EVALUATION OF BAYER CROPSCIENCE SEED TREATMENT COMBINATIONS IN GEORGIA AND TEXAS

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Abstract

The use of various seed treatments provide producers the opportunity to minimize damage caused by seedling diseases, insects or plant parasitic nematodes. The lack of chemical management options for nematodes has led to a renewed interest in screening seed treatment combinations. The objective of this research was to evaluate standard fungicide and insecticide seed treatments with combinations of seed applied nematicides. Field studies were conducted near Acuff and Lamesa, Texas and Tifton, Georgia. Treatments consisted of base fungicide and insecticide products in conjunction with the Aeris seed applied system and/or increased rates of fluopyram. In Texas, combinations of these treatments were evaluated on susceptible (Fibermax 2484B2F) and partially resistant (Stoneville 4946GLB2) varieties. Combinations of seed treatments did not affect stand establishment; however, differences were observed among varieties with plant stands being greater for Fibermax 2484B2F (3.5 plants per foot) than for Stoneville 4946GLB2 (3.0 plants per foot). Vigor was greater for all seed treatment combinations than for the fungicide only control, which may have been due to damage caused by thrips early in the season. Stoneville 4946GLB2 was slightly more vigorous than Fibermax 2484B2F. Yields were not different among treatments in the trial conducted in Georgia or when averaged across Fibermax 2484B2F. Slight differences were observed among treatments when applied to Stoneville 4946GLB2. A positive correlation was found between increasing rates of fluopyram and yield. The greatest yields were achieved when fluopyram was applied at a rate of 8.86 oz/cwt. The use of Aeris or the combination of Aeris and fluopyram did not result in an increase in yield. Results from these studies indicate that fluopyram can be integrated into existing seed treatment packages without affecting stand establishment. Furthermore, increases in yield observed with greater application rates of fluopyram are encouraging. Additional comparisons of these and other combinations of seed treatments are needed in fields severely infested with plant parasitic nematodes.