

A Summary of White Wheat Research from 1995 to 1998

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Objective

To compare yields of red wheat varieties and white wheat varieties and to obtain agronomic information on white wheat production in Crawford County.

Background

Cooperator:	OSU Unger Farm	Drainage:	Non-systematic
County:	Crawford	Previous Crop:	Soybeans
Soil Type:	Blount	Planting Rate:	120 lbs/A
Tillage:	No-till		

Methods

A replicated study comparing red and white wheat varieties was implemented in the fall seasons of 1994 through 1997. Three red wheat varieties -- Pioneer 2545, Pioneer 2510, Freedom -- and three white wheat varieties -- Augusta, Frankenmuth, and Chelsea -- were selected for planting in 1994 based on previous milling data and yield performance. Varieties planted in 1995 suffered severe winter injury, and data were not taken. In 1996, one red wheat variety, Hopewell, and three white wheat varieties, Karena, Bavaria, Pioneer 2737W, were selected. Hopewell was again used in 1997 as well as Pioneer 2737W with the addition of Pioneer 25W33, a white wheat. Farmers are presently paid primarily for bushels, not quality, so it is important to evaluate white wheats with high-yielding red wheats.

Results

Table 1. Wheat Yields by Year

White Wheat Variety	Yield (bu/A)	Red Wheat Variety	Yield (bu/A)
1994-95 Growing Season*			
Frankenmuth	59	Freedom	63
Augusta	55	Pioneer 2510	63
Chelsea	45	Pioneer 2545	54
Average	53	Average	60
1996-97 Growing Season			
Pioneer 2737W	81	Hopewell	74
Karena	71		
Bavaria	67		
Average	73	Average	74

1997-98 Growing Season**			
Pioneer 25W33	96	Hopewell	97
Pioneer 2737W	84		
Average	90	Average	97

* Yields for 1994-95 represent average of 2 test plots

** Yields for 1997-98 from the Ohio Performance Test plots conducted in Crawford County

Across year averages for the three years of data, the overall mean of white wheat types is 72.0 bu/acre, and the mean for red wheat types is 77.0 bu/acre. The two means are not significantly different at $P = 0.05$ or $P = 0.10$ with $F = 6.41$ and a CV of 14.3% (based on year by wheat type interaction).

Summary and Notes

The yields of the varieties selected for these trials were not significantly different in terms of white wheat type versus red wheat types. Disease susceptibility, winter hardiness, and harvest dates were similar across types within each year.

For additional information, contact:

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