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Effects of different insect growth regulators (IGR) on the vegetable leafminer (*Liriomyza sativae* Blanchard, 1938) (Diptera: Agromyzidae)

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Insecticides with growth regulating properties (IGR) may adversely affect insects by regulating or inhibiting specific biochemical pathways, or processes essential for insect growth and development. The five insecticides with growth regulating properties (Lufenuron (Lufenox, Syngenta, 100 ml 100 L⁻¹); Diflubenzuron (Dimilin, Cansa, 20 g 100 L⁻¹); Pyriproxyfen (Admiral, Sumitomo, 50 ml 100 L⁻¹), Neem Azal T/S (Trifolio-M GmbH, Lahnau, Germany, 4 L 100 L⁻¹) and Cyromazine (Trigard 75 WP, Syngenta, 20 g 100 L⁻¹) were tested against pupae and larvae of *Liriomyza sativae* Blanchard on infested tomato, *Solanum lycopersicum* 'Jaledo', in the laboratory, in 2006. The IGRs were applied according to the manufacturer's recommendations. Each treatment in trials was conducted twice with five replicates. The numbers of adult leafminers emerging from samples of pupae in each treatment were compared.

According to the laboratory test results, pyriproxyfen, cyromazine, neem and lufenuron showed higher effects on the number of the emerging adults from pupae. In larvae trials, all IGRs significantly reduced leafminers as compared to non-treated control. As a result of the study, lufenuron, neem and pyriproxyfen would likely be a valuable insecticide for control of *Liriomyza sativae*.

Key words: *Liriomyza sativae*, insect growth regulators (IGR), tomato, *Solanum lycopersicum*

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