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Management of Major Insect Pest of Chilli

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Chilli thrips: *Scirtothrips dorsalis*


Symptoms of damage:

- The infested leaves develop crinkles and curl upwards
- Elongated petiole
- Buds become brittle and drop down
- Early stage, infestation leads to stunted growth and flower production, fruit set are arrested

Identification of pest:

- Nymph: Are small, linear, easily fragile abdomen with straw yellow colour
- Adult: Fringed wings

Management:

- Inter crop with agathi (*Sesbania grandiflora)* to provide shade which regulate the thrips population
- Do not grow chilli after sorghum
- Do not follow chilli and onion mixed crop
- Sprinkle water over the seedlings to check the multiplication of thrips
- Treat seeds with imidacloprid 70% WS @ 12 g/kg of seed
- Apply carbofuran 3% G @ 33 kg/ha or phorate 10 % G @ 10 kg/ha or
- Spray any one of the following insecticide

Insecticide	Dose
Imidacloprid 17.8 % SL	3.0 ml/10 lit.
Dimethoate 30 % EC	1.0 ml/lit.
Emamectin benzoate 5 % SG	4 g/10 lit.
Ethion 50 % EC	2.0 ml/lit.
Fipronil 5 % SC	1.5 ml/lit.
Oxydemeton –Methyl 25 % EC	1.0 ml/lit.
Phosalone 35 % EC	2.0 ml/lit.
Spinosad 45 % SC	3.2 ml/10 lit.
Thiacloprid 21.7 % SC	6.0 ml/10 lit.

Tobacco cutworm: *Spodoptera litura*

Symptoms of damage:

- Newly hatched larvae scrap the green matter in the leaf


- Affected leaf looks like a papery white structure
- Later instar larvae feed by making small holes
- In severe infestations they feed voraciously on the entire lamina and petiole

Identification of pest:
Egg: Eggs are golden yellow, laid in masses and covered by silky hairs.
Larva: Are seen in groups, young caterpillars are light green with black head or black spots
Adult: Are brown in colour. Forewings are brown colour with wavy white markings, hind wings are white colour with a brown patch along the margin.

Management:
- Plough the soil to expose and kill pupae
- Castor as a trap crop
- Set up pheromone trap @15/ha
- Collect and destroy the egg masses, gregarious larvae and grown up caterpillars
- Spray SINPV @ 1.5x1012 POB/ha in evening hour
- Spray any one of the following insecticides

Insecticide	**Dose**
Emamectin benzoate 5 % SG	4 g/10 lit.
Flubendiamide 20 WDG	6.0 g /10 lit.
Indoxacarb 14.5 % SC	6.5 ml/10 lit.
Novaluron 10 % EC	7.5 ml/10 lit.
Spinosad 45 % SC	3.2 ml/10 lit.
Thiodicarb 75 % WP	2.0 g/lit.

Gram caterpillar: *Helicoverpa armigera*
Symptoms of damage:
- Early instar feeds on foliage
- Grown up larvae mainly bore into the fruits.


Identification of pest:
Eggs: Are spherical in shape and creamy white in colour, laid singly
Larva: Shows colour variation from greenish to brown
Pupa: Brown in colour, occurs in soil, leaf, pod and crop debris
Adult: Female is brownish yellow stout moth, Male is light greenish in colour with "V" shaped markings.

Management:
- Collect and destroy the infected fruits and grown up larvae
- Setup pheromone trap with Helilure at 15/ha
- Six releases of Trichogramma chilonis @50,000/ha per week coinciding with flowering time
- Release Chrysoperla carnea at weekly interval at 50,000 eggs or grubs / ha from 30 DAS.
- Spray HaNPV at 1.5x1012 POB/ha along with cotton seed oil 300 g/ha to kill larvae.
- Spray carbaryl 50 WP 2 g/lit or B. thuringiensis 2 g/lit
- Provide poison bait with carbaryl 1.25 kg, rice bran 12.5 kg, jaggery 1.25 kg and water 7.5 lit/ha or spray any one of the following insecticide
- Spray any one of the following insecticides

Insecticide	**Dose**
Emamectin benzoate 5 % SG	4 g/10 lit.
Flubendiamide 20 WDG	6.0 g /10 lit.
Indoxacarb 14.5 % SC	6.5 ml/10 lit.
Novaluron 10 % EC	7.5 ml/10 lit.
Spinosad 45 % SC	3.2 ml/10 lit.
Thiodicarb 75 % WP	2.0 g/lit.