

Narrow-Row Corn Evaluation

Steve Ruhl, Agriculture and Natural Resources Extension Agent

Objective

To examine yield differences between 15- and 30-inch rows.

Background

Cooperator: County Home Farm Fertilizer: 60 lbs/A nitrogen as 28% UAN
County: Morrow 135 lbs/A nitrogen as urea
Nearest Town: Mt. Gilead Herbicides: PRE: Balance (2 oz/A), Atrazine (1.8 lb/A)
Soil Type: Centerburg Simazine (0.9 lb/A), Accent (2/3 oz/A)
Tillage: Conventional POST: Clarity (8 oz/A), UAN (0.75% v/v)
Previous Crop: CRP (Tall grasses) Variety: Golden Harvest 2495
Soil Test: pH 7.0, P 44 ppm, Planting Date: May 11, 1999
K 90 ppm Harvest Date: October 19, 1999

Methods

The corn was planted using two John Deere 7000 planters. One was set-up for 30-inch rows, and the second had a splitter so the rows were 15-inches wide. Strip plots were planted with three replications of alternating 12-row plots of 15- and 30-inch rows; therefore, treatments were not randomized within blocks. Individual strip plots averaged 0.6 acre in size.

Results

Row Width	Planting Population (seeds/A)	Harvest Population (seeds/A)	Harvest Moisture (%)	Yield (bu/A)
15-inch	45,000	39,100	16.7	146.1 a
30-inch	30,200	27,900	17.2	151.0 a

Yield means not significantly different from each other at $P = 0.05$. LSD for yield equals 20.1 bu/ac. cv = 4.3%

Summary and Notes

T Narrow-row corn has been documented to improve corn yields in the northern part of the Corn Belt. Increased yields may be the result of spreading the plants out to take advantage of sunlight, moisture, and soil fertility. In this trial there was no significant difference between yields of 15-inch and 30-inch rows. The ear size on the corn in the 15-inch rows was very small.

Acknowledgment

We appreciate the collaboration of the Morrow County Soil and Water Conservation District in conducting this trial.

For additional information, contact:

Steve Ruhl
The Ohio State University Extension
ruhl.1@osu.edu