

Fruit fly management in outdoor tomatoes

Recognize the problem

Maggots of fruit flies can live and eat inside tomato fruits, causing them to rot. The flies are called "Vidudu" or "Inzi wa matunda" in Swahili, and are also known as mango fruit flies or oriental fruit flies. They are nearly 1 cm long and are like houseflies, but their bodies are coloured. They lay their eggs onto tomatoes. Maggots hatch and enter the tomato. Maggots are yellowish-white and are 0.5- 1 cm long and 2 mm thick. There are usually many in one tomato.

Background

The adult fruit flies are good fliers and find the fruits by smelling them. Fruit flies invade tomatoes from ripening fruits of nearby mango and guava trees.

Management

If possible, avoid the tomato ripening and harvesting period overlapping with the mango or guava fruit ripening season because of the movement of flies into the tomato field.

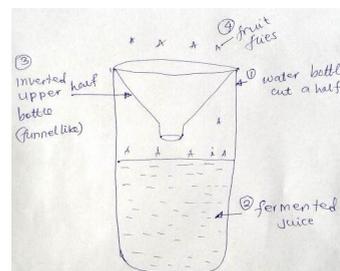
When damage is detected on an average of 1 fruit per 10 plants, consider acting quickly. At high infestation rates your tomatoes are likely to be lost. At this point no control is helpful any more.

- Remove and bury all the damaged tomatoes.
- Attract and trap flies using fermented brews:
 - Cut a plastic water bottle into 2 halves. Fill ¼ of the lower bottle with fermented mango juice, cider vinegar, fermented banana, other fermented fruit juice or local brews.
 - You may add 2-5 drops of insecticides into the fermented juice.
 - Invert the upper half of the bottle and insert it like a funnel into the lower half.
 - Hang traps in the lower canopy of nearby mango and guava trees that are at late flowering stage.
 - Place at least 10 traps per acre around the tomato field.
 - The fermented juice attracts fruit flies which get down the funnel and fall into the juice.
 - This control method only works if many farmers do so
- Grind 2 handfuls of wild basil leaves. Soak overnight in 2-3 litres of water, strain, then add 1 tablespoon of soap powder or 20 drops of soap, then spray over unripen tomatoes reaching coverage. Spray early in the morning only.
- Chemicals cannot control fruit fly larvae well because they are quick to enter fruits, and are then hidden inside.

Many ½ cm maggots in a tomato. (Photo by S. Toepfer)



Constructing fruit fly trap from plastic bottle. (Photo by Stephen Chacha)



When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

Scientific name(s) > *Bactrocera zonata*, *Bactrocera cucurbitae*

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



Authors: Adeltruda Massawe, Mansuet Tilya, Martin Kimani, Richard Musebe, Stephen Chacha, Jeremei Sembosi, Mwangi Jubilant, Horti Tengeru

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