The 2003 Iowa Corn Yield Test Report, District 6

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The 2003 Iowa Corn Yield Test Report, District 6

Abstract
Results of the Iowa Crop Performance Test-Corn are published to aid Iowa farmers in selecting corn hybrids. This is the 84th consecutive year for the test. These data are first released on the Iowa Crop Improvement Association's homepage at http://www.agron.iastate.edu/ricia! usually around the end of November.

Disciplines
Agriculture

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2003 Iowa Crop Performance Test—Corn District 6

Results of the Iowa Crop Performance Test—Corn are published to aid Iowa farmers in selecting corn hybrids. This is the 84th consecutive year for the test.

These data are first released on the Iowa Crop Improvement Association's homepage at http://www.agron.iastate.edu/icia/ usually around the end of November.

The next released format of these data is in the Iowa Crop Management Database program. A description of this program and an order form can be found at http://extension.agron.iastate.edu/CMD/. A short description of how this program manages these data is provided in the "Other Reports" section of this report.

In 2002, DTN (Data Transmission Network) began including a summarized version of these data on their system.

The final format is the printed version, which is printed and distributed by Iowa Farmer Today in its Dec. 13, 2003 issue. A few days later, the printed reports also are available from county extension offices.

The presentation of data for the hybrids tested does not imply approval or endorsement by the authors or the agencies sponsoring or conducting the test. Entries in Tables 1, 1A, and 2 are designated by brand name and variety.

Use of These Data in Advertisements

Iowa State University and the Iowa Crop Improvement Association desire to maintain the credibility of data from the Iowa Crop Performance Test—Corn. Misuse of these data in advertisements can have a negative effect on the perception of the value of these data. For advertising purposes, brand-to-brand comparisons should not be made unless more than one competitor brand is used in the ad and all entries of competitor brands in a reported table are included in the ad. Advertisement statements by an individual company about the performance of its entries should be accurate statements about the data as published with no reference to other companies' hybrids. A statement similar to: "See the official Iowa Crop Performance Test—Corn report, PM 660 (1–7) 03, for details," should be included in the ad.

2003 Procedure

Producers of seed corn and Iowa State University were eligible to enter hybrids in the Iowa Crop Performance Test—Corn. Each producer was allowed a maximum of 12 paid entries per district. All commercial entries had to be available in a quantity of at least 10 bushels of seed.

In 2003, data are reported on 125 entries in this district. Ten of the entries determined to be check hybrids were entered by the Iowa Crop Improvement Association. In June, survey cards were mailed to a random sample of corn growers in Iowa. Based on the survey results, the 10 hybrids grown on the most acres in the district were classified as check hybrids for the district. The check hybrids (§ and !) in this report were determined by the 2002 survey. The Iowa Crop Improvement Association entered a maximum of three check hybrids of any given brand. These entries were given priority over the remaining 115 entries made by seed producers.

Each entry was replicated four times in four-row plots at a planting rate of 29,000 kernels per acre at each location. All locations were machine planted. The center two rows of each plot were harvested with a corn combine. No gleanings or dropped ears were included in yield data. A moisture determination was made from each plot and yields were corrected to 15.5 percent moisture for shelled corn.

Since 1988, data for protein, oil, and starch percentages have been included in the Iowa Crop Performance Test—Corn reports. Protein, oil, and starch were measured on an Infratec 1225 near-infrared transmittance analyzer calibrated against accepted chemical methods as done by Woodson-Tenant Labs, Des Moines, Iowa. Dr. Charles R. Hurburgh, Jr. of the ISU Department of Agricultural and Biosystems Engineering was responsible for analyzing the samples. Samples for nutrient analysis were collected from one field in each district. Data presented are averages of the four replicated plots in that field. To be consistent with the yield data, the protein, oil, and starch data were corrected to 15.5 percent moisture.

Visit the Iowa Crop Improvement Association online at http://www.agron.iastate.edu/icia/
How Information Is Presented

The agronomic data presented are averages of three locations in 2001, 2002, and 2003. Yield in bushels per acre and percentages of moisture, root lodging, stalk lodging, dropped ears, stand, protein, oil, and starch are shown for all entries in 2003 and for those tested in 2001 and 2002 that were in the 2003 test.

Interpretation of Results

Yield differences due to variation in soil, fertility, moisture availability, insect infestation, and diseases, plus any variation due to planting and harvesting techniques, are identified through statistical analysis. The LSD values for yield shown in Tables 1, 1A, and 2, represent in bushels per acre, the amount of yield variation that could be due to variations in the factors just mentioned. In comparing varieties, yield differences greater than the LSD value can be attributed to genetic differences in the yield potential of these varieties; yield differences less than the LSD value are not statistically different and could have been due to other factors.

Grain moistures shown in Tables 1, 1A, and 2 are indicators of maturity and natural drying rate. Maturity of varieties entered generally ranged from short to full season. Yield comparisons should be made among varieties of similar maturity.

Yield comparisons should be made among varieties of similar maturity. Obviously, all compositional factors cannot be high in the same hybrid. The grain market is expanding the production and marketing of certain hybrids for specific uses. This is an important change from the generic commodity approach widely used now.

Grain offers are available for each district shown in Figure 1. A limited supply of these publications is available at your county extension office or from Extension Distribution Center, 119 Printing and Publications Building, Iowa State University, Ames, Iowa 50011. Also, these data are available along with a hybrid selection program as a part of the Iowa Crop Management Database program. Along with all of the information as it appears in these written reports, the section of the Iowa Crop Management Database program that uses these data allows farmers to insert their own drying and shrink costs, expected price of corn, and final moisture percentage after drying. Using these specific criteria, the program calculates an adjusted economic value for each hybrid in the test. Farmers can then determine which hybrids might best fit their own production practices and provide the most profit. The computer program also can sort the hybrids by yield, moisture, adjusted value, root lodging, stalk lodging, dropped ears, protein, oil, starch, or brand and then print the data as sorted. It will also allow the user to tag selected hybrids and then list those selected hybrids as a new table for ease of viewing. A Pentium computer or higher running Windows 95 or newer with a CD ROM drive and 30 megabytes of hard disk space are required to run the program. The cost of the program is a one-time purchase of $100. Future years’ data can be downloaded from the Web at no charge. If the user cannot access the Web to download the new data, the price will be $25 for all seven districts’ data. Order forms and a description of the program are available from Agribusiness Education Programs, telephone 515-294-6429 and on the Web at http://extension.agron.iastate.edu/CMD/.

The 2003 Iowa Crop Performance Test—Corn:

PM 660 1 03 District 1
PM 660 2 03 District 2
PM 660 3 03 District 3
PM 660 4 03 District 4
PM 660 5 03 District 5
PM 660 6 03 District 6
PM 660 7 03 District 7

Field Agronomy 2-2 © 2003 by the Iowa Crop Improvement Association. Used with permission.

Cooperating Organizations

Iowa Crop Improvement Association
Agriculture & Home Economics Experimentation
Iowa State University Extension
Iowa Corn Promotion Board
U.S. Department of Agriculture

And justice for all . . .

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<table>
<thead>
<tr>
<th>Table A. Field Data</th>
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<td><strong>Linsley Farm</strong></td>
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<td>Tainter silty clay loam</td>
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<tr>
<td><strong>Fertilizer applied, lb</strong></td>
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<tr>
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<td>Plowdown</td>
</tr>
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<td>Plant</td>
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**2002 crop**

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<th>Planting date</th>
<th>Harvest date</th>
<th>Average yield</th>
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<td>Soybeans</td>
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<td>May 8</td>
<td>Sept. 29</td>
<td>147 bu/a</td>
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<td>Soybeans</td>
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<td>April 23</td>
<td>Sept. 23</td>
<td>191 bu/a</td>
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<td>30 inches</td>
<td>May 17</td>
<td>Oct. 27 &amp; 28</td>
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</table>

*Field sampled for protein, oil, and starch percentage data.*

Other Reports

Separate reports are available for each district shown in Figure 1. A limited supply of these publications is available at your county extension office or from Extension Distribution Center, 119 Printing and Publications Building, Iowa State University, Ames, Iowa 50011. Also, these data are available along with a hybrid selection program as a part of the Iowa Crop Management Database program. Along with all of the information as it appears in these written reports, the section of the Iowa Crop Management Database program that uses these data allows farmers to insert their own drying and shrink costs, expected price of corn, and final moisture percentage after drying. Using these specific criteria, the program calculates an adjusted economic value for each hybrid in the test. Farmers can then determine which hybrids might best fit their own production practices and provide the most profit. The computer program also can sort the hybrids by yield, moisture, adjusted value, root lodging, stalk lodging, dropped ears, protein, oil, starch, or brand and then print the data as sorted. It will also allow the user to tag selected hybrids and then list those selected hybrids as a new table for ease of viewing. A Pentium computer or higher running Windows 95 or newer with a CD ROM drive and 30 megabytes of hard disk space are required to run the program. The cost of the program is a one-time purchase of $100. Future years’ data can be downloaded from the Web at no charge. If the user cannot access the Web to download the new data, the price will be $25 for all seven districts’ data. Order forms and a description of the program are available from Agribusiness Education Programs, telephone 515-294-6429 and on the Web at http://extension.agron.iastate.edu/CMD/.

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PM 660 2 03 District 2
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PM 660 4 03 District 4
PM 660 5 03 District 5
PM 660 6 03 District 6
PM 660 7 03 District 7

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<table>
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<th>Yield</th>
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<th>Stalk Lodg Pot</th>
<th>Drop Ear Pot</th>
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