# **In Cold Temps, Delay Planting Soybeans That Aren’t SDS Protected**

 Boots In The Field [**RHONDA BROOKS**](https://www.agweb.com/authors/rhonda-brooks) April 19, 2021

 Temperatures are forecast to dip into the low 20s across parts of central Illinois on Tuesday, and snowflakes could fall as well. Farmers are asking Farm Journal Field Agronomist Ken Ferrie whether they should forge ahead with planting soybeans or stop until soil temperatures rebound. Before answering, Ferrie offers two questions for farmers’ consideration:

1.    Do you have experience planting early soybeans? Even under ideal conditions there is some risk with planting early, and inclement weather conditions just add to that risk.

2.    Did you use a seed treatment specifically designed to address Sudden Death Syndrome (SDS) in the soybeans you want to plant now? Currently, there are only two traditional active ingredients in the marketplace that fit the bill: pydiflumetofen (Saltro) and fluopyram (ILeVo). Both are Group 7 fungicides that provide soybeans with protection against seedling infections caused by *Fusarium virguliform*e, the causal agent of SDS.

 A biological seed treatment is also available, CeraMax. “My advice is don’t plant soybeans until the soil warms up unless you’re absolutely positive the field doesn’t have any SDS issues,” Ferrie says.

 Many farmers are telling Ferrie they haven’t seen SDS since 2015, so they believe their fields are in the clear. Not so fast, Ferrie tells them. “We saw yields that year get hammered in fields that had been in continuous corn for five years,” he recalls. “If SDS wipes out a field of your soybeans in mid-August, it’ll be gut-wrenching – especially with the potential prices we could have.”

 What about planting corn, you ask? That’s probably not a good option in central Illinois this week, either, Ferrie says. However, there are some exceptions that he addresses in this week’s Boots In The Field podcast.

 If you don’t usually give the podcast a listen, this is the week to make an exception. Ferrie’s corn and soybean planting recommendations detailed in this 18-minute podcast will make you money or – at the very least – help save you a lot of dollars this season. You don’t want to miss it.

* Bob Streit: Here is the rest of the story. Back in 2010 when the New Goss’s wilt when SDS severely affect tens of millions of acres from Omaha to Beltsville, MD, there were several factors involved. With SDS about 80% of the bean varieties from the major seed companies were derived from a cross between Asgrow 2543 and Stine 2250, because of that progeny’s yield performance. The 2543 was derived from Asgrow 5403 (?). A friend of mine who was SB product manager for Asgrow under John Schillinger confirmed this when I asked him if it was Asgrow’s or Harry’s bean that caused the problem.
* No university pathologist or biotechnologist (At least in Ames) ever did studies as to why the old original A5403, which was the inserted parent to A2543 and 2943 varieties, was so susceptible.
* Dr Robert Kremer served as the USDA ARS soil microbiologist at the U of MO. He did lots of plot and lab work that verified the cause of the problem was that when Roundup was applied to the soil it killed off the Pseudomonas fluorescence. This bacteria has two roles: Releasing the organic acid that converted P2 total soil test phosphorous into P1 plant available phosphorous. It also produces four compounds that kill Fusarium fungi. When this Pseudomonas population is decimated the natural check organism is gone and the Fusarium is better able to invade and colonize the early planted SB roots if the plant is not protected. ILeVO has performed well but in two years of work by XB Yang the Fulltec Zinc perform better as it gave longer control plus supplied the nutrient that is often deficient in the soil. Due to Bayer making larger contributions to the University the Spraytec company was not allowed to publish this performance advantage for the first few years.
* According to Dr Mary Riggs, Bayer Product manager for ILeVO, the SB plant did not have enough P450 activity to degrade the compound in quick fashion. Thus the Halo is an indicator that the compound’s physiological effect, which typically from chelating one of more minerals. The appearance of the halo on the cotyledons indicates the compound is having an effect the plant and is likely negatively affecting yield to a small degree.
* Check out the availability of the Spraytec Zn as it offers longer control while supplying the mineral important to the integrity of the root tissue against fungal invasion, and involved with chlorophyl formation. It is less than half the original price of ILeVO and does not negatively affect the small SB plant.
* The fungicides from 40 years ago had Mn, Zn, Cu, Iron and Bo as their active ingredients. By chelating them with a Phosphite (PO3) or Amino Acid base they becoming a long residual, mineral based product and method of making the plants so healthy that fungal pathogens cannot attack them.
* The take home message is that the best method of controlling Fusarium fungi is to re-establish the Pseudomas population via microbial products and wean yourself away from such high RoundUp use.