2015 WSU-Mount Vernon Soft Winter Wheat Trial

Variety	Mkt class	5 yr ave (bu/a)	4 yr ave (bu/a)	3 yr ave (bu/a)	2 yr ave (bu/a)	Yield bu/ac	Twt lbs/bu	Protein %	Heading date	Plant Ht (in)	BYD 0-9	Stripe Rust
Cara	WC	129.0	123.9	117.1	117.8	**106.6**	**56.6**	10.0	19-May	49	2	R
LWW12-7105	SWW				127.3	**102.3**	**54.1**	9.3	30-Apr	36	2	MR
Bobtail	SWW		133.4	119.8	128.7	**95.6**	**54.4**	8.9	18-May	38	3	R
WA 8235	SWWI					**94.9**	**59.7**	9.8	17-May	45	4	R
WA 8187	SWWI			106.6	117.8	**94.7**	**57.3**	8.6	18-May	44	3	R
SY Ovation	SWW			100.7	102.6	**93.2**	**56.8**	9.2	18-May	45	4	R
WA 8169	SWW				115.6	**93.1**	**58.2**	8.9	18-May	46	3	MR
WA 8232	SWW					**90.9**	**57.4**	9.0	18-May	45	4	R
WA 8177	SWWI				110.8	**90.0**	**55.2**	9.3	18-May	43	4	R
LOR-978	SWW					**84.1**	**54.7**	**10.9**	1-May	40	4	MR
Rosalyn	SWW		134.2	121.9	129.6	**83.6**	**54.4**	8.7	18-May	41	5	MR
WB1529	SWW					**83.6**	**58.3**	9.2	18-May	44	2	MR
DAS 3	SWW					**81.6**	**57.2**	9.4	17-May	46	4	R
OR2090473	SWW				108.6	**80.3**	**56.3**	9.1	17-May	41	4	MR
Skiles	SWW	125.8	120.2	111.3	112.7	**78.6**	**56.2**	**10.3**	11-May	40	4	R
ARS20060123-31C	WC					**77.4**	**54.8**	9.8	12-May	44	3	R
Kaseberg	SWW			96.3	102.0	**76.7**	**54.7**	9.1	11-May	37	5	MR
DAS 4	SWW					**75.9**	**56.9**	9.1	19-May	44	5	R
ARS-Selbu	SWW			79.8	98.3	**74.6**	**60.4**	9.6	19-May	39	5	R
WB 1604	SWW					**73.1**	**55.8**	**10.3**	13-May	41	3	R
Puma	SWW		85.0	85.1	97.8	**72.9**	**55.5**	9.6	17-May	47	4	MR
ARS010669-2C	WC					**71.7**	**54.1**	**10.7**	1-May	39	4	MR
AP700 CL	SWW			104.9	110.1	**71.2**	**56.6**	**10.2**	14-May	43	5	R
WA 8212	SWW				102.7	**70.2**	**55.6**	9.0	17-May	41	5	R
IDN-01-10704A	SWW				103.8	**69.4**	**58.3**	8.8	19-May	45	5	MR
Madsen	SWW	96.4	96.5	87.5	95.1	68.6	**55.3**	8.7	17-May	40	5	R
WB-1070CL	SWWI			86.1	96.1	66.2	**57.7**	**10.9**	13-May	37	4	R
OR2080641	SWW			84.8	97.3	61.6	**58.6**	9.0	18-May	40	4	MR
UI-WSU Huffman	SWW				91.3	60.9	**55.4**	8.7	19-May	37	5	MR
ARS20060126-35C	WC					60.5	**55.1**	**11.6**	18-May	46	3	R
ARS-Crescent	WC		97.4	93.7	98.9	59.0	**58.1**	9.2	22-May	40	6	MR
4J0713366C	WC					58.6	**53.7**	9.4	21-May	37	4	R
IDN-06-18102A	SWW					58.1	**52.9**	9.2	18-May	46	5	MR
ARS010263-10-3C	WC					56.0	**57.5**	9.8	20-May	34	4	R
WA 8233	SWW					52.0	**53.3**	8.5	17-May	44	4	R
WA 8234	SWW					49.7	**54.9**	8.8	18-May	44	5	R
Legion	SWW			86.1	87.1	47.7	**53.8**	9.2	18-May	37	6	R
MelaCL+	SWWI					46.1	**56.7**	9.1	21-May	42	5	MR-MS
IDN-02-29001A	SWW				97.3	45.9	46.7	5.1	18-May	42	6	R
WA 8206	SWW				81.3	44.0	**55.8**	8.9	16-May	42	5	R
CuriosityCL+	SWWI					40.6	46.1	4.4	21-May	43	5	MR
ARS-Chrystal	WC			51.3	59.3	27.8	50.8	**10.7**	20-May	40	6	MR
IDO1005	SWW					24.1	42.4	XX	20-May	36	6	MR
IDO1108	SWW					22.9	42.8	XX	21-May	39	6	R
Mean		117.1	112.9	95.8	103.6	69.1	54.9	9.4				
CV %						25.4	6.9	8.2				
LSD@.10						35.4	7.6	1.5				
Max.		129.0	134.2	121.9	129.6	106.6	60.4	11.6				
Min.		96.4	85.0	51.3	59.3	22.9	42.4	4.4				

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1. Planted at a seeding rate of 100 lbs/ac on October 9, 2014 with a double disc drill on 6-inch row spacing. No fertilizer was applied in the fall. 1.5 lbs/ac of diuron herbicide were applied pre-emergence.
2. On March 17 and April 2, 2015 a split application of NPKS was applied totaling 110 lbs N/acre. Maestro 2EC and Harmony Extra SG were applied at labeled rates for weed control. No fungicides were applied. The nursery was harvested on July 23.

3. Harvest was on July 21 and yields ranged from 22.9 to 106.6 bushels/acre, test weights 42.4 to 60.4 lbs/bu and protein 4.4 to 11.6 %. Values within the 10% LSD range of the largest are shown in bold.

4. Barley Yellow Dwarf Virus (BYDV): a visual rating was assigned based on a 0-9 scale where 0 = no symptoms; 1 = trace amounts of yellowing at leaf tips, vigorous plant apperance; 5 = more extensive yellowing, some dwarfing, moderate plant vigor; 9 = marked dwarfing, complete yellowing, some sterility.
5. Heading date is when 50 % of the heads are 50 % emerged.
6. Stripe rust rating: R = resistant; MR = moderately resistant; MS =moderately susceptible; S = susceptible.
7. WC = Winter Club; SWW = Soft White Winter; SWWI = Soft White Winter, Clearfield

Discussion:
The severe infestation of Barley Yellow Dwarf Virus (BYDV) contributed to a yield reduction of 58% from the previous year. The yield of the varieties tend to follow the severity of the visual rating, giving a good indication of the genetic resistance or tolerance of that variety to the BYDV. Aphids are the vector that carry the virus to the plant and best management practices recommend reducing the aphid population by delaying planting, using an insecticidal seed treatment or spraying the plants with an insecticide.

For additional information contact Steve Lyon (slyon@wsu.edu).
For additional variety testing results visit: http://thebreadlab.wsu.edu/western-washington-variety-trials/