

Identification of Sex Pheromone from the Asiatic Leafroller, *Archippus breviplicanus* (Lepidoptera: Tortricidae)

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The asiatic leafroller, *Archippus breviplicanus* is a major pest on apple leaves. This pest occurs three times a year and causes to decrease economic value of apple. Therefore, this pest is currently controlled with insecticides, but environmental concerns ask a new approach for their control. One of the new possibilities is the use of sex pheromone for their monitoring and/or direct control.

To elucidate sex pheromone composition of the asiatic leafroller, abdominal tips of virgin female were extracted during their calling period. Their GC/MS analysis revealed the following 3 compounds; (*E*)11-tetradecenyl acetate(*E*11-14:Ac), (*Z*)11-tetradecenyl acetate (*Z*11-14:Ac), and tetradecyl acetate(14:Ac) with the ratio of 56:22:22.

Electroantennogram(EAG) assay was also conducted to examine biological activity of the components.

Field trapping experiments were carried out to screen the best blend, in attracting male adults, from 10:0 to 0:10 of *E*11-14:Ac and *Z*11-14:Ac, during 1997, 1998 and 1999. The 7:3 blend was found to be the most effective.

Although 14:Ac evoked high response in EAG, it was not tested in field trapping. Future studies will tell whether it is also working as a right component in their sex pheromone.