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Warm water treatment of cassava mealybug

Recognize the problem

Cassava mealybug is a serious insect pest of cassava. This pest is woolly, oval, whitish-pink and about 3-5 mm long. It feeds on the tip of plants which reduces the growth of leaves and tubers. It can cause up to 50% loss of tubers and 100% loss of leaves. This pest looks like white cotton wool and is found on the tips of plants and the underside of leaves. Affected plants show signs of yellowing and curling of leaves. Mealybug numbers increase rapidly in the dry season.

Adults cassava mealybugs of 3-5 mm length. (Photo by Georg Goergen/IITA)

Background

Warm water bath technology is an effective and cheap method used to control cassava mealybug. It is used on cassava cuttings to kill the different stages of the insect, including eggs, crawlers and adults, which all live on the cuttings. None of these stages of the pest are able to survive in high temperatures. Therefore, the pest will be killed when the infected cuttings are placed in warm water. Note that water should be warm enough to kill the pest, but not so warm that it kills the cuttings.

Cassava shoot tip with deformed bunchy top caused by cassava mealybug. (Photo by IITA Image Library, CC BY-NC)

Management

- Heat the water in a big metal bucket on a fire
- Check the temperature of the water by placing a finger repeatedly in the water
- The desired temperature is reached when one is unable to hold the finger in the water for more than five seconds
- The water has then reached about 60°C and can be removed from the fire
- The cassava cuttings are then placed in the water for a minute
- Several cuttings can be put in the bucket at the same time
- Do not soak the cuttings for longer than a minute as this may cause them to be killed also
- After this treatment the cuttings are free of the cassava mealybug, and they are ready for planting

Scientific name(s) > ***Phenacoccus manihoti***

The recommendations in this factsheet are relevant to: Angola, Botswana, Malawi, Tanzania, Zambia, Zimbabwe

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