

PERFORMANCE OF IRRIGATED SOFT WHITE SPRING WHEAT IN ELMORE COUNTY 1987-1994

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INTRODUCTION

Variety choice can be critical for optimum economic wheat production since it largely determines yield potential. Wheat nurseries were at several locations in southwest Idaho to evaluate soft white spring wheat variety performance under local conditions and grower management. This report summarizes the relative performance of varieties at several Elmore County locations. Data from all southwest Idaho locations are included for comparison.

METHODS

Soft white spring wheat varieties were planted 25 seeds per foot of row with 7 inch row spacing. Varieties were arranged in a randomized complete block with three or four replications. All trials received the same management as the surrounding field. The data for all site years in southwest Idaho are averaged over more site years and provide a more extensive assessment of a variety's performance.

RESULTS AND DISCUSSION

Owens and Treasure were consistently good yielders in the Elmore trials, as they were in all southwest Idaho. Centennial and WPB Vanna have matched or exceeded Treasure in yield in the most recent testing. Penawawa, the most popular variety in Idaho, did not yield as well as Treasure or Owens. There was a low incidence of lodging at all locations in Elmore County throughout this study (Table 1). For all southwest Idaho locations (Table 2), Centennial or Vanna tend to lodge the least. The varieties Owens, Treasure, Centennial and WPB Vanna are well adapted to Elmore and other southwest Idaho counties. Treasure and Vanna tend to have the lowest protein of current varieties. Centennial, Vanna, and Whitebird all have better test weight than Treasure. Centennial is earlier maturing than Treasure.

Information on the agronomic performance of soft white spring wheat in all Idaho locations by years is available as Miscellaneous Series or Special Reports from the Agricultural Publications Office. Specific questions should be addressed to the Elmore County Extension Office.

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Table 1. Agronomic data for soft white spring wheat varieties in Elmore County.

Variety	Yield ^{1/} bu/A	Protein %	Test Weight lb/bu	Height in	Lodging %
1987-88 (2 site years)					
Bliss	91	12.0	59.6	35	10
Dirkwin	90	11.5	57.4	34	10
Edwall	93	11.5	58.9	33	10
Owens	102	11.3	60.6	33	10
Penewawa	82	11.4	61.1	31	10
Treasure	98	10.9	60.0	32	10
Waverly	99	12.5	59.4	33	10
LSD _{.10} ^{2/}	13.0	0.8	1.3	1.7	--
1989-92 (3 site years)					
Centennial	92	11.9	61.3	31	5
Fieldwin	100	12.1	61.2	34	4
Owens	96	12.1	61.0	33	10
Treasure	97	11.8	60.1	32	3
LSD _{.10}	6	0.6	1.0	1.3	9

^{1/} Grain yield is based on a test weight of 48 lb/bu for barley and 60 lb/bu for wheat, after correction of dry weight to a moisture content of 11%.

^{2/} Means must differ more than LSD_{.10} to be statistically different at the 10% probability level.

Table 2. Agronomic data for irrigated soft white spring wheat in southwestern Idaho.

1987-88 (6 site years)

Variety	Grain Yd bu/A	Protein %	Test Wt. lb/bu	Plant Ht. in.	Lodging %
Bliss	77	12.8	58.1	34	13
Dirkwin	76	12.4	56.2	34	10
Edwall	75	12.8	56.7	32	10
Owens	83	12.3	59.6	33	10
Penewawa	68	12.8	59.4	31	10
Treasure	81	12.4	58.4	32	10
Waverly	74	13.5	57.2	33	10
LSD _{.10} ^{1/}	5.5	0.44	0.8	0.6	2.5

1989-92 (13 site years)

Variety	Grain Yd bu/A	Protein %	Test Wt. lb/bu	Plant Ht. in.	Lodging %
Centennial	90	11.6	60.7	33	3
Fieldwin	90	11.8	60.6	36	7
Owens	89	11.8	60.1	34	14
Treasure	91	11.3	59.0	33	11
LSD _{.10}	3.7	0.31	0.3	0.6	3.7

1992-94 (9 site years)

Variety	Grain Yd bu/A	Protein %	Test Wt. lb/bu	Plant Ht. in.	Lodging %
Centennial	109	11.4	62.1	33	6
Treasure	106	11.0	60.3	34	8
Whitebird	104	11.2	62.4	35	7
WPB Vanna	110	11.0	61.3	34	2
LSD _{.10}	4	.3	.5	1	5

^{1/} Means must differ by more than the LSD_{.10} to be statistically different at the 10% probability level.