DiPel® DF  Tortrix moths damage to Raspberry crops

Recent warm weather has brought an increased caterpillar threat to fruit crops, including tortrix caterpillars feeding on the foliage and developing fruits of primocane fruiting raspberries. These can cause appreciable crop damage, and could become a serious crop contaminant at harvest.

To avoid residues and harm to beneficial species, it is vital to use highly selective products without harvest interval restrictions.

Where the caterpillars are very small (just emerged from eggs or at a very early stage of development), Dipel DF (Bacillus thuringiensis) is ideal as this will have no adverse effects on beneficial insects or mites at, or following spraying.

Repeated applications may be used to achieve full control.

DiPel DF is a biological insecticide based on naturally occurring Bacillus thuringiensis (Bt). It is a highly selective insecticide for use against caterpillars (larvae) of lepidopterous insects.

KEY BENEFITS

- Powerful and targeted control of Lepidoptera pests.
- Stops feeding immediately
- Does not harm bees, beneficials, mammals or fish.
- Biological insecticide - Organic classification
- Nil withholding period
- No LERAP
- Once dry, DiPel DF has excellent rainfastness.
- Multiple applications

MODE OF ACTION

DiPel DF is targeted to lepidopterous species because of their high gut pH (9.5 – 10.5).

1. The Bt toxin crystals dissolve in the midgut.
2. The Bt toxins are activated and attach to midgut receptors.
3. Pores form in the cell wall and cells rupture.
4. Bt spores will invade the insect body, death follows.
APPLICATION ADVICE

DiPel DF contains *Bacillus thuringiensis* var kurstaki with a potency of 32,000 IU/mg
Easy to use WDG formulation supplied in a 0.5Kg pack.

Rate of Use : 0.75 - 1Kg DiPel DF *
Maximum number of applications: No restriction
Latest time of application: No restriction

*Use lower rate for normal infestation of young larvae and higher rate for heavy infestations or larvae at more advanced growth stages.
Apply DiPel DF as soon as first larvae are seen, preferably during an active feeding period. Repeat every 7-10 days until the end of the hatching period. Avoid high sunlight intensity. Ensure good coverage.

<table>
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<tr>
<th>Crops</th>
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<tr>
<td><strong>Label Crops</strong></td>
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<td>Amenity vegetation, aubergine (protected), broad bean - fresh (protected), broccoli/calabrese (outdoor), brussels sprout (outdoor), cabbage (outdoor), cauliflower (outdoor), combining pea (outdoor), cucumber (protected), dwarf french bean (protected), edible podded pea (outdoor), globe artichoke (outdoor), leek (outdoor), ornamental plant production, pepper and chilli (protected), raspberry, runner bean (protected), strawberry, tomato (protected), vining pea (outdoor)</td>
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<td><strong>EAMU Crops</strong></td>
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<td>Forestry, outdoor sweetcorn, blackberry, other rubus hybrids, aubergine (protected), cayenne pepper (protected), red beet (outdoor), leek (outdoor), watercress (outdoor and protected), bulb onion (outdoor), garlic (outdoor), shallot (outdoor), broad bean (outdoor), dwarf French bean (outdoor), runner bean (outdoor), Outdoor carrot, Outdoor horseradish, Outdoor parsley root, Outdoor parsnip, Outdoor salsify, Outdoor bilberry, Outdoor blackcurrant and redcurrant, Outdoor blueberry, Outdoor cranberry, Outdoor gooseberry, Outdoor other vaccinium species, Outdoor whitecurrant, Outdoor calabrese, Outdoor celery, Outdoor choi sum, Outdoor collards (including spring greens), Outdoor kale, Outdoor oriental cabbage, Outdoor rhubarb, Protected broccoli, Protected Brussels sprout, Protected cabbage, Protected calabrese, Protected cauliflower, Protected celery, Protected choi sum, Protected collards (including spring greens), Protected kale, Protected oriental cabbage, Protected rhubarb</td>
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FURTHER INFORMATION

Details of application rates and timings are given in Nufarm labels and product literature; both of which can be accessed from our website www.nufarm.com/uk.
Alternatively, ring the Nufarm helpline on 01274 694714, Monday to Friday 9.00—17.00

Use plant protection products safely. Always read the label and product information before use.
For label and safety information, refer to the Nufarm website www.nufarm.com/uk
Nufarm UK Ltd, Wyke Lane, Wyke, Bradford, BD12 9EJ.

DiPel DF is a trademark of Valent BioSciences
Diamondback moth adult picture sourced from Wikipedia

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