

B-97: Seasonal abundance and parasitism of lepidopteran pests on a cabbage, *Brassica oleracea capitata* L. in the mid-country*

Y Ketiparachchi

(CARI, Gannoruwa, Peradeniya)

Laboratory and field investigations were carried out to study the seasonality and parasitism of lepidopteran pests on cabbage under insecticide free conditions at

CARI, Peradeniya from 1984 to 1986. The 5 major pests were *Plutella xylostella* L., *Spodoptera litura* F., *Crociodolomia binotalis* Z., *Chrysodeixis eriosoma* Doubl. and *Hellula undalis* Fab.

Plutella xylostella, *S. litura* and *C. binotalis* were more predominant than the other 2 species. *Plutella xylostella*, *S. litura* and *H. undalis* preferred plants before head formation while the other 2 species preferred plants with developing heads. Damage by *S. litura* and *H. undalis* during seedling stage adversely affected head development. Population of *H. undalis* was high during March to July. Populations of the other 4 species were higher from December to April and high from mid July to October than during the rest of the period.

Important parasitoids were *Trichogrammatoidea bactrae* (35% egg parasitism), *Apanteles plutellae* Kurdjumov (51% larval parasitism) and *Tetrastichus sokolowskii* Kurdjumov (25% pupal parasitism) on *P. xylostella*, *Telenomus remus* Nixon and *Microplitis similis* Lyle on *S. litura*, *Apanteles stantoni* Ashmead on *C. binotalis*, *Apanteles ruficrus* Haliday and *Copidosoma* sp. on *C. eriosoma* and *Diaeratiella rapae* M'Intosh on *H. undalis*, *Apanteles plutellae* suffered from hyperparasitism by *Tetrastichus sokolowskii* Kurdjumov and *Aphanogmus fijiensis* Ferr.

(*An extract from the M.Phil. thesis submitted to Postgraduate Institute of Agriculture, University of Peradeniya, in 1992).