

Effect of Row Width on Wheat Yield

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Objective

To evaluate the effect of row width on wheat yield.

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	Row Width:	See Methods
Drainage:	Systematic	Planting Date:	October 4, 2000
Soil Test:	pH 6.6, P 63 lb/A, K 245 lb/A	Planting Rate:	120 lb/A
		Harvest Date:	July 12, 2001

Methods

Wheat yield is important to producers in wheat/soybean double-crop systems where wider wheat row systems might be used to facilitate soybean planting. A randomized complete block design having small plots (5.5 x 50 feet) was used to evaluate the effect of row width on wheat yield. Treatments were 7.5- and 15-inch-wide row wheat planted in six replications. Wheat was planted with a three-point hitch-mounted tool-bar planter equipped with sunflower openers. All wheat plots were harvested completely for yield data with a small plot combine. Yield was adjusted to moisture of 13.5%.

Results

Table 1. Wheat Yield at 13.5% moisture.

Row width (in)	Wheat Yield ¹ (bu/A)
7.5	86.7a
15	79.2b
LSD (0.05)	4.4
F	14.5
CV (%)	4.4

¹ Means followed by the same letter are not statistically different.

Summary and Notes

Wheat yield differed significantly between 7.5- and 15-inch-wide rows. This yield difference of about 9% is consistent with work done by others working with wide-row wheat (article titled *Effect of Acrylic Polymer Seed Coating on the Feasibility of Relay Intercropping in Indiana* by S.M. McCoy, T.J. Vyn, and T.D. West of Purdue University). Therefore, wheat in 7.5-inch-wide rows usually out yields 15-inch-wide rows. Wheat seeding rates were the same across both row spacings; however, the seeds planted per acre in the 15-inch rows are still within Ohio State University Extension guidelines (*Ohio Agronomy Guide*, page 63) for wheat seeding.

For additional information, contact:

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