Plan Ahead For Seedling Diseases

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eedling diseases can damage soybeans and reduce profits, according to Dr. Allen Wrather, University of Missouri professor specializing in plant diseases. He focused his attention recently on seed treatments.

"Seedling diseases are the first to develop during the crop year and they're caused by different types of pathogens but the symptoms are very, very similar and that is a root rot," he said.

Identifying the diseases can be difficult, unless one examines the roots and notices that the roots are discolored and may be actually rotten. This can result in poor absorption of water and nutrients by the plant and, if the rot is severe, it can kill the root and as a result the seedling will die.

"There are some things that farmers can do to protect their crops from this type problem," Wrather said. "Mostly, that includes improving drainage in fields, but farmers can also apply seed treatments prior to planting, specifically fungicides applied to the seed. There are several of these products on the market.

"We conducted an experiment in 2011 at 20 different locations in Missouri to determine if these were useful," he reported. "We had eight treatments, and we learned that the treatments did not improve stand or yield at any of these 20 locations. This surprised me. So our conclusion from all of this was that in 2011 fungicide seed treatments did not benefit soybean growers in Missouri at these 20 locations.

"Does that mean that fungicides will be a benefit of no use in 2013? I don't know," he continued. "All I can say is that, based on our 2011 results, the benefit of fungicides may be less than farmers would expect; and, in my view, they should be used only by those farmers that

are interested in pushing yields to the 60-plus bushel level. These products should be used as an insurance to enhance those yields. The treatments usually cost about \$3 a bag. That's fairly cheap insurance to enhance the plant seedling health."

Wrather feels that seed treatments should be of benefit in some cases, but not all. $\quad \Delta$

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Dr. Allen Wrather, University of Missouri professor specializing in plant diseases explains how seedling diseases can damage soybeans and reduce profits.

Photo by John LaRose Jr.