Attract and kill: Fruit fly control

**Recognize the problem**
Fruit fly is a major pest of mango, citrus, pawpaw and other fruits. The maggots ("tumbus") live and feed inside the fruit causing it to rot.

**Background**
Like many insects, male and female fruit flies find each other using smell. The female produces a special smell called a "pheromone" when she wants to mate and lay eggs. Some plants mimic this smell by producing chemicals called "parapheromones". People cannot smell these chemicals, but male fruit flies are attracted to the smell and will fly towards it.

**Management**
A "pheromone trap" is a good and safe way to reduce the number of fruit flies. This method uses a pheromone or parapheromone to attract the male fruit flies into a trap where they are killed. Even though only the male flies are killed, this makes it more difficult for the females to find a mate to make more maggots. The fruit fly trap is made using a tutik rubber (plastic bottle) like this:

- Pass a length of twine through 2 small holes in the tutik top (cap) and tie into a knot on the inside of the cap. This makes a loop or ring of twine.
- Cut 4 holes (each 2 cm wide) on opposite sides of the tutik between the midpoint and the neck of the tutik. This is where the male flies will enter the trap. Make 4 very small holes in the bottom of the tutik to allow water to drain out of the tutik after a rain.
- Cut a piece of sponge small enough to fit through the neck of the tutik. Tie one end of a short twine around the sponge. Tie the other end of the twine to the twine ring that was put in the tutik cap. If done correctly, the sponge should hang around the centre of the tutik when the cap is put back onto the tutik. This will depend on the size of tutik used.
- Wearing gloves, create a mixture with 10 ml of parapheromone (methyl-eugenol, supplied by MAFFS) and 1 ml of an insecticide. Dip the sponge into the mixture until fully soaked. Squeeze the sponge to remove excess liquid.
- Place the cap back on the tutik with the wet sponge hanging inside. Then hang the trap on a mango branch or another tree close by. Be sure not to splash or rub any of the chemical on the outside of the tutik.
- Over time, the male fruit flies will enter the trap and be killed by the insecticide in the sponge. When there are many dead flies in the trap, the cap can be removed and the dead flies can be shaken out and buried.
- Use the traps when there are flowers and young fruits. The trap will continue to attract and kill fruit flies for 3 months during the rains and 4-5 months during the dry season. Use 9 traps/acre or 21 traps/hectare.

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 dorsalis* (previously *B. invadens*)

The recommendations in this factsheet are relevant to: Ghana, Sierra Leone

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