

PEST ALERT



Carambola Fruit Fly (*Bactrocera carambolae*)

The Carambola Fruit Fly (CFF) is originally from tropical Asia, and was introduced in South America in the 1970's.

LIFE CYCLE

The CFF infests around 28 different host plants in South America. Its favourite hosts are carambola (star apple), West-Indian cherry, mango, guava and sapodilla (dilly).

The adult female lays eggs just under the skin of the fruits, hatching after two days. The larva feeds on the fruit pulp. After 7-10 days, when the fruit matures and falls on the ground, the larva pupates in the soil, and emerges approximately 8 days later. The adult flies need around 19 days to become fully mature, before they start laying eggs, making the total life cycle around 35 days.

Mature CFF larvae have the ability to 'jump'; if they are placed on a dry surface, they curl up and jump about 10 centimeters.

SYMPTOMS AND INFESTATION

Infestations of Carambola fruit fly on fruits can be found as the dark dots, caused by egg-laying; especially on carambola, cherry and guava. Other fruits show less to no symptoms of infestation.

DISTRIBUTION

The Carambola fruit fly has spread from Suriname to Guyana, French-Guiana and to the state of Amapa in Brazil. It is especially present in cultivated areas, due to the hosts, but it is also infesting some wild hosts and might therefore be adapting to the ecosystem.

CONTROL

CFF males strongly react to the lure methyl-eugenol (a fragrance from cloves). This can be used to apply Male Annihilation Technique, in which blocks impregnated with the lure and an insecticide are spread in a large area, during at least a year, resulting in the absence of males, which are attracted by the lure and killed by the insecticide in the blocks. This technique only works if applied in a large area.

Small area control involves destroying the infested fruits by burying, submerging in water, collecting in plastic bags and exposing to the sun, all resulting in death of the larvae. Feeding infested fruits to poultry is also a good option.

In addition to destroying infested fruit, farmers can use traps to catch the adult flies. The Dome McPhail trap works with a food lure, and does not only attract the CFF but also the other local fruit flies like the *Anastrepha* species as well. In countries that do not have Carambola fruit fly, traps like the McPhail trap, and also the Jackson trap (baited with methyl-eugenol) serve in detection systems. There have been no detections of CFF in the Bahamas.

ECONOMIC IMPACT

Fruit Flies are a major threat to Caribbean Agriculture. Their larvae damage fruit making it unfit for human consumption and trade, negatively impact farm incomes and national economies. Total export losses for the region are estimated at US \$25 million, and around US \$ 500,000 for the smaller countries in the region.

WHAT CAN WE DO?

- Do NOT bring into the country any fruit or agricultural produce without the required Plant Import Permit/Approval
- When you travel, declare all agricultural items.
- Report any infested (pierced or larvae present) fruit to BAHFSA or the Department of Agriculture
- If fruit flies are present, do not sell or transport infested fruit
- Follow all control recommendations from BAHFSA or the Department of Agriculture

Safeguard our agriculture & environment!

Additional Information

For more information on Carambola Fruit Fly, contact the Plant Protection Division of BAHFSA at (242)604-7004; email: bahfsa@bahamas.gov.bs; yasminjohnson@bahamas.gov.bs



*Please include images of the following: CFF stages; adult CFF; infested fruit

*Include BAHFSA, MAMR, International Year of Plant Health Logos please