

ABSTRACT

MSc Thesis

DETERMINE THE EFFECT OF FOIAR APPLICATION ON POPULATION DYNAMICS OF COTTON PESTS, NATURAL ENEMIES, YIELDS AND LINT QUALITIES IN COTTON (*Gossypium hirsutum* L.)

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The study was conducted to evaluate the effect of some foliar fertilizers on pests, natural enemies, and yield and lint quality during the 2007 and 2008 cotton-growing seasons in Aydın. Five foliar fertilizers were applied at recommended doses and periods. Result revealed that population of *Empoasca* spp. and *Bemisia tabaci* Genn. in Nutrigold Plus and Tariş ZF, *Frankliniella* spp. in Nutrigold Zinc, Vitacal, Codex Zinc and Nutrigold Plus, *Liriomyza trifolii* Burgess were higher in Nutrigold Zinc, Tariş ZF and Nutrigold Plus and statistically important. The population of *Tetranychus* spp. was not affected by the treatments. Populations of natural enemies were also affected by the treatments. Population of Aranea in Nutrigold Zinc and Tariş ZF, Coleoptera in Vitacal, Hemiptera in Nutrigold Plus and Neuroptera in Nutrigold Plus were higher and statistically important. Yield, yield components and lint quality were not affected by the treatments. The foliar fertilizer applied did not statistically increase the yield, and affect the population dynamics of some cotton pests and naturel enemies. It was thought that the differenes on the populations in the experiments were related to relationships of between pests and naturel enemies.

Kew words: Cotton yield and quality, foliar fertilizer, pests, natural enemies