

# Cotton (Melon) Aphid - Life Stages



- 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



- 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

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**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.