



- @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 1.5×10^{12} 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

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.

Yellow mite : *Polyphagotarsonemus latus*

Symptoms of damage: Downward curling and crinkling of leaves, leaves with elongated petiole, stunted growth.

Identification of pest: Eggs are oval shaped and white in colour. Nymphs are white in colour. Adult is large, oval and broad and yellowish in colour.

Management

- ❖ Encourage the activity of predatory mite, *Amblyseius ovalis*
- ❖ Apply phorate 10 % G @10 kg/ha or spray any one of the following insecticide



Thrips damage



Broad mite damage



Green peach aphid



Cutworm damage



Fruit borer damage



Cutworm



Cutworm adult

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PESTS OF CHILLI AND THEIR MANAGEMENT



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Insect pests: Chilli thrips, *Scirtothrips dorsalis* (Tenebrantia:Thripidae); Green peach aphid, *Myzus persicae* (Homoptera:Aphididae); Tobacco cutworm, *Spodoptera litura* (Lepidoptera:Noctuoidea); Fruit borer, *Helicoverpa armigera* (Lepidoptera:Noctuoidea); Yellow mite or muranai mite, *Polyphagotarsonemus latus* (Trombidiformes:Tarsonemidae)

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: Nymphs are small, linear, easily fragile abdomen with straw yellow colour. Adult has 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
- ❖ Spray any one of the following insecticide: Spinosad 45 % SC @ 3.2 ml/10 lit./ Thiacloprid 21.7 % SC @ 6.0 ml/10 lit.

Green peach aphid: *Myzus persicae*

Symptoms of damage: The infested plants turn

pale with sticky appearance, leaves curled and crinkled, honeydew excrete, development of sooty mould, stunted growth of the plant.

Identification of pest: Nymphs are initially are greenish, but soon turn yellowish; Adults are yellowish green in colour

Management

- ❖ Treat seeds with imidacloprid 70% WS @12g/kg of seed
- ❖ Apply phorate 10 % G @10 kg/ha

Spray any one of the following insecticide

Insecticide	Dose
Carbosulfan 25 % EC	1.0 ml/lit.
Fipronil 5 % SC	1.0 ml/lit.
Imidacloprid 17.8 % SL	3.5 ml/10 lit.
Oxydemeton Methyl 25% EC	1.6 ml/lit.
Phosalone 35 % EC	2.0 ml/lit.
Quinalphos 25 % EC	1.0 ml/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: Eggs are golden yellow, laid in masses and covered by silky hairs; Larvae are seen in groups, young caterpillars are light green with black head or black spots; Adults 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 @12/ha
- ❖ Collect and destroy the egg masses, gregarious larvae and grown up caterpillars
- ❖ Spray SINPV @ 1.5×10^{12} 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.

Fruit borer: *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 is 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 12/ha
- ❖ Six releases of *Trichogramma chilonis*