

E-11-HEXADECENYLACETATE THE FEMALE SEX-PHEROMONE
OF THE BRINJAL SHOOT AND POD BORER, LEUCINODES ORBANALIS

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Leucinodes orbanalis, Guenee (Lepidoptera: Pyralidae) is a serious pest on Brinjal (Solanum melogena) in Sri Lanka and India, causing damage to young shoots and pods of the plant. Present control methods use spraying of insecticides although this method do not offer the best solution. Investigations were carried out on the pheromones of this pest as a prospective candidate for populations monitoring or direct control.

Crushed tips of 1 day old virgin females were found to be attractive to males, by our bioassay using an olfactometer². Abdominal tips of the calling females were prepared for gas Chromatographic investigations by solid sampling technique³. GC-MS analysis of volatiles of these glands showed the presence of E-11-Hexadecenylacetate as the major component while tracer amounts of E-11-Hexadecen-1-ol was also present.

Synthetic samples of E-11-Hexadecenylacetate were attractive to males when tested in the olfactometer. Dose - response curve showed that 20 g has an activity equivalent to that of three crushed abdominal tips of virgin females. Field trials using 11-E-HDA baited sticky traps caught male in the field when the concentrations of the pheromone is 500 g and above.

(Financial assistance from NARESA (RG/83/83) and University of Kelaniya (ACD/U/RG/87/08) and help from the Dept. of Zoology, University of Sri Jayewardenepura are gratefully acknowledged).

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