

Crop Protection :: Parasite Production Methods

Pethyloid larval parasite

Goniosus is a larval ectoparasite of the genus Pethyloid wasp. It is an effective destroyer of coconut black headed caterpillar.

Culture of Pethyloid Parasites:

- The parasite is black, shiny, sharp and ant-like. An infected worm can develop between 13 and 19 parasites.
- A 1.5x2.5 cm The parasites are left for mating in a glass test tube for a day. Next day, the female parasites are separated in small glass tubes or glass vials.
- If left in polythene bags for mating, it is easy to disassemble and replace in glass tubes or canisters.
- The parasite should be fed with 50% honey mixture. Then take a fully grown coconut black headed caterpillar or rice moth caterpillar at the rate of one per glass tube or bottle. After the mother parasitic hosts the worm and inactivates, it lays small white eggs on its body.
- The incubation period of the parasite is 15 days. The parasitic larvae injure the host worm and become external parasites and feed on them.
- After the host attacks the larvae and lays eggs, the mother parasite sits on the infected worm for 2-3 days till the larvae develop slightly. It is a strange thing that parasitic worms develop in the mother's affectionate embrace. Only then do they look for the next worm. Pethyloid larval period ranges from 4-6 days.
- When the parasitic larvae feed on the host, they build a thread nest near the dead worms and become pupae. Therefore, the dead host worms along with the fully grown parasitic worms should be picked up and arranged one after the other in the gaps of folded cardboards. This facilitates the parasites to pupate on the leech. Once they become pupae, the dead host worms should be picked up and destroyed. Otherwise, they may develop pathogens like bacteria and infect parasites.
- The leeches containing the pupae should be kept in a plastic container and taken to the coconut groves and released on the trees as soon as the parasites emerge. Adult parasites can survive for up to 20 days.

Required Quantity

- Apply 10 parasites per palm 3-4 times at 10 days interval. If there are more black headed caterpillars, it is better to release more parasites.