

# Effect of Modified Relay Intercropping on Wheat Yield

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## Objective

To evaluate the effect of Modified Relay Intercropping (MRI) on wheat yield in a 15-inch-row spacing.

## 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:	Agra 962
Previous Crop:	Soybeans	Planting Date:	Wheat: October 4, 2000 Soybeans: June 5, 2001
Drainage:	Systematic	Planting Rate:	120 lb/A
Soil Test:	pH 6.6, P 63 lb/A, K 245 lb/A	Harvest Date:	July 12, 2001

## Methods

What level of wheat yield can be expected from wheat grown in wide rows that is also intercropped? This question, the object of this study, is important to producers in wheat/soybean double-crop systems. A completely randomized block design (six replications) in small plots (5.5 x 50 feet) was used to evaluate the effect of MRI on wheat yield. Treatments were 15-inch-row wheat and 15-inch-row wheat interseeded with soybeans. Wheat and soybeans were planted with a three-point hitch-mounted tool-bar planter equipped with sunflower openers. Soybeans were interseeded with the same planter used to seed wheat. Wheat harvest was done with a small plot combine and yields adjusted to 13.5% moisture.

## Results

**Table 1. Wheat Yield at 13.5% moisture.**

Treatment	Wheat Yield <sup>1</sup> (bu/A)
Not interseeded	79.2a
Interseeded	68.0b
LSD (0.05)	4.2
F	35.7
CV (%)	4.2

<sup>1</sup> Means followed by the same letter are not statistically different.

## **Summary and Notes**

Wheat yield differed by 11 bushels per acre between wheat in 15-inch rows and wheat interseeded in 15-inch rows. This yield difference is 14%, which is slightly larger than expected. This may be due to the wide wheat rows and damage while interseeding.

For additional information, contact:

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