## 2005 VARIETY TESTING WASHINGTON STATE UNIVERSITY FAIRFIELD SOFT WHITE/CLUB SPRING WHEAT NURSERY

VARIETY NAME	5 YEAR	3 YEAR AVERAGE	2 YEAR AVERAGE	2005 YIELD	2005 TEST WT.	2005 PROTEIN
VARIETT NAME	(BU/A)	(BU/A)	(BU/A)	(BU/A)	(LBS/BU)	(%)
	(BO/A)	(BO/A)	(BU/A)	(BU/A)	(LB3/B0)	( /0)
WAWAWAI	72.5 ( 1)	58.8 (4)	65.5 ( 4)	58.1 ( 4)	60.3	10.9
ALPOWA	71.8 ( 2)	58.0 ( 5)	63.4 ( 5)	51.2 (6)	59.5	10.1
NICK	70.5 (3)	61.1 ( 2)	67.7 ( 2)	61.6 ( 2)	58.3	11.6
EDEN	69.9 (4)	55.0 ( 6)	56.6 (10)	40.3 (12)	59.4	10.3
ALTURAS	68.2 ( 5)	52.8 (8)	58.1 ( 6)	40.0 (12)	56.9	12.0
ZAK	66.1 ( 6)	52.9 (7)	57.1 ( 9)	44.7 (7)	56.2	10.1
EDWALL	55.4 (7)	39.6 ( 9)	41.4 (12)	24.5 (19)	48.5	12.4
PENAWAWA	54.3 ( 8)	39.3 (10)	42.3 (11)	26.6 (18)	53.5	12.2
FIELDER	50.8 ( 9)	33.2 (11)	30.4 (13)	13.5 (20)	51.4	11.7
LOUISE		61.8 ( 1)	67.1 ( 3)	59.1 ( 3)	59.3	10.4
WAKANZ		60.4 (3)	69.0 (1)	70.1 (1)	57.7	11.3
WA7952			57.1 (7)	41.2 (10)	59.8	9.3
WA7964			57.1 (8)	39.7 (14)	54.7	11.7
WA7983				55.4 ( 5)	56.6	11.4
WA7963				44.4 (8)	56.5	10.8
WA7987				43.0 (9)	58.5	11.8
WA7960				40.8 (11)	58.9	10.2
ID632				38.3 (15)	59.1	9.8
WA7986				36.9 (16)	59.0	11.4
WQL7PENWX-2				28.1 (17)	54.4	11.1
NURSERY MEAN	64.4	52.1	56.4	42.9	56.9	11.0
CV %	7.4	9.3	9.1	12.5	3.5	12.8
LSD @ .10	2.9	3.8	5.0	7.4	2.8	1.9

## 2005 VARIETY TESTING WASHINGTON STATE UNIVERSITY FAIRFIELD HARD WHITE SPRING WHEAT NURSERY

	5 YEAR	3 YEAR	2 YEAR	2005	2005	2005
VARIETY NAME	AVERAGE		AVERAGE	YIELD	TEST WT.	PROTEIN
	(BU/A)	(BU/A)	(BU/A)	(BU/A)	(LBS/BU)	(%)
LOLO	71.2 ( 1)	54.3 (3)	59.5 (5)	46.8 (7)	60.7	12.2
MACON	70.7 (2)	57.8 ( 2)	66.2 (3)	55.7 (5)	59.0	10.7
ID377S	69.0 (3)	50.8 ( 5)	54.1 (6)	35.7 (9)	59.3	12.4
OTIS		61.5 ( 1)	70.7 (1)	64.9 (1)	59.9	11.3
BLANCA GRANDE		53.6 (4)	59.5 (4)	39.8 (8)	61.4	12.7
ID597			67.4 ( 2)	63.6 (2)	59.9	11.5
BZ98-447W				63.0 ( 3)	60.0	11.7
WA7957				59.4 (4)	60.7	11.3
WA7991				47.6 ( 6)	60.5	12.0
WINSOME				31.1 (10)	57.2	10.3
NURSERY MEAN	70.3	55.6	62.9	50.8	59.9	11.6
CV %	8.5	9.6	9.2	13.3	1.5	7.3
LSD @ .10	3.8	4.3	5.7	9.6	1.2	1.2

## 2005 VARIETY TESTING WASHINGTON STATE UNIVERSITY FAIRFIELD HARD RED SPRING WHEAT NURSERY

5 YEAR	3 YEAR	2 YEAR	2005	2005	2005
<b>AVERAGE</b>	<b>AVERAGE</b>	<b>AVERAGE</b>	YIELD	TEST WT.	PROTEIN
(BU/A)	(BU/A)	(BU/A)	(BU/A)	(LBS/BU)	(%)
74.6 ( 1)	63.6 ( 2)	76.4 ( 2)	64.2 ( 2)	60.0	11.6
73.7 (2)	66.8 ( 1)	77.1 ( 1)	64.2 (3)	59.6	13.0
72.6 (3)	62.3 ( 5)	72.7 (4)	61.6 ( 6)	60.0	11.9
71.8 ( 4)	62.9 (4)	72.1 (5)	61.2 (7)	60.1	12.7
	74.6 (1) 73.7 (2) 72.6 (3)	AVERAGE (BU/A) (BU/A)  74.6 (1) 63.6 (2) 73.7 (2) 66.8 (1) 72.6 (3) 62.3 (5)	AVERAGE (BU/A)         AVERAGE (BU/A)         AVERAGE (BU/A)           74.6 (1)         63.6 (2)         76.4 (2)           73.7 (2)         66.8 (1)         77.1 (1)           72.6 (3)         62.3 (5)         72.7 (4)	AVERAGE (BU/A)         AVERAGE (BU/A)         AVERAGE (BU/A)         YIELD (BU/A)           74.6 (1)         63.6 (2)         76.4 (2)         64.2 (2)           73.7 (2)         66.8 (1)         77.1 (1)         64.2 (3)           72.6 (3)         62.3 (5)         72.7 (4)         61.6 (6)	AVERAGE (BU/A)         AVERAGE (BU/A)         AVERAGE (BU/A)         YIELD (BU/A)         TEST WT. (LBS/BU)           74.6 (1)         63.6 (2)         76.4 (2)         64.2 (2)         60.0           73.7 (2)         66.8 (1)         77.1 (1)         64.2 (3)         59.6           72.6 (3)         62.3 (5)         72.7 (4)         61.6 (6)         60.0

SCARLET	69.7 ( 5)	56.1 (7)	59.9 ( 9)	43.8 (15)	57.3	12.2
HOLLIS	69.0 ( 6)	59.6 (6)	68.7 (7)	64.1 (4)	59.6	13.7
JEROME		63.5 ( 3)	73.6 (3)	69.3 ( 1)	60.4	11.2
GMG BUCK PRONTO			69.6 (6)	58.1 (9)	60.1	14.9
ID593			67.9 (8)	53.3 (12)	59.7	11.2
WA7997				62.7 (5)	59.9	12.2
WA7998				60.5 (8)	59.4	12.0
BZ999-339				58.1 (10)	59.8	13.4
SX1504B				57.2 (11)	59.7	12.5
WA7994				52.8 (13)	57.5	14.2
WA7995				47.9 (14)	58.6	13.3
BZ999-592				42.4 (16)	60.6	13.2
NURSERY MEAN	71.9	62.1	70.9	57.6	59.5	12.7
CV %	8.3	9.5	10.1	13.0	1.2	5.7
LSD @ .10	3.7	4.7	7.0	10.4	1.0	1.0

## FAIRFIELD SPRING WHEAT - 2005 WSU VARIETY TESTING DATA

- 1. 2005 Spring Wheat data from the WSU Variety Testing nursery at the Fairfield location averaged 42.9, 50.8, and 57.6 bu/ac for soft white spring, hard white spring and hard red spring wheat, respectively. The 2005 spring wheat average yields were lower by 37.3%, 30.6% and 20.6% for soft white spring, hard white spring and hard red spring wheat, respectively, compared to the historical 3-year average. This nursery was planted re-crop following a 2004 lentil crop.
- 2. STRIPE RUST infections were present in this nursery; however the impact of stripe rust was negligible.
- 3. HESSIAN FLY infestations were heavy in this nursery and caused substantial yield reductions in susceptible varieties. Hessian ratings were taken on 10 Aug 2005. The ratings were visual estimates of spring wheat tillers that exhibited stunted/deformed development caused by early spring Hessian fly infections. The Fairfield nursery typically experiences Hessian fly infestations and it appears an early infection at fairly high levels occurred during the spring 2005. It is worth noting that Hessian fly infection symptoms were measured at times in resistant varieties. This is probably a function of Hessian fly larvae feeding on tillers of resistant varieties before being killed or repelled by the Hessian fly resistance mechanism in a particular variety. There was a strong relationship to yield and percent Hessian fly damage. Most notable were susceptible varieties such as Fielder, Winsome and Scarlet that exhibited substantial yield reductions. Other varieties and experimental lines also showed high susceptibility to Hessian fly.
- 4. Overall TEST WEIGHT values were low, probably influenced by late season dry soil conditions coupled with fairly shallow root distribution caused by seasonal May/June 2005 precipitation patterns that allowed roots to survive on surface moisture and limited development to deeper soil depths. The shallow root development was most detrimental during grain fill when roots were sitting in dry soil.
- 5. In general, variety YIELD RANKINGS were similar to 3-year historical yield rankings excluding the impact of Hessian fly on susceptible varieties in 2005.