Diseases show up earlier in 2004

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Abstract
Since the third week of July, a few diseases (white mold, sudden death syndrome, and downy mildew) started to show up in Iowa soybean fields. These diseases normally aren't seen until early August. This season's cool weather has promoted their unusually early occurrence.

Keywords
Plant Pathology

Disciplines
Agricultural Science | Agriculture | Plant Pathology

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**White mold** returns this summer as predicted in my earlier ICM article. So far white mold has been found here and there in the eastern half of Iowa. The prevalence of this disease will be unknown until after mid-August. According to a report, some fields already had 20 percent dead plants. For most soybean fields, the level of pathogen inoculums should be low because we have had dry seasons several years in a row. It will be a surprise in later summer if the disease is as severe as we saw in 1996 or 1998 where severe damage occurred in many soybean fields.

One common question I have received is about using Cobra or chemicals in a similar family to control the disease. Some of these chemicals can induce disease resistance in soybean when applied. In early studies, applications were made during later vegetative growth stages to early flowering stage of soybean, a timeframe before the fungus enters a soybean stem from senescent flowers. Applications after early flower stage, especially this late (R3 stage), is unlikely to be beneficial.

**Sudden death syndrome** (SDS) usually shows up in early August in Iowa, and like white mold, it also showed up two weeks early this year. Our clinic received a sample from Washington County where the disease has been a problem for years. In our experimental plot at the Hinds Farm at Ames, some early planted plots had 50 percent defoliation by the third week of July. Because this season was cool early, it is likely for us to see a significant number of fields having SDS this year, especially those planted before the first week of May. Take good notes on the occurrence of this disease in your field for next year's management. The disease is manageable with resistant cultivars and a planting plan. Unfortunately, no
options are available to stop this disease for this season.

Close-up photo of a leaflet with interveinal necrosis symptoms.

Cool weather and a moist foliar canopy in the evenings and nights also are good for several foliar diseases. Brown spot and bacterial blight are prevalent this year, which has been discussed in an earlier ICM article. Besides these diseases, downy mildew, a fungal disease caused by Peronospora manshuriea is reported. Current weather is ideal for this seedborne disease, which affects seed quality. This disease can be controlled by using fungicides that may be applied to seed bean if the disease risk is high.

NOAA's mid-term weather forecast for August, September, and October indicates that Iowa will have cooler than normal temperatures with above normal precipitation. If the weather trend holds, we should see more diseases this year during late summer crop scouting.

This article originally appeared on pages 101-102 of the IC-492(18) -- August 2, 2004 issue.

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