

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

**Tokuthion<sup>®</sup>**

**INSECTICIDE SPRAY**

**Active Constituent:** 500 g/L PROTHIOFOS  
 (an anticholinesterase compound)  
**Solvent:** 398 g/L XYLENE

GROUP 1B INSECTICIDE

**For the control of banana weevil borer in bananas, various caterpillar pests of crucifers and longtailed mealybug in table grapes and pears as specified in the DIRECTIONS FOR USE table**

## GENERAL INSTRUCTIONS

### Insecticide Resistance Warning

For insecticide resistance management, Tokuthion is a Group 1B insecticide. Some naturally occurring insect biotypes resistant to Tokuthion and other Group 1B insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Tokuthion and other Group 1B insecticides are used repeatedly. The effectiveness of Tokuthion 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 Tokuthion to control resistant insects. Tokuthion may be subject to specific resistance management strategies. For further information contact your local supplier, Bayer CropScience representative or local agricultural department agronomist.

***Insecticide Resistance Management Strategy for Banana Weevil Borer in Bananas:*** Contact your local supplier, Bayer CropScience representative or local agricultural department agronomist for details. Also available at website [www.avcare.org.au](http://www.avcare.org.au).

### Export of Treated Produce

Growers should note that MRLs or import tolerances do not exist in all markets for edible produce treated with Tokuthion. If you are growing edible produce for export, please check with Bayer CropScience Pty Ltd for the latest information on MRLs and import tolerances before using Tokuthion.

### Mixing

Mix the required quantity of Tokuthion with water in the spray vat while stirring or with agitators operating.

### Application

#### ***Dilute Spraying (table grapes and pears)***

- ◆ 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.

#### **Baiting for Banana Weevil Borer**

Set the baits from September to May at monthly intervals. Spray the cut surfaces of the bait with 20 mL of the prepared spray solution. Apply the spray once only to baits prepared from freshly cut material.

Form baits by the following methods from the corm of recently harvested stools only:

- A Cut a pointed cone with a desuckering gouge. Squirt the chemical over the surfaces of the hole and loosely reinsert the cone turned through 90°
- B Cut a single slot with a small axe and spray the cut surfaces
- C Horizontally cut open the corm, spray the surfaces and prop open the cut to about 1 cm with a small rock

As well, recently fallen stools can be cut into blocks and one surface of each block sprayed. That surface is placed on the ground.

**Compatibility**

Tokuthion is NOT compatible with Bayfidan® 250 EC on table grapes. Tokuthion is NOT compatible with Delan 750 SC. 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.

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

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**

Product and spray are poisonous if absorbed by skin contact, inhaled or swallowed. Repeated minor exposure may have a cumulative poisoning effect. Will irritate the eyes and skin. Avoid contact with eyes, skin and clothing. Do not inhale spray mist. When preparing spray wear elbow-length PVC gloves and face shield or goggles. 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, give one atropine tablet every 5 minutes until dryness of the mouth occurs. DO NOT induce vomiting. Give a glass of water. If poisoned by skin absorption or through lungs, remove any contaminated clothing, wash skin thoroughly and give atropine tablets as above. Get to a doctor or hospital quickly.

**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.

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NRA Approval No.: 33087/0903



FLAMMABLE LIQUID, N.O.S. (contains xylene)		
UN No. 1993	PG III	HAZCHEM 3[Y]
FOR 24 HOUR SPECIALIST ADVICE IN EMERGENCY ONLY PHONE 1800 033 111		

## DIRECTIONS FOR USE

CROP	PEST	RATE	WHP	CRITICAL COMMENTS
Bananas	Banana weevil borer (Qld, NSW, NT, WA only)	1 L/100 L or 330 mL/100 L	-	Apply 500-750 mL spray mixture/stool. Apply spray to the lower 30 cm of the butt and to the surrounding soil to a radius of 30 cm. Apply at time of maximum weevil activity: (a) in spring (September to November) OR (b) in late summer/autumn (February to April). Apply at the higher rate where maximum residual control is required. Use the lower rate where effective knockdown is required and a shorter residual is acceptable or soil movement is likely to remove the soil containing the chemical away from the base of the plant. Re-treat as required. One application of Tokuthion Insecticide Spray at the higher rate per year should be adequate for banana weevil borer control in sub-tropical areas. Effective control of banana weevil borer is unlikely unless treatment is accompanied by sound management practice to ensure good plant hygiene. Plants should be regularly stripped of old stems and unwanted suckers. Weeds and trash should be cleared from surrounding soil.
Bananas (harvested or fallen stools)		330 mL/100 L		<b>Refer to "Baiting for Banana Weevil Borer" under GENERAL INSTRUCTIONS for directions on setting baits.</b> <b>Note:</b> Do not apply this technique to stools carrying bunches. This technique is not recommended for populations rated at two weevils per trap or greater. Use in conjunction with standard soil treatment with a registered insecticide to combat moderate to high population levels.
Broccoli, Brussels sprouts, Cabbage, Chinese cabbage, Kale, Kohlrabi	Cabbage centre grub, cabbage moth, cabbage white butterfly, cluster caterpillar <i>Helicoverpa</i> spp.	150 mL/100 L or 1.5 L/ha	7 days	Apply as an overall spray when pests are first seen and repeat at 7 day intervals or as required. Add a wetting agent. Tokuthion may be applied through ground rigs or aircraft.
Table Grapes only	Longtailed mealybug (WA, NT only)	<b>Dilute spraying</b> 100 mL/100 L	8 weeks	Apply by dilute spraying equipment in early to mid-December after bunch and berry thinning is completed. Spray both sides of vine thoroughly to run-off using at least 2000 L water/ha. Refer to the <b>Application</b> section. <b>Note:</b> Concentrate spraying is not appropriate for this use.
	Longtailed mealybug (Vic, SA only)			Apply once immediately after fruit set. Apply by dilute spraying equipment. Spray both sides of vine thoroughly to run-off using at least 2000 L water/ha. Refer to the <b>Application</b> section. <b>Note:</b> Concentrate spraying is not appropriate for this use. Addition of an insecticide for lightbrown apple moth is unnecessary when Tokuthion is used.
Pears	Longtailed mealybug (Vic, SA only)	<b>Dilute spraying</b> 100 mL/100 L	8 weeks	Apply by dilute spraying equipment. Mix with semi-dormant oil at label rate. Apply at or around green-tip when crawlers become active under bark scales. Spray to run-off to aid penetration behind bark scales. Refer to the <b>Application</b> section. <b>Note:</b> Concentrate spraying is not appropriate for this use. Follow up sprays of other suitable insecticides will be required later in the season when crawlers again become active. This product may be used in conjunction with integrated mite control programs using the predatory mite <i>Typhlodromus occidentalis</i> but not <i>Typhlodromus pyri</i> .
	Mealybug (Qld, NSW, ACT, WA only)			

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

## WITHHOLDING PERIODS (WHP)

**Crucifers: DO NOT HARVEST FOR 7 DAYS AFTER APPLICATION**  
**Pears, table grapes: DO NOT HARVEST FOR 8 WEEKS AFTER APPLICATION**

