5-7-2007

2007 soybean rust sentinel plots

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2007 soybean rust sentinel plots

Abstract
Cool, wet conditions. That is what has delayed planting in Iowa. These are also the conditions that favor the development of Asian soybean rust (SBR). Don't worry, current conditions do not make it more likely for rust to appear in Iowa this year. The causal agent, *Phakopsora pachyrhizi*, cannot overwinter in the Midwest. In order to infect Midwestern soybeans, viable spores must be blown from southern Florida or Texas and arrive when there are cool, moist conditions.

Keywords
Plant Pathology

Disciplines
Agricultural Science | Agriculture | Plant Pathology

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2007 soybean rust sentinel plots

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

Cool, wet conditions. That is what has delayed planting in Iowa. These are also the conditions that favor the development of Asian soybean rust (SBR).

Don't worry, current conditions do not make it more likely for rust to appear in Iowa this year. The causal agent, Phakopsora pachyrhizi, cannot overwinter in the Midwest. In order to infect Midwestern soybeans, viable spores must be blown from southern Florida or Texas and arrive when there are cool, moist conditions.

Late in last year's growing season, the disease was found as far north as Illinois and Indiana. A late frost and dry conditions in the southeastern United States this spring have limited soybean rust's advance so far this year. Nevertheless, conditions can change, and we need to remain vigilant to protect Iowa's soybean crop.

The best method we have to monitor the development and advancement of SBR is through our sentinel plots system. This system is sponsored by the North Central Soybean Research Project, the United Soybean Board, and the United States Department of Agriculture. These plots of soybeans or kudzu stretch from Florida to Texas and up through the Midwest. In the southern states, sentinel plots and kudzu patches are already being scouted. Soybean rust has been detected in Florida, Georgia, Alabama, and Texas. The infected field in Texas was destroyed. One can easily see which of the plots have been scouted and in which plots soybean rust has been found by going to www.sbrusa.net.

In Iowa, we will have 20 plots this year (see map and accompanying table), and we have improved plot distribution throughout the state. We thank Croplan Genetics; Iowa State University Research Farms; Syngenta Seed; Pioneer HiBred; UAP Midwest; and Cornerstone Seeds of Hamburg, Iowa, for assistance in planting and arranging these plots.

As of May 6, plots at Kanawha, Crawfordsville, and Chariton have been planted. Professionals will monitor Iowa's sentinel plots for SBR throughout the season. Their reports will be posted on the national Web site listed above, and producers will be informed of any threat from this disease.
and other diseases
August 6, 2007
Soybean rust update
and outlook
July 23, 2007
Soybean rust update
and outlook - July 2,
2007
July 2, 2007
Another fungicide
approved for soybean
rust in Iowa
June 25, 2007
Iowa State plant
pathologists detect crop
diseases from satellites
June 25, 2007
Soybean rust update
and outlook, June 2007
June 11, 2007
Monitoring soybean rust
June 11, 2007
Iowa officials find no
additional evidence of
Asian soybean rust
May 21, 2007

Counties with green indicate presence of a sentinel plot.

Locations of sentinel plots in Iowa, 2007.

<table>
<thead>
<tr>
<th>Town</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterloo</td>
<td>Black Hawk</td>
</tr>
<tr>
<td>Newell</td>
<td>Buena Vista</td>
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<tr>
<td>DeWitt</td>
<td>Clinton</td>
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<tr>
<td>Manchester</td>
<td>Delaware</td>
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<tr>
<td>Mediapolis</td>
<td>Des Moines</td>
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<td>Oelwein</td>
<td>Fayette</td>
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<td>Nashua</td>
<td>Floyd</td>
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<td>Sidney</td>
<td>Fremont</td>
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<td>Yale</td>
<td>Guthrie</td>
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<tr>
<td>Webster City</td>
<td>Hamilton</td>
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<tr>
<td>Kanawha</td>
<td>Hancock</td>
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<tr>
<td>Kalona</td>
<td>Iowa</td>
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<tr>
<td>Chariton</td>
<td>Lucas</td>
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<td>Oskaloosa</td>
<td>Mahaska</td>
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<tr>
<td>Castana</td>
<td>Monona</td>
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<tr>
<td>Fruitland</td>
<td>Muscatine</td>
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<tr>
<td>Lewis</td>
<td>Pottawattamie</td>
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<td>Sioux Center</td>
<td>Sioux</td>
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<tr>
<td>Ames</td>
<td>Story</td>
</tr>
<tr>
<td>Crawfordsville</td>
<td>Washington</td>
</tr>
</tbody>
</table>

*Ralph von Qualen is an independent plant pathologist assisting with the sentinel plots. X. B. Yang is a professor of plant pathology with research and extension responsibilities in soybean diseases.*

This article originally appeared on page 139 of the IC-498 (9) -- May 7, 2007 issue.