Narrow Row Corn Evaluation
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Objective
Narrow-row corn may increase yields due to spreading the plants out to take better advantage of sunlight, moisture, and soil fertility. The objective of this study was to examine yield differences between 15- and 30-inch rows.

Background
Cooperator: Tom Weiler
Fertilizer: 180 lbs/A NH₃ pre-plant
County: Morrow
0-0-60 (200 lbs/A)
Nearest Town: Chesterville
10-34-0 (12 gal/A)
Previous Crop: Soybeans
Herbicide: PRE: Bicep II (3 qt/A)
Drainage: Systematic
POST1: Accent (2/3 oz/A)
Tillage: Fall chisel, field cultivate
POST2: Banvel (4 oz/A), Spirit (1 oz/A)
Soil Test: pH 7.0, P 23 ppm, K 154 ppm
Crop Oil (1 qt/A), 28% N (1/2 gal/A)
Planting Date: May 6, 1998
Variety: Pioneer 33G26
Harvest Date: October 15, 1998

Methods
The corn was planted with a six-row Kinze planter equipped for 15-inch rows. Treatments were replicated four times in a complete block design. Strip plots were planted in alternating 12-row plots containing 15- and 30-inch rows; therefore, treatments were not randomized within blocks. Individual strip plots were 30 feet wide and 453 feet long.

Results

<table>
<thead>
<tr>
<th>Row Width</th>
<th>Planted Population (seeds/A)</th>
<th>Harvest Population (plants/A)</th>
<th>Harvest Moisture (%)</th>
<th>Yield (bu/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-inch</td>
<td>36,200</td>
<td>30,500 a</td>
<td>20.7 a</td>
<td>154.3 a</td>
</tr>
<tr>
<td>30-inch</td>
<td>36,000</td>
<td>29,750 a</td>
<td>20.7 a</td>
<td>165.5 b</td>
</tr>
</tbody>
</table>

Treatment means followed by the same letter are not significantly different from each other at P = 0.05. LSD for yield equals 7.4 bu/acre. CV = 2.1%
Summary and Notes

Pioneer 33G26 yielded significantly less in 15-inch row widths than in conventional width spacing. The field used for this study has an organic matter of approximately 12 percent. The weed pressure is severe especially for giant foxtail and giant ragweed. We sprayed three times and both post treatments (applied late) injured the corn. The brace roots were injured with the Banvel/Spirit combination. Accent injury was evident in the corn ears. If we conduct a similar plot next year, we will plant around 32,000 seeds in the 30-inch rows and 42,000 to 45,000 in the 15-inch rows. We will also try to be more timely with herbicide applications.

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