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Sentinel plots: The end of the season

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Sentinel plots: The end of the season

Abstract

During the past few weeks we have heard much about being prepared for when bad things happen--bad things like devastating natural events. For Iowa soybean producers, one bad thing we knew was a possibility in 2005 was Asian soybean rust (ASR). Numerous meetings and publications provided information for getting producers prepared should this disease become a problem. Happily, as the season progresses toward its end, ASR is still far from Iowa.

Keywords

Plant Pathology

Disciplines

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Plant Diseases

Sentinel plots: The end of the season

by X. B. Yang, Department of Plant Pathology, and Ralph von Qualen

During the past few weeks we have heard much about being prepared for when bad things happen—bad things like devastating natural events. For Iowa soybean producers, one bad thing we knew was a possibility in 2005 was Asian soybean rust (ASR). Numerous meetings and publications provided information for getting producers prepared should this disease become a problem. Happily, as the season progresses toward its end, ASR is still far from Iowa.

An integral part of our preparations for ASR was the sentinel plot system. These sentinel plots stretched from Florida to North Dakota. The North Central Soybean Research Program and the United Soybean Board funded the project. The sentinel plots' purpose was to have an effective detection system so producers would know about the movement of ASR and could know in advance when and if a fungicide treatment would be warranted.

The United States Department of Agriculture (USDA) funded additional sentinel plots and some private companies put out additional plots; there were more than 1,000 such plots across the eastern half of the United States. This involved the efforts of many people. Cooperators worked to sow plots early in order to have more mature soybeans because it was known that the fungus tends to infect plants more readily after they reach the reproductive growth stage. Researchers and trained professionals made weekly visits to each plot to closely examine soybean leaves for signs and symptoms of the disease. Scouting results were posted on the USDA Web site, www.sbrusa.net. This huge effort involved many people and served producers successfully.

In Iowa, we had 31 sentinel plots. We are sincerely grateful to those who assisted in putting out those plots last April. They are:

Cooperator	Location
ISU Curtiss Research and Demonstration Farm	Ames
Ron Sailer	Bradford
ISU Western Research and Demonstration Farm	Castana
ISU McNay Research and Demonstration Farm	Chariton
ISU Southeastern Research and Demonstration Farm	Crawfordsville
Ron and Steven Brunk	Eldora
Mack Teachout	Farragut
ISU Muscatine Island Research and Demonstration Farm	Fruitland

ISU Neely-Kinyon Research and Demonstration Farm	Greenfield
Mark Kennett	Grinnell
Croplan Genetics	Harlan
Mike Donovan	Hills
Croplan Genetics/ West Central Cooperative	Jefferson
ISU Northern Research and Demonstration Farm	Kanawha
ISU Armstrong Research and Demonstration Farm	Lewis
Andrew Jackson Demonstration Farm	Maquoketa
Don McKibben	Marshalltown
UAP Midwest	Mediapolis
ISU Northeast Research and Demonstration Farm	Nashua
Allee ISU Research and Demonstration Farm	Newell
Cliff Mulder	Pella
Tim Glenn	Plano
Arnie Shirley and Cornerstone Seeds	Sidney
Croplan Genetics	Sioux Center
Croplan Genetics	Slater
Croplan Genetics	Springville
ISU Northwest Research and Demonstration Farm	Sutherland
Croplan Genetics	Washington
Mike Bovy and Brad Bovy	Waterloo
Croplan Genetics	Webster City
Croplan Genetics	West Union

We also thank Syngenta Seeds and Pioneer Hi-Bred International who helped locate cooperators.

What made these plots effective was the close monitoring they received throughout the growing season. Rust did not come close to Iowa, but we remained vigilant because this is a new disease and we could not be certain of its progress. We carefully inspected each plot every week. Many thanks to the field crop specialists who added weekly visits to sentinel plots to their already busy schedules. Without their assistance it would have been difficult to get all of the plots scouted. ISU field crop specialists who helped in this regard are Brian Lang, George Cummins, James Fawcett, John Holmes, Mark Carlton, and Virgil Schmitt. We also had researchers from the Department of Plant Pathology looking at plots. We are relieved that ASR did not enter Iowa. We are sincerely grateful to everyone who helped in this important effort.

X. B. Yang is a professor of plant pathology at Iowa State University. Ralph von Qualen is an independent plant pathologist assisting with the sentinel plots.