

## Cassava mealybug (329)

### Summary

- Widespread distribution. Southeast Asia, but NOT yet in Oceania. On cassava and relatives. Extremely important in Africa until effective biocontrol.
- Causes loss of leaves (in Africa, cassava used as leafy vegetable), low root yields, and poor cuttings for next crop.
- Sucking of sap causes leaf distortion, leaf fall and shoot dieback. Honeydew falls on leaves resulting in sooty moulds.
- Eggs on shoots, 'crawlers' hatch and disperse, settle, moult and become adults covered in pink wax, up to 2.5 mm long.
- Spread by crawlers; they walk, or carried by wind, vehicles, animals, birds, on clothing, or on cuttings.
- Natural enemies: ladybird beetles, and parasitoid wasps (e.g., *Apoanagyrus lopezi*).
- Cultural control: avoid sandy or nutrient-poor soils; apply manure or mineral fertilizer, and use mulch to conserve moisture; hot water - put cuttings in equal amounts boiling and cold water for 5 minutes; collect and destroy debris after harvest; crop rotation (legumes, maize).
- Chemical control: avoid insecticides after release of biocontrol agents. Otherwise, use soap solution, horticultural or white oils (see **Fact Sheet no. 56**). Only use e.g., synthetic pyrethroids to kill ants.

### Common Name

Cassava mealybug

### Scientific Name

*Phenacoccus manihoti*



Photo 1. Cassava mealybug, *Phenacoccus marginatus*, distorting terminal shoot of cassava.



Photo 2. Cassava mealybug, *Phenacoccus marginatus*, distorting terminal shoot of cassava.



Photo 4. Severe damage to terminal growth by the cassava mealybug, *Phenacoccus marginatus*.



Photo 3. Cassava mealybug, *Phenacoccus marginatus*, distorting terminal shoot of cassava. The leaves are short, distorted and bunched.



Photo 5. Dieback of cassava, caused by the cassava mealybug, *Phenacoccus marginatus*.



Photo 6. Adults and nymphs of the cassava mealybug, *Phenacoccus marginatus*.



Photo 7. The parasitoid, *Anagyrus lopezi*, of the cassava mealybug, *Phenacoccus marginatus*.

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Information from Herren HR, Neuenschwander P (1991) *Biological control of cassava pests in Africa*. Annual Review of Entomology 36:257-283; and CABI (2017) *Phenacoccus manihoti* (cassava mealybug). Crop Protection Compendium (<https://www.cabi.org/cpc/datasheet/40173>); and Cassava mealybug (*Phenacoccus manihoti*) Plantwise Knowledge Bank (<http://www.plantwise.org/KnowledgeBank/Datasheet.aspx?dsid=40173>); and from Parsa S, et al (2012) The cassava mealybug (*Phenacoccus manihoti*) in Asia: First records, potential distribution, and an identification key. PLoS ONE 7(10). (<https://doi.org/10.1371/journal.pone.0047675>). Photos 1-5 Kris Wychuys (CIAT) and Phanuwat Moonjuntha (Thai DoA). Photos 6&7 Georg Goergen, IITA-Benin.

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