Use the soybean rust Iowa Fast Track System

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Abstract
When a new, nonnative plant pest is first detected in the United States, standard protocol calls for the pest to be definitively identified by a national expert before the state where it was found is declared “confirmed” for the presence of this pest. This process has been quietly used for many years. However, the hoopla over Asian soybean rust (ASR) has suddenly taken this process from the backroom to the forefront of our attention. Late last fall we watched official press releases roll out of the nine states where ASR was found, each announcing the state’s first confirmation. Those nine states will not have to go through the initial confirmation process again, but states such as Iowa that did not find rust in 2004, will follow the confirmation process in 2005 if ASR moves into the state.

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Plant Diseases

Use the soybean rust Iowa Fast Track System

by Robin Pruisner, Iowa Department of Agriculture and Land Stewardship

When a new, nonnative plant pest is first detected in the United States, standard protocol calls for the pest to be definitively identified by a national expert before the state where it was found is declared “confirmed” for the presence of this pest. This process has been quietly used for many years. However, the hoopla over Asian soybean rust (ASR) has suddenly taken this process from the backroom to the forefront of our attention. Late last fall we watched official press releases roll out of the nine states where ASR was found, each announcing the state’s first confirmation. Those nine states will not have to go through the initial confirmation process again, but states such as Iowa that did not find rust in 2004, will follow the confirmation process in 2005 if ASR moves into the state.

The first case of Asian soybean rust reported in Iowa must be confirmed by the USDA-APHIS laboratory in Beltsville, Maryland. In an exercise in early 2004, a sample was taken from a field, brought to the ISU Plant Disease Clinic, sent to USDA, and a diagnosis was completed in less than 36 hours. In order to ensure that the first confirmation happens quickly during the growing season, the Iowa Soybean Rust Fast Track system was developed.

In the Iowa Soybean Rust Fast Track system, all Iowa soybean samples suspected of being infected with P. pachyrhizi will be given precedence over all other plant disease samples at the ISU Plant Disease Clinic. The clinic will provide growers and crop professionals a diagnosis of either ASR-positive or ASR-negative. There is no charge to producers for samples submitted through this system but only up until the first two incidences have been confirmed in Iowa. However, for a diagnosis beyond the ASR diagnostic test, the standard $10 submission fee must be submitted with the sample.

If a grower suspects the presence of ASR in their field, the grower will need to contact an Iowa First Detector. First Detectors are agricultural professionals who have been trained to identify ASR. If he or she cannot rule out ASR, they will forward the sample to a member of the Iowa Soybean Rust Triage Team. Triage Team members are ISU Extension personnel who are specially trained to identify ASR. If he or she cannot rule out ASR, they will send the sample to the ISU Plant Disease Clinic.

If the ISU Plant Disease Clinic diagnosticians believe it may be ASR, information about the sample will be logged into the National Plant Diagnostic Network (NPDN) system. The NPDN does not release any information about the sample location, owner, or submitter to the public. Only the county in which the sample was collected is mapped. The sample will be sent to the USDA National Plant Germplasm and Biotechnology Laboratory in Beltsville, Maryland, where molecular techniques will confirm the presence of ASR.

After a few samples have been confirmed, diagnosis of ASR will be handled at the state level through the ISU Plant Disease Clinic.

If you suspect ASR, please submit a suspected ASR sample to the Iowa Soybean Rust Fast Track First Detector. Please use the following guidelines:

- Collect approximately 20 leaflets showing a wide range of symptoms.
- Lay the sample flat, place it between dry paper towels and put it in a zippered plastic bag.
- Place the entire sample in a second zippered bag.
- Complete an ISU Plant Disease Clinic submittal form. Write “Soybean Rust Fast Track Sample” on the top of the form with the following information:
  - date the sample was collected;
  - the name of the person(s), with contact information, collecting and submitting the sample;
  - information on where the sample was collected: where in the field and where the field is located. GPS coordinates would be ideal, otherwise the nearest road intersection, township, and county.

A copy of that form is available through an ISU Extension county office or on the Web at www.soybeanrust.info.

Consider getting a copy of the form and identifying a couple First Detectors you would like to work with now, so if you have to face Asian soybean rust this crop season, you’ll be ready.

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