

East Central Ohio Corn Performance

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Objective

Evaluate current corn hybrids under high-yield environmental conditions in Fairfield and Licking Counties.

Background

| | Fairfield County | Licking County |
|----------------|-------------------------------------|--------------------------------|
| County: | Fairfield County | Licking County |
| Cooperator: | David Miller | Ohio Foundation Seeds |
| Nearest Town: | Millersport | Croton |
| Drainage: | Systematically tiled | Systematically tiled |
| Soil type: | Centerburg silt loam | Bennington silt loam |
| Tillage: | Conventional till | Conventional till |
| Previous Crop: | Soybeans | Soybeans |
| Soil test: | pH 6.8, P 27 ppm, K 135 ppm | pH 6.6, P 28 ppm, K 140 ppm |
| Fertilizer: | 180-60-90 NPK | 196-92-96 NPK |
| Planting Date: | May 23, 2002 | May 23, 2002 |
| Planting Rate: | 30,000 seeds/A | 30,000 seeds/A |
| Row Width: | 30-inch | 30-inch |
| Herbicides: | 2.4 quarts/A Bicep, 2 pints/ A Duel | 2.4 qt/A Bicep, 3 oz/A Warrior |
| Harvest Date: | October 2, 2002 | October 24, 2002 |

Methods

All plots were randomized with three replications of each variety. Plots were 30 feet in length and 2 rows wide. The plots were planted individually according to planting recommendations to 30,000 seeds/ A. Harvest estimates were made by weighing shelled corn from 17.5 feet of row (1/100th acre) in each variety plot. Yield averages were adjusted to standard moisture of 15.5%.

The stand counts were determined at harvest. The number of broken stalks in each plot was determined just prior to harvest. Only those plants with a stalk broken below the ear were considered stalk lodged. Stalk lodging was reported as a percentage of final plant stand. Root lodging was the percentage of plants with stalks bending at 45 degrees or more from their bases. Individual test weights and moisture levels were averaged for the three replications per site.

Results

| Licking County 110 Days and Less | Yield (bu/A) | Licking County 111 Days and More | Yield (bu/A) | Fairfield County 111 Days and More | Yield (bu/A) |
|---|-------------------------|---|-------------------------|---|---------------------|
| Agrigold A6445 | 212.9 | LG Seeds LG2585 | 205.0 | Hyttest HT7785 | 200.7 |
| Golden Harvest H-8799 | 211.9 | icorn.com 111.E3 | 203.3 | Pioneer 32W86 | 198.5 |
| NK N 64 L5 | 211.3 | Seed Consultants SC 1140 | 203.2 | Croplan 691Bt | 189.1 |
| LG Seeds LG2540 | 210.1 | LG Seeds LG2601 | 202.2 | Steyer 2490 | 185.1 |
| Mycogen 2652 | 209.1 | Hyttest HT7712 | 196.1 | Golden Harvest H-8906 | 184.5 |
| Great Lakes 5929Bt | 205.6 | Shur Grow SG-769 | 195.4 | icorn.com 111.E3 | 183.5 |
| Seed Consultants SC 1082 | 199.0 | Crow's 8626R | 195.3 | Hyttest HT7712 | 180.2 |
| Clever's 465 | 198.2 | Clever's 471 | 194.6 | Crow's 5150 | 179.7 |
| icorn.com 106.X2 | 197.1 | Seed Consultant SC X111 | 191.5 | icorn.com 112.F5 | 176.1 |
| Seed Consultnats SC 1091 | 195.3 | Vigoro V5800 | 190.3 | Seed Consultants SC 1118 | 175.9 |
| icorn.com 111.Y6 | 194.5 | LG Seeds LG2622 | 187.6 | Golden Harvest H-9231 | 173.4 |
| icorn.com 108.X3 | 194.0 | Vigoro V5110 | 186.5 | Clever's 482 | 171.9 |
| icorn.com 108.J3 | 193.3 | Garst 8464IT | 185.9 | Mycogen 2833 | 169.4 |
| Seed Consultants SC 1072a | 192.5 | Agrigold A6490 | 184.7 | Sow Right SR1130 | 168.6 |
| Sow Right SR1102 | 187.5 | LG Seeds LG2587RR | 182.0 | Seed Consultants SC 1140 | 168.0 |
| AG Venture AV 696 | 185.4 | Croplan 691Bt | 181.6 | NK N 70-D5 | 167.2 |
| Asgrow RX664 | 183.7 | Pioneer 32W86 | 181.2 | Crow's 4979B | 166.9 |
| Dekalb DKC 60-08 | 183.6 | Garst 8362IT | 180.7 | Vigoro V5520 | 166.0 |
| Pioneer 34M94 | 183.0 | icorn.com 114.P8 | 180.4 | Vigoro V5800 | 165.4 |
| AG Venture AV 782 | 182.8 | Great Lakes 6192 | 180.0 | Golden Harvest H-9247Bt | 165.4 |
| Seed Consultants SC 1070 | 182.3 | Sow Right SR1160 | 179.9 | icorn.com 114.P8 | 163.0 |
| Garst 8523IT | 179.8 | Asgrow RX764 | 179.5 | Mycogen 2A791 | 161.7 |
| Dekalb DKC 59-08 | 179.7 | Steyer 2490 | 179.3 | Shur Grow SG-769 | 161.7 |
| Vigoro V4910 | 178.0 | Vigoro V5520 | 178.8 | NK N 72-V7 | 161.4 |
| Crow's 4908 | 176.2 | Great Lakes 6259 | 177.0 | Great Lakes 6192 | 161.0 |
| Shur Grow SG-732 | 175.0 | Clever's 482 | 175.9 | Vigoro V5110 | 159.4 |
| Great Lakes 5555 | 174.5 | icorn.com 112.F5 | 175.4 | LG Seeds LG2587 | 159.2 |
| icorn.com 103.M1 | 174.4 | Seed Consultants SC 1118 | 173.5 | Garst 8348 | 158.5 |
| Steyer 2383 | 174.3 | Golden Harvest H-9364 | 172.8 | Agrigold A6490 | 154.2 |
| LG Seeds LG2569 CL | 174.2 | Clever's 462 | 171.8 | Vigoro V5330 | 153.2 |
| NK N 58-F4 | 174.0 | LG Seeds LG2587 | 168.7 | Asgrow RX764 | 153.1 |
| Steyer 2386 | 173.7 | Golden Harvest H-9012 | 167.7 | Crow's 8626R | 152.4 |
| Brodbeck SX109 | 173.3 | Mycogen 2A791 | 167.5 | Garst 8362IT | 150.9 |
| icorn.com 108.G9 | 172.6 | Ag Venture AV 813 | 166.9 | LG Seeds LG2622 | 149.1 |
| Sow Right SR1092 | 172.5 | Crow's 5150 | 166.6 | DeKalb DKC 61-24 | 148.6 |
| Clever's 464RR | 172.5 | Crow's 4979B | 166.3 | Mycogen 2722IMI | 148.5 |
| Crow's 4905B | 172.1 | Pioneer 33D31 | 165.7 | Garst 8464IT | 147.6 |
| Shur Grow SG-690 | 169.2 | Mycogen 2833 | 165.3 | Sow Right SR1152 | 145.9 |
| Brodbeck SX210 | 168.5 | Sow Right SR1130 | 164.5 | LG Seeds LG2585 | 145.9 |
| Hyttest HT7615 | 168.3 | Hyttest HT7785 | 163.5 | LG Seeds LG2601 | 145.8 |
| Shur Grow SG-691Bt | 168.0 | NK N 70-D5 | 162.4 | Great Lakes 6259 | 142.0 |
| AG Venture AV 783 | 166.5 | Golden Harvest H-8906 | 162.0 | Brodbeck SX214 | 135.9 |
| Sow Right SR1080 | 164.6 | Golden Harvest H-9231 | 161.6 | Ag Venture AV 813 | 131.9 |
| Hyttest HT4612 | 163.4 | Sow Right SR1152 | 161.3 | Pioneer 33D31 | 128.3 |
| Agrigold A6391 | 162.9 | Clever's 470 | 160.6 | Clever's 462 | 119.5 |
| Pioneer 34H31 | 161.1 | Brodbeck SX214 | 160.5 | | |

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|-----------------------|--------------|-------------------------|--------------|-------------------|--------------|
| Clever's 452YG | 157.5 | DeKalb DKC 61-24 | 157.0 | | |
| Shur Grow SG-751 | 156.3 | NK N 72-V7 | 156.5 | | |
| Vigori V5020 | 155.3 | Mycogen 2722IMI | 152.5 | | |
| NK NX 6370 | 154.2 | Golden Harvest H-9247Bt | 150.9 | | |
| Golden Harvest H-8877 | 154.2 | Vigoro V5330 | 148.4 | | |
| Steyer 2355 | 142.6 | | | | |
| Croplan 613 | 138.4 | | | | |
| Ag Venture AV 617 | 138.1 | | | | |
| Mean | 177.3 | Mean | 176.3 | Mean | 162.7 |
| LSD (0.05) | 23.9 | LSD (0.05) | 30.7 | LSD (0.05) | 42.8 |

Summary

Licking County rainfall data: April 3.60", May 6.20", June 3.90", July 1.50", August 2.20", and September 3.70".

Fairfield County rainfall data: August 0.60", April-August 17.25" cumulative.

Hybrids of 110 days or less maturity tested in Licking County averaged 24.0% on harvest grain moisture, 1.5% lodged stalks, 3.6% root lodging, 0.1% in dropped ears, and 29,254 plants per acre. Fourteen hybrids ranging in yield from 189 to 213 bushels per acre were not significantly different from each other.

In the Licking County test plots, hybrids of 111 days or more of maturity averaged 25.8% in harvest grain moisture, 2.4% lodged stalks, 1.7% in root lodging, 0.1% in dropped ears, and 28,791 plants per acre. Twenty-seven hybrids of 111 days or more maturity ranging in yield from 175 to 205 bushels per acre were not significantly different from each other.

In the Fairfield County test plots, hybrids of 110 days or more maturity averaged 17.6% in harvest grain moisture, 0.2% lodged stalks, 57.1 lb/ bu in test weight, and 25, 525 plants per acre. Twenty-eight hybrids ranging in yield from 159 to 201 bushels per acre were not significantly different from each other.

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