NORTHERN SOYBEAN PRODUCERS SHOULD TAKE NOTE OF WHITE MOLD THREAT

Farmer Blog

Doug Jardine, Extension Plant Pathologist Emeritus, Kansas State University

In northern production areas, generally north of Interstate-80, white mold is the second most important soybean disease following only soybean cyst nematode. For growers who have soybeans in the flowering stage (R1 – R2) with rows more than 50% canopied over, now is the critical time to consider taking management action in fields with a history of white mold. The white mold fungus produces spores from cup-shaped mushroom structures known as apothecia. These spores puff up into the canopy where they infect the plant through open and senescing flowers.

Fungicide spray decisions can be notoriously difficult to time. With this in mind, the University of Wisconsin, in conjunction with Michigan State University and Iowa State University, have developed a mobile app known as *Sporecaster*. It is available on both iPhone and Android platforms. The app is free, and its development was funded by soybean checkoff dollars. The app identifies at-risk regions that have experienced weather favorable for the development of white mold apothecia. Favorable weather includes day time maximum temperatures below 85°F and frequent moisture from rain, irrigation, fog, dew and high relative humidity. The more canopy development, the greater the risk, hence white mold is typically more severe in narrow rows compared to the conventional 30-inch row spacing.

-

-

Photos provided by Crop Protection Network

Since good white mold management begins with the right variety, growers who have fields with a white mold history should check with their seed dealers to determine how resistant the variety they planted may be, keeping in mind that no varieties are immune. Where susceptible or moderately susceptible varieties have been planted, a fungicide application may be necessary where the *Sporecaster* app indicates a risk.

Several fungicides and some PPO herbicides containing lactofen can be used to manage the disease and limit losses. There are numerous products on the market labeled for white mold management. Growers can check with state Extension personnel to determine what the best choices for their area may be. Fungicide product ratings can be found in the Crop Protection Network publication, *Fungicide Efficacy for Control of Soybean Foliar Diseases*. It should be noted that some of the more efficacious programs are often more expensive. Thus, the economics of using a particular program should be considered relative to your soybean yield potential and grain sale price.

Fungicide applications made at the R1 growth stage will provide more control than those made at the R3 growth stage (beginning of pod set). Coverage and canopy penetration are both important for good control. Flat-fan spray nozzles that produce fine to medium droplets

(approximately 200-400 microns) provide the best fungicide coverage on sprayed plants. Follow manufacturers' recommendations for spray volume and be aware of environmental conditions (such as wind speed) that influence coverage. Increase spray volume to improve coverage in fields with a thick canopy.

Keep in mind we really can't control white mold damage, but we do our best to mitigate losses. In university trials, the best-case scenarios are that well timed fungicide applications can reduce losses by up to 60 percent. For more information on white mold, visit the **Soybean Research & Information Network's white mold page (**click here**).**

SOYBEAN RESEARCH & INFORMATION NETWORK

This website is funded by the soybean checkoff

©2024 Soybean Research & Information Network