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## Update on soybean diseases

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## Update on soybean diseases

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Although parts of Iowa experienced dry conditions during the 2017 growing season, several important diseases were observed. Early season diseases were not common, but by late July prevalence increased. White mold was the most damaging disease in the northern part of the state. There was also limited, late development of sudden death syndrome and pod and stem blight (*Diaporthe*). Tobacco ringspot was found across much of Iowa very late in the season. This presentation will focus on these specific diseases and provide management updates for soybean diseases in general.

### White mold

White mold has been severe in parts of the state for the past three years, with some fields experiencing substantial yield loss. In order to help inform white mold management, the latest fungicide trial results will be presented. Information from regional research coordinated by Damon Smith at the University of Wisconsin-Madison will also be discussed.



**Figure 1.** White mold (*Sclerotinia sclerotiorum*)

## **Sudden death syndrome (SDS)**

Sudden death syndrome (SDS) was much less severe in 2017 compared to previous years. It was also observed later in the season. Several SDS management strategies were evaluated in 2017, and updates on these studies will be presented.



**Figure 2.** Sudden death syndrome (*Fusarium virguliforme*)

## **Diaporthe (Diaporthe spp.)**

An increase in the amount of “top dieback” of soybeans was observed in August. Historically, this problem has been related to infection by Diaporthe, SCN and potassium deficiency, although further research is needed to determine firm conclusions.

## **Other diseases and problems**

Late in the season, many fields experienced issues with plants that stayed green when they should have reached maturity. Many of these fields tested positive for tobacco ringspot virus. We will give an overview of this relatively uncommon disease and other problems seen during the 2017 season.



**Figure 3.** Tobacco ringspot virus. (source: Kevin Black)

## **Additional crop protection resources**

### *Twitter Campaign*

A Twitter campaign to encourage farmers and agronomists to use social media for disease tracking and information collection purposes continued to be successful in its second year of use. Contributors are asked to include the name of the disease (or what they suspect it is), their county, state and depending on the crop, the Twitter handles @corndisease and @soydisease. The goal of the social media postings is to help crop protection specialists track specific diseases and as they show up in the U.S.

### *Crop Protection Network*

Another tool that continues to expand is the Crop Protection Network ([www.cropprotectionnetwork.org](http://www.cropprotectionnetwork.org)). Information on several corn and soybean diseases has been added to the website, with further resources in development. This regional collaboration of pest management professionals works together to create resources that can be used in Iowa and across the United States.