The Impact of Soybean Seedling Diseases

Retired K-State Research & Extension Plant Pathologist Dr. Doug Jardine spent much of his career sharing information on soybean disease management. His estimates suggested we could increase soybean yields by over twelve percent if we could eliminate disease pressure. Disease elimination is not possible – but disease management is, and it starts at planting.

Early season seedling blights are estimated to reduce yields an average of two and a half bushels per acre with Pythium, Rhizoctonia, and Fusarium, the primary culprits. Fortunately, seed treatments are effective at dealing with many of these issues, so long as we are using the appropriate active ingredients. What does your seed tag say? Whether you are done planting or just getting started, take a quick look at the active ingredients of your seed treatment and see what they are effective against. Some will likely be fungicides active against the aforementioned diseases. Others may be treatments designed to combat insect pressure. Knowing what you may have some protection against can be a big help when scouting. The Crop Protection Network has some great resources on fungicide efficacy. Drop me a line if you are interested.

The presence of a seed treatment doesn't guarantee elimination of disease. Environment, genetics, and production practices significantly impact seed treatment efficacy. Early season soaking rains or cool/wet conditions following planting can overwhelm seed treatments in conditions that are perfect for diseases to thrive. Many seed treatments are designed to provide protection of seeds/seedlings for approximately three weeks after planting. If environmental conditions conducive to disease occur after that time, the efficacy window may be closed.

For more information on soybean diseases, drop me a line for links to Crop Protection Network publications. Soybean Cyst Nematode – present in nearly twenty percent of our Kansas soybean fields - and other diseases will be discussed in this space at a later time.