

Forewarning of Giant African Snail *Achatina fulica* Bowdich (Gastropoda: Achatinidae) incidence on mulberry in Gobichettipalayam cluster in Tamil Nadu

N.DhahiraBeevi, Chikkanna, T.Thirunavukkarasu, A.Mani and B.B.Bindroo



In recent days mulberry gardens in Erode district are being damaged by Giant African Snail leading to drastic reduction in mulberry leaf yield up to 20-30%. It is the biggest land snail among snail species having a protective shell and measuring even about 22cm in length. It is very active during rainy season, nocturnal in nature and damages many crops like papaya, areca nut, marigold, brinjal, beans, leafy vegetables etc., including mulberry. During day time they hide below fallen leaves under the mulberry plants and come out during night time and defoliate mulberry plants. Though the incidence is observed throughout the year, higher activity is noticed in rainy season and also in flood irrigated garden than the drip irrigated ones.

Symptoms

They feed on tender leaves, shoots, petiole, tender bark and stem. They frequently climb on the plants and will be seen clinging to the leaf surface. The infested leaves have circular holes in the centre. In case of severe infestation it leads to stunted growth.

Life Cycle

Snails are hermaphrodite and lay eggs in small groups of up to 50- 300 in the soil surface surrounded by mucous substance beneath it. Hatching takes place in a week time and the young ones grow up to a year and reach sexual maturity. They lay about 1000 eggs during their life span of about 3-5 years. Snails hatching towards the end of rainy seasons take a long time to mature as they undergo hibernation and aestivation.

Management

Cultural method

- ✓ Deep ploughing helps in exposing snails and their egg masses
- ✓ Locate hiding places and destroy hiding snails
- ✓ Mary gold can be raised as trap crop around mulberry fields

Mechanical control

- ✓ Hand collection and destruction during early phase of infestation
- ✓ Cut pieces of papaya stems can be placed for attracting and trapping the snails

- ✓ Use wet gunny bags, coconut thatches, papaya leaves as bait to congregate them and destroy by immersing in 25% salt solution

Chemical control

- ✓ Sprinkle lime and bleaching powder (5:0.5) surrounding the plants and other hiding places
- ✓ Common crystal salt can be spread in the paths of snails and also in the infested area
- ✓ Metaldehyde(2.5%) pellets (SNAILKILL) can be kept randomly in the garden and hiding places/ near the infested plants which helps in increasing the sliming secretion leading to immobilization and death.
- ✓ Spray of 1% copper sulphate solution on soil and sprinkling of coffee powder deter the pest

