

Ladybirds to control aphids in cotton

Recognize the problem

Cotton (Butonje in Tonga) is often attacked by aphids (njina in Tonga, inda in Nyanja). The aphids are tiny greenish or blackish, soft insects that can have wing or no wings. They are so small so that you can only just see them. They often sit in groups on the underside of cotton leaves (= aphid colonies). There they suck sap out of the leaves. Leaves curl and later become yellow.

1 to 2 mm small aphids on the underside of the leaf. (Photo by Scot Nelson)



Background

When farmers see aphids, they start spraying, often every two weeks, which means that pest scouting (kulangalanga tuuka in Tonga) is not done. However, cotton plants can tolerate low levels of aphids and there are many natural enemies that can control these aphids, such as lacewing larvae or ladybird beetles or their larvae. However, these are killed by the insecticide sprays which then causes the aphids to become an even bigger problem because they can multiply quickly. 1 aphid can produce up to 10 young per day.

Ladybird beetles are usually orange or red with black or light coloured spots on the wing covers but the colour can vary and some can be even black. Ladybird beetles are roundish, hard covered and shiny. Its larvae are black with yellow spots and 6 clearly seen legs. Ladybird larvae can feed on 50 adult aphids in 2 days, thus about 500 aphids in 3 to 4 weeks. Ladybirds also eat aphid eggs. Ladybird beetles are farmer friends that can control aphid population without the use of chemicals which will help reduce the cost of growing cotton.

Ladybird beetle (1/2 cm) feeding on aphids. (Photo by Dave Campbell, CC BY NC ND)



Management

- Scout for aphid colonies as well as ladybird beetles and larvae by walking across the field and checking 10 to 20 plants at a distance of 5 paces between plants. Do this in at least 3 areas of your field.
- Check the lower leaf, then the middle leaf and the top of the plant. Ladybirds are often near aphid colonies.
- Record the numbers of aphid colonies if possible, and/or the number of ladybird beetles and larvae per plant.
- **If you find 1 ladybird beetle or larvae every 2nd or 3rd aphid colony (this means per about 50 to 100 aphids), usually no chemical spray is needed.**
- Continue scouting every 1 to 2 weeks to check on aphids and ladybirds.
- If aphid populations still increase enormously, only then should chemical sprays be considered.

Scientific name(s) > *Aphis gossypii*

The recommendations in this factsheet are relevant to: Zambia



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