

2014 WSU Variety Testing Hard Winter Wheat Trial, Dayton

Variety Name <i>Hard White Italicized</i>	5 YEAR AVERAGE (BU/A)	3 YEAR AVERAGE (BU/A)	2 YEAR AVERAGE (BU/A)	2014				
				YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	PLANT HT	HEAD DATE
LCS Colonia			90	58	57.3	14.0	32	145
<i>IDO1101</i>			81	56	61.3	13.5	32	144
NSA10-7208				55	58.7	14.8	28	145
<i>OR2080156H</i>	120	100	87	55	59.7	15.0	31	144
SAS W3				50	57.0	15.0	39	147
WA 8186			82	49	60.5	14.0	32	148
SAS W7				49	57.7	15.3	33	146
Norwest 553	135	109	92	48	62.4	15.1	30	145
<i>OR2080236H</i>		102	88	47	59.9	14.9	29	146
WB-Rimrock			82	47	61.1	14.3	33	144
WB-Arrowhead			82	47	59.2	14.4	38	144
<i>OR2100081H</i>				47	59.4	15.0	34	144
Eltan (SWW Check)	100	85	79	47	58.6	13.8	32	151
LCS Evina				46	59.6	15.6	34	146
<i>OR2100061H</i>				45	58.8	14.3	30	145
Bauermeister	92	75	56	45	59.5	14.0	36	151
LCS-Azimut		97	87	45	55.0	14.5	30	144
SAS W4				44	58.0	15.3	34	147
Keldin			86	43	58.8	15.5	31	145
DAS 1			76	43	57.0	16.1	33	144
LCS Allezy				43	59.1	14.3	28	146
WA 8210				41	60.8	14.1	31	146
WA 8209				40	60.7	15.5	28	147
Genesis			81	40	57.9	16.4	29	144
DAS 2			76	40	58.4	16.9	32	145
Boundary	104	94	81	39	60.5	14.2	30	145
<i>WA 8184</i>			82	37	58.3	14.6	33	144
WA 8189				37	61.4	13.8	31	145
SAS 4B				35	58.5	16.0	34	148
IDO1103			76	34	60.4	15.0	29	146
Whetstone			70	34	57.9	15.4	34	143
Finley	84	70	61	34	62.6	14.8	37	147
WA 8211				31	60.2	16.8	33	144
Farnum	79	62	55	31	59.6	14.7	34	153
AP503 CL2			69	30	60.4	14.9	31	144
Sprinter (WA 8118)	84	62	55	27	57.4	16.7	35	143
C.V. %	11	13	11	15	1.0	3.8	6	1
LSD (.10)	4	6	6	7	0.6	0.6	2	1
Average	97	86	77	43	59.3	15.0	32	146
Highest	135	109	92	58	62.6	16.9	39	153
Lowest	79	62	55	27	55.0	13.5	28	143

Dayton Hard Winter Wheat

1. Grain yield in the 2014 Dayton hard winter wheat trial averaged 43 bushels/acre, less than half of the five-year average of 97 bushels/acre. The Dayton nursery was located about five miles northwest of Dayton, WA (J. Penner, Cooperator).
2. This nursery was seeded on 2 October, 2013 following chickpeas. Seed was placed at an 85#/acre seeding rate using a plot drill equipped with double-disc openers on 6-inch spacing. Base fertilizer was 166#N/acre pre-plant. Based on a spring soil test showing 217 lbs./acre available N, 100#/acre additional N was applied for hard wheat protein based on projected yields. Fall seeding and emergence were adequate. The entries survived cold December temperatures in this trial better than at many locations with only minor reduced stands evident in the spring. However, as early as heading there were observed water stress symptoms and stress symptoms were not uniform across the trial. Water stress also increased disease expression of Fusarium, decreased yield potential, and increased variability. The trial has merit, but interpretation of results should account for the low yield, a CV of 15%, and variability in the trial.
3. Yields ranged from 27 bushels/acre to 58 bushels/acre. 'LCS Colonia', was the highest yielding named entry in this trial. 'Norwest 553' had the highest overall yield across five-years. All yield values within the 10% LSD range of the highest yield are shown in bold and this included 4 of the 36 entries. Although no stripe rust was observed, fungicide was applied at herbicide timing.
4. Test weights averaged 59.3 lbs/bu and ranged from 55.0 to 62.6 lbs/bu. Grain protein averaged 15.0% with a range of 13.5 to 16.9% and was much higher than the 12.9% average protein in 2013. Plant height averaged 32 inches with no lodging.