



Ministry of Food & Agriculture

Market-Oriented Agriculture Programme

MoFA DAES and GIZ
P.O. Box 9698 KIA Accra
Tel: +233-302-671414



Ghanaian-German
Development Co-operation

Fruit Fly Control is Everybody's Business

The New Fruit Fly

There is a new, highly invasive species of fruit fly in Ghana, *Bactrocera invadens*, which originated probably from Sri Lanka and India. It is quite a large fruit fly (1 cm).

The female fruit flies pierce the skin of the fruit using the ovipositor at the end of the abdomen and lay their eggs inside. Each female can lay about 700 eggs.

Fruits affected are mango, guava, citrus, papaya, avocado, cashew and many more. Vegetables such as okra, chili pepper, tomato and squash are also affected.



Female Africa invader fruit fly



Female Africa invader fruit fly on fruit



Maggots inside a fruit

This fruit fly is seriously threatening many crops in Ghana and thus the livelihood of not only thousands of farmers, but also traders & processors. We all need to do everything we can to break the life cycle of this livelihood-threatening pest.

Control Methods

Hygiene Destroy all affected fruits and vegetables in a way to prevent the maggots inside from developing and continuing the life cycle. All affected fruits and vegetables should be collected three times a week and either **buried deeply** in soil (more than 30 cm deep), **burnt** or put into a perfect **thick black plastic bag** which is sealed and 'cooked' in the sun for at least 3 – 5 days.



Collected infested fruits in securely fastened thick black polythene bags and exposed to the heat of the sun

Trapping the males (to prevent them from mating with the females)

Place plastic jar traps baited with an attractant (sex hormone) and a killing agent (commercially available as block traps) in the affected trees/plants. Usually about 5 traps/acre are needed and the materials inside will have to be refreshed every 8 weeks. The males are attracted, and fly into the traps, where they are killed by the killing agent. The traps operate on an "Attract and Kill" basis. Home-made traps can be constructed from used plastic bottles.



Commercial and home-made plastic traps in a tree



Dead fruit flies inside a trap

Spraying with GF-120 GF-120, also called SUCCESS® Appat (S.A.) is a bait compound made out of protein food substances which is also mixed with a Spinosad-based insecticide. The fruit flies are attracted to feed on the protein bait and are then killed by the poison (the insecticide) in the food. The protein bait mixture is usually diluted in the ratio of one litre to five litres of water for spraying. About 50-60 ml of the diluted mixture is sprayed **only onto an area of leaves of the size of 1 square metre** with no fruit, if possible about 2-3 m from the ground (see photo below). Spray all trees once in a week till the end of the fruiting season. Spraying with very fine particles may result in huge losses of the mixture being when wind is blowing. Avoid spraying the same branches in consecutive weeks.

Do NOT spray on fruits



Spraying of GF-120 on an area of 1 sqm

Trapping materials and GF-120 are available from your local agro-chemical dealer!

Your district MoFA staff will provide more information!

Thanks to Dr. Maxwell Billah (Dept. of Animal Biology & Conservation Science, University of Ghana) for advice & supply of photos.

Printed in July 2012
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