Manage semiloopers to prevent damage to productive flush of litchi

Symptoms of damage and period of occurrence

The period of occurrence of semiloopers in litchi growing areas of Bihar is from September to November, the peak infestation occurs in October.

The larva of semiloopers feed voraciously on lamina of young leaves leaving only the mid ribs and veins (photo). They also sometimes feed on tender shoots. Within a week only bare rachis is left on the top canopy of plants.

There is a lot of variation in the colour of larvae of different instars from black to dark brown with banded appearances. The full grown larvae are approximately 1.7-2.2 cm long. The size of the pupae is 0.8-0.9 cm and the size of the adult with fully spread wings is 2.1-2.3 cm. It completes its life cycle from larvae to adult in 15-19 days out of which larval period is 8-9. The larvae make silken threads that hang vertically between tree branches and some larvae are seen hanging on it. Silken threads serve the purpose to move about from the fully eaten twigs to undamaged twigs. The newly formed pupa are green in colour which subsequently turns brown before adult emergence. Numerous pupa are seen scattered on upper surface of leaves.

The scientific name of the pest is *Anisodes illepidaria* Guenée (family Geometridae, order Lepidoptera) more recently *Perixera illepidaria* (Guenée, [1858]).

Photo: Severe attack of semiloopers on litchi tree (Inset: fully grown larvae and pupa)

How to manage the pest?

Managing the pest is easier with prophylactic spray and biopesticides. However, if these are not available farmers can go for need based one spay of chemical pesticides at recommended dose. The following measures are suggested for its management:

- Spray neem based pesticides (Azadirachtin formulation) at manufacturers' recommended dose or neem oil @ 4 ml/ Litre water.
- Spray aqueous solution of biopesticides such as, BT based biopesticides @2g /litre or at manufacturers' recommended dose; or commercial formulation of Nuclear Polyhedrosis Virus (NPV) @250 Larval equivalent (LE) (1.5×10^{12} PIB/ha; 2 ml/Litre) in the evening.
- Alternatively, need based one spray of any of the following chemical pesticides may be done
  a. Novaluron 10 EC @ 1.5 ml/Litre
  b. Spinosad 45SC 0.4 ml/Litre
  c. Fipronil 5SC 2ml /Litre
  d. Profenfos 50 EC @ 2 ml/ Litre water
- **Always do remember "pesticides are poison" and hence use cautiously and judiciously.**

Courtesy: http://extension.entm.purdue.edu/bugscout/images/cartoons/color/large/PesticideDanger.jpg