

4-27-1998

Plan your disease scouting

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Recommended Citation

Yang, X. B., "Plan your disease scouting" (1998). *Integrated Crop Management News*. 2264.
<http://lib.dr.iastate.edu/cropnews/2264>

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Plan your disease scouting

Abstract

As crop scouts, we know that detecting a disease in the early stages of its development is critical to disease management. Early detection of a disease can help us make management decisions to minimize disease risk or to prevent disease problems before they take place.

Keywords

Plant Pathology

Disciplines

Agricultural Science | Agriculture | Plant Pathology

INTEGRATED CROP MANAGEMENT

Plan your disease scouting

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[1] **Soybean seedling disease.**

In the [Iowa State University Scout School](#) [2] or other disease classes, you can learn how to identify diseases for management recommendations. Because the occurrence of different diseases varies in a growing season and certain diseases may be important only in fields with the right disease conditions, a scouting plan tailored to crop stages and specific farms may be helpful. If you scout for a large acreage of soybean, a good disease scouting plan will help you efficiently manage your time and scouting efforts.

A preplanting scouting plan may integrate insects, diseases, and other agronomic components. The information in the table below will help you to integrate your scouting activities for soybean diseases into a scouting plan or schedule. It contains scouting information for major soybean diseases in Iowa, the growth stages when the disease symptoms are most representative and the best time to look for them, and areas in a field where a disease is most likely to occur. The latter information is useful for improving scouting efforts when a specific disease occurs in a field where it was not a problem previously.

Basically, with four or five visits you can cover all the major diseases. In the table, scouting for seedling diseases is listed according to the growth stage of the plant and the time of the year. Cold soil temperatures (<60° F) favor seedling blights caused by *Pythium* and *Fusarium* but warm soil temperatures (70-80° F) are necessary for severe damping-off by *Phytophthora* and *Rhizoctonia*. Therefore, times to scout for these seedling blights are different.

If necessary, white mold can be scouted in a season at two different times. One time is when the production of white mold apothecia (mushroom) occur; some growers use this information to determine whether or not to apply a fungicide to control the disease. A second time is when diseased plants show up; information collected at this time tells us how severe the disease is and how the disease is distributed in a field, which is useful for the next soybean

management.

As the season progresses, I will provide updates on the occurrence of important diseases and detailed disease identification information for scouting. The table does not include diseases that generally are minor problems but may be important in the future. I will report on such diseases if they become prevalent in the growing season.

Scouting information for major soybean diseases in Iowa.

Disease	Growth stage to scout	Best time to scout	Areas likely to find disease
Seedling blight by <i>Pythium/Fusarium</i>	before V2	late May	low and wet spots
Seedling blight by <i>Phytophthora/Rhizoctonia</i>	before V2 (late planted)	middle June	low and wet spots
Phytophthora root or stem rot	vegetative stages	July and August	various
Stem canker	flowering	after July	head field, thin stand
White mold mushroom	closed canopy	last week of June, 1st week of July, varies with row space	high soil moisture
White-mold-infested plants	pod setting	August-September	visible dead plants
Sudden death syndrome	pod setting	after mid-August	high-moisture areas in spring, fertile fields
Brown stem rot	full pod	late August	not specific

This article originally appeared on pages 55-56 of the IC-480 (7) -- April 27, 1998 issue.

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