

**READ SAFETY DIRECTIONS BEFORE OPENING OR USING**



# Quarterback Insecticide

**ACTIVE CONSTITUENT: 200 g/L CHLORANTRANILIPROLE**

GROUP	<b>28</b>	INSECTICIDE
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**For the Control of African Black Beetle, Argentine Stem Weevil,  
Argentinian Scarab, Billbugs and other Insect Pests in Turf**

**IMPORTANT: READ THIS LEAFLET BEFORE USING THIS PRODUCT**

APVMA Approval No.: 89878/135961CO



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## DIRECTIONS FOR USE

### Restraints

**DO NOT** apply when the soil is saturated with water as adequate distribution of the active ingredient vertically in the soil profile cannot be achieved under this condition.

**DO NOT** apply more than 2.8 L per hectare per year in broadcast applications to turfgrass.

**DO NOT** apply if heavy rains or storms are forecast within 3 days.

**DO NOT** irrigate to the point of runoff for at least 3 days after application.

### Spray Drift Restraints

Specific definitions for terms used in this section of the label can be found at [apvma.gov.au/spraydrift](http://apvma.gov.au/spraydrift)  
**DO NOT** allow bystanders to come into contact with the spray cloud.

**DO NOT** apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zone in the relevant buffer zone table below provides guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

**DO NOT** apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

**DO NOT** apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings 1 to 2 hours before sunset and persist until 1 to 2 hours after sunrise.

### Mandatory Buffer Zones

Application Rate	Bystander areas	Natural Aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to 1.5 L/ha	Zero metres	10 metres	Zero metres	Zero metres	Zero metres

Situation	Pest	Rate	Critical Comments
Applications should not be made when the soil is saturated with water because adequate distribution of the active ingredient vertically in the soil profile cannot be achieved under this condition. As is the case with any insecticide applied to turfgrass for beetle larvae control, optimal results will be achieved if the product is irrigated into the turf immediately after application.			
<b>Turf &amp; Lawns</b> including commercial turf and residential lawn areas such as; <b>Golf courses, Sports grounds, Bowling Greens, Racecourses, Turf Farms, Parks and other sport and recreational turfgrass areas</b>	Beetle larvae including; African Black Beetle ( <i>Heteronychus arator</i> )	750 mL to 1.5 L per ha  (7.5 to 15 mL per 100 square metres)	Apply before or at peak egg hatch for maximum control (typically mid-September). Apply the higher rate for early season (mid-September) application where long residual protection is required, or in later season applications (mid-December onwards) when less sensitive mid instar grubs are present at the time of application, or in cases of high pest pressure. For optimal control, irrigate with approximately 6 mm of water immediately after application.
	Argentinian Scarab ( <i>Cyclocephala signaticollis</i> )		Apply before or at peak egg hatch for maximum control (typically mid-December). Use the higher application rates for later season applications when less sensitive mid instar grubs are present at the time of application or in cases of high pest pressure. For optimal control, irrigate with approximately 6 mm of water immediately after application.

Situation	Pest	Rate	Critical Comments
<b>Turf &amp; Lawns</b> including commercial turf and residential lawn areas such as; <b>Golf courses, Sports grounds, Bowling Greens, Racecourses, Turf Farms, Parks and other sport and recreational turfgrass areas</b>	Argentine Stem Weevil larvae ( <i>Listronotus bonariensis</i> ), Billbug larvae ( <i>Sphenophorus brunnipennis</i> )	750 mL to 1.5 L per ha  (7.5 to 15 mL per 100 square metres)	Apply early season (mid-September) applications when overwintered adults are first observed, to prevent damage and population build up. Early application is essential to prevent grass damage due to feeding. Use the higher application rates when extended residual performance is required or for later season applications (mid-December onwards) or in cases of high pest pressure. For optimal control, irrigate with approximately 6 mm of water immediately after application.
	Caterpillars including; Black Cutworm ( <i>Agrotis ipsilon</i> ), Lawn Armyworm ( <i>Spodoptera mauritia</i> ), Sod Webworm ( <i>Herpetogramma licarsialis</i> )	750 mL per ha  (7.5 mL per 100 square metres)	To ensure optimum control, delay watering (irrigation) or mowing for 24 hours after application.

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

#### WITHHOLDING PERIOD

**DO NOT** graze treated turf/lawn or feed turf/lawn clippings from any treated area to poultry or livestock.

#### GENERAL INSTRUCTIONS

Quarterback Insecticide is an anthranilic diamide insecticide in the form of a suspension concentrate (SC).

Quarterback Insecticide delivers excellent preventative performance, with optimal results achieved with application early in the season (mid-September) with the appearance of overwintering adult pests. The long residual performance of Quarterback Insecticide will provide up to 6 months protection at the higher application rates. Curative control with Quarterback Insecticide on pest outbreaks later in the season (mid-December onwards) can be achieved using the higher recommended application rates.

#### Mixing

Prior to mixing, start with clean, well maintained application equipment.

Fill spray tank to a quarter to half full of water amount to be used. Measure the amount of Quarterback Insecticide required for the area to be sprayed. Add Quarterback Insecticide directly to spray tank with the agitation engaged. Mix thoroughly to disperse the insecticide. Once dispersed, the material must be kept in suspension at all times by continuous agitation. Use mechanical or hydraulic means, DO NOT use air agitation, premix or slurry.

If spray solution is left standing, ensure thorough re-agitation of the spray mix until fully resuspended. DO NOT allow spray mix to sit overnight, as resuspension may be difficult.

#### Compatibility

As formulations of other manufacturer's products are beyond the control of Turf Culture, and the quality of water may vary with location, all mixtures should be tested prior to mixing commercial quantities.

#### Application

- Apply extremely coarse droplets using nozzles such as Turbo Floodjet\* (TF5) or Turfjet\* (TTJ10).
- Spray with at least 400 L of water/ha to ensure even coverage.

- The required water volume may be determined by applying different test volumes, using different settings on the sprayer, from industry guidelines or expert advice.
- Note that the amount of product specified in the DIRECTIONS FOR USE is per hectare of product. You will need to determine your spray rate per hectare before deciding on the amount of product to add to the tank.
- For optimal control, irrigate with approximately 6 mm of water immediately after application (except where treating for caterpillars, when irrigation and mowing should be delayed for 24 hours).

### Spray Timing

African Black Beetle / Argentinian Scarab: Quarterback Insecticide may be applied from spring onwards for preventative control of these species infesting turfgrass. The need for an application may be based on historical monitoring of the site, previous records or experiences, current season adult trapping or other methods.

Argentine Stem Weevil / Billbug: Quarterback Insecticide should be applied when overwintered adults are first observed in early spring (mid-September) to prevent damage in late spring. An application at this time will also give excellent control of African Black Beetle.

Caterpillars: Quarterback Insecticide will provide excellent curative caterpillar control in turfgrass and should be applied when pests/damage is observed.

### Spray Equipment Cleanout

Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove. Drain spray equipment. Thoroughly rinse sprayer and flush hoses, boom and nozzles with clean water. Clean all other associated application equipment.

Take all necessary safety precautions when cleaning equipment. DO NOT clean near wells, water sources or desirable vegetation. Dispose of waste rinse water in accordance with local regulations.

### INSECTICIDE RESISTANCE WARNING

GROUP	28	INSECTICIDE
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For insecticide resistance management Quarterback Insecticide is a Group 28 insecticide. Some naturally occurring insect biotypes resistant to Quarterback Insecticide and other Group 28 insecticides may exist through normal genetic variability in any insect population. The resistant individuals can eventually dominate the insect population if Quarterback Insecticide and other Group 28 insecticides are used repeatedly. The effectiveness of Quarterback Insecticide on resistant individuals could be significantly reduced. Since occurrence of resistant individuals is difficult to detect prior to use, Turf Culture accepts no liability for any losses that may result from failure of Quarterback Insecticide to control resistant insects. Quarterback Insecticide may be subject to specific resistance management strategies. To help prevent the development of resistance to Quarterback Insecticide, use Quarterback Insecticide in accordance with the current Insecticide Resistance Management (IRM) strategy for your region. For further information contact your supplier, Turf Culture representative or local agricultural department agronomist.

### PRECAUTIONS

#### Re-entry Period

No re-entry interval is required. Re-entry is permitted immediately after spraying.

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

Very toxic to aquatic life. DO NOT contaminate wetlands or watercourses with this product or used containers.

### STORAGE AND DISPOSAL

#### KEEP OUT OF REACH OF CHILDREN

Store in the closed, original container in a cool, well ventilated area. DO NOT store for prolonged periods in direct sunlight. Triple-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 deliver empty packaging to an approved waste management facility. If an approved waste management facility is not available, bury the empty packaging 500 mm below the surface in a disposal pit specifically marked and set up

for this purpose clear of waterways, desirable vegetation and tree roots, in compliance with Local, State or Territory government regulations. DO NOT burn empty containers or product.

**SAFETY DIRECTIONS**

Nil. No Personal Protective Equipment (PPE) required.

**FIRST AID INSTRUCTIONS**

First aid is not generally required. If in doubt, contact a Poisons Information Centre (*Phone Australia 13 11 26*) or a doctor.

**SAFETY DATA SHEET**

For further information refer to the Safety Data Sheet (SDS), which is available from the supplier or from the manufacturer's website: [www.turfculture.com.au](http://www.turfculture.com.au)

**CONDITIONS OF SALE**

The use of Quarterback Insecticide being beyond the control of the manufacturer, no warranty expressed or implied is given by Turf Culture regarding its suitability, fitness or efficiency for any purpose for which it is used by the buyer, whether in accordance with the directions or not and Turf Culture accepts with no responsibility for any consequences whatsoever resulting from the use of this product.

In a Transport Emergency Dial 000 Police or Fire Brigade