Combating White Mold Through Sampling
and the Sporecaster App

HARRISBURG, Pa. (June 9,2021) - This summer, Penn State, with support from the Pennsylvania Soybean Board, will again conduct research into white mold. White mold in soybean continues to be an issue each year for growers throughout Pennsylvania. The pathogen that causes white mold can survive in soil for five or more years. That's why it is important to manage the disease and to prevent its spread to new areas.

One of the ways to improve management recommendations is to understand the distribution of white mold and validate decision-making tools like Sporecaster, an app developed by the University of Wisconsin, Integrated Pest Management. Penn State researchers invite farmers throughout Pennsylvania to participate in this important research by scouting their fields and using Sporecaster.

The purpose of Sporecaster is to assist farmers in making management decisions for white mold in soybean. The best time to manage white mold is during flowering (R1 and R2 growth stages) when apothecia (small, mushroom-like structures) are present on the soil surface. Apothecia release spores which infect senescing soybean flowers, leading to the development of white mold. University research has indicated that the appearance of apothecia can be predicted using several variables including weather and amount of soybean row closure in a field. Based on this research, models have been developed to forecast the risk of apothecia being present in a soybean field. Farmers can input site-specific information about their soybean field into this app, which combines this information with the research-based models to predict the best timing for white mold treatment.

During the summer of 2020, 23 locations across Pennsylvania were scouted for white mold. The incidence of white mold in each field was measured and compared to the disease risk prediction using the Sporecaster mobile app. To do this, the researchers compared the estimated risk based on the model used in Sporecaster with the observed presence of white mold in the field at the end of the season.

One key thing the Penn State researchers learned in 2020 was that the weather data source used for previous versions of the app did not provide enough resolution to make the app reliable for use in Pennsylvania. Future updates of the app will integrate a new weather data source, which provides for a finer scale resolution.

The efforts to validate Sporecaster for the Northeast will continue in 2021. Currently, at least ten locations throughout Pennsylvania will be monitored. If you would like to participate in the validation project or have additional questions about the Sporecaster app or white mold management, contact Tyler McFeaters (tsm31@psu.edu), Karen Luong (kml6400@psu.edu), or Paul Esker (pde6@psu.edu).

About the Pennsylvania Soybean Board

The [Pennsylvania Soybean Board](#) is a farmer-controlled Board responsible for managing Pennsylvania's share of funds received from the nationwide Soybean Checkoff program. The funding is available under an assessment program, approved by Congress in 1990, under which soybean farmers contribute 50 cents of every $100 they receive for their beans at the first point of sale. Funds are used to develop markets, educate consumers, and research new ways to utilize and produce soybeans more efficiently.

For more information, visit www.pasoybean.org.