



# BACTUR<sup>®</sup> WDG

A biological insecticide for the control of leafroller caterpillars and other lepidopterous larvae on various fruit and vegetable crops

ACTIVE INGREDIENT: contains 32,000 International Units/mg of *Bacillus thuringiensis* subspecies *kurstaki* (serotype 3a, 3b, strain HD 263)

**Net Contents 1kg**

 **Grosafe<sup>®</sup>**

**HSNO HAZARD CLASSIFICATION:** 6.3B, 6.4A, 9.1D

**WARNING:**

**PERSONAL PROTECTION:** This product may cause skin/eye irritation. When mixing wear a face mask or goggles, rubber gloves and overalls. Do not eat, drink or smoke while using. Wash hands and face before meals and after work. Wash protective clothing after use.

**STORAGE:** Store product in original container, tightly closed, in a cool, dry place. Keep out of reach of children, and away from foodstuffs.

**SHELF LIFE:** When stored appropriately this product should show no significant degradation for two years from date of manufacture. Contact your supplier for further information about the use of any product that is older than this.

**SPILLS AND DISPOSAL:** When dealing with spills wear personal protective clothing and equipment as described in the PERSONAL PROTECTION section. Contain and store in properly labelled, sealed drums for safe disposal. If spray mixture is spilled absorb and collect in drums as above. Deal with all spillages immediately. If contamination of drains, streams, watercourses, etc. is unavoidable, warn the local water authority.

**PRODUCT DISPOSAL:** If possible dispose of by using according to the label, otherwise dispose of in an approved landfill or bury below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots.

**CONTAINER DISPOSAL:** Burn if circumstances, especially wind direction, permit, otherwise bury in a suitable land fill.

**ENVIRONMENT:** Intended for the control of lepidoptera larvae. Avoid contamination of any water supply with chemical or empty container.

**SAFETY DATA SHEET:** A safety data sheet is available from Grosafe Chemicals Ltd.

**GENERAL INFORMATION:** **Bactur**® is a biological insecticide which acts as a stomach poison. Following ingestion, feeding stops soon after, followed by death within 2 - 4 days. **Bactur**® has no contact action and is of very low toxicity to non-target organisms including mammals, bees and fish. **Bactur**® does not harm beneficial insect predators or parasites, and is suitable for inclusion in IPM programmes.

**Bactur**® is a microbial biolarvicide for use against a range of lepidopterous insects especially leafroller species. Close monitoring and early treatment of insect infestations is recommended. As **Bactur**® must be ingested to be effective, it is important to ensure that thorough spray coverage of all treated crop surfaces is achieved. The following directions should always be followed:

1. Larvae must be actively feeding on exposed plant parts.

2. Applications must be made when larvae are in the early instars before extensive crop damage occurs.

**WEATHER:** Avoid spraying during cold conditions when caterpillar feeding is reduced. The effectiveness of **Bactur** is reduced if rain falls within 6 hours after application.

**MIXING:** Measure the required amount of **Bactur**® for the tank volume to be used. Partly fill the tank and add **Bactur**® under agitation. Add the remainder of the water ensuring complete mixing before spraying. Do not allow diluted spray to stand in the sprayer tank for more than 12 hours prior to usage.

**SURFACTANT:** The addition of a wetting agent is necessary for full spray coverage.

**EQUIPMENT:** **Bactur** can be applied with conventional ground spraying equipment. **Bactur**® is not corrosive. Rinse with clean water after use.

**DIRECTIONS FOR USE:** It is an offence to use this product on animals.

Crop	Pest	Application details
Kiwifruit, Apples, Avocados, Grapes, Citrus, Berry Fruits	Leafrollers	Apply during blossom period and continue for 2 or 3 post-blossom sprays at 2 week intervals. For the remainder of the season spray intervals may be extended to 3 weeks, or, if leafroller monitoring is carried out, applications should be made when the pest threshold levels are exceeded. (Spray intervals should not be less than 2 weeks.)
Tomatoes; Glasshouse	Tomato fruitworm, Looper caterpillar	Apply according to monitoring, or at first sign of attack. Repeat at 10 - 14 day intervals until harvest. Spray every 2 weeks when tomato fruit worm is a problem. Where motorised mist blower knapsacks are used, the restrictor should be set for dilute spraying.
Field		Apply at first sign of egg laying or young larvae. Repeat at 7 - 10 day intervals.
Vegetable Brassicas	White Butterfly Caterpillar, Diamond back moth	Apply at 7 - 10 day intervals from transplanting.
Forestry; Ornamentals	Fall webworm	Apply as soon as larvae are present and repeat as necessary.
Other fruit, vegetable or ornamental crops	Caterpillars	For control of susceptible caterpillars, apply every 7 - 10 days or as necessary.

**Application rate:**

Apply 50 g **Bactur**® / 100 litres of water (i.e. mix 1 kg **Bactur**® per 2000 litres of water) as a high volume spray to run-off.

**Note:** **Bactur**® does not control insects other than lepidopterous larvae, such as scale, aphids, or passion vine hopper. For these the strategic application of alternative insecticides is necessary.

**COMPATIBILITY:** **Bactur**® is compatible with commonly used oils, fungicides and insecticides but not with products that are either alkaline in reaction or based on heavy metals (e.g. copper based products).

**WITHOLDING PERIOD:** [ for all crops listed in recommendations ] - Nil

**EMERGENCY RESPONSE 0800 CHEMCALL: 0800 243 622**

**Registered Proprietor:**

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**WARRANTY** This formulation is warranted to contain the specified active ingredient within accepted analytical tolerance when packed. The user bears the risk for damage resulting from factors beyond the manufacturer's control. The manufacturer declines all liability for damage resulting from improper storage or use of the product.

Registered pursuant to the ACVM Act 1997 no. P 5017  
Approved under the HSNO Act. Approval Code: HSR000711  
See www.foodsafety.govt.nz for registration conditions  
See www.epa.govt.nz for approval conditions

**Date of Manufacture:**

**Batch No:**



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