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2005 Iowa Crop Performance Tests

Abstract
Beginning in late September, seed companies and producers were able to get early results from the Iowa Crop Improvement Association's 2005 corn and soybean performance tests. Jim Rouse, program manager of the Iowa Crop Improvement Association's corn and soybean tests, said his goal is to get the results from each test location posted on the web within 48 hours of harvesting. The website is offering the data in a new, easier to use format. As each site is harvested, links to the data from that site will be added.

Disciplines
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Announcements

2005 Iowa Crop Performance Tests
by Jean McGuire, Extension Communications

Corn and soybean crop performance tests get new look

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The Web site, http://extension.agron.iastate.edu/varietytesting/, is offering the data in a new, easier to use format. As each site is harvested, links to the data from that site will be added.

Changes are being made to the printed reports as well. For the corn report, the seven corn district reports are combined into one report. In order to do that, the focus is on information that producers use most. All data will be available on the Web site. “I think farmers will find the format and content easier to use and understand,” said Rouse.

Rouse said the soybean report will change only slightly to allow individual location information to be included. Both reports will be available later this fall.

Forty-seven companies entered 415 hybrids in the corn trials this year. More than 10,000 variety test plots were planted on 57 acres in 21 locations. Soybean trials included 22 companies and Iowa State University entered 309 varieties. Nine locations were used to plant the 3,600 variety test plots on 17 acres.

For more information or to make comments on the changes to the corn and soybean Iowa Crop Performance Tests, contact Jim Rouse at (515) 294-5604 or croptesting@iastate.edu.

Alfalfa performance data available

Results of the 2005 Iowa Crop Performance Test for alfalfa are available online at www.agron.iastate.edu/icia/. Published bulletins will be available October 18 and can be requested by contacting ICIA at (515) 294-6921 or the Iowa State University Extension Distribution Center at (515) 294-5247.

The 2005 alfalfa test includes entries of commercial varieties conducted at Ames and Nashua. Additionally, a leafhopper tolerance trial was conducted at Ames. Performance data provided with the results include yield in tons per acre, fall dormancy ratings, and disease resistances. No winterkill occurred during the 2004–2005 winter. Average yields were 6 to 8 tons per acre on a dry matter basis. Results from a miscellaneous legumes and an orchardgrass test are included as well.

For more information, contact Mark Smith, field specialist, at smithma@iastate.edu.

Small grain performance data available

Results of the 2005 Iowa Crop Performance Test for barley, oat, triticale, and winter wheat are now available online at www.agron.iastate.edu/icia/. Published bulletins will be available after October 12 and can be requested by contacting Iowa Crop Improvement Association (ICIA) at (515) 294-6921 or the Iowa State University (ISU) Extension Distribution Center at (515) 294-5247.

The spring test included oats and barley. The oat test evaluated 28 varieties planted at Ames, Crawfordsville, Lewis, Nashua, and Sutherland. Average variety yields were very high, reaching 162 bushels per acre with average test weights averaging 34.5 pounds per bushel. The barley test evaluated 15 varieties planted at Ames, Nashua, and Sutherland. Average yields were again very high at 105 bushels per acre with test weights averaging 48.1 pounds per bushel.

The winter test included wheat and triticale. The wheat test analyzed 16 hard red winter, three soft red winter, and two hard white winter varieties planted at Ames, Crawfordsville, and Lewis. Average variety yields were 74 bushels per acre.

Triticale is a grain derived from crossing wheat with rye and is grown primarily for animal feed as either a grain or forage crop. The winter triticale test studied 12 named triticale varieties and one winter wheat check planted at Ames, Sutherland, and Crawfordsville.
The triticale performance was low relative to previous years, though the best triticale still performed far better than the winter wheat check. Average variety yields were 52 bushels per acre for the wheat check and 63 bushels per acre for triticale. The top triticale variety averaged 85 bushels per acre. The performance data reported includes grain yield, test weight, heading date, plant height, percent lodging, and winter survival.

For more information about the test, contact Jean-Luc Jannink, assistant professor of agronomy, at jjannink@iastate.edu.

Iowa Crop Improvement Association’s crop performance testing program is a cooperative effort with the Iowa Agriculture and Home Economics Experiment Station at Iowa State University and Iowa State University Extension. The program offers unbiased, third-party information to Iowa growers on commercial seed they can purchase. Information on the adaptation and performance of hybrids and varieties is offered for alfalfa, barley, corn, oat, soybean, triticale, and wheat. ICIA’s Web address is www.agron.iastate.edu/icia/

Jean McGuire is an extension communications specialist with responsibilities in agriculture and natural resources.

Insects and Mites

Insecticide use for soybean aphid control up again in 2005

by Matt O’Neal, Department of Entomology, Iowa State University

The summer of 2005 saw an increase in soybean aphid populations from very low populations experienced in 2004. Although not completely unexpected, the differences between 2004 and 2005 are still remarkable. Last year, many field crop entomologists were at a loss for data, with soybean aphid populations peaking at no more than a couple hundred per plant. This year we collected plenty of data, with long days spent counting sometimes thousands per plant. The record for aphid outbreaks was set in Michigan. Chris DiFonzo, field crop entomologist at Michigan State University, reported nearly 90 percent of the soybeans planted in the state were treated for soybean aphids. In the Lower Peninsula, populations went well above our current recommended threshold (250 per plant) in June and reports of spraying continued into August.

At a September meeting, I conducted a brief survey of the Iowa field crop specialists to get a sense of how many acres of soybeans were treated for soybean aphid in Iowa. I asked each of the 12 agents to estimate the acreage that was treated with a foliar insecticide. If they gave a percent, I estimated the acreage based on 2004 harvested acreage estimates from the National Agriculture Statistics Services (www.usda.gov/nass/). This is an underestimate of total insecticide usage in soybeans as spider mite outbreaks occurred that are not part of this estimate. Also, I did not ask the specialists what percentage had an insecticide applied directly to the seed. The goal is to provide a general sense of the intensity and location of insecticide usage in Iowa soybeans. I will follow up with more direct estimates during the fall and winter months.

Of the 12 field crop specialists, all but one provided an estimate. Todd Vagts of Region 6 (Figure 1) is conducting his own survey and has not yet received responses from it. In total, we estimated a little over 2.1 million acres treated (Table 1). The greatest amount of insecticide was used in the northern third of the state (top 4 regions = 2, 4, 1, 5). Although the actual amount may vary from this estimate, it is interesting to note that last year, based on a similar survey, I estimated only 100,000 acres treated. It appears that the year-to-year fluctuations of this pest have continued. It will be very interesting to determine how this pattern plays out across the Midwest.

Are regions of Iowa (and the Midwest) closest to large amounts of the overwintering host (buckthorn) more at risk for aphid outbreaks?

Soybean aphids will lay eggs near bud scales on limbs of buckthorn in the fall and then they overwinter there. (David Voegtlin)