



CROP SOLUTIONS THAT WORK

Volume #11 Issue #4 February 6, 2019

Sudden death syndrome in soybeans

By Mark McKerrall CCA-ON, CCS
Crop Sales Specialist
AGRIS Co-operative - Thamesville



Soybean harvest is a distant memory in most farmers minds and I would like to reflect on why some growers were disappointed with their yields.

I received a few calls in mid-July from growers that their soybeans were turning yellow and going backwards. When I followed up with these growers, I found a few practices in common that contributed to the problem. A tight rotation of soybeans followed by corn and back to soybeans is not enough to break up disease cycles and does nothing to reduce soybean cyst nematode populations. Throw in soil compaction and saturated soils and you have the perfect environment for sudden death syndrome.

Sudden death syndrome (SDS) of soybeans was first discovered in 1971 in Arkansas and since then has been confirmed throughout most soybean-growing areas of the U.S. SDS is a fungal disease that also occurs in a disease complex with the soybean cyst nematode (SCN, *Heterodera glycines*)

Wet conditions and cool temperatures (May was wet and cool) early on set up the season for SDS development. The disease typically does not show symptoms until after the early reproductive stages. There are several clues to watch out for while scouting for SDS. The symptoms first appear as yellowing between the leaf veins. These may look similar to the symptoms of brown stem rot (BSR), but can be distinguished by splitting the plant's stems. If the inner-stem is white, the field most likely has SDS.



CROP SOLUTIONS THAT WORK

The pathogen that causes SDS infects the roots and sends a toxin up the plant that causes the yellowing and dead tissue between veins.

As the disease progresses the yellow and brown areas become large irregular shaped lesions, still staying between the veins. Another symptom of SDS is rotted roots. An infected plant can often be easily pulled from ground because of root damage.



Brought to you by AGRIS Co-operative Ltd. & Wanstead Farmers' Co-operative
Maximizing your return to land, labour & equipment



CROP SOLUTIONS THAT WORK

Minimizing SDS Damage

There is no in-season control of SDS, however tillage to eliminate soil compaction will help reduce saturated soils. Cover crops will improve soil health, while annual ryegrass, cereal rye and white clover will reduce SCN populations and thus minimize SDS impact.

Choosing soybean varieties that have a better tolerance to SDS will help minimize yield impact. Crop rotation of four to five years will help lower SCN numbers, improve soil health and reduce the severity of sudden death's occurrence and impact on yield. Planting fields with a past history of SCN and SDS last will help reduce the occurrence of SDS as well.

Finally, by using seed treatments for SCN like Syngenta Canada's Clariva™ will help minimize the yield loss from SCN and in turn should reduce the impact from SDS. Syngenta has a new seed treatment, MERTECT® SC that controls SDS in soybeans as well. Bayer CropScience has a seed treatment called ILeVO™ that works on reducing yield loss caused by SDS.

All of these above mentioned seed treatments are available for use at our bulk seed treaters in Dutton, Brigden and Cottam. If you have experienced yield loss due to sudden death syndrome and would like to develop a plan to help you manage this yield robbing fungal disease, contact your local AGRIS Co-operative or Wanstead Farmers Co-operative crop sales specialist today.

Source: Iowa Soybean Association On-Farm Network

Brought to you by AGRIS Co-operative Ltd. & Wanstead Farmers' Co-operative
Maximizing your return to land, labour & equipment