

**THE EFFECT OF TOBACCO LEAF EXTRACT INSECTICIDES
(*Nicotiana Tabacum* L.) ON THE MORTALITY OF APHIDS (*Toxoptera
Citricidus* Kirk.) ON SIAMESE ORANGE PLANTS (*Citrus Nobilis* Lour.)**

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ABSTRACT

Citrus nobilis Lour. is a horticultural commodity plant that can be consumed by all segments of society. A common pest affecting Mandarin orange plants is the citrus aphid (*Toxoptera citricidus* Kirk.). Pesticides derived from tobacco leaf extract (*Nicotiana tabacum* L.) can be used to control aphid infestations. The research aims to (a) determine the effect of using tobacco extract pesticide on aphid mortality and (b) identify effective concentrations of tobacco extract pesticide. The study was conducted from June to July 2024 at Kebun Gayeng Garden, Special Region of Yogyakarta. A Completely Randomized Design (CRD) with 5 treatments was employed: K0: control (water), K1: EDT 20%, K2: EDT 40%, K3: EDT 60%, KP: Profenofos 500 EC, each treatment replicated 6 times. Parameters observed included aphid mortality (%), aphid infestation intensity (%), and aphid population density. Data was analyzed using ANOVA at a 5% significance level followed by the Duncan Multiple Range Test (DMRT) at a 5% significance level. The results indicated that the K3 treatment with 60% tobacco leaf extract was effective in reducing the population and attack intensity of *Toxoptera citricidus*, reaching 0 individuals and 15%, respectively. It increased aphid mortality percentage to 80%, with an average death speed of 5 days, and achieved an insecticidal effectiveness averaging 93%.

Keyword : Tobacco Leaf extract, citrus aphid, siams, mandarine orange.