

Fungicides *That* Work

Research On Fungicides Provides Information On Timely Applications

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Foliar fungicides is an issue of concern for Dr. Melvin Newman, University of Tennessee extension state plant pathologist for all field crops, located in Jackson.

"I try to test all the fungicides that are coming out," he explained. "I check the newer fungicides and even continue to check some of the older fungicides for our main diseases, especially frog eye leaf spot which is one of our worst foliar diseases. We usually run about 50 or 60 different fungicide treatments here on the experiment station to check them out not only for frog eye, but I also rate for brown spot, stem canker and SDS."

In case soybean rust appears, Newman looks at that too, as well as all the varieties, all the fungicides.

"Then also we look at most of the about 100 commercial varieties of soybeans each year," he said. "We rate those for diseases and see how they respond to fungicides, so it is all a big disease situation here. We put them under disease pressure, and there is a lot of pressure here from disease because we continue to plant soybeans on the same land."

About four or five years of disease data that was collected at Milan can be found on the web at <utcrops.com>. This year's research is available and there are some interesting things that have been learned.

"We routinely say the growth stage to put a fungicide on is the R3 stage," Newman said. "We are seeing some things like an R1, R5 sequential application is not as good as the R3 stage of application. It does help, but the R3 is still our best shot for maximum control with one application here in Tennessee. Now we also are seeing that an R3 plus an R5 application with several of the fungicides brings in a little extra yield and improves seed quality, so that may be an issue, it may not. Yield increases still depend on the amount of disease, the weather, and the susceptibility of the variety to frog eye leaf spot and other diseases. Farmers need to look at all of that and make a decision whether or not to spray."

Tennessee farmers routinely spray much of their acreage, especially in northwest Tennessee where some years as much as 75 percent to 80 percent of the acreage is sprayed. That's why researchers are continually looking at new fungicides.

"There are some fungicides that look good, and some fungicides are not looking good, and we try to weed out the weeds here, so to speak, and only recommend the ones that really do perform well," Newman said. "In this field we know that if it performs well here under heavy disease situations, it will definitely perform well in a pro-



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Photo by John LaRose

ducer's area."

The heavy infestation of disease in Newman's plots occur simply by planting at a normal time and using frequent overhead irrigations. There are no artificial inoculations.

"We have all the disease we want just by continuous soybeans and irrigation," he said. He is providing the environment, which, along with potential yield are the two biggest points. Δ