## Fairfield, Licking, and Perry Counties Commercial Corn Performance Trials

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Howard Siegrist, Agriculture and Natural Resources Extension Agent  
Phil Rzewnicki, On Farm Research Coordinator

### Objective

To provide a source of objective information on the relative performance of corn hybrids currently available to farmers in the three-county area.

### Background

<table>
<thead>
<tr>
<th>Cooperator:</th>
<th>Jim and Dave Miller</th>
<th>Cooperator:</th>
<th>Mike Thomas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearest town:</td>
<td>Millersport</td>
<td>Nearest town:</td>
<td>Thurston</td>
</tr>
<tr>
<td>Soil Type:</td>
<td>Marengo silty clay loam</td>
<td>Soil Type:</td>
<td>Bennington</td>
</tr>
<tr>
<td>Previous Crop:</td>
<td>Soybeans</td>
<td>Previous Crop:</td>
<td>Soybeans</td>
</tr>
<tr>
<td>Planting Date:</td>
<td>April 30, 2001</td>
<td>Planting Date:</td>
<td>April 28, 2001</td>
</tr>
<tr>
<td>Planting Population:</td>
<td>30,000 seeds/A</td>
<td>Planting Population:</td>
<td>29,000 seeds/A</td>
</tr>
<tr>
<td>Harvest Date:</td>
<td>October 22, 2001</td>
<td>Harvest Date:</td>
<td>October 17, 2001</td>
</tr>
<tr>
<td>Row Width:</td>
<td>30 inches</td>
<td>Row Width:</td>
<td>30 inches</td>
</tr>
<tr>
<td>Plot Length:</td>
<td>650 feet</td>
<td>Plot Length:</td>
<td>1,000 feet</td>
</tr>
<tr>
<td>Average Harvest Pop.:</td>
<td>27,583 plants/A</td>
<td>Average Harvest Pop.:</td>
<td>26,646 plants/A</td>
</tr>
<tr>
<td>Average Moisture:</td>
<td>19%</td>
<td>Average Moisture:</td>
<td>16%</td>
</tr>
<tr>
<td>Average Yield:</td>
<td>174 bu/A</td>
<td>Average Yield:</td>
<td>169 bu/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cooperator:</th>
<th>Slater Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nearest town:</td>
<td>Hebron</td>
</tr>
<tr>
<td>Soil Type:</td>
<td>Westland silty clay loam</td>
</tr>
<tr>
<td>Previous Crop:</td>
<td>Soybeans</td>
</tr>
<tr>
<td>Planting Date:</td>
<td>May 1, 2001</td>
</tr>
<tr>
<td>Planting Population:</td>
<td>31,500 seeds/A</td>
</tr>
<tr>
<td>Harvest Date:</td>
<td>October 18, 2001</td>
</tr>
<tr>
<td>Row Width:</td>
<td>30 inches</td>
</tr>
<tr>
<td>Plot Length:</td>
<td>1,250 feet</td>
</tr>
<tr>
<td>Average Harvest Pop.:</td>
<td>27,146 plants/A</td>
</tr>
<tr>
<td>Average Moisture:</td>
<td>21%</td>
</tr>
<tr>
<td>Average Yield:</td>
<td>207 bu/A</td>
</tr>
</tbody>
</table>
Methods

This study was designed to compare corn hybrid performance using three farms as replications in the three-county area. Companies submitted hybrids for evaluation based on area market share. Only six hybrids are included in this evaluation.

Planting order was randomly selected for each farm. The six hybrids were planted side by side at each location. No check/tester hybrid was used. The hybrids were planted in six-row, field-length strips. All hybrids were planted with the cooperator's planter. Fertilizer, herbicides, and insecticides were applied according to the cooperator's crop-management plan and within recommended cultural practices for obtaining optimum grain yields.

Harvest was done with the cooperator's combine. Final stand count, plot area, total weight, percent moisture, and test-weight measurements were taken. Yield was adjusted to a moisture content of 15% moisture. The longest distance between two fields used in this trial was 18 miles.

Results

Table 1. Hybrid Performance Across Farm Locations.1

<table>
<thead>
<tr>
<th>Hybrid</th>
<th>Yield2 (bu/A)</th>
<th>Final Stand (plants/A)</th>
<th>Test Weight (lbs./bu)</th>
<th>Moisture (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pioneer 34M94</td>
<td>188.3 a</td>
<td>27,500</td>
<td>57.3 b</td>
<td>18.6 b</td>
</tr>
<tr>
<td>Seed Consultants SC1140</td>
<td>188.1 a</td>
<td>26,542</td>
<td>57.3 b</td>
<td>20.2 c</td>
</tr>
<tr>
<td>Norvartis N70-D5</td>
<td>184.5 a</td>
<td>26,958</td>
<td>57.8 a</td>
<td>19.1 b</td>
</tr>
<tr>
<td>DeKalb DK6303</td>
<td>183.6 ab</td>
<td>27,542</td>
<td>56.1 c</td>
<td>19.4 b</td>
</tr>
<tr>
<td>Golden Harvest H-9229</td>
<td>177.7 b</td>
<td>26,958</td>
<td>58.1 a</td>
<td>19.0 b</td>
</tr>
<tr>
<td>Mycogen 2625</td>
<td>176.9 b</td>
<td>27,250</td>
<td>56.5</td>
<td>16.9 a</td>
</tr>
<tr>
<td>LSD (0.05)</td>
<td>6.7</td>
<td>NS</td>
<td>0.58</td>
<td>0.76</td>
</tr>
<tr>
<td>F</td>
<td>4.3</td>
<td>&lt;1</td>
<td>13.9</td>
<td>16.7</td>
</tr>
<tr>
<td>CV (%)</td>
<td>4.5</td>
<td>10.8</td>
<td>1.2</td>
<td>5</td>
</tr>
</tbody>
</table>

1 Means followed by the same letter are not significantly different from each other at P = 0.05.
2 Yields adjusted to 15.5% moisture.

Summary and Notes

The number of cooperators was reduced this year due to rainy weather in May. One plot that was planted but not reported suffered extensive wildlife damage, rendering the data unusable.

According to this trial, the top yielding varieties, which were not significantly different from each other, were Pioneer 34M94, Seed Consultants SC 1140, Norvartis N70-D5, and DeKalb DK6303.

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