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CAN HIGHER RATES OF SEED TREATMENTS REPLACE IN-FURROW APPLIED FUNGICIDES?

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Abstract

Cotton producers are constantly looking for ways to reduce production costs. This is especially true when cotton prices are depressed. One practice which producers view as optional is the use of an in-furrow applied fungicide. Virtually all of the cotton seed planted in Mississippi is treated with one or two fungicides. The use of an in-furrow applied fungicide has been shown to increase seedling survival and seed cotton yields when disease pressure is high. However, when disease pressure is medium to low, the use of an in-furrow applied fungicide usually does not significantly increase seed cotton yields. Therefore, producers have been reluctant to budget the use of an in-furrow fungicide and adapt an in-furrow fungicide as a routine production practice. Even when producers use an in-furrow applied fungicide, they tend to use reduced rates of the fungicides which are often below the labeled rates.

This trial was initiated to determine if high rates of seed treatment fungicides would perform similar to in-furrow applied fungicides. In Mississippi and Louisiana, *Rhizoctonia solani* accounts for 75% of cotton seedling disease. Three strobin fungicides, propiconazole, trifloxystrobin, pyraclostrobin were evaluated at 1,2,4, and 8 oz/CWT. They were compared to the standard in-furrow applied fungicides Terraclor Super X, 18.8G, 5 lb/A and Terraclor 15G, 5 lb/A.

In the trial in Louisiana, there were no significant differences between the treatments. Disease pressure was very high in the Mississippi trial and seed treated with propiconazole or trifloxystrobin tended to have higher seedling survival over seed treated with pyraclostrobin. There was no correlation between an increase in seed treatment rate and an increase in seedling survival. Almost all of the seed treatment rates of propiconazole or trifloxystrobin had comparable seedling survival to the in-furrow applied fungicides.