

**EVALUATION OF GARLIC BARRIER®
FOR COTTON INSECT CONTROL
IN TENNESSEE**

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Abstract

Garlic Barrier®, when used strictly as a seed treatment, reduced thrips damage compared to the untreated control in one of two tests but was inferior to the Temik treatment in both tests. Stand was reduced by Garlic Barrier treatment in one of these tests. Adult thrips numbers in 1995 were significantly lower in Temik-treated plots compared to the untreated 14 days after planting but did not differ from the Garlic Barrier treatment. Adult numbers did not differ in 1996. Larval thrips numbers were significantly reduced by Temik in 1995 at 21 and 28 days after planting. Larval thrips numbers in 1996 did not differ among treatments. Bloom counts were not affected by treatment on any of three dates in either year. Lint yield at first harvest in Garlic Barrier-treated plots did not differ from yield in Temik-treated plots in either test. Lint yield from Temik-treated plots was significantly greater than from the untreated control. Total lint yield was significantly greater in Temik-treated plots only in 1995. Percent first harvest was not affected by treatment.

When Garlic Barrier was used in the full-season program of an in-furrow spray at planting, followed by foliar sprays applied June 7, 25, and July 24, no significant effect was observed on stand establishment at either location in 1996. Thrips damage ratings were significantly lower in Temik-treated plots at Jackson. Thrips adult numbers at Jackson were significantly reduced by Temik 21 and 28 days after planting compared to the Garlic Barrier and untreated control plots. Thrips larval numbers were significantly reduced by Temik compared to Garlic Barrier and the untreated control 13 and 34 days after planting at Jackson and 22 days after planting at Milan. Bloom counts were significantly higher in the Temik-treated plots at Jackson on the second date than in the Garlic Barrier and untreated plots but were higher on that date at Milan in the Garlic Barrier-treated plot than in the Temik and untreated plots. The total bloom count was significantly higher in the Temik-treated plot at Milan. There were no bloom count differences among treatments at Jackson. First-harvest lint yields and percent first harvest were significantly higher in Temik-treated plots at Milan. Total lint yields did not differ among treatments at either location.