

Groundnut Crop Pest And Disease Management

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Introduction

Groundnut (*Arachis hypogaea* L.) is one of the most important oilseed crops in the world. It is commonly known as peanut, earthnut or monkey nut. The crop is mainly cultivated for its edible oil, protein-rich seeds and fodder. Groundnut belongs to the legume family Fabaceae. Like other legumes, it has the ability to fix atmospheric nitrogen in the soil through root nodules with the help of bacteria. Because of this, groundnut improves soil fertility and is often used in crop rotation systems. Groundnut is believed to have originated in South America, particularly in regions of Brazil and Peru. From there, it spread to other parts of the world through trade and exploration. Today, it is widely cultivated in countries like India, China, Nigeria, and the United States. In India, major groundnut producing states include Gujarat, Andhra Pradesh, Tamil Nadu, Karnataka, Rajasthan, and Maharashtra. The crop is mainly grown during the Kharif.

Varieties

JL 24, ICGV 91114, and TNS 9, Kadri-6, Kadri-8,

Pest of groundnut

Leaf miner (*Aproaerema modicella*)

Symptoms: It causes leaves to become webbed and mined, turning brown and dry.

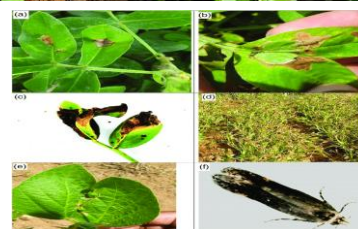
Management

- it can be controlled by removing infested leaves, using light traps, and applying neem-based or recommended chemical insecticides.

Red hairy caterpillar (*Amsacta albistriga*)

Symptoms:

- It feeds on leaves and young seedlings, causing defoliation.



Management

- Includes handpicking in small fields, using biological control agents like Trichogramma.
- Spraying insecticides such as carbaryl or spinosad.

Tobacco caterpillar or armyworm (*Spodoptera litura*)

Symptoms

- Infestation is recognized by larvae feeding on leaves, causing “skeletonization” where only the leaf veins remain, yellowing of leaves, stunted growth, and in severe cases, damage to developing pods leading to reduced yield.



Management

- Cultural methods like regular field monitoring, removing plant debris, and crop rotation to reduce pest buildup; biological control using natural enemies such as Trichogramma wasps and predatory beetles; and, if necessary, chemical control with selective insecticides like spinosad or chlorantraniliprol

Whitegrub (*Holotrichia consanguinea*.)

Symptoms

- These pests live in the soil and feed on the roots, root nodules, and underground pods, leading to stunted plant growth, yellowing of leaves, and poor pod development.
- Infested plants may wilt prematurely and can often be pulled out easily due to root damage.
- Heavy infestations can result in significant yield losses.



Management

Cultural practices such as deep plowing during the off-season help expose larvae to natural enemies, crop rotation with non-host crops reduces grub populations, and maintaining proper field sanitation minimizes breeding sites.



- Biological control using entomopathogenic nematodes or fungi can be effective, while chemical control involves soil application of insecticides like chlorpyrifos or imidacloprid

Aphids (*Aphis craccivora*)

Symptoms

- Suck sap from leaves and stems, causing yellowing, stunted growth, and can transmit viral diseases like rosette.



Management

- managed by releasing natural predators like lady beetles or using insecticidal sprays when infestations are high.

Thrips (*Caliothrips indicus*)

Symptoms

- Infested plants show symptoms such as silvery or pale streaks on the leaves, curling and distortion of young leaves, stunted growth, and reduced nodulation.
- Severe infestations can lead to poor plant establishment and lower pod yield.



Management

- Using resistant or tolerant varieties, practicing timely sowing to avoid peak thrips activity, and removing weeds that harbor thrips.
- Biological control through natural predators like predatory mites can help, while insecticides such as imidacloprid or thiamethoxam.

