

IMPACT OF COTTON APHID ON LINT YIELD

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Abstract

Effects of cotton aphid populations on cotton lint yield were studied in small plots during the 1992-1997 growing seasons. Plots were treated zero to six times with aphicides to suppress aphid populations during the fruiting period. By delaying treatment in some plots, aphid populations were allowed to develop and provide varying levels of stress over time. Aphid numbers ranged up to 750/leaf in untreated plots. In nine of ten experiments conducted during the period, lint yields from treated plots did not differ significantly from those in the untreated controls. In one experiment, lint yield from the untreated plot was significantly higher than that from the plot treated four times with insecticide. Regression of first harvest lint yield on the number of insecticide applications was significant in only one of ten studies. Regression of total lint yield on the number of insecticide applications was significant in three of ten studies. Control of developing aphid populations during the fruiting period where the aphid fungus, *Neozygites fresenii*, might be present is a high-risk management practice.