COMMON GREENHOUSE PESTS
- MEALYBUGS -

Mealybugs are one of the most difficult pests to manage once established on greenhouse crops often requiring repeated applications of systemic insecticides . They have piercing-sucking mouthparts that removes sap from plants. They feed in leaf and stem axils and cause stunting, leaf yellowing and distortion. They excrete honeydew which covers leaves and growth of black sooty mold fungus . Prevention is essential. Inspect incoming plants, discard infested pet plants and keep greenhouses as weed free as possible. Isolate, treat or discard infested plants. Detection can be difficult due to their tendency to hide in obscure locations. Scout regularly for white flecks or cottony residues along the leaf midribs, stem axils and undersides. Inspect other inconspicuous places like beneath the tape on plant stakes and on or in brick crevices, under benches or ground fabric where females may also go to lay eggs. Most common species occurring in greenhouses are long-tailed, citrus and obscure mealy bug. Is vital that they be identified to species if biocontrol is to be used since the widely used agent, *Cryptolaemus montrouzieri,* is more effective on citrus and obscure mealybug than on longtailed, requiring cottony egg masses for egg laying.

Common greenhouse crops prone infestations: citrus, coleus, croton, dracaena, hoya, English ivy, ficus, fuchsia, stephanotis, schefflera, hibiscus, mandevilla, strawberry plant (houseplant), jade plants, palms, prayer plants, gardenia, and orchids as well as many other foliage plants, marigolds, gerbera daisies, poinsettias, begonias and chrysanthemums.

Life Cycle

Consists of eggs (except for the longtailed mealybug that births live young), 3 (sometimes 4) nymph stages and adult. Immature crawlers mature in about 6 weeks to 2 months depending on temperature, humidity and species. Mature females die after laying eggs. Reproduction is greatly influenced by nitrogen contents of the host plant being more rapid when nitrogen content is high. Males are winged and do not cause plant damage.

Species Identification

Citrus Mealybugs (***Planococcus citri)***
Females small (less than 1/8in), with a faint gray stripe running down their back. They have short waxy filaments around an oval body with a slightly longer pair at the rear. Females lay 300 -600 eggs in cottony egg sacs. Eggs hatch into active crawlers that eventually settle down to feed where they begin to secrete wax and excrete honeydew. Males resemble females until pupation after which they emerge as winged adults living for 1-2 days but do not feed.

Longtailed Mealybugs (***Pseudococcus longispinus***)
Females have a well-defined stripe running down their back. However, longtailed mealybugs have distinctive long tails (about ¾ or more of their body length) hence their common name. Longtailed mealybugs produce live young and do not produce an egg sac.

Obscure Mealybug ***(Pseudococcus viburni)***
Very similar to citrus mealybug but their body is covered with a thicker coating of wax, the filaments around their bodies are longer, the two tail filaments are always much longer than the others and are darker and slightly larger. Obscure mealybugs are more tolerant to cold temperatures therefore has a wider distribution than other species.

Photo Credits & References:
J. K. Clark, UC Statewide IPM Program, University of California
G. Furness, Loxton Research Centre, Australia
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