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Soybean Seed Treatments – Sudden Death Syndrome (part 1...)

In last week's column (available at: <https://www.meadowlark.k-state.edu/crops-soils/index.html>) I referenced both early planting of soybeans and soybean seed treatments. In columns the next couple of weeks, I'll hit again on both topics centered around a disease that reared its ugly head again in 2023: Soybean Sudden Death Syndrome.

Soybean Sudden Death Syndrome (SDS) has increasingly been an issue for NE Kansas soybean growers over the past decade. It's a fungal disease that can survive on not only soybean residue and in soil, but on corn residue as well. This allows it to survive *through* our corn/soybean rotations while it waits for an infection opportunity - most often when seedling development is slowed by cool/wet soil conditions.

Even after infection, we might not know it. The fungus remains in plant roots as it grows, only manifesting itself during the late vegetative or early reproductive stages. At that point, the fungus produces a toxin that moves upwards through the plant to the leaves where the very visual symptomology – green veins with yellow then brown between the veins – confirms the infection.

Management wise, start with the seed. Check varieties for SDS tolerance and use high germination seed when possible. Good planting practices are also key. Research from the Kansas River Valley Experiment Field showed increased frequency of SDS foliar symptomology in narrow row spacings as compared to wider spacings and its long been known that SDS severity is typically worst when planting in cooler/damper conditions (there *are* exceptions...).

Because it's a fungus, fungicide seed treatments have become popular as well. In next week's column, we'll dig into that a little deeper. For more information on Soybean Sudden Death Syndrome, feel free to drop me a line at dhallaue@ksu.edu.