EFFICACY OF FUNGICIDE SEED TREATMENTS FOR COTTON SEEDLING DISEASE CONTROL

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Abstract

Many cotton producers are now using fungicide seed treatments only instead of in-furrow fungicides. Therefore fungicide seed treatments need to be as effective as possible to avoid severe seedling disease. Several new fungicides have been cleared for use on cotton seed and need to be tested under field conditions to determine their effectiveness. The objective of this research is to evaluate the efficacy of various new seed treatments. All treatments were planted in four-row plots 30' long with rows 36" wide and inoculated in-furrow with *Rhizoctonia* and *Pythium* to enhance seedling diseases. Stand counts were made four weeks after planting and yields were determined by harvesting with a two-row plot cotton picker. Vortex FL (ipconazole), Trilex FL (trifloxystrobin), and Trilex Advanced (trifloxystrobin + metalaxyl + triadimenol) were compared over a two-year period in five field tests to standard seed treatment fungicides such as Dyanasty CST, Baytan Thiram + Allegiance FL and Maxium FS. Only the highest rate of Vortex (0.342 oz/cwt) gave a significantly higher yield when combined with the basic fungicide seed treatment of Baytan + Allegiance. Trilex Advanced + Vortex gave no increase over other fungicides containing Baytan Thiram + Allegiance. When Baytan Thiram + Allegiance were added to Dyanasty significant improvement was noted in stand counts. In summary, Baytan Thiram + Allegiance were found to be a basic component to all seed treatments. It is difficult to improve the effectiveness over these fungicides. However, when Trilex Advanced + Vortex, Trilex Advanced + Kodiak, Dynasty or Vortex at the highest rate were added to Baytan Thiram + Allegiance numerical or significant results in stand and/or yield were obtained.