Aphid management in outdoor tomatoes

Recognize the problem

Aphids ("Kimamba", "Wadudu mafuta" or "Vidukari" in Swahili) are tiny, soft and roundish insects sitting mainly on the underside of leaves or on twigs. They can be whitish, green, yellowish, brown or black. Some of them have wings, some not. A single aphid is almost too small to see but groups of aphids can be easily seen. Many aphids can cause leaf curling. Aphids produce sticky liquids that cover leaves and stems (called honeydew).

Background

Aphids are common on many plants, but only cause problems when occurring in masses. They can multiply fast. Aphids weaken the tomato plants by sucking plant juice. Plant diseases, such as tomato viruses can be transmitted by aphids. Aphids sometimes have wings and can fly to other fields. Aphids are usually found on the underside of leaves and so are difficult to reach with pesticides.

Management

To prevent the problem:

• A healthy and strong tomato crop tolerates aphids
• Grow maize rows around tomato fields to attract the flying aphids out of the tomato field

When 5 to 10 plants of a ¼ acre field have several leaf undersides full of aphids, then consider action. But, when tomato viruses are known to be in the area then act earlier. All sprays must cover the aphids, otherwise they will not work so you should spray on the underside leaves as well as the top. Do not spray on fruiting plants. There are several methods:

• Stir 10 tablespoons liquid soap, e.g. Cera-liquid, with a bucket of water (10 litres). Spray plants every week in the evening as long as you see many aphids. This is only effective during wet weather. Test a few plants to make sure the soap isn’t so strong that it dries out the leaves.
• Fill a bucket ½ with marigold Tagetes flowers and add some water. Let it stand and ferment for 5 to 10 days, stir twice per day, then strain the fluid and add water to fill up the bucket. Spray.
• Spray Neem-based products (for example nimbecidine) maximum of 3 times. Start two weeks after transplanting. Use 1 litre of product/acre or 10 plastic-bottle-lids /20 litres water per knapsack sprayer. Or dissolve ¼ a cup grinded neem seed cake per litre of water.
• Ferment cow urine in drum for 2 weeks (you may add cow dung to make slurry), then filter; mix with water in the ratio of 1:14. Spray.
• Finely chop 20 garlic cloves, soak 1 day in 10 plastic-bottle-lids mineral oil, then add 1 bottle-lids soap, stir, add 2 litre water, stir). Spray over the entire plants max twice in 1 week interval in the season.
• Above control measures are usually enough to control aphids, and no chemicals are needed. If problems remain, seek further advice.

Scientific name(s) > Aphididae

The recommendations in this factsheet are relevant to: Kenya, Mozambique, Rwanda, Tanzania, Uganda

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