

Fairfield, Licking, and Perry Counties Commercial Corn Hybrid Side-by-Side Performance Trials, Group II

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Objective

To evaluate the relative performance of corn hybrids currently available to farmers in the three-county area.

Background

Cooperator: Slater Farms
Nearest Town: Hebron
Soil Type: Westland & Bennington
Previous Crop: Soybeans
Planting Date: April 30, 1999
Planting Rate: 30,000 seeds/A
Harvest Date: October 5, 1999
Harvest Pop. (avg): 29,081
Plot Yield (avg.): 155.4 bu/A
Moisture (avg.): 21.7%

Cooperator: Dennis DeRolph
Nearest Town: Glenford
Soil Type: Luray & Oakley
Previous Crop: Soybeans
Planting Date: May 3, 1999
Planting Rate: 28,000 seeds/A
Harvest Date: October 19, 1999
Harvest Pop. (avg): 22,931
Plot Yield (avg.): 187.43 bu/A
Moisture (avg.): 21.1%

Cooperator: Jim & Dave Miller
Nearest Town: Thurston
Soil Type: Bennington & Montgomery
Previous Crop: Soybeans
Planting Date: April 27, 1999
Planting Rate: 30,000 seeds/A
Harvest Date: October 6, 1999
Harvest Pop. (avg): 26,545
Plot Yield (avg.): 138.14 bu/A
Moisture (avg.): 21.5%

Cooperator: Felumlee Farms
Nearest Town: Newark
Soil Type: Stonelick
Previous Crop: Soybeans
Planting Date: April 29, 1999
Planting Rate: 27,000 seeds/A
Harvest Date: November 12, 1999
Harvest Pop. (avg): 17,227
Plot Yield (avg.): 98.40 bu/A
Moisture (avg.): 15.8%

Methods

This study was designed to compare corn hybrid performance using farms in the three-county area. Companies submitted two hybrids for evaluation. Due to the number of submissions (44), this trial was split into two groups. The split was made based on maturity information given by the companies, with the longer-season submission from each representative being placed in this group. Maturity ranges were 108- to 115-day hybrids.

Hybrids were randomly planted side by side at each location. No check/tester hybrid was used. Each of the four farms was used as a replication. The hybrids were planted in six-row, field-

length strips. Strip length ranged from 601 feet to 1,189 feet. All hybrids were planted with the cooperator's planter. Fertilizer, herbicides, and insecticides were applied according to the cooperator's crop management plan and were all within recommended cultural practices for obtaining optimum grain yields.

Results

| Company | Hybrid | Yield (bu/ac @ 15%) ¹ | Final Stand | Test Weight (lbs/bu) | Moisture (%) |
|--------------------------|--------|----------------------------------|-------------|----------------------|--------------|
| Great Lakes ³ | 6317 | 158.0 a | 26,166 | 55 | 24.1 |
| Agrigold | 6490 | 157.5 a | 24,150 | 58 | 19.0 |
| Crow's ³ | 530 | 154.9 ab | 25,833 | 58 | 18.9 |
| Pioneer | 33A14 | 154.8 ab | 25,525 | 57 | 20.4 |
| Hy Test | 7712 | 153.5 abc | 25,525 | 56 | 21.6 |
| Ag Venture | AV813 | 152.3 abcd | 25,750 | 56 | 21.3 |
| Ruff's | R212 | 151.7 abcd | 24,500 | 57 | 22.0 |
| Cargill | 8011 | 151.6 abcd | 24,400 | 54 | 20.6 |
| Shur Grow | 769 | 151.5 abcd | 23,750 | 57 | 20.9 |
| Green Land | 256 | 150.7 abcd | 22,325 | 56 | 20.9 |
| Mycogen | 2799 | 148.5 abcd | 24,750 | 57 | 19.5 |
| Dekalb | 621 | 148.4 abcd | 24,450 | 58 | 18.1 |
| Clevers | 485 | 148.0 abcd | 24,750 | 56 | 24.3 |
| Vigro | 5790 | 147.8 abcd | 22,875 | 55 | 22.4 |
| Seed Consultants | SC1087 | 147.4 abcd | 25,075 | 57 | 19.6 |
| Norvartis | N70-D5 | 146.1 abcd | 25,700 | 57 | 20.4 |
| Land o'Lakes | 678 | 144.0 abcd | 26,375 | 57 | 20.1 |
| Birds | B64 | 143.0 abcd | 24,500 | 56 | 19.9 |
| Garst ⁴ | 8464 | 141.2 bcd | 21,775 | 56 | 19.2 |
| Colberts | 260 | 138.9 cd | 24,575 | 55 | 21.6 |
| LG | 2599Bt | 137.8 d | 23,50 | 58 | 18.3 |
| Golden Harvest | H-2552 | 137.2 d | 23,825 | 57 | 17.7 |

¹Yields followed by the same letter are not significantly different at P = 0.05. (F = 1.09, CV = 7.17%)
LSD = 15.26

² Population means were not significantly different overall at P = 0.05. (F = 1.26, CV = 8.16%)

³ Only three replicates for these hybrids were used due to combine operator error at one location.

⁴ Hybrid suffered wildlife damage at two locations.

Summary

Uneven emergence occurred at the Felumlee Farm due to dry soils with 80% of the test field emerging after a May 22 rain. The longest distance between any two fields in this trial was 25 miles. Eighteen of the 22 hybrids had yields that were not statistically different. Two of the top three performing varieties missed having a fourth replication, and their yield values should be viewed carefully since overall average yield at the missing site was lower than others in the trial.

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