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Managing White Mold in Soybean

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Managing White Mold in Soybean

Abstract

Farmers in the Midwest may be concerned about white mold (also called *Sclerotinia stem rot*) in soybean this year. The disease, caused by the fungus *Sclerotinia sclerotiorum*, is not common every year, but farmers who have battled the disease in the past will want to assess the risk of white mold development as soybeans approach flowering (growth stage R1 — plants have at least one open flower at any node).

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Managing White Mold in Soybean

ICM News

July 2, 2014

By Daren Mueller, Department of Plant Pathology and Microbiology and others

Farmers in the Midwest may be concerned about white mold (also called *Sclerotinia* stem rot) in soybean this year. The disease, caused by the fungus *Sclerotinia sclerotiorum*, is not common every year, but farmers who have battled the disease in the past will want to assess the risk of white mold development as soybeans approach flowering (growth stage R1 — plants have at least one open flower at any node).



Development

White mold development is favored by cool, cloudy, wet, humid weather at flowering. The disease is more problematic in soybeans in high-yield environments where high plant populations, narrow row spacing, and an early-closing canopy are commonly used. No single management strategy is 100 percent effective at eliminating white mold, and in-season options for at-risk fields are limited.

There are fungicides available for in-season management of white mold, however not all commonly used fungicides are labeled for use against white mold in soybean. The NCERA-137 national soybean disease committee developed [a table listing which fungicides are labeled for white mold](#) and their efficacy ratings. These ratings are based on replicated research data collected from University trials.

Management

Several products have been rated as 'good' for white mold management, including Aproach, Endura, and Proline. If using fungicides for white mold management, keep in mind that efficacy may be based on the ability of the fungicide to penetrate into the canopy, and the timing of the fungicide application. Fungicides will be most effective at reducing the impact of white mold when applied at or close to growth stage R1.

However, Wisconsin research data indicates that fungicides applied up to growth stage R3 (early pod — pods are 3/16-inch long at one of the four uppermost nodes) may have some effect on white mold severity, but later applications will likely not be as effective at reducing disease. Once symptoms of white mold are evident, fungicides will have no effect on reducing the disease. Fungicide applications for white mold management may be most useful on fields where varieties rated as susceptible to white mold are planted in a field with a history of the disease.

Harvest

If a soybean field is diagnosed with high levels of white mold, this field should be harvested last. This will help reduce the movement of the survival structures of the white

mold fungus by harvesting equipment, to fields that are not infested. Also, be sure to clean all harvesting equipment thoroughly at the end of the season to avoid inadvertent infestation of fields. Rotations of 2-3 years between soybean crops can help reduce the level of the fungus causing white mold in fields.

Additional resources

There are several resources available to help farmers and agribusiness personnel learn more about the management of white mold.

- Extension plant pathologists across the North Central Region developed a publication, titled "[Management of White Mold in Soybean](#)" in collaboration with and funded by the North Central Soybean Research Program to describe the disease and optimal management strategies.
- This group also developed [a podcast series to facilitate learning about white mold on-the-go](#).

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