Comparison of Soft Red and Hard Red Wheat Yields in a Modified Relay Intercrop (MRI) System

Steve Prochaska, Agriculture and Natural Resources Extension Agent

Objective

To compare the yields of soft red and hard red wheat in an MRI system.

Background

Cooperator:	OSU Unger Farm	Fertilizer:	27-69-60 actual N-P-K (fall)
County:	Crawford		29% UAN (99 lb N) March 26
Nearest Town:	Bucyrus	Tillage:	Disk
Soil Type:	Pewamo clay loam/ Blount silt loam	Variety:	See Methods
		Planting Date:	Wheat: October 4, 2000
Previous Crop:	Soybeans		Soybeans: June 5, 2001
Drainage:	Systematic	Planting Rate:	120 lb/A
Soil Test:	pH 6.6, P 63 lb/A, K 245 lb/A		

Methods

A completely randomized block design in small plots (5.5 x 50 feet) was used to evaluate the effect of varying wheat type, soft red wheat and hard red wheat, in an MRI system. Agra 962 was chosen to represent soft red wheat because of its high-yield capability (98 bu/A over three years in the Ohio Wheat Performance Test at Bucyrus) and its adaptability to MRI. Hondo was chosen as the hard red wheat, because grain buyers are offering a premium for it, providing quality standards are met.

Agra 962 was seeded at a rate of 1.3-million seeds/A. Hondo was seeded at a rate of 1.5 million seeds/A. Planting was done with a three-point hitch-mounted tool-bar planter equipped with sunflower openers. Six replications of the wheat varieties were planted. Both varieties were planted in 15-inch rows. Soybeans were interseeded with the same planter. Wheat harvest data was from complete harvest of plots done with a small plot combine. Yield was adjusted to a moisture of 13.5%.

Results

Table 1. Wheat Yield at 13.5% moisture.

Treatment	Wheat Yield (bu/A)
Red wheat	74.5
White wheat	67.0
LSD (0.05)	NS
F	3.1
CV (%)	8.5

Summary and Notes

The wheat yields were not significantly different. Based on this one-year study, Ohio farmers should be able to grow either type of winter wheat under similar conditions with no or minimal yield difference.

For additional information, contact: Steve Prochaska
The Ohio State University Extension
prochaska.1@osu.edu