Know Your Environment

Many Specifics Affect Fungicide Performance On Farmers' Fields

BETTY VALLE GEGG
MidAmerica Farmer Grower

BELLEVILLE, ILL.

Corn and soybean fungicide research is a project of Dr Jason Bond, plant pathologist at Southern Illinois University.

"We have been conducting this research in the state of Illinois over the past four or five years," he said. "Some of our research is in collaboration with the University of Illinois on the corn side, and at SIU we have a great deal of research on the 'minor' soybean pathogens."

Interest in the minor foliar pathogens only appeared after concern over soybean rust began. At that time, Bond's group started testing fungicides for the control of soybean rust should it show up in the Illinois production season.

"Then we started finding out just how much these minor pathogens are actually taking from our soybean yields in addition to that," Bond said. "In fact, many of these 'minor' foliar diseases wreck havoc in the mid-South. In this part of the country a better description would probably be 'emerging' diseases, not 'minor' diseases."

He also discussed university trials that are producing some fantastic increases in yields for corn through an application of some of the fungicides.

There are several chemistries applicable in both corn and soybeans. These include Headline and Quadris, which represent the strobilurin chemistries.

"We also have the strobilurin triazole mixes which are the fungicides like Stratego, Headline SBR (soybean only), and Quilt," he said.

Most of the foliar diseases that show up in soybean fields can be easily controlled with the strobilurin fungicides if they are applied at the proper soybean growth stage.

"Once soybean rust shows up in a field you really are limited in your selection of fungicide," Bond said. "You have to select a triazole fungicideor a strobilurin/triazole mix.

"The reason why companies provide the mix is to capture the benefits of both chemistries – the wide spectrum disease control with the strobilurin, and the 'rust-curative' capabilities of the triazole."

The important point farmers must remember is that not everyone produces crops in the same environment. That's very important when considering foliar diseases and their management.

"So when we talk about various soybean diseases we have an environment that is different on every farm," he explained. "We have the resistant pathogen spectrum which is different on every farm, and then we also have the cultural practices, different maturity groups, and then probably most important is the resistance level that differs between the varieties, so all these things come together to provide a great deal of this variability."

Dr Jason Bond, plant pathologist at Southern Illinois University, discussing corn and soybean fungicide research.

Some products will be very good for one farmer but not as good for another, he said.

"So the message that we try to get out is that recommendations are very difficult for an entire state," he concluded. "It might be that in one region of Southern Illinois, a company has data that shows a 15 bushel increase and we can only show a seven or eight bushel increase. There are reasons for that and, in many cases, they may be over a larger geographical area and they get more hits on these various problematic fields.

"That is the message," Bond said. "Not every farmer can use the exact same fungicide, the exact same time to put it out at the exact same rate, and get the same result for every farm." Δ