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Neem against whiteflies in cotton

Recognize the problem

Whiteflies are a major pest of cotton, and if not controlled can cause high yield losses. Whiteflies are tiny sucking insects which disturb the growth of leaves and cause them to curl. Whiteflies are difficult to control as they usually fly away or hide under leaves when sprayed.

Background

Neem trees are grown locally in many areas. Their leaves and seeds can be pounded to a fine powder and used to manage many types of insects, including whiteflies. This is a cheaper way of managing whiteflies than continuously spraying chemicals. Whiteflies are also resistant to a number of pesticides which will thus be ineffective.

Management

- Obtain neem seeds from farmers who grow it, or from a Zambia Agricultural Research Institute station such as Nanga and Mt. Makulu Research
- Pound peeled neem seeds in a mortar, then leave the powder to dry for 1 day
- Get 50 g of neem powder and soak it in a litre of water for 1 day
- After 1 day, mix 1 litre of neem liquid with 1 litre of water
- Sieve (kuseba in Tonga) the solution using a piece of cloth or a sieve to avoid the blockages of sprayer nozzle
- Add a handful of soap or detergent paste to the neem solution so that it sticks to the plant leaves
- Apply the spray at least once a week for as long as many whiteflies are present
- Spray early in the morning (before insects are active) or in the evening
- Spray close to the plant so the spray reaches the underside of leaves
- Once applied, there is no specific waiting period as the solution is not poisonous

Whiteflies on cotton. (Photo by Phillip Roberts, University of Georgia, CC BY-NC)

Neem leaves. (Photo by Thendral Muthusami, CC BY-SA)

Scientific name(s) > *Bemisia* spp.

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

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