

RELATIONSHIP OF THE FOOD OF THE HOST UPON ITS PARASITE

Attempts at the Biological Control of the Onion Caterpillar, *Spodoptera exigua* HB., by the Introduction of a Hymenopterous Egg Parasite. *Telenomus remus* Nixon.

Manuel J. Ravel

(Agricultural Research Station, Thirunelvely, Jaffna Sri Lanka)

Degrees of parasitism of *Spodoptera exigua* HB., by *Telenomus remus* was obtained on egg masses laid on waxed paper, Beetroot (*Beta vulgaris*), Castor, (*Ricinus communis*), Bocrhaavia sp. and Onion (*Allium sepa*) under "complete capacity". Under "partial capacity" the parasite avoided egg masses laid on Onion on which it became the primary pest. Apparently some property of the Onion leaves proved to be noxious and repellent. Hence the degree of the parasitism is influenced by the parasite-host-food relationship.

In early 1977 a sudden out break of the Onion caterpillar, *Spodoptera exigua* occurred in the Jaffna peninsula in Sri Lanka. This is a pest on Onion and Beetroot but migrates on reaching epidemic levels to other crops such as Chillie (*Capsicum annum*) and pulses. As commonly used insecticides failed to control this. The synthetic Pyrethroids were introduced to bring it under control.

The biological control of this pest was attempted since related species kept under economic levels of damage in Barbados *Telenomus remus* introduced from New Guinea (Simmonds 1978) But the experiments prove that *T. remus* is very selective of the food of its host before parasitism.