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Abstract
Soybean Sudden Death Syndrome (SDS) is widespread in Iowa. This year has had one of the worst epidemics since the disease was found in Iowa in 1994. Severely infested soybean fields can be found in every region in Iowa. It is easy to spot brown patches caused by SDS while you are driving the highways. Fields with large portions of premature defoliation can be found in early August.

Keywords
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Soybean Sudden Death Syndrome in a Flood Year - What to Do Next

By XB Yang, Department of Plant Pathology, Iowa State University

Soybean Sudden Death Syndrome (SDS) is widespread in Iowa. This year has had one of the worst epidemics since the disease was found in Iowa in 1994. Severely infested soybean fields can be found in every region in Iowa. It is easy to spot brown patches caused by SDS while you are driving the highways. Fields with large portions of premature defoliation can be found in early August.

The disease can be a big surprise to us. We have made good inputs in planting, enjoyed wonderful soybeans in July and were expecting good yield; and some may have made marketing movement. The disease suddenly turns the fields brown with sick looking plants in August. It strike us, in many ways, like white mold.

This year’s flood reminds us of the 1993 flood, and many contribute this year’s SDS outbreaks to flooding. However, flooding is not the reason for a major outbreak. Remember, 2008 was a flood year with high prevalence of SDS, but the disease that year caused less damage than this year. Spring and June conditions this year are the key to setting up this epidemic. Early predictions made in February suggested that all parameters for this disease in the growing season were right for a widespread outbreak. (See the SDS prediction in a news article published in March 2010.)

Questions and answers

What can we do to minimize the disease this season?
There is nothing we can do about it with current measures. Everything we can do should have been done before or at planting (see the March 2010 article).

Can we spray fungicide to reduce losses?
The answer is No. No chemical sprays are effective in controlling this disease. It is a waste of money.

What kind of yield losses can one expect?
The losses vary from field to field and area to area, depending at what growth stage the disease shows up and how large of an area is affected. I have seen losses as high as 30 bu/ac in severely infected fields. Sometimes the losses are minimal if the disease shows up in later August. Generally severe premature defoliation can lead to 10 bu losses.

What can we do now?
This year is a very good year to polish your SDS management skills, especially variety selection. Use local information for variety selection.
Resistance information from other states, especially from field tests done in southern regions, has little use in Iowa and sometimes can be misleading, as this disease is very environmentally dependent. Look at the fields around your farm – healthy looking SDS free soybeans in flat or lowland fields that were planted earlier. That field likely has a good variety for you. I have found some varieties from certain companies do better.
Currently, there is a lot of information on this disease — some good, some so-so and some is misleading. After this season, I will write an article on what to do for next year's crop and future management.

![A flooded soybean field with severe SDS infestation in Polk County.](image)

**Fig. 1.** A flooded soybean field with severe SDS infestation in Polk County.

XB Yang is a professor of plant pathology with responsibility in research and extension. Yang can be contacted by email at xbyang@iastate.edu or by phone at 515-294-8826.

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