

Using an IPM Approach in Brassicas



**Integrated
Crop Protection**
PROTECTING CROPS

An Integrated Pest Management (IPM) approach to managing Diamondback Moth (DBM) in Brassicas was demonstrated on a commercial vegetable operation in Werribee South during a summer crop. The approach involved the release of commercially reared parasitic wasps (*Diadegma*) in conjunction with three insecticide sprays. This approach:

- Reduces the likelihood of insecticide resistance by decreasing the use of Group 28 insecticides (BELT®)
- Demonstrates that effective control of DBM can be achieved with a reduced number of chemical sprays.

The Approach

STAGE	ACTION
Week 1	Transplant seedlings
Week 2 and 3	Release <i>Diadegma</i>
Week 4 or 5	Spray DiPel® (and Movento® if aphids present)
Buttoning	Spray BELT®
Near harvest	Spray XenTari®

The Trial

AAA Farms in Werribee South trialed this approach in their cauliflower crops from October 2011 – April 2012. *Diadegma* were not released into every planting but were released into each block.

Twice during the season (December and April) 50 cauliflower heads from AAA Farms and 50 from another farm in Werribee South, using a regular spray program, were compared for level of damage at harvest (measured by the presence of DBM caterpillars or pupae in heads).

During the trial the IPM approach (3 grub sprays plus release of *Diadegma*) provided an equal level of control to that achieved by using a conventional spray program (six grub sprays in a December crop and 8 grub sprays in an April crop with no release of *Diadegma*).



More on Diadegma

Diadegma semiclausum is a parasitic wasp that can kill a large percentage of larval DBM. It is worthwhile considering the level of parasitism when deciding to spray as most insecticides negatively affect *Diadegma*. The presence of parasitic wasps can be detected by spotting their cocoons on leaves. To see if larvae are parasitised, hold a few in a jar with a piece of leaf to see if any cocoons of parasitic wasps appear after a few days. Also look for the adult wasps walking and flying in crops.



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