

# Beneficial Insects



Market Oriented  
Agriculture  
Programme

## *Acerophagus*



*Acerophagus* is a tiny parasitoid wasp that lays its eggs into the Papaya mealy bug and thus provides excellent biological control of the pest. It is mass reared for release on farms by MoFA-PPRSD in Pokuase and at Tropigha Farm in Gbefi, Volta Region. It has started naturalizing around some early release sites and provides continuous good control of the mealy bug pest. It can easily be recognized by the three dark red dots on the back of the head.



## Ladybird beetles

Natural enemies of our agricultural pests include ladybird beetles. The adult (left) and larval stages (right) of

*Cheilomenes lunata* feeding on aphids. Ladybird beetles can devour about 50 aphids a day.



*Cryptolaemus montrouzieri*, a ladybird beetle that preys on mealy bugs. The larva of the beetle resembles very much a mealybug.

Lacewings are generalist predators on thrips and several other insect pests including mites and aphids. Here it is the larval stage that does the beneficial work.

## Lacewings





## Natural Enemies of the Maize Stem Borer

Parasitoids and tachinid flies are the important natural enemies of the stem borer. *Trichogramma spp.* (parasitoids) attack the eggs of the stem borer. They are tiny little wasps, only a few mm long. Tachinid flies attack the caterpillars.



Parasitoid wasp next to a parasitized shell.



Tachinid fly

### WHAT TO DO TO FOSTER BENEFICIAL INSECTS

In general beneficial insects can be harmed by artificial pesticides, may that be insecticides, fungicides, miticides, nematocides etc. Even some organic spray based on natural ingredients can potentially harm beneficial, although a lot less.

However, spraying should always be carried out in the evening when most beneficial insects go to rest and into hiding.

An environment that is conducive for the beneficial is important in order to keep these little, free helpers on your farm.

Permanent shelter belts which offer a year round flowering array of plants as a source of nectar and pollen for the beneficals are an integral part of a farm landscape which fosters beneficial insects.

Flowering plants with relatively small flower heads, such as *Lantana*, *Gardenia* or *Zinnia* are especially good food for small parasitoid wasps such as *Trichogramma* or *Acerophagus*.