Tripar-C

The highly effective natural enemy of FCM

Tripar-C is a very small, yellow parasitic wasp that seek and parasitize various moth eggs.
Tripar-C is indigenous to Southern Africa.
Tripar-C is the only egg killer of FCM or MNB on the market.
Tripar-C can reduce FCM contamination by 50 to 70% when used as recommended.
Tripar-C is ideal for 1PM

Tripar-C attacks the egg of:

- False codling moth / FCM (Thaumatotibia leucrotreta*)
- Litchi Moth (Cryptophlebia peltastica)
- Macadamia nut borer (Thaumatotibia batrachopa)

* Previously Cryptophlebia leucrotreta

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Advantages of using Tripar-C

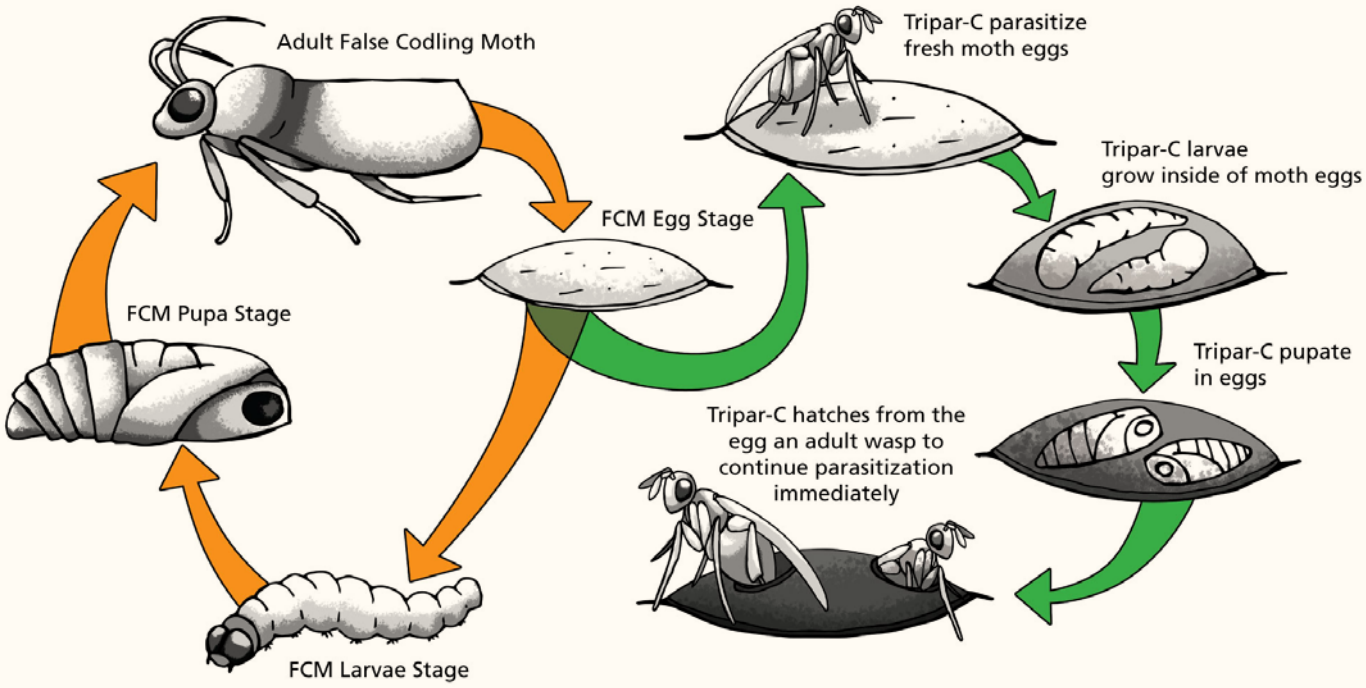
- Prevents fruit decay by eliminating FCM larvae before they hatch.
- Well-suited to integrate with other control methods such as mating disruption, granulovirus or SIT
- The only control strategy of FCM, aimed at the egg stage.
- Tripar-C wasps leave no chemical residues and are therefore completely safe to apply in both conventional and organic agricultural systems;
- Easy to use and quick to distribute in affected areas.
- Requires no tractors and spraying equipment.
- Environmentally friendly and cannot pollute the soil or water, as often is the case with conventional pesticides.
- Pests cannot develop resistance against their natural enemies, thus Tripar-C is an excellent tool to combat resistance.
- No repercussion problems can occur as Tripar-C are target specific and have no adverse effect on other beneficials.
- Effective in areas that are difficult to reach with spray-equipment, for example very large / high macadamia / citrus trees, within the navel ends of certain citrus varieties or in the dense foliage of others.

Mode of Action

Adult Tripar-C wasps lay their eggs inside the FCM egg. The (wasp) larvae that hatch, feed on the developing (moth) larvae inside the egg, and pupates after approximately 4 days. The parasitized moth eggs now change to black (see picture). After approximately 4 days, the adult Tripar-C wasp appears from the FCM egg. Tripar-C has a very short lifecycle (around 8 days from egg to adult in summer}, ensuring rapid build-up in times of egg laying by its host.

Up to three Tripar-C wasps can hatch from a single FCM egg. Tripar-C wasps prefer to parasitize fresh FCM eggs and adults live between 5 and 10 days. Daily temperatures and access to food (e.g. nectar) have an influence on its longevity (higher temperatures = shorter lifecycle).

Crops: Avocado, Citrus, Grapes, Macadamia, Litchi, Stone fruit, Pomegranate



When and how to distribute Tripar-C

Citrus

Tripar -C must be distributed in affected orchards as soon as the fruit become susceptible to moth damage (November / December) or when FCM is regularly caught in pheromone traps. Tripar-C are sent in the pupal stage as parasitized eggs on wax paper sheets. These egg sheets must be distributed shortly after receipt by stapling /clipping them to a leaf in the affected areas. Tripar-C parasitoids will usually start hatching within 2 days of receipt, and care must be taken to store and distribute the wasps appropriately.

Macadamia

Tripar-C releases starts once nuts are susceptible to MNB damage.Nut are susceptible from November till April. This allows for 6 releases of Tripar-C. Rates of release will be determined once all factors are taken into consideration.

Dosage

Release 4 to 6 releases (3-4 weeks apart) of
20 000 – 25 000 each time;
Thus 80 000 – 150 000 Tripar-C / Ha per season.

Example:
Tripar-C @ 20,000 per hectare = 20 release points
Tripar-C @ 25,000 per hectare = 25 release points

The exact dosage will depend on:

1. The type of crop or cultivar it is being used on;
2. The crop's history and susceptibility to FCM attack;
3. FCM pressure (as denoted by male trap catches) and other control options being utilized

Packaging and transport

Tripar-C are sent in the pupal stage on parasitized egg sheets – 1 000 parasitized eggs / egg sheet. The egg sheets are placed in an envelope, and sent in a polystyrene cooler box. Egg sheets should preferably be stored at a temperature of 10 - 12°C until release (not in a refrigerator).