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Insect pests of Chillies

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Major insect pests of Chilli

S.No.	Common Name	Scientific Name	Order	Family
1	Thrips	*Scirtothrips dorsalis*	Thysanoptera	Thripidae
2	Aphids	*Aphis gossypii, Myzus persicae*	Hemiptera	Aphididae
3	Whitefly	*Bemisia tabaci*	Hemiptera	Aleyrodidae
4	Leaf hoppers	*Amrasca bigutulla bigutulla, Empoasca kerri*	Hemiptera	Cicadelidae
5	Chilli yellow mite	*Polyphagotarsonemus latus*	Acarina	Tarsonemidae
		Minor insect pests		
1	Tomato fruit borer	*Helicoverpa armigera*	Lepidoptera	Noctuidae
2	White grubs	*Holotrichia consanguinia, Holotrichia serrata*	Coleoptera	Scarabaeidae
3	Tobacco caterpillar	*Spodoptera litura*	Lepidoptera	Noctuidae
		Storage pests		
1	Cigarette beetle	*Lasioderma serricorne*	Coleoptera	Anobiidae
2	Drug store beetle	*Stegobium paniceum*	Coleoptera	Anobiidae

Chilli thrips

Scientific Name- *Scirtothrips dorsalis*

Order- Thysanoptera

Family- Thripidae

Distribution: World wide

Host range: Polyphagous

Identification: The adults are slender, yellowish straw, male wingless whereas female have long, narrow wings which are fringed along the margins.

Nature of damage: The nymphs and adults lacerate the host tissue and the infested leaves start curling and crumbling. It is also attack on growing shoots, buds and flowers. The thrips act as vector of leaf curl disease.

Life cycle: The pest is active throughout the year and reproduce both sexual and parthenogenetic. The female lays about 100 eggs singly in slits which are made in leaf tissue with its sharp ovipositor. The eggs generally hatchs in 4-9 days & nymphs feeds on plant juices by laceration of leaf tissues. The nymphs pass through four stages and full fed in 4-6 days after which they descent to the ground and pupate within the soil. The prepupal and pupal stages last 1-2 and 2-4 days, respectively. Total life cycle is completed in 14-18 days and several overlapping generations in a year.

Management:

Deep ploughing in summer
Adopt judicious fertilizer and water management
Set up of blue sticky trap for monitoring thrips @ 25/ha
Predatory thrips like *Scolothirps indicus* and *Frankliothrips megalops* have been effective.
Spary the crop with dimethoate @ 0.03% or imidacloprid @ 200ml/ha.

Aphids

Scientific Name- *Aphis gossypii, Myzus persicae*

Order- Hemiptera

Family- Aphididae

Distribution: World wide

Host range: Polyphagous

Identification: Nymphs of *Aphis gossypii* are greenish brown or yellowish in colour. Adults are yellowish green to dark green, 1mm length, a pair of siphuculi near the posterior side of the abdomen. Wings when present are transparent with black veins. Adults of *M. persicae* are usually green in colour but may be pale brown to pinkish with long clave siphunculi.

Nature of damage: The aphids live in colonies on the tender portion of plants and both nymphs and adults, such the cell sap from leaves and tender apical shoots. The affected plants become weak, leaves curl up and wither, gradually drying and death of the plants. The honey dew secreted by the aphid encourages sooty mould growth which interfere the photosynthesis.

Life cycle: The alate as well as apterous females reproduce parthenogenetic, viviparous and in cooler area laid eggs. Generally, the female gives birth to 8-22 nymphs per day. The nymphs pass five stages to become adults completing the life cycle in 7-10 days. The aphids also lay eggs which hibernate.

Management:

Adopt judicious fertilizer and water management

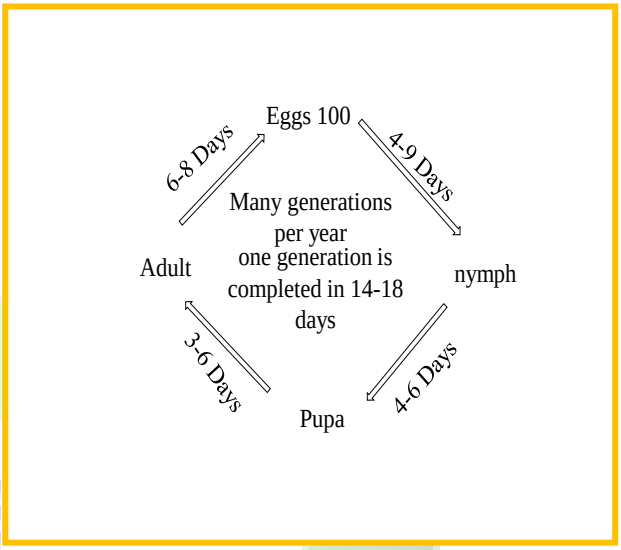

Fig 1- Life cycle of Chilli thrips

Set up of yellow sticky trap for monitoring aphids @ 25/ha.

Predators like *coccinella sp, chrysoperla carnea etc* have been effective.

Spary the crop with dimethoate @ 0.03% or imidacloprid @ 200ml/ha.

Leaf hopper

Scientific Name- *Amrasca bigutulla bigutulla, Empoasca kerri*

Order- Hemiptera

Family- Ciccadellidae

Distribution: World wide

Host range: Polyphagous

Identification: The eggs are pear shaped elongated and yellowish white in colour. Nymphs are wedge in shape and are super active. Adult are about 3mm long and greenish yellow.

Nature of damage: Nymphs and adults suck the cell sap from ventral surface of leaves and inject toxic saliva into plant tissue and the attacked leaves turn pale and then rust red, turn downwards, dry up and fall to the ground.

Life cycle: The pest breeds throughout the year and the female lay 15-30 singly pear shaped eggs on the underside of leaves, embedding them into the leaf veins. The eggs hatch in 4-10 days and give rise to nymphs. They suck cell sap from the ventral side of leaves and are passing through six stages in 7-21 days. The winged adults live for 5-7 weeks. The life cycle is completed 11-31 days and 8-10 overlapping generation in a year.

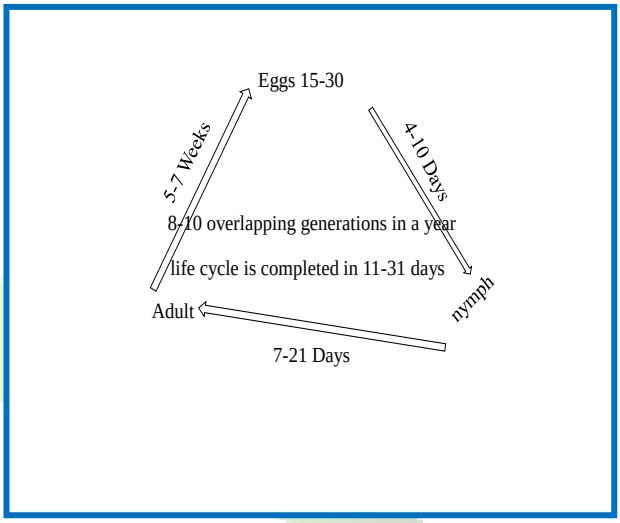

Fig 2- Life cycle of Leaf hopper

Management:

Adopt judicious fertilizer and water management

Set up of yellow sticky trap for monitoring @ 25/ha.

Predators like *coccinella sp, chrysoperla carnea etc* have been effective.

Spary the crop with dimethoate @ 0.03% or imidacloprid @ 200ml/ha.

References

WWW. ICAR.Com

A.S. Atwal and G.S. Dhaliwal. Agricultural Pests of South Asia and Their Management.

Y. K. Mathur and K. D. Upadhyay. A Text Book of Entomology