12.4	13.8
CLEAR WHITE	29	47	54	71	86	57	58.6	61.1	62.0	60.9	61.1	60.7	13.5	13.1	13.6	13.2	12.1	13.1
BLANCA GRANDE	25	44	44	65	79	51	60.2	62.7	61.9	62.0	62.9	61.9	15.6	14.9	15.6	15.2	13.8	15.0
	STATISTICS						**STATISTICS**						**STATISTICS**					
CV (%)	10	7	10	8	4	7	0.8	0.9	0.5	0.8	0.6	0.7	2.0	2.7	2.9	2.9	2.4	2.6
LSD (0.10)	5	5	7	8	5	3	0.7	1.3	0.4	0.6	0.5	0.3	0.4	0.6	0.6	0.6	0.4	0.2
Average	34	51	50	75	87	59	58.7	61.0	61.7	61.0	61.1	60.7	15.0	14.6	15.3	14.6	13.2	14.5
Highest	43	61	62	88	102	70	60.2	62.9	63.2	62.8	62.9	62.3	17.0	16.6	17.1	16.4	15.2	16.3
Lowest	25	43	40	61	79	51	57.1	59.1	60.5	59.9	59.6	59.4	12.6	12.8	13.6	12.8	11.3	12.7

1. Hard spring wheat (including red and white) grain yield across five locations, 20 hard red entries, and 10 hard white entries in the 16”- 20” precipitation zone averaged 59 bu/ac, 12 bu/ac 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 hard white, while in 2008 the hard red and white averaged the same.
2. Test weight averaged 60.7 lb/bu across locations and entries, with a range of 59.4 lb/bu to 62.3 lb/bu. Test weights averaged 0.9 lb/bu higher than last year. Grain protein averaged 14.5% with a range of 12.7% to 16.3%, 0.2% higher than last year’s average.

2009 WSU HARD SPRING WHEAT TRIAL SUMMARY
Precipitation Zone= 12"- 16"

VARIETY NAME	ALMIRA	ENDICOTT	LAMONT	AVERAGE YIELD	ALMIRA	ENDICOTT	LAMONT	AVERAGE TEST WEIGHT	ALMIRA	ENDICOTT	LAMONT	AVERAGE PROTEIN
Hard Red Spring	**YIELD (BU/A)**				**TW (LBS/BU)**				**PROTEIN (%)**			
SCARLET	56	73	57	**62**	58.4	61.1	59.7	59.7	15.4	15.6	15.3	15.4
LASSIK	55	63	47	55	60.2	61.7	60.2	60.7	13.9	15.0	15.0	14.6
HOLLIS	51	65	45	53	59.6	61.8	60.6	60.7	15.8	16.1	16.0	16.0
HANK	51	65	43	53	59.2	62.0	59.8	60.3	15.6	15.9	14.4	15.3
JEFFERSON	53	62	43	53	59.2	62.1	60.4	60.6	15.1	15.8	15.2	15.4
KELSE	50	64	43	52	60.0	61.1	59.6	60.2	16.1	16.9	15.5	16.2
WA008074	50	61	41	51	60.3	61.9	60.4	60.9	15.1	15.9	14.7	15.2
UI WINCHESTER	50	62	40	51	60.7	62.1	60.5	61.1	15.6	15.9	15.1	15.5
BULLSEYE	51	59	41	51	61.3	62.7	61.1	**61.7**	14.6	14.8	13.9	14.4
NPBHR70	49	55	44	49	59.2	61.1	59.5	59.9	16.0	16.3	15.9	16.1
VOLT	49	61	38	49	60.3	62.2	60.1	60.9	14.5	15.5	14.5	14.8
TARA 2002	49	59	39	49	59.3	61.2	59.4	60.0	15.7	16.8	15.6	16.0
WA008027	48	59	38	49	59.5	61.4	60.0	60.3	16.6	17.4	16.4	**16.8**
BUCK PRONTO	42	54	48	48	58.9	60.8	59.1	59.6	16.7	17.1	17.6	**17.1**
JEDD	48	61	33	47	60.5	63.0	60.9	**61.5**	14.9	15.2	15.3	15.1
WESTBRED 926	47	53	42	47	59.4	61.1	59.4	60.0	16.0	16.9	15.9	16.3
OR4990114	43	60	36	46	59.5	61.9	59.7	60.4	15.3	15.1	15.4	15.3
WA008072	48	55	36	46	60.2	61.8	60.0	60.7	15.7	15.7	15.3	15.6
WA008076	50	51	37	46	60.6	62.0	60.5	61.0	15.4	16.0	15.5	15.6
WA008075	47	55	36	46	60.8	62.2	60.7	61.2	16.4	16.7	15.6	16.2
Hard White Spring												
BZ903-445WP	54	77	50	**60**	58.8	61.0	60.0	59.9	14.4	15.2	13.8	14.5
OTIS	46	76	55	59	59.8	62.5	61.3	61.2	13.8	14.2	13.3	13.8
WA008100	52	77	48	59	58.7	62.9	60.8	60.8	13.7	12.5	13.4	13.2
WA008079	55	70	47	57	60.1	62.0	60.8	61.0	13.2	13.2	13.0	13.1
WA008078	55	61	50	55	59.9	61.7	59.8	60.5	14.2	15.3	14.1	14.5
WA008101	47	67	47	53	59.4	62.0	60.5	60.6	13.1	14.0	13.0	13.4
CLEAR WHITE	55	54	47	52	60.1	61.8	59.7	60.5	13.2	14.1	13.1	13.5
MACON	45	62	43	50	58.5	61.9	59.9	60.1	13.5	13.5	13.0	13.3
RSI10348W	47	56	44	49	59.6	61.9	60.0	60.5	14.1	14.9	13.9	14.3
BLANCA GRANDE	44	43	33	40	61.3	61.9	60.6	61.3	14.7	15.7	14.6	15.0
	STATISTICS				**STATISTICS**				**STATISTICS**			
CV (%)	8	7	10	8	0.9	0.4	0.8	0.7	2.2	1.6	3.7	2.6
LSD (0.10)	5	6	6	3	0.7	0.4	0.6	0.3	0.4	0.3	0.8	0.6
Average	50	61	43	51	59.8	61.8	60.2	60.6	14.9	15.4	14.8	15.1
Highest	56	77	57	62	61.3	63.0	61.3	61.7	16.7	17.4	17.6	17.1
Lowest	42	43	33	40	58.4	60.8	59.1	59.6	13.1	12.5	13.0	13.1

1. Hard spring wheat (including red and white) grain yield across three locations, 20 hard red entries, and 10 hard white entries in the 12”-16” precipitation zone averaged 51 bu/ac, 6 bu/ac 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.
2. Test weight averaged 60.6 lb/bu across locations and entries, with a range of 59.6 lb/bu to 61.7 lb/bu. Test weights averaged 0.7 lb/bu higher than last year. Grain protein averaged 15.1% with a range of 13.1% to 17.1%, 1.2% higher than last year’s average.

2009 WSU HARD SPRING WHEAT TRIAL SUMMARY
Precipitation Zone= <12"

VARIETY NAME	BICKLETON	CONNELL	HORSE HEAVEN	LIND	AVERAGE YIELD	BICKLETON	CONNELL	HORSE HEAVEN	LIND	AVERAGE TEST WEIGHT	BICKLETON	CONNELL	HORSE HEAVEN	LIND	AVERAGE PROTEIN
Hard Red Spring	**YIELD (BU/A)**					**TW (LBS/BU)**					**PROTEIN (%)**				
SCARLET	22	30	13	26	**23**	59.3	61.3	60.1	60.1	60.2	14.3	16.0	15.4	16.1	15.5
VOLT	20	26	17	22	21	61.3	63.6	63.0	61.9	**62.5**	13.3	14.6	13.6	14.3	14.0
HANK	26	25	11	23	21	59.2	61.7	58.8	61.1	60.2	14.4	16.3	16.0	15.7	15.6
LASSIK	19	29	12	25	21	60.2	62.5	60.2	61.6	61.1	14.0	14.7	14.1	14.6	14.4
HOLLIS	23	26	13	22	21	60.4	61.3	61.0	61.2	61.0	14.0	16.0	15.7	15.5	15.3
UI WINCHESTER	23	26	13	21	21	60.3	62.6	60.9	61.4	61.3	13.8	15.2	14.9	15.3	14.8
WA008074	23	22	15	23	21	60.5	62.2	61.4	61.4	61.4	13.7	16.1	14.6	15.1	14.9
BULLSEYE	22	26	14	22	21	62.0	63.7	63.0	62.6	**62.8**	13.2	16.2	14.6	15.4	14.9
WA008072	20	25	14	22	20	59.6	62.1	61.3	60.9	61.0	14.6	15.8	15.5	15.7	15.4
KELSE	21	21	14	25	20	60.3	61.8	61.4	61.3	61.2	15.4	17.0	15.4	16.4	16.1
WA008075	22	23	14	21	20	60.3	62.4	61.5	61.3	61.4	14.7	16.3	15.3	16.0	15.6
JEDD	22	22	14	22	20	62.2	62.9	62.3	62.3	62.4	14.2	16.1	15.0	14.9	15.1
WA008076	18	25	13	23	20	60.1	62.3	61.2	61.7	61.3	14.0	15.8	14.3	14.9	14.8
TARA 2002	21	23	14	21	20	60.5	60.6	59.3	59.3	59.9	15.0	16.5	15.9	15.5	15.7
OR4990114	20	24	14	21	20	58.9	62.3	62.0	61.6	61.2	14.1	15.5	14.5	15.5	14.9
WA008027	20	23	13	22	19	60.1	60.8	59.8	60.0	60.2	15.1	16.9	16.0	16.5	16.1
JEFFERSON	19	25	13	20	19	59.4	62.1	61.4	61.0	61.0	14.5	16.6	15.6	16.2	15.7
WESTBRED 926	21	21	14	20	19	60.0	61.5	60.4	60.2	60.5	15.1	16.8	16.1	15.7	15.9
BUCK PRONTO	18	24	11	20	18	58.8	61.3	59.8	60.2	60.0	15.6	17.1	17.0	16.5	**16.6**
NPBHR70	18	21	13	20	18	59.0	61.3	60.6	60.6	60.4	15.4	16.7	15.8	16.1	16.0
Hard White Spring															
OTIS	27	31	13	24	**24**	61.5	62.6	61.3	61.5	61.7	13.0	14.6	14.1	14.2	14.0
BZ903-445WP	25	26	17	26	**23**	59.2	61.7	61.5	60.8	60.8	14.0	15.9	14.8	14.8	14.9
WA008100	22	31	12	27	**23**	60.1	61.7	60.5	61.5	61.0	13.3	14.3	15.4	13.9	14.2
WA008078	24	28	14	24	**23**	60.5	62.0	59.5	60.8	60.7	14.4	15.7	15.3	14.5	15.0
WA008079	26	25	13	26	22	60.0	62.1	61.3	61.3	61.2	13.2	15.6	14.0	14.0	14.2
CLEAR WHITE	27	24	14	23	22	61.0	62.4	61.8	61.5	61.7	13.1	14.2	13.8	13.5	13.7
WA008101	24	27	12	25	22	61.1	61.7	59.8	61.0	60.9	12.2	14.5	13.8	13.4	13.5
RSI10348W	22	26	12	22	20	61.0	62.9	60.4	61.4	61.4	13.5	14.4	13.7	14.2	14.0
MACON	19	23	13	24	20	59.0	61.6	59.5	61.0	60.3	13.2	15.8	14.5	14.2	14.4
BLANCA GRANDE	20	24	13	19	19	61.1	62.8	61.8	61.6	61.8	15.1	15.8	14.2	14.8	15.0
	STATISTICS					**STATISTICS**					**STATISTICS**				
CV (%)	14	9	14	7	11	1.5	0.5	1.1	0.6	1.0	3.6	3.2	3.5	1.8	3.1
LSD (0.10)	4	3	3	2	2	1.3	0.8	0.9	0.5	0.4	0.7	0.7	0.7	0.4	0.3
Average	22	25	13	23	21	60.2	62.1	60.9	61.1	61.1	14.1	15.8	15.0	15.1	15.0
Highest	27	31	17	27	24	62.2	63.7	63.0	62.6	62.8	15.6	17.1	17.0	16.5	16.5
Lowest	18	21	11	19	18	58.8	60.6	58.8	59.3	59.9	12.2	14.2	13.6	13.4	13.5

1. Hard spring wheat grain yield across four locations, 20 hard red entries, and 10 hard white entries, in the <12" precipitation zone averaged 21 bu/ac, 2 bu/ac 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.
2. Four of the five cultivars in the top LSD group are hard white cultivars.
3. Test weight averaged 61.1 lb/bu across locations and entries, with a range of 59.9 lb/bu to 62.8 lb/bu. Test weights averaged 1.7 lb/bu higher than last year. Grain protein averaged 15.0% with a range of 13.5% to 16.5%, 0.2% higher than last year's average.