

2011 WSU Variety Testing Hard Winter Wheat Trial, Dayton

Variety Name <small>*Hard White Italized</small>	5 YEAR AVERAGE (BU/A)	3 YEAR AVERAGE (BU/A)	2 YEAR AVERAGE (BU/A)	2011					
				YIELD (BU/A)	TEST WT (LBS/BU)	PROTEIN (%)	PLANT HT	HEAD LODGING DATE	(%)
Norwest 553	141	163	172	179	63.1	13.2	40	157	0
Genesi				163	63.1	13.7	38	155	43
OR2080111H				162	60.8	13.3	42	158	0
Altigo				161	58.6	12.9	38	158	0
OR2080156H			148	154	61.3	13.2	42	164	27
Esperia		137	141	147	61.5	13.2	36	155	57
ML9W05-2501				146	61.9	13.8	44	159	60
UI Silver		135	144	137	61.6	12.9	46	166	91
WA 8120			149	133	56.8	12.8	46	167	87
Azimut				133	57.4	13.9	37	157	3
Whetstone	118	123	122	132	58.6	14.4	44	156	53
Eddy	109	113	111	126	62.6	13.4	43	157	47
WB-Tucson		126		125	61.8	13.3	45	160	58
Eltan (SWW Check)	114	112	122	122	59.3	13.5	42	169	90
MDM	112	112	118	115	59.9	12.7	42	168	96
Boundary	113	118	119	114	61.9	12.5	44	161	83
WA 8119			138	114	57.7	13.1	45	168	93
Accipiter		104	99	112	60.5	13.1	46	164	47
Bauermeister	113	114	117	110	59.2	13.9	45	168	96
IDO835				108	60.6	12.0	45	166	75
AgriPro Paladin	101	97	84	107	59.3	13.5	42	161	0
IDO656				107	59.7	14.3	50	166	96
Finley	101	106	107	102	63.4	13.8	51	162	96
WA 8096		108	110	100	57.3	13.8	44	167	90
WA 8118			117	97	60.8	15.3	47	157	92
Farnum	96	100	104	96	61.4	14.9	49	171	87
Peregrine		97	88	95	62.6	14.1	51	164	43
Hatton	87	80	74	91	63.5	13.1	50	165	82
WA 8070		97	99	89	61.0	14.2	48	169	47
UICF-Grace		97	90	73	58.8	15.2	53	164	88
C.V.	14	11	9	9	1.4	4.9	3	1	30
LSD	8	11	13	21	1.7	1.3	3	3	36
Average	110	113	117	122	60.5	13.6	45	163	61
Highest	141	163	172	179	63.5	15.3	53	171	96
Lowest	87	80	74	73	56.8	12.0	36	155	0

Dayton Hard Winter Wheat – Preliminary Data

1. Grain yield in the Dayton hard winter wheat trial averaged 122 bushels/acre, 12 bushels/acre higher than the 5-year average. The Dayton nursery was located about four miles northwest of Dayton, WA (J. Penner, cooperator).
2. This nursery was seeded on 28 September, 2010 following summer fallow. Seed was placed at an 85#/acre seeding rate using a double disc plot drill set on 6-inch spacing. Fall seeding conditions were favorable and emergence and stand establishment were good. Base fertilizer was 110#/acre and a spring soil test showed 153#N/acre available and an additional 110#N/acre was applied in the spring to supply adequate N for hard wheat protein based on expected yields.
3. Yields ranged from 73 bu/ac to 179 bu/ac. Norwest 553 was the highest yielding entry in this trial. All yield values within the 10% LSD range of the highest yield are shown in bold and this included 4 of the 30 entries. Norwest 553 was also the top yielding entry across five years of results at this location. Stripe rust potential was very high at this location. Fungicide was applied three times on 19 March, 5 May, and 21 June. Despite three fungicide applications, stripe rust was present in the trial on susceptible varieties and influenced yield an estimated 15% or more for susceptible varieties. This trial shows that stripe rust susceptible varieties can sustain damage even with a high fungicide application regime when stripe rust is highly epidemic. There was also lodging in the trial with some yield impact. The Lattice design was 110% efficient compared to an RCBD.
4. Test weights were good with an average of 60.5 lb/bu. Grain protein averaged 13.6% with a range of 12.0 to 15.3%. Plant height averaged 45 inches and lodging averaged 61% across the trial with a range of 0% to 96%.