

Cotton mealybug (373)

Summary

- Worldwide distribution. Recorded from Australia and Fiji. Over 200 hosts: cotton, okra, papaya, potato family, and weeds. Above and below ground.
- Damage, direct: adults and nymphs suck sap. Leaves yellow, plants become stunted, flowers and fruits fall; indirect damage from dark mould growth over leaves from deposits of mealybug honeydew.
- Eggs, laid into ovisac, develop into crawlers, then adults covered in powdery wax. Females with spots on top, and 18 waxy filaments at margins. Males mosquito-like but no mouths.
- Spread by crawlers carried in wind, birds, clothing, machinery. Movement of nursery stock.
- Natural enemies: ladybird beetles, and many wasp parasitoids.
- Cultural control: (i) nursery - weed; check plants, (ii) field - remove volunteer plants and weeds; avoid overlapping crops; handpick or prune infested leaves; hot water to destroy ant nests (plants will tolerate up to 49°C); collect and burn debris after harvest.
- Chemical control: use soap solution, horticultural or white oils (**see Fact Sheet no. 56**). Avoid synthetic pesticides; only use e.g., synthetic pyrethroids to kill ants.

Common Name

Cotton mealybug, *Solenopsis mealybug*

Scientific Name

Phenacoccus solenopsis. It is possible that different biotypes exist in the Americas compared to Asia.



Photo 1. Curled, bunched tomato leaves, caused by feeding of the cotton mealybug, *Phenacoccus solenopsis*.



Photo 2. Waxy secretions on stems, leaves and fruit infested with the cotton mealybug, *Phenacoccus solenopsis*.



Photo 4. Single mealybug, *Phenacoccus solenopsis*, showing the dark marks on the back, and the waxy filaments at the edges.



Photo 3. Colony of the cotton mealybug, *Phenacoccus solenopsis*. Note, the dark marks on the back.



Photo 5. Enlargement of Photo 4, cotton mealybug, *Phenacoccus solenopsis*.



Photo 6. Slide-mounted adult female, cotton mealybug, *Phenacoccus solenopsis*.

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Information from CABI (2018) *Phenacoccus solenopsis* (cotton mealybug). Crop Protection Compendium. (<https://www.cabi.org/cpc/datasheet/109097>); and Scalenet. *Phenacoccus solenopsis* Tinsley 1898 (Pseudococcidae: Phenacoccus). (<http://scalenet.info/catalogue/Phenacoccus%20solenopsis/>); and from *Phenacoccus solenopsis* Tinsley. Plant Pests of the Middle East. (http://www.agri.huji.ac.il/mepests/pest/Phenacoccus_solenopsis/). Photo 6 Buamas C. (2010) *Solenopsis mealybug (Phenacoccus solenopsis)*: PaDIL - (<http://www.padil.gov.au>).

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