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Population Densities of Liriomyza huidobrensis (Blanchard, 1926) (Diptera: Agromyzidae) in Insecticide-Treated and Non-Treated Cucumber Producing Greenhouses in the İzmir Region

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Abstract: Liriomyza huidobrensis (Blanchard) (Diptera: Agromyzidae) is an important pest in cucumber greenhouses in Çamönü (Menderes, İzmir), Turkey. This study was carried out during the spring and autumn production seasons in 1999 and 2000 in two greenhouses belonging to a local farmer, each of them 1000 m² in size. The infested leaves from insecticide-treated and non-treated greenhouses were sampled weekly. The leaves were sampled weekly from both greenhouses and kept in our laboratory under observation to compare the number of emerging leafminer adults. Despite the applications, during three of the four seasons examined, pest density in the insecticide-treated greenhouse was not maintained below the economical threshold by insecticide applications. The overall differences between the number of adults in insecticide-treated and non-treated greenhouses were in fact minimal. During the first year there were significant differences in the density of leafminer populations, but during the second year there were no significant differences. The results of this study led us to the conclusion that non-chemical methods should be used instead of insecticides to control L. huidobrensis in cucumber greenhouses in the Menderes region.

Key Words: Liriomyza huidobrensis, population density, insecticide-treated and non-treated, cucumber, Turkey

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