

Frogeye Leaf Spot Gaining Ground

Tolerance Develops To Strobilurin Fungicides; Topguard Provides Control

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One soybean disease of concern to Dr. Allen Wrather, University of Missouri professor with specialty in plant diseases, is frogeye leaf spot.

“That’s a problem that has developed mainly in the central part of the United States because our environment was suitable for this particular disease,” he said.

For the last 10 years frogeye has been easy to manage because there have been products

confirmed that there was a pathogen present in West Tennessee that was tolerant.”

In 2011, this particular fungus was found to have changed in one field in Missouri, and it too was tolerant to the strobilurin fungicides. The field had been treated twice with one of these fungicides, and frogeye was still developing. The results of tests from the University of Illinois showed that about 60 percent of the pathogen that was in this field was tolerant to strobilurin fungicide.

“So it is present and becoming widespread,” he said. “Based on 2011 test results, we’ve



Dr. Allen Wrather, professor with the University of Missouri discusses frogeye leaf spot, a soybean disease suitable for this environment.

Photo by John LaRose, Jr.

available called strobilurins, such as Quadris and Headline. These fungicides have worked very well but about three years ago Dr. Carl Bradley, a professor at the University of Illinois, noticed that frogeye was still developing in one of the fields he was scouting even though the field had been treated with one of these products. He started testing and found that the pathogen causing frogeye there had changed and was now tolerant to these strobilurin fungicides.

“That information was made available to other researchers and Dr. Melvin Newman, a plant pathologist in West Tennessee at the University of Tennessee realized that he also knew of some fields where this particular disease was not managed by the strobilurin fungicides,” Wrather said. “He sent samples to Dr. Bradley and it was

learned that strobilurin fungicides still will reduce the level of frogeye because some of the frogeye is still susceptible. However, the product that works best to manage the strobilurin tolerance as well as the susceptible plants is Topguard. This particular product did almost always reduce all of the frogeye and did stop further development of this disease in the field.”

The take-home message is that if farmers or consultants notice that the strobilurin fungicides are not adequately managing this disease in the fields, they need to consider an alternative. Based on 2011 test results, the best alternative or that alternative that would best manage the disease, is Topguard. Δ

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