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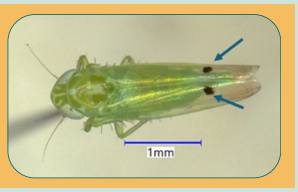
IPSN FACTSHEETS

Two-spot cotton leafhopper (*Amrasca biguttula*)



Introduction

Amrasca biguttula, known as Indian cotton jassid, Indian cotton leafhopper, green jassid, cotton leafhopper or okra leafhopper, is a species of leafhopper that causes significant leaf damage to important crops, including cotton, okra, and aubergine (eggplant).

Native to Asia and parts of Oceania, this species spans from Iran to Japan and south to Indonesia. However, in recent years, it has become invasive across Africa and the Americas [see distribution]. In the Western Hemisphere, it was first documented in the U.S. Virgin Islands and Puerto Rico in 2023, followed by Florida in 2024, after which it spread rapidly throughout the Caribbean and southern United States.

Recent modelling shows that it could proliferate on European subtropical islands and the Mediterranean basin. The species was first detected in Egypt in 2025, supporting these projections.

Host

Its full host range is not yet known, and may expand as it spreads. Its known primary hosts are from five plant families:

- Asteraceae: Sunflower (*Helianthus annuus*), Niger (*Guizotia abyssinica*)
- Cucurbitaceae: Cucumber (*Cucumis sativus*), Watermelon (*Citrullus lanatus*), Gourd (*Cucurbita* spp.)
- Fabaceae: Peanut (*Arachis hypogaea*), Soybean (*Glycine max*), Mung bean (*Vigna radiata*), Cowpea (*Vigna unguiculata*)
- Malvaceae: Okra (*Abelmoschus esculentus*), Cotton (*Gossypium* spp.), Tropical hibiscus (*Hibiscus rosa-sinensis*), Jute (*Corchorus* spp.)
- Solanaceae: Aubergine (*Solanum melongena*), Potato (*Solanum tuberosum*)

It can also feed on incidental hosts, or plants that may not support its full life cycle, such as Marigold (*Tagetes* spp.), Tomato (*Solanum lycopersicum*), and Pepper (*Capsicum annuum*).

Biology

Female leafhoppers lay 15-35 eggs in the leaf's central vein, which hatch after 6-10 days of incubation. Young leafhoppers go through five nymph stages over 7-8 days before reaching adulthood. Adults live for 11-22 days, with females typically living longer than males.

They can have up to 11 overlapping generations per year, depending on climatic conditions. Optimal leafhopper development is around 26°C, ~70% relative humidity and low rainfall. Populations usually peak during hot, relatively dry periods. Conversely, high humidity (>78%), lower temperatures, and frequent rainfall reduce population growth.

Adults are very small (2-3 mm), agile, and can drop or fly off when disturbed. They can easily be transported by infested propagation materials, wind, and travel long distances when carried by storm systems.

Symptoms

For details of the symptoms, scan or click on the QR code to access the accompanying poster.

More information

- PennState Extension: https://extension.psu.edu/invasive-insect-two-spotted-cotton-leafhopper
- Florida Department of Agriculture and Consumer Services: https://ccmedia.fdacs.gov/content/download/117692/file/two-spot-cotton-leaf-hopper-pest-alert.pdf
- College of Agricultural & Environmental Sciences of UGA: https://site.caes.uga.edu/entomologyresearch/2025/08/pest-alert-cotton-jassid-or-two-spot-cotton-leafhopper-on-hibiscus-in-ornamental-nurseries/
- EPPO: https://www.eppo.int/ACTIVITIES/plant_quarantine/alert_list_insects/amrasca_biguttula_alert_list

Acknowledgements
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