New Issue in Soybean Diseases: Strobilurin-resistant Frogeye Leaf Spot

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Soybean growers in the state have relied on fungicides like Headline, Quadris, Evito, Gem, etc. to control frogeye leaf spot (FLS). All these fungicides contain the same mode of action and collectively referred to as strobilurin fungicides. In 2012, a new strain of the fungus that is resistant to all strobilurin fungicides was confirmed in nine Arkansas counties (Clay, Lawrence, Jackson, Poinsett, St. Francis, Phillips, Desha, Drew, and Chicot). Therefore, selecting the right fungicide chemistry will be an important consideration when managing FLS in 2013.

A strobilurin-alone program will not effectively manage FLS where the new strain was confirmed or where strobilurin failures were observed in 2012. A significant population of these new fungal strains will likely occur in new areas where soybeans are continuously cropped and a strobilurin-alone program has been used to control FLS and other fungal diseases. These new fungal strains can be managed with triazoles fungicides (alone or as a mixture) or resistant soybean varieties. Additionally, tillage and one year crop rotation can reduce the overwinter pathogen survival on crop residue. Triazole-resistance to fungi similar to FLS is not new therefore, applying foliar fungicides only to control plant diseases will prolong their usefulness in row crop production.