

INTEGRATION OF BIO-PESTICIDES AND COLORED STICKY TRAPS TO CONTROL ONION THRIPS, *Thrips tabaci* Lindeman (TYSANOPTERA: THIRIPIDAE) IN ONION FIELDS.

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ABSTRACT

Field studies were conducted at the college of Agriculture, Abu-Ghraib, Baghdad during the growing season 2010/2011 to evaluate the efficacy of some bio-pesticides Spinosad, the commercial formulation of the fungus *Lecanicillium muscarium* (Mycotal) and colored sticky traps to reduce the population density of onion thrips, *Thrips tabaci* Lindeman and their effects on yield and quality of onion bulbs of variety Texas Early Grano. Results indicated that foliar spraying with Spinosad in combination with blue or white sticky traps has led to a significant reduction in numerical density of onion Thrips, *T. tabaci*, population density were decreased by percentage of 37.80 and 56.30 and 45.54% for treatments of Spinosad, Spinosad with white and Spinosad with blue traps respectively, A continued effect of Spinosad on onion thrips until the end of seasons. Treatments increased onion yields by 19.7, 27.2 and 27.1% for the Spinosad, spinosad with white or blue traps respectively. Application of Mycotal significantly reduced thrips density by 36.58% , 73.83% , 72.11% and 44.63% after a week, two weeks, three weeks and four weeks after spraying respectively and keep the population density low till the end of the season. Mycotal treatment increased onion yields and the first class onions size by 72% and 78% for the tow sampling yield methods, 3 meters and a yield of 25 plants respectively. The possibility of using these bio-pesticides in combination with white or blue sticky traps as alternatives to chemical pesticides in the IPM for onion thrips, *T. tabaci* also discussed .

Key words: *Thrips tabaci* Lind. Sticky traps, *Lecanicillium muscarium*, Spinosad, onion,