

## ABSTRACT

### EFFECTS OF SOME NATURAL INSECTICIDES ON ROSE-GRAIN APHID (*Metopolophium dirhodum* (Walker), Hem.: Aphididae)

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The aim of the study was to investigate the effects of some natural insecticides (kaolin, insecticidal soap, neem oil soap and spinosad) against *Metopolophium dirhodum* (Walker) (Hem., Aphididae) which is harmful aphid on rose (*Rosa hybrida* L. cv. 'First Red'). Direct effects, residual effects and repellent effects of this insecticides to *M. dirhodum* were determined in greenhouse and laboratory conditions in 2010-2011. The results carried out that the efficiency of the insecticidal soap was above 50.45% during the first five day of treatment. The effect of neem oil soap in the first treatment was low (%15.09-%19.71) but this effect in the second treatment was among 36.96%-72.27%. The twice repeated kaolin applications was positively concluded. In the second application, the efficiency of kaolin reached to 66.87%. In laboratory condition the residual effects of natural insecticides were found inefficient for *M. dirhodum*. In choice assays, it was determined that kaolin, neem oil soap and insecticidal soap had repellent effect for *M. dirhodum* choosed the non insecticides part of leaflet. Neem oil soap didn't effect the *M. dirhodum*'s number of nymphes, longevity and the duration of nymphal instars. However, it has a disadvantage the fact that kaolin caused to a white particul film on the rose surface, it has estimated that *M. dirhodum* can be controlled with kaolin (one of ten day), insecticidal soap and neem oil soap (one of five-seven day) applications.

**Key words:** *Metopolophium dirhodum*, rose, kaolin, insecticidal soap, neem oil soap, spinosad