



Quarterback Insecticide

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

**For the Control of African Black
Beetle, Argentine Stem Weevil,
Argentinian Scarab, Billbugs and
Caterpillars including Black Cutworm
& Lawn Armyworm in Turf**

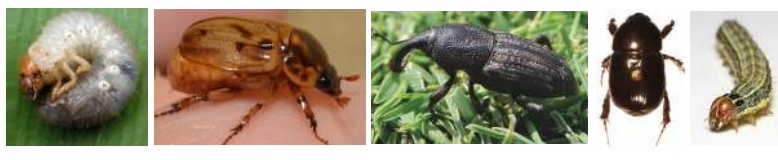
"Innovative & Professional Turf Products"

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APVMA Product No.: 89878





Quarterback Insecticide

For the Control of African Black Beetle, Argentine Stem Weevil, Argentinian Scarab, Billbugs and Caterpillars including Black Cutworm & Lawn Armyworm in Turf & Lawns

Technical Brief

Active Constituent:	200 g/L Chlorantraniliprole
Chemical Family:	Diamides
FRAC Code:	28 - Ryanodine receptor modulators (Nerve and muscle action)
Formulation:	Suspension Concentrate (SC)
Mode of Action:	Chlorantraniliprole binds and activates ryanodine receptors, located in the sarcoendoplasmic reticulum, to release stored intracellular calcium into the cytoplasm. Sustained exposure to chlorantraniliprole leads to impaired regulation of muscle contraction followed by complete muscle contraction, paralysis and ensuing death. Chlorantraniliprole works through both ingestion and contact.
Behaviour in Plants:	Chlorantraniliprole is xylem-mobile, allowing its absorption by the plant and translocation in aerial parts, thereby providing effective control against chewing insect pests.

Benefits

- Broad spectrum control of major turf / lawn pests
- Strong and long residual activity, up to 6 months protection when using the high application rate
- Safe to use on any and all turf / lawn types & varieties
- Unscheduled (exempt from poison scheduling)
- No Personal Protective Equipment (PPE) required
- No Re-Entry interval is required
- Low to no odour
- Suitable for use on broad-acre turf areas such as turf farms, sporting fields, parks, ovals and golf courses
- Low use rates
- Low environmental impact
- Reliable, high quality aqueous concentrate formulation

How to get the most out of your application

- Total water application volume should not be lower than 400 L/ha (4 L per 100m²).
- For best results use extremely coarse droplets [i.e. Turbo Floodjet® (TF5) or TurfJet® (TTJ10)].
- 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 (water volume) 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).
- Quarterback is active against the instar larvae of the most destructive turf-infesting grub species. The window for application should thus be around the peak egg laying period by adult beetles. This timing can be monitored by the increasing activity of adult beetles and is usually during Spring and early Summer.

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.

Insect Management

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.			
Turf & Lawns including commercial turf and residential lawn areas such as; Golf courses, Sports grounds, Bowling Greens, Racecourses, Turf Farms, Parks and other sport and recreational turfgrass areas	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.
	Argentine Stem Weevil larvae (<i>Listronotus bonariensis</i>), Billbug larvae (<i>Sphenophorus brunnipennis</i>)		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 licarsisalis</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.

Note: The above table represents only a modified extract from the full registered label. Always read the full product label before use.

Timings

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.

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.



Packaging Pack sizes: 250mL, 1 L, 5 L


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Spartan
Herbicide

480 g/L PRODIAMINE


For Pre-Emergent Control
of Weeds in Established
Turf



**Astro
120 ME**
Growth Regulator

120 g/L TRINEXAPAC-ETHYL

For the Regulation of Leaf
and Stem Growth of Grass
Species and as an Aid in
Turf Management



Impala
Fungicide

96 g/L AZOXYSTROBIN
194 g/L TRITICONAZOLE

For broad spectrum control
of Fungal Diseases in Turf

For a full product listing go to our website: www.turfculture.com.au



All of Turf Culture's products come with a formulation guarantee, ensuring turf managers can be extremely confident they are applying a quality product.



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Quarterback Insecticide

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