

Cotton (Melon) Aphid - Life Stages



A



C



B



D

- A. Mixed apterous (non-winged) life stages with parasitized adult
 - B. Aphid mummy with parasitoid exit hole
 - C. Alate (winged) adult
 - D. Parasitoid wasp attacking nymph
- More detailed descriptions on the reverse.*

Signs & Symptoms



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- Above: Sooty mold development on open cotton
- Top middle: Infestation on hibiscus bud
- Bottom middle: Cast skins on lettuce
- Top right: Leaf curl in watermelon
- Bottom right: Honeydew accumulation

¹Nicole Casuso, Doctor of Plant Medicine Student, University of Florida & Hugh Smith, Assistant Professor, Gulf Coast Research and Education Center, University of Florida
Photo Credits: Mixed stages and mummy - Hugh Smith, University of Florida | Alate adult, Infestation on hibiscus, and Leaf curl on watermelon - Lyle Buss, University of Florida | Parasitoid - David Cappaert, Michigan State University (Bugwood.org) | Sooty mold on open cotton - Phillip Roberts, University of Georgia (Bugwood.org) | Cast skins - California Dept. of Agriculture (Bugwood.org) | Honeydew - William Lambert, University of Georgia (Bugwood.org)

Cotton (Melon) Aphid, *Aphis gossypii* Glover

General Morphology: *What does it look like?*

Like other aphids, winged (**alate**) and non-winged forms exist. Adult females may either be **oviparous** (egg-laying) or **viviparous** (live-birth rearing). Adults are 1-2mm long and may vary in color from whitish yellow to dark green. Two black projections at the end of the abdomen are called **cornicles**. When deposited, eggs are yellow but quickly turn shiny black. Nymphs are small versions of the non-winged adults and can be tan, grey, or green in color.

General Biology: *What is its life cycle?*

1. Viviparous alate females give birth to non-winged oviparous females and males.
2. Males mate with egg-laying females and eggs are deposited on host plant (occurs solely in temperate regions, not FL).
3. Nymphs hatch and reach maturity in about 1 week after undergoing several molts.
4. Most nymphs mature into non-winged adults, but a few will become alate forms (population density and temperature affect this selection).
5. Alate adults disperse in search of new hosts.

Pest Host Range: *Where is it found?*

Cotton aphid is a pest on 60+ FL plant species and has 700+ hosts worldwide. It's found throughout the temperate zone and tropics but is also a greenhouse pest. Cucurbits, cotton, and citrus are a few of the important crops they infest.

Natural Enemies: *Predators & Parasitoids*

Several predators that are natural enemies of other aphid species can also effectively control cotton aphids. These include lady beetles and their larvae, syrphid flies, parasitoid wasps, and pathogenic fungi.

Signs & Symptoms: *What type of damage does it cause?*

- ❑ Aphids often feed on the new growth of plants and the underside of leaves, this results in chlorotic tissues and yellowing as well as plant wilt.
- ❑ Heavy infestations can reduce crop yields, cause death, and result in foliar, floral, and fruit deformities.
- ❑ Honeydew, a sugary byproduct of feeding, accumulates on the surface of leaves making them susceptible to attack by sooty mold fungi.
- ❑ Cotton aphids are also vectors of several potyviruses such as cucumber mosaic virus, watermelon mosaic virus 2, and zucchini yellow mosaic virus.