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Cabbage White Butterfly control Fact Sheet

Backyard growers of pretty much of any of the Brassicas (cabbages, Broccoli, Brussels Spouts and Cauliflower) will no doubt be familiar with the damage caused by the cabbage white butterfly caterpillar. This green caterpillar has a voracious appetite and can whip through plants almost overnight.



The life cycle of the insect is quite simple – eggs laid on the underside of leaves hatch to small green caterpillars that eat away on the host plant until they are about 40mm long when they pupate and emerge as the adult which will of course mate and the female lay eggs on a suitable host plant.

		
Adult	Caterpillar stage	Eggs usually on underside of leaves

Control strategies – Companion planting

There are several plants that do seem to have some effect on reducing numbers of cabbage white butterfly caterpillars:

Dill when planted near to brassicas is very attractive to a species of wasp that naturally predates on the caterpillars. More wasp = less caterpillars.

Sage is a plant that seems to repel the butterfly from laying eggs so worth planting in the vegetable garden.

Land cress – is commonly recommended as a companion for brassicas as one of its common names is Dead End Trap Crop. I found the following information really quite interesting on <http://www.baag.com.au/land-cress-as-a-natural-pest-control/>

Land Cress (Barbarea vulgaris and Barbarea verna) releases chemicals which attract the Diamondback Moth (right) and the Large Cabbage Moth (left) – both small brown moths which are common pests in the vegie garden. These moths lay their eggs in the Land Cress, subsequently the emerging caterpillars feed on the Land Cress, are poisoned by the saponins in the leaves and die. So if you hear Land Cress referred to as a 'Dead End Trap Crop' – that is why.

Do not confuse Diamond Moth and Large Cabbage Moth with the Cabbage White Butterfly. Confusion of these names has led to an unsubstantiated belief that Land Cress is a Dead End Trap Crop for the Cabbage White Butterfly (Pieris rapae). Landcress attracts the butterfly, but does not kill its caterpillars. You can use it to trap the caterpillars, then pull the plant out and bin plant and pests. Alternatively, once you have a nice infestation building up on your land cress you can give it a spray with Dipel, hopefully breaking the pest infestation cycle without having to spray the vegies.



Land cress

Control strategies – Safe organic approaches

There are two very safe approaches to control caterpillars from the cabbage white butterfly:

- Neem oil
- Dipel

Eco-neem is a registered organic insecticide for the control of a broad range of chewing and sucking insects including: caterpillars, curl grubs, grasshoppers (wingless), aphids, mites, lawn armyworm, citrus leaf miner, whitefly, mealybugs and fungus gnats in soil. It will also control sooty mould. Overseas registration includes over 200 pest insects. Made from extracts of the neem tree (Azadirachtin A & B) and mixed with other plant oils to enhance it's stability and shelf-life.

Eco-neem works in multiple ways with the two main actions being suppression of insect appetite (they starve to death) and restricting growth (unable to moult successfully). Plant damage stops as soon as the insect ingests eco-neem but insect death may take several days depending on their size and type.

Currently approved in Australia for use on ornamental plants only but overseas it is approved for use on edible plants with no withholding period eg in New Zealand, Europe, UK, Japan and USA.

Eco-neem is safe for pets, birds, lizards and beneficial insects including bees. Avoid using around ponds and in aquaponics as it can be harmful to fish.



Neem oil – some information above supplied by OCP.

Dipel – is sold under a few different brand names including Natures Way Caterpillar control by Yates.

Dipel is a non-toxic, natural caterpillar control that's been providing organic protection from caterpillars for more than thirty years. Dipel only affects caterpillars in the moth and butterfly family. It is a naturally occurring bacteria that when eaten by caterpillars causes death by infection. It won't harm any other organisms and has long been a favourite of organic gardeners and commercial growers. When applied to food crops Dipel has no withholding period: vegies, fruit and salad ingredients can be washed and eaten immediately after spraying.

Dipel takes effect almost immediately after it's eaten, so it should be sprayed onto plant material as soon as caterpillars make their appearance. Best results come from spraying all over and under the leaves so that, while the caterpillar's feeding, it's ingesting as much Dipel as possible. Caterpillars infected by Dipel cease feeding almost immediately and die within one to four days. Dipel is now registered to control caterpillars on all vegetables, fruits, vines, herbs, shrubs, flowers and trees. White cabbage butterflies, cabbage moth, loopers, budworms and vine moth caterpillars are some of the most common leaf-eating and flower spoiling pests that can be controlled with Dipel.



Dipel – some information above supplied by Yates.