



Efficiency of the coconut botanical soap insecticide on the pistachio psylla, *Agonoscena pistaciae* in field conditions

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Pistachio psylla is one of the main pests of pistachio in Iran. The farmers use various pesticides and spray trees several times against this pest. For reduction of pesticides application in pistachio orchards, a field experiment was implemented in Razavi Khorasan and South Khorasan during 2012 and different concentrations of coconut botanical soap (Palizin 1500, 2000, 2500 ppm) were compared with common pesticide (Muspilan 250 ppm). Mortality rate of eggs and nymphs of *A. pistaciae*, was calculated 1 day before and 3, 7, 14 and 21 days after spraying. Results showed there were significant difference between treatments. In Razavi Khorasan region, the mortality percentage of nymph, in 3 days after spraying for Palizin 1500, 2000, 2500 ppm and Muspilan were 56.50, 60.25, 76.25 and 87.25, respectively. Also the percentage of oviposition deterrence, in 3 days after spraying for Palizin 1500, 2000, 2500 ppm and Muspilan were 41.50, 53.75, 73.75 and 82.00, respectively. In South Khorasan region, the mortality percentage of nymph, in 3 days after spraying for Palizin 1500, 2000, 2500 ppm and Muspilan were 78.00, 48.50, 67.00 and 95.25, respectively. Also the percentage of oviposition deterrence, in 3 days after spraying for Palizin 1500, 2000, 2500 ppm and Muspilan were 58.25, 58.50, 69.00 and 85.00, respectively. Therefore, it can be concluded that coconut botanical soap (Palizin) at rate of 2500 ppm is recommended for controlling of pistachio psylla after the flowering period of pistachio orchard.

Keywords: *Agonoscena pistaciae*, Palizin, pesticide, pistachio psylla