

**POISON**  
**KEEP OUT OF REACH OF CHILDREN**  
**READ SAFETY DIRECTIONS BEFORE OPENING OR USING**

# Bulldock<sup>®</sup> 25 EC

## INSECTICIDE

**Active Constituent:** 25 g/L BETA-CYFLUTHRIN  
**Solvent:** 775 g/L XYLENE

**GROUP 3A INSECTICIDE**

**For control of certain insect pests of avocados, brassicas, macadamias and tomatoes  
as specified in the DIRECTIONS FOR USE table**

### GENERAL INSTRUCTIONS

#### Export of treated produce

Growers should note that suitable MRLs or import tolerances may not be established in all markets for produce treated with Bulldock. If you are growing for export, please check with Bayer CropScience for the latest information on MRLs and import tolerances before using Bulldock.

#### Insecticide Resistance Warning

Some naturally occurring insect biotypes resistant to Bulldock 25 EC and other Group **3A** insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Bulldock 25 EC or other Group **3A** insecticides are used repeatedly. The effectiveness of Bulldock 25 EC on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Bayer CropScience Pty Ltd accepts no liability for any losses that may result from the failure of Bulldock 25 EC to control resistant insects. Bulldock 25 EC may be subject to specific resistance management strategies. For further information contact your local supplier, Bayer CropScience representative or local agricultural department agronomist. Application of Bulldock 25 EC to synthetic pyrethroid resistant larvae longer than 5 mm will not only be ineffective but it may increase the level of synthetic pyrethroid resistance.

#### Mixing

Add the required quantity of Bulldock 25 EC to water in the spray tank and mix thoroughly.

#### Compatibility

Bulldock 25 EC is compatible with most commonly used insecticides and fungicides. DO NOT mix concentrates together but add each to the spray tank separately. As formulations of other manufacturers' products are beyond the control of Bayer CropScience Pty Ltd, all mixtures should be tested prior to mixing commercial quantities. As changes in climatic conditions can alter the sensitivity of plants to mixtures of sprays, Bayer CropScience cannot be responsible for the behaviour of such mixtures.

#### Application

Bulldock 25 EC can be applied by air or ground equipment. In common with other non-systemic insecticides adequate coverage with Bulldock 25 EC is essential for maximum effectiveness.

When applying by air use a minimum of 20 litres of spray mixture per hectare. Spray in crosswinds. Do not spray in calms or when wind is light and variable in direction unless smoke indicators show spray is entering the crop uniformly. Spray application should be carried out during the cooler parts of the day or night.

A spraydrift minimisation strategy should be employed at all times when aurally applying sprays to, or near, sensitive areas. The strategy envisaged is exemplified by the cotton industry's Best Management Practice Manual.

#### Special instructions for Avocados and Macadamias

##### *Dilute Spraying*

- ◆ Use a sprayer designed to apply high volumes of water up to the point of run-off and matched to the crop being sprayed.
- ◆ Set up and operate the sprayer to achieve even coverage throughout the crop canopy. Apply sufficient water to cover the crop to the point of run-off. Avoid excessive run-off.
- ◆ The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice.
- ◆ Add the amount of product specified in the Directions for Use table for each 100 L of water. Spray to the point of run-off.
- ◆ The required dilute spray volume will change and the sprayer set up and operation may also need to be changed, as the crop grows.

**Concentrate Spraying**

- ◆ Use a sprayer designed and set up for concentrate spraying (that is a sprayer which applies water volumes less than those required to reach the point of run-off) and matched to the crop being sprayed.
- ◆ Set up and operate the sprayer to achieve even coverage throughout the crop canopy using your chosen water volume.
- ◆ Determine an appropriate dilute spray volume (See Dilute Spraying above) for the crop canopy. This is needed to calculate the concentrate mixing rate.
- ◆ The mixing rate for concentrate spraying can then be calculated in the following way:

**EXAMPLE ONLY**

1. Dilute spray volume as determined above: For example 1500 L/ha
  2. Your chosen concentrate spray volume: For example 500 L/ha
  3. The concentration factor in this example is: 3X (ie  $1500 \text{ L} \div 500 \text{ L} = 3$ )
  4. If the dilute label rate is 25 mL/100 L, then the concentrate rate becomes  $3 \times 25$ , that is 75 mL/100 L of concentrate spray.
- ◆ The chosen spray volume, amount of product per 100 L of water, and the sprayer set up and operation may need to be changed as the crop grows.
  - ◆ Do not use a concentrate rate higher than that specified in the Critical Comments.
  - ◆ For further information on concentrate spraying, users are advised to consult relevant industry guidelines, undertake appropriate competency training and follow industry Best Practices.

**PROTECTION OF LIVESTOCK**

Dangerous to bees. DO NOT spray any plants in flower while bees are foraging.

**PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT**

Dangerous to fish. DO NOT contaminate ponds, waterways or drains with the chemical or used container.

**STORAGE AND DISPOSAL**

Store in the closed, original container in a cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Triple or preferably pressure rinse containers before disposal. Add rinsings to spray tank. Do not dispose of undiluted chemicals on site. If recycling, replace cap and return clean containers to recycler or designated collection point. If not recycling, break, crush, or puncture and bury empty containers in a local authority landfill. If no landfill is available, bury the containers below 500 mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

**SAFETY DIRECTIONS**

Poisonous if swallowed. Avoid inhaling vapour or spray mist. Avoid contact with eyes and skin. Will damage eyes and skin. When opening container and preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and washable hat, elbow length PVC gloves and face shield or goggles. If clothing becomes contaminated with product remove clothing immediately. If product on skin, immediately wash area with soap and water. If product in eyes, wash it out immediately with water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, face shield or goggles and contaminated clothing.

**FIRST AID**

If poisoning occurs contact a doctor or Poisons Information Centre (telephone 13 11 26). If swallowed do NOT induce vomiting. Give a glass of water. If skin contact occurs, remove contaminated clothing and wash skin thoroughly. Remove from contaminated area. Apply artificial respiration if not breathing. If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

**MATERIAL SAFETY DATA SHEET**

Additional information is listed in the Material Safety Data Sheet, which can be obtained from [www.bayercropscience.com.au](http://www.bayercropscience.com.au).

**EXCLUSION OF LIABILITY**

This product must be used strictly as directed, and in accordance with all instructions appearing on the label and in other reference material. So far as it is lawfully able to do so, Bayer CropScience Pty Ltd accepts no liability or responsibility for loss or damage arising from failure to follow such directions and instructions.

Bulldock® is a registered trademark of Bayer

NRA Approval No.: 40422/0703



<b>FLAMMABLE LIQUID, N.O.S. (contains xylene)</b>	
<b>UN No. 1993</b>	<b>PG III</b>
FOR 24 HOUR SPECIALIST ADVICE IN EMERGENCY ONLY PHONE 1800 033 111	

**DIRECTIONS FOR USE**

**Restraint**

DO NOT apply if rain is expected within 6 hours

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Avocados	Fruitspotting bug	<b>Dilute spraying</b> 25 to 50 mL/100 L water <b>Concentrate spraying</b> Refer to the Application section	7 days	Apply by dilute or concentrate spraying equipment. Regularly monitor avocado trees for fruitspotting bug presence and spray when numbers exceed action thresholds. Use the higher rate for high levels of infestation or likelihood of continuous reinfestation. Repeat application when numbers exceed the action threshold. Apply a maximum of 4 sprays with a minimum of 21 days between consecutive sprays. Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. Can be used at up to 5 X concentrate. Do not use at concentrate rates greater than 250 mL/100 L of water (i.e. 5X concentrate).
Brassicas	Budworms ( <i>Helicoverpa</i> spp.), cabbage moth, cabbage cluster caterpillar	<b>LOW VOLUME</b> 300 or 600 mL/ha <b>HIGH VOLUME</b> 40 or 80 mL/100 L	1 day except broccoli 3 days	Add a suitable wetting agent to the spray mixture. Apply on a 7 to 10 day schedule while pests are active. Use the higher rate when large larvae are present and/or when reinfestation (egg laying) is intense. <b>LOW VOLUME:</b> When applying by ground equipment, use a fine spray and preferably hollow cone nozzles. Apply in 100 to 400 L water per hectare. <b>HIGH VOLUME:</b> Use a medium or fine spray and preferably hollow cone nozzles. Apply 600 L of spray mixture per hectare just after transplanting and increase gradually to 1000 L/ha at maturity.
Macadamia (Qld, NSW, ACT, WA, only)	Macadamia nut borer	<b>Dilute spraying</b> 50 mL/100 L <b>Concentrate spraying</b> Refer to the Application section	7 days	Apply by dilute or concentrate spraying equipment. Spray to thoroughly cover nuts when pest numbers indicate, or at 2 to 3 weekly intervals during the period when pests are normally active. Use the shorter interval and the higher rate during wet weather or severe infestations. Avoid season-long application of the same insecticide. Good pest management involves the use of alternative chemical groups to avoid resistance build-up.  Apply the same total amount of product to the target crop whether applying this product by dilute or concentrate spraying methods. Can be used at up to 5 X concentrate. Do not use at concentrate rates greater than 250 mL/100 L of water (i.e. 5X concentrate).
	Fruitspotting bug	<b>Dilute spraying</b> 25 or 50 mL/100 L <b>Concentrate spraying</b> Refer to the Application section		
Tomatoes (bush and trellis) (Qld, NSW, ACT, Vic, SA, WA, NT only)	Native budworm ( <i>Helicoverpa punctigera</i> ), tomato grub ( <i>Helicoverpa armigera</i> )	<b>LOW VOLUME</b> 300 or 600 mL/ha <b>HIGH VOLUME</b> 40 or 80 mL/100 L	1 day	DO NOT apply to trellis tomatoes by aircraft. <b>Field Crops</b> <b>Programme Application:</b> Apply on a 7 to 10 day schedule while pests are active. Use the higher rate when large larvae are present and/or when reinfestation (egg laying) is intense. <b>LOW VOLUME:</b> When applying by ground equipment, use a fine spray and preferably hollow cone nozzles. Apply in 100 to 400 L water per hectare. For aerial application, apply in a minimum of 20 L water per hectare with a droplet size of 150 microns or less. <b>HIGH VOLUME:</b> Use a medium or fine spray and preferably hollow cone nozzles. Apply 200 L of spray mixture per hectare just after transplanting and increase gradually to 1000 L/ha at maturity.

**NOT TO BE USED FOR ANY PURPOSE, OR IN ANY MANNER, CONTRARY TO THIS LABEL UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION**

**WITHHOLDING PERIODS (WHP)**

**Brassicas (except Broccoli), Tomatoes: DO NOT HARVEST FOR 1 DAY AFTER APPLICATION**

**Broccoli: DO NOT HARVEST FOR 3 DAYS AFTER APPLICATION**

**Avocados, Macadamias: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION**