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Sudden Death Syndrome in Soybeans

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The challenge of raising soybeans is staying ahead of disease and other yield robbing factors that can dramatically lower yields in soybeans. One of these such diseases is Sudden Death Syndrome (SDS) in soybeans. There are a few main points you need to know in order to manage Sudden Death Syndrome on your farm.

First, we need to understand how this disease becomes an issue. SDS is caused by a soil-borne fungus *Fusarium virgulifome*. Overwintering is likely occurs in the soil residue. Infection of SDS into soybeans happen shortly after germination and becomes a root disease which will cause defoliation late in the season. Long wet and cold periods of weather are ideal for SDS to infect soybean seedlings. This will be more prevalent in compacted areas.

Next we must properly identify SDS. The foliar tissue will be yellow and look necrotic while the veins of the soybean leaf remain green. This is a very recognizable leaf when SDS is present. However, SDS looks exactly like Brown Stem Rot (BSR). The only way to make sure that we do not have BSR is to split the stem and make sure the pith of the stem is a white color. This will indicate that the stem is healthy and that SDS is the culprit.


Photo courtesy of Justin Krell, LG Seeds

There are ways that growers can manage SDS once they find that it is present in their fields. The first step is to identify varieties that have a high level of SDS resistance. One of those soybeans that I recommend in the mid-north area is LGS1635RX. (check the LG Seeds Seed Guide, Web page, or with your LG Seeds Technical Team Agronomist for other products with high tolerance to SDS.)

Next, consider delaying your planting a week or two until soil temperatures and soil moisture improve. This can make a huge difference in the infection rate of SDS.

There are effective seed treatments that can be used on soybeans. One of those products is ILEVO®This will help with SDS infection and aid in protection from the Soybean Cyst Nematode. ILEVO®will cost around $14.00/unit. Thus assuming $8.50/bu. soybeans means that you need 1.64 bu. per acre to pay for the treatment. Typically, we can see areas lose 20-30% of the yield if the severity is high.

References and additional information:

https://soybeanresearchinfo.com/diseases/suddendeathsyndrome.html
https://extension.umn.edu/pest-management/sudden-death-syndrome-soybean
https://cropprotectionnetwork.org/resources/articles/diseases/sudden-death-syndrome-of-soybean