

Pest of Groundnut

Major Pests

1.	Aphids	Aphis craccivora	Aphididae	Hemiptera
2.	Leaf hopper	Empoasca kerri	Cicadellidae	Hemiptera
3.	Thrips	Scirtothrips dorsalis	Thripidae	Thysanoptera
4.	Red hairy caterpillar	Amsacta albistriga	Arctiidae	Lepidoptera
5.	Leaf Miner	Aproaerema modicella	Gelechiidae	Lepidoptera
6.	Gram pod borer	Helicoverpa armigera	Noctuidae	Lepidoptera
7.	Pod borer (Ear wig)	Anisolabis stallis	Forficulidae	Dermaptera
8.	Pod Bug	Elasmolomus sordidus	Lygaeidae	Hemiptera

Minor pests

10.	Bud borer	<i>Anarsia ephippias</i>
11.	Stem borer	<i>Sphenoptera perotetti</i>
12.	Termites	<i>Odontotermes sp.</i>
13.	White grub	<i>Holotrichia consanguinea</i>

1. Aphids - *Aphis craccivora*



Host Plants: Groundnut, beans, safflower, lablab, niger, peas, pulses and some weeds.

Damage symptoms

- Both nymphs and adults suck the sap from the leaflets and tender shoots mostly up to two months after germination.
- It results in wilting of tender shoots during hot weather.
- Leaves mottled with chlorotic or dark green spots and plant growth becomes stunted.
- Sometimes honey dew deposited on the leaves and shoots could be seen which attract the ants.

Management

- Spray the infested crop with methyl demeton 25 EC 500 ml or Imidacloprid 17.8 SL 100 -125 ml in 700 L of water per ha. As the strong point of this pest lies in its very quick multiplication the insecticidal treatment has to be repeated as soon as aphid population is found to have built again.
- Release *Chrysoperla carnea* grubs @ 5000 / ha.

2. Leaf hopper: *Empoasca kerri*

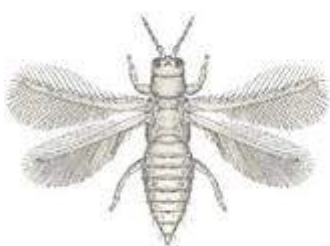


Damage symptoms

- Both adults and nymphs suck sap from young leaves, mostly from the lower surface.
- The first symptom of attack is a whitening of the veins.
- Chlorotic (yellow) patches then appear, especially at the tips of leaflets, probably caused by a reaction between the jassids salivary secretion and plant sap.
- Under severe infestation, the leaf tips become necrotic in a typical V shape, giving the crop a scorched appearance known as 'hopper burn'.

Management: Spraying the infested crop with endosulfan 35 EC 750 ml

3. Thrips: *Scirtothrips dorsalis*



Damage symptoms

- This results in white patches on the upper and necrotic patches on the lower surface of the leaves.
- It consists of distortions of the young leaflets and patchy areas of necrotic tissue that puncture and split as the leaflets grow.
- Injury is normally seen in seedlings.

Management

- Intercrop lab lab with groundnut 1:4 ratio.
- Spray methyl demeton 25 EC 500 ml or dimethoate 30 EC 500 ml/ ha

4. Red hairy caterpillar: *Amsacta albistriga*



Host range: Maize, sorghum, green gram, sesame, pearl millet, finger millet, groundnut, sunhemp, castor, cotton.

Damage symptoms

- The larvae feed on the leaves gregariously by scraping the under surface of tender leaflets leaving the upper epidermal layer intact in early stages.
- Later they feed voraciously on the leaves and main stem of plants. They march from field to field gregariously.
- Sometimes it results in the total loss of pods.
- They also feed on sorghum, cotton, finger millet, castor, pulses and cowpea, etc.

ETL: 8 egg masses/100 meter

Management

- Collect and destroy egg masses in the groundnut, cowpea and redgram.
- Collect and destroy gregarious early instar larvae on lace like leaves of inter crops viz., red gram and cowpea.
- Organize campaign by involving school children (or) general public to collect and destroy the migrating grown up caterpillars from the field.
- Dig out a trench around the field to avoid the migration of caterpillars, trap larvae and kill them.
- Use nuclear polyhedrosis virus @ 250 LE/ha.

5. Leaf miner: *Aproaeroma modicella*



Host range: Groundnut, soybean and redgram.

Damage symptoms:

- Young newly hatched green caterpillar mines into the leaflets and feed on green tissues resulting in brownish dried up patches.
- Later instars caterpillars fold the leaves together and feed on the green tissues by remaining inside.
- Severely infested crop presents a burnt-up appearance.

ETL: 1 larva per meter row or five or more active larvae per plant are found up to 30 days after seedling emergence (DAE), 10 larvae per plant at 50 DAE and 15 larvae per plant at 75 DAE or later.

Management

- Grow resistant cultivars like ICGV 86031, ICGS 156 (M 13), FDRS 10, ICG 57, 156, 541, 7016, 7404, 9883
- Sow groundnut early and synchronously in rainy and rabi season.
- Intercrop groundnut with pearl millet @ 4:1 ratio.
- Apply either endosulfan 4D or carbaryl 10 D at 25 kg/ha when the pest crosses ETL.

6. Tobacco caterpillar: *Spodoptera litura*



Host range: Groundnut, citrus, soybean, cotton, tobacco, castor, pulses, millets, safflower, banana, cabbage, tomato, sweet potato, bhendi, chillies, etc

Damage symptoms

- Neonate, green caterpillars feed on the leaves voraciously and present an appearance to the field as if grazed by cattle.
- Since this pest is nocturnal in habit larvae hide under the plants, cracks and crevices of soil and debris during the day time.
- Faecal pellets are seen on the leaves and on the ground, which is the indicator of the pest incidence.

Management

- Grow castor as a border (or) intercrop in groundnut fields to serve as indicator (or) trap crop.
- Grow resistant cultivars like ICGV 86031, FDRS 10.
- Set up pheromone trap (Pherodin SL) to monitor, attract and kill the male moths @ 12 nos./ha and change the septa once in 3 weeks.
- Apply NPV @ 250 LE/ha with crude sugar 2.5 kg/ha which is as effective as that of chlorpyrifos at 200 g a.i./ha at 7 days interval.
- Spray any one of the following per ha to control 4th to 6th instar larvae. Chlorpyrifos 2 L, dichlorvos 1 L, phenthoate 2 L or Diflubenzuron 25 WP 400 g or Methomyl 40 SP 750-850 g in 375-500 L of water/ha.

7. Gram pod borer: *Helicoverpa armigera*



Host range: Cotton, sorghum, lablab, soybean, pea, safflower, chillies, groundnut, tobacco, okra, maize, tomato.

Damage symptoms

- Small or large irregular feeding holes on the leaves.
- Presence of pale green or rose or brown or chocolate colored caterpillars with dorsal and lateral stripes and hairs on the body.
- Caterpillars also damage the fruiting bodies by entering into them.

Management

- Set up light trap to attract and kill the moths.
- Set up pheromone traps @ 12 nos./ha to attract male moths.
- Release of egg parasite *Trichogramma* spp. And egg larval parasite *Chelonus blackburnii*.
- Apply Nuclear Polyhedrosis Virus (NPV) @ 250 LE/ha.
- Spray endosulfan 35 EC 1000 ml or emamectin benzoate 5 SG 220 g or spinosad 45 SC 180-220 ml per ha in 375-500 L of water per ha

8. Pod borer (Ear wig): *Anisolabis stalli*



Damage symptoms

- Young pods showing bore holes plugged with excreta, sand particles or discoloured pulp.
- Bored pods are devoid of kernels.

Management

- Apply malathion 5D or endosulfan 4D or carbaryl 10 D at 25 kg/ha prior to sowing in areas where the ear wig is endemic.
- Repeat the soil application of any one of the above dust formulation on 40th day of sowing and incorporate in the soil during earthing up.

9. Pod bug: *Elasmolomus sordidus*

Damage symptoms

- It is a serious pest at pod maturity stage, pod harvesting stage and harvested produce in the threshing floor.
- Both nymphs and adults suck the sap from the pod in the field and produce at threshing floor.
- Freshly harvested pods have shrivelled kernels.

Management

- Set up light traps to attract and kill the bugs.
- Keep the crop refuse in the field along irrigation channel to attract the bugs which can be killed by dusting.
- Dust the groundnut stored in the gunny bags with malathion 4D.