Studies on the extent of damage caused by *Liriomyza trifolii* (Burgess) (Diptera: Agromyzidae) on six vegetable crops

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**ABSTRACT:** A survey was conducted to study the incidence and extent of damage caused by American serpentine leaf miner, *Liriomyza trifolii* on six vegetable crops, using an infestation index and score for the intensity of infestation in a 0 – 4 scale based on the infested area on each leaf. Among the six crops surveyed maximum infestation index was observed in ash gourd (55%) followed by cowpea (45%). The older leaves were preferred more than the younger leaves. The infestation (25%) was minimum in pumpkin and bitter gourd.©2014 Association for Advancement of Entomology

**KEY WORDS:** *Liriomyza trifolii*, incidence and extent of damage, vegetable crops.

The leaf miners, *Liriomyza* spp. are economically important phytophagous pests of several vegetable crops coming under the family Agromyzidae (Diptera). Six species of *Liriomyza* are reported as polyphagous pests (Morgan *et al*., 2000; Linden, 2004).

The American serpentine leaf miner, *Liriomyza trifolii* (Burgess) (Diptera: Agromyzidae) is a serious pest of vegetable and ornamental plants. The pest surveillance conducted in Kerala by KHDP (1998) and Smitha (2003) revealed severe incidence of *L. trifolii* on cowpea, ash gourd, bitter gourd and tomato and higher incidence of this pest was reported during the months of January to March. The damage is caused by the maggots which are leaf miners, feeding on the mesophyll tissues leaving the epidermis intact, resulting in serpentine mines on the upper leaf surface. Heavy infestation causes desiccation and drying of leaves (Chandler and Thomas, 1983). The wide host range, short life cycle and faster development of resistance to insecticides make the management of *L. trifolii* very difficult.

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