

Three-Year Summary of Effect of Row Width on Wheat Yield

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Objective

To compare wheat yields grown at 7.5 and 15-inch row widths.

Background

Test Site:	Ohio State University Unger Farm	Soil test:	pH 5.8, P 21 ppm, K 163 ppm
County:	Crawford	Fertilizer:	127-69-60 actual NPK per acre
Soil type:	Pewamo clay loam and Blount silt loam	Planting date:	October 2, 2001
Tillage:	Disk	Planting rate:	120 lb/A
Previous crop:	Soybeans	Row width:	7.5 and 15 inch
Variety:	See table	Herbicide:	2,4-D 1 pt/A
		Harvest date:	July 8, 2002

Methods

A completely randomized design with six replications in small plots (5.5 x 50 feet) in each of three years was used to evaluate the effect of row width on wheat yield. Treatments were 7.5 and 15-inch row wheat. Wheat was planted with a three-point hitchmounted tool-bar planter equipped with sunflower openers. Wheat harvest was done with a small plot combine.

Results

Table 1. Effect of Row Spacing on Wheat Yield in Crawford County, Ohio, 2000 to 2002.

Year and Variety	7.5-inch rows (bu/A)	15-inch rows (bu/A)	F-test	LSD (0.05) (bu/A)
2000 I9824	72.3	70.8	<1	NS
2001 Agra 962	86.7	79.2	14.5	4.4
2002 Agra 962	85.1	76.8	28.3	3.5
Average	81.5	75.6		

Summary

What level of wheat yield can be expected from wheat grown in 15-inch rows vs. the row spacing of 7.5 inches? With the new technology of polymer-coated soybeans, this question is important to producers evaluating the profitability of such systems as modified relay

intercropping. In the first year of this study, the yield of wheat grown in two different row widths was not significantly different. In the second and third years, yield was significantly different with higher yields with the narrower row wheat planting. When comparing the two treatments over the three-year period, yields were not significantly different.

The yield difference over the three years varied from 2 to 7.5 bu/ A. This result was consistent with work done by Beuerlein *et al.* (*Profitable Wheat Management*, Extension Bulletin 811, page 18) on the effect of row spacing on wheat yield in Ohio.

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