

REDUCTION OF THRIPS POPULATIONS WITH TILLAGE AND WINTER COVER CROPS**J. David Griffin****Michael D. Toews****R. Scott Tubbs****Dylan Q. Wann****University of Georgia****Tifton, GA****Dana Sullivan****TurfScout® LLC****Tifton, GA****Abstract**

Thrips are the most consistent insect pests of early planted cotton production in the southeastern United States. In Georgia, infestations are generally more acute in cotton planted before May 10. Some cotton producers are interested in transitioning from in-furrow granular insecticides to seed treatments for thrips control. Previous studies have shown that seed treatments provided variable levels of thrips control when used with conventional tillage in early planted cotton. In a two year study, we investigated thrips mitigation potential using a thiamethoxam seed treatment in concert with crimson clover, wheat, or rye winter cover crops and conventional or strip tillage. Results show that adults, primarily tobacco thrips, peaked at 14 days after planting while immature densities peaked at 21 days after planting. There were no differences among cover crops in number of thrips collected from seedling cotton plants, but greater than one-third more thrips were collected from conventionally tilled plots compared with strip tilled plots. There was less than half as much ground cover in conventionally tilled plots compared to strip tilled plots. Pearson correlation analysis showed that increased ground cover was inversely related to thrips densities (sum of adults and immatures) for all three sample dates in 2008 and one sample date in 2009. Across years the cumulative number of thrips exceeded the foliar treatment threshold in five of the six sample dates in conventionally tilled plots, but in only two of the sample dates in the strip tilled plots. These data suggest that growers must consider all mitigating factors before relying on seed treatments for thrips management.