



# Plant protection



## Plant protection

Rout	3.04	Crown <sup>•</sup>	3.09
Sierraron <sup>•</sup>	3.06	Procide <sup>•</sup>	3.10
Banrot <sup>▪</sup>	3.08	MaxGuard <sup>•</sup>	3.11

\* Crown is soft on many beneficial insects, especially bees

• Not available in NZ    ▪ Coming soon to NZ

Australian Red Ironbark, *Eucalyptus fibrosa*

# Plant protection

## Protect your investment

Scotts potted plant protection products are smarter than your average treatments. Smarter because their broad-spectrum formulae treat a wide variety of insects, weeds and fungi problems. Smarter because they're so effective. Smarter because they provide you with the all-round protection you need for the life of your potted plant investment. And smarter because they're made by Scotts.

## Weed control

Rout is an effective and economical herbicide for the control of broadleaf and grassy weeds. Treatment lasts for more than three months.

Sierraron is a proven pre- and post-emergent weed controller that continues working for up to six months. Suitable for areas like fence lines, playgrounds, gravel areas, pathways and playing field perimeters.

## Fungal control

Banrot is proven disease protection for the long lasting control of damping off and root and stem rot soil pathogens.

## Insect control

Crown is a systemic insecticide, acting on eggs, larvae and adults. Crown is relatively soft on many beneficial insects, particularly bees.

Procide is a fast knockdown and preventative treatment against insect and mite pests. Safe on ornamental plants and humans.

MaxGuard delivers fast acting, contact pyrethroid insecticide for immediate control of surface feeding insects in all turf areas and can be incorporated into potting mixes for insect control.

### ► Useful links:

#### Plant Protection Registration Bodies

Australian Pesticides & Veterinary Medicines Authority – [www.apvma.gov.au](http://www.apvma.gov.au)

The Agricultural Compounds & Veterinary Medicines (ACVM) Group  
New Zealand – [www.nzfsa.govt.nz/acvm/](http://www.nzfsa.govt.nz/acvm/)

Environmental Risk Management Authority New Zealand – [www.ermanz.govt.nz](http://www.ermanz.govt.nz)

### ► Scotts Environmental Tip – Plant Protection

- Don't calendar spray if you can help it, only apply when needed or the need is predicted
- Always follow all label directions, from application to safety and disposal
- Do not spray during windy weather, when chemicals can blow off target and enter waterways or damage surrounding vegetation
- Try to use non-chemical measures in combination with pesticides (e.g. choose resistant plant varieties, use biological controls, in the IPM program utilise physical barriers)
- These tips will not only save you money, but help to prolong the life of the pesticide (i.e. delay resistance) and benefit the environment.

# Rout®

Combines the action of two herbicides in one granule resulting in broad spectrum, pre-emergent weed control of broadleaf and grassy weeds



'Rout locks out weeds for longer.'

## The most cost-effective pre-emergent herbicide on the market

Rout is a safe, effective and economical pre-emergent herbicide that controls a broad spectrum of broadleaf and grassy weeds. With Rout, valuable nutrients can be used by your plants, not wasted on weeds. Your plants will be stronger, greener and healthier.



Rout pre-emergent herbicide is specifically designed for nurseries and landscaping to control weeds around:

- container-grown ornamental trees and shrubs
- contained garden beds and pots
- field-grown ornamental plants

## Broader control that's ahead of the rest

Rout combines the action of two proven herbicides in one granule. This unique combination results in broader spectrum pre-emergent weed control of both broadleaf and grassy weeds, controlling five times as many weed species as its main competitor. One application controls forty-two weed species for up to three months.

## Save time and money with Rout

Weed control with Rout costs less than alternative control measures. The correct use of Rout saves you time and labour costs by drastically reducing the need to hand-weed containers and garden beds. With the time saved by not needing to weed, you are free to do what you do best: caring for and nurturing plants and gardens.

Rout's effectiveness at half the application rate of its main competitor brings additional economic benefits.

## Rout application

1. For best results, water plants before application to settle and firm down the soil.
2. When foliage is dry, evenly distribute granules at the correct application rate over the entire soil surface.



Note: Ideally when applied over the top of the crop, Rout should be applied when foliage is dry to prevent granules sticking to the plant. If necessary wash off leaves after Rout application.

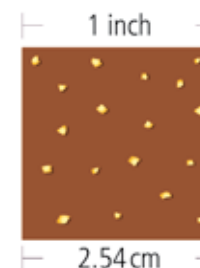
## ► Tips for optimum Rout performance

- Avoid applying when small plants are putting on a flush of growth or breaking dormancy
- Ensure there is plenty of air movement around the plant
- Apply at least two weeks before moving plants to a greenhouse
- Low growing soft annuals and perennials may experience leaf scorch



## Proven through trials

Trials prove that Rout prevents seed germination and subsequent weed growth. In the trial above Rout was applied to centre area. No herbicide was applied to the outer area.



Ideal distribution: 18-20 particles per square inch (6.45 cm<sup>2</sup>).



### Application made easy

Scotts provide the tools to determine the correct rate and distribution and to increase accuracy and efficiency of application. The Rout Calibrator and Rout Shakers are available free from your local Scotts Distributor.



Scotts HandyGreen spreader applies Rout to larger areas quickly and evenly.

The Rout Shaker enables application around sensitive plants avoiding granules catching on foliage.



The Application Rate Calibrator assists in determining correct rate and distribution.

### Rout controls more than 42 weed species

Broadleaf weeds		Grass weeds
Amaranth (Redroot)	Pearlwort	Barley Grass
Amsinckia	Pigweed	Barnyard Grass
Bladder Ketmia	Prickly Lettuce	Burr Grass
Blackberry Nightshade	Red Caustic Creeper	Crowsfoot Grass
Caltrop	Shepherd's Purse	Liverseed Grass
Cape Weed	Soursob	Love Grass
Chickweed	Sowthistle	Pigeon Grass
Creeping Oxalis	Staggerweed	Rhodes Grass
Deadnettle	Starrburr	Rye Grass
Fat Hen	Subterranean Clover	Stink Grass
Fleabane	Thornapple	Summer Grass
Flickweed	White Eye	Winter Grass
Giant Pigweed	Wild Mustard	
Liverwort	Wild Radish	
Mallow	Willowherb	
Mimosa	Wireweed	

### Technical information

Pack Size	Formulation	Active Constituents	Mode of Action Group	Poison Schedule	Application Rates		Code
22.68 kg 10 kg 22.68 kg	Granular Pre-emergent Herbicide	20g/kg Oxyfluorfen 10g/kg Oryzalin	Group D G Herbicide	Not a scheduled poison	<b>Rout Qty</b> 10 g 1 kg 100 kg 40.5 kg	<b>Area</b> 1m <sup>2</sup> 100m <sup>2</sup> ha acre	9000 9010A 9010NZ

#### ▶ Did you know...

Weeds cost Australia around \$3.5 billion annually in control costs, lost production and contamination and ranks with salinity as one of Australia's most serious environmental problems.

# Sierraron®

A proven pre-emergent weed controller that continues working for up to six months

Sierraron is a proven pre-emergent weed controller that continues working for up to six months. Using Sierraron on such areas as fence lines, playing field perimeters, parks, paths and playgrounds, you can win the battle against weeds.



Sierraron has a number of important benefits for users:

- Sierraron eliminates most annual and perennial broadleaf weeds and grasses
- A single application gives season-long weed control
- Its ready for use granular formulation makes it easy to apply and is unaffected by wind drift when applied during the correct time and conditions of the day
- The active ingredient binds strongly to soil, minimising the potential for run-off or leaching
- Classified as a non-hazardous chemical
- As long as soil is present Sierraron goes to work after watering in. It's about time we won the battle against weeds. It's time for Sierraron.

## Sierraron is about saving you time

Recurrent weeds need recurrent attention, and it's well known that most organisations whose job it is to maintain the appearance and health of industrial and community grounds and parks find weed control a time consuming and endless task.

Sierraron is a proven pre-emergent weed control solution that continues working for up to six months when applied correctly.

Sierraron boasts minimal potential for run-off or leaching, and because of its granular form is easy to apply, without the risk of spray drift. Sierraron should become part of your preventative weed maintenance program.

## A much needed extra hand for weeding

Sierraron is an extra resource for weed control to be used in conjunction with current weed management systems.

Sierraron extends your weeding effort – simply weed, and then apply Sierraron for 6 months protection from weed growth.

It should be noted that Sierraron is not ideal for every situation. As Sierraron works close to the surface, it has little or no impact on deep-rooted and established trees, however Sierraron should not be used near young, recently planted or shallow-rooted plants and shrubs.

Ideally, it should be applied in Autumn, Winter and early Spring when lower temperature conditions assist in Sierraron's effectiveness.



## The hidden weed manager

For most other herbicides to be effective, weeds have to first emerge. Spraying them results in unsightly dead weeds and alerts the public that a herbicide has been used, such as in the case when trucks spray road-side weeds.

The advantage of Sierraron is that after the initial weeds are eliminated, it works below the surface, unseen.

## Works over there, now works over here

Extensive testing by Scotts in Europe has shown conclusively that Sierraron works more effectively to control most common weeds than the treatments used traditionally by councils and commercial landscape contractors.

Consequently, Sierraron has become a standard addition to the weed maintenance program of many European councils for over a decade.

Sierraron also fits perfectly into the Australian federal, territories and state governments' Australian Weeds Strategy.

• Not available in NZ



## Application areas

### Councils

- Public playgrounds and community areas
- Established gardens
- Roadside and paved centre strips
- Sporting field perimeters

### Landscape contractors

- Community grounds maintenance
- School playgrounds and fence perimeters
- Tennis court perimeters
- New home display centres

### Other locations

- Plant Nurseries – in non-growing areas
- Exterior paved shopping walkways
- Stadium seating areas where concrete expansion joints can support weed growth
- Can be applied before paths and paving are laid down to prevent weeds emerging
- Industrial areas

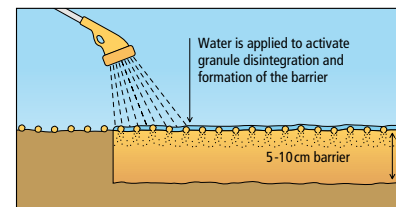
If your existing method of controlling weeds is not thorough enough to complete every task in time, you need a better approach to weed management. It's time for an integrated approach. It's time for Sierraron.

## Technical information

Pack Size	Formulation	Active Constituents	Mode of Action Group	Poison Schedule	Application Rates	Code
5 kg (x4 per outer)	Granular Pre-emergent Herbicide	67.5g/kg Dichlobenil	Group K Herbicide	S6	Rates are situation specific, refer to label	9058
25 kg						9057H

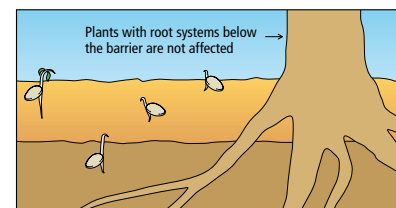
## Target weed species

Annual Grasses and Broadleaf Weeds, Annual and Perennial Weeds



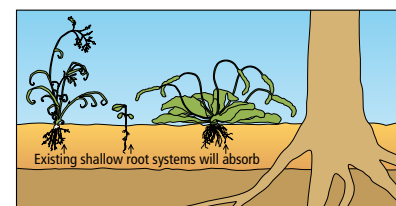
### Forming a barrier.

Sierraron granules, aided by moisture, disintegrate and release their active ingredient, which forms a barrier in the soil.



### New weeds hit the barrier and die off.

Weeds that attempt to germinate in the barrier will absorb it and die. Shoots from below attempting to grow through the barrier will also die.



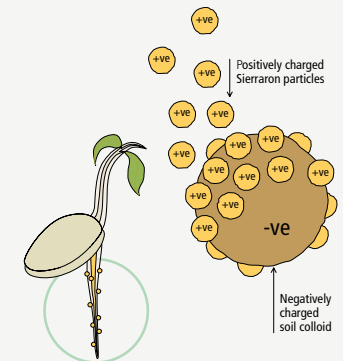
### Existing weeds draw from the barrier and die off.

Surface-rooted grasses and annual weeds whose roots are within the barrier will be affected and die.

## How it works

Positively (+ve) charged Sierraron particles are attracted to negatively (-ve) charged soil colloids and adsorbed on contact. This process ensures there is minimal run-off into waterways.

Sierraron is absorbed by weed roots and prevents cellulose biosynthesis at the root growing points, causing death.



- Not available in NZ

# Banrot®

Deliver dependable, long-lasting control of damping off and root and stem rot soil pathogens on a wide range of bedding, foliage and container plants

## Proven disease protection available to Australian growers

Banrot delivers dependable, long lasting control of damping off and root and stem rot soil pathogens on a wide range of bedding, foliage and container plants.



Banrot has proven itself to be the single most effective broad spectrum soil fungicide product in the USA providing both systemic and contact activity.

Where broad spectrum soil pathogen control is needed, Banrot provides proven protection you can count on.

## At planting and potting-up time

Although Banrot 400WP can be used as a drench anytime throughout the crop cycle, it is especially important to apply Banrot at the time of initial planting and when potting-up. Treatments can be made either as a drench or incorporation with Banrot 400WP (Wettable Powder) or by incorporating Banrot 80G (Granular) directly into the growing medium.

Banrot offers protection at these critical times and allows plants to develop new and active root growth quickly, so important in getting plants established.

## Low leaching potential

Thanks to its very low solubility, Banrot stays where you put it. This provides long term effectiveness while minimising leaching out of the container. In fact, the etridiazole component of Banrot is substantially less soluble than other commonly used fungicides.

## An efficient and cost-effective choice for your plant protection needs

The broad spectrum of Banrot eliminates the labour and expense of tank mixing. This, combined with its contact and systemic action, low leaching potential, and the reduction of resistance concerns makes Banrot the most logical choice for all your initial and follow-up applications. For detailed cost-and-use information contact your Scotts Regional Sales Manager.

## General instructions

Banrot 400WP and 80G have been tested and shown to be safe on a wide range of plants when used as directed. However it is not practical to test all plant types and varieties that may be treated with Banrot 400WP and Banrot 80G and therefore when other plants not listed are being treated, a small test should be conducted before treating large areas or numbers. Over-dosage may result in toxicity to sensitive plants.

## Key features and benefits

- Banrot is fungicidal, not fungistatic. It kills rather than suppresses target pathogens
- Broad spectrum eliminates the need for separate fungicides
- Significantly less soluble than other fungicides, reducing potential problems from leaching
- The WP and G formulations provide for drench, incorporation, sidedress and broadcast application
- Ideal for incorporation for growers mixing their own growing media
- Provides systemic and contact activity on target pathogens, root and stem fungi for up to 8 weeks



## Technical information – Banrot 400WP

Pack Size	Formulation	Active Constituents	Mode of Action Group	Poison Schedule	Application Rates	Code
907 g	Wettable Powder (WP) Fungicide	250 g/kg Thiophanate-Methyl 150 g/kg Etridiazole	Group A X Fungicide	S5	Incorporating 60 g/m <sup>3</sup>  Drench 4-8 g/m <sup>2</sup> in up to 10 L of water	95200

## Technical information – Banrot 80G

Pack Size	Formulation	Active Constituents	Mode of Action Group	Poison Schedule	Application Rates	Code
12 kg	Granular Fungicide	50 g/kg Thiophanate-Methyl 30 g/kg Etridiazole	Group A X Fungicide	S5	Pre-plant soil mix additive – 300 g/m <sup>3</sup> Post plant broadcast treatment – 2-4 kg/100 m <sup>2</sup>	95201

## Target diseases

Root and stem diseases caused by the following fungi – Pythium, Phytophthora, Rhizoctonia and Thielaviopsis (Chalara).

■ Coming soon to NZ



# Crown®

A systemic insecticide that works both on contact with target pests and systemically through root and leaf uptake

With Crown, insect pests don't stand a chance. Crown's breakthrough technology in systemic insecticides delivers all the benefits professional growers have hoped for and more. And now, it comes in both a handy 200 mL size as well as the traditional 1 litre.



Crown's chemistry is designed for faster, more effective control of sucking pests and fungus gnat. In fungus gnat trials, Crown outperformed all other formulations trialled!

Crown has been developed for use exclusively in ornamental horticulture and is proven to be highly effective on sucking insects – acting on eggs, larvae and adults.<sup>1</sup>

Test results prove that Crown stands head and shoulders above the rest when it comes to the protection of ornamentals.<sup>2</sup>

### Key features and benefits

- Crown is totally systemic through root and leaf uptake, also acting on contact with target pests
  - 100% knockdown of many target pests within 50 minutes, outperforming competitor products.<sup>3</sup> Crown is fast and long lasting
  - Crown provides effective control at low rates of application
- Crown is relatively soft on many beneficial insects<sup>4</sup> e.g. 300 x less toxic via contact and 2000 x less toxic via oral than its closest competitor on honey bees<sup>5</sup>

### Technical information

Pack Size	Formulation	Active Constituents	Mode of Action Group	Poison Schedule	Code
200 mL 1L	Soluble Liquid Systemic Insecticide	225g/L Acetamiprid	Group 4A Insecticide	S6	9071 9075

### Target pest species

Pest	Rate
Rose Aphid	11 mL/100L
Greenhouse Whitefly	11-22 mL/100L
Silverleaf Whitefly	11-22 mL/100L
Citrus Mealy bug	22-44 mL/100L
Azalea Lace bug	11-16 mL/100L
Greenhouse thrips	11-16 mL/100L
Plague thrips	22 mL/100L
Psyllids	11-22 mL/100L
Scale insects*	11-22 mL/100L
Pulvinaria scale	22 mL/100L
Leafhoppers	11-22 mL/100L
Fungus gnat	Light potting mix – 5-10 mL/10m <sup>2</sup>
Shore fly	Heavier potting mix – 10-20 mL/10m <sup>2</sup>

\* Except white wax scale

<sup>1</sup>The target insects of Mospilan® (acetamiprid, NI-25), Nisso Nippon Soda Co., Ltd. Page 40. <sup>2</sup>Agriseach Services Pty Ltd – evaluation of Acetamiprid formulations for the control of fungus gnat in ornamental plant potting mix. One nursery trial in Ferns, Nambour, Queensland, Australia, 2004. Additional Agriseach Services trial results are on file with Scotts Australia. <sup>3</sup>A new strategy for insect control Mospilan® (acetamiprid, NI-25), Nisso Nippon Soda Co., Ltd. Page 11. <sup>4</sup>Public Release Summary on 'Evaluation of the new active Acetamiprid in the new product – Supreme 225 SL insecticide', NRA (National Registration Authority – for Agricultural and Veterinary Chemicals) May 2003. Page 22. <sup>5</sup>Beneficial Insects – Nisso Field Trials Presentation, 2005.

### Puts pests in their place

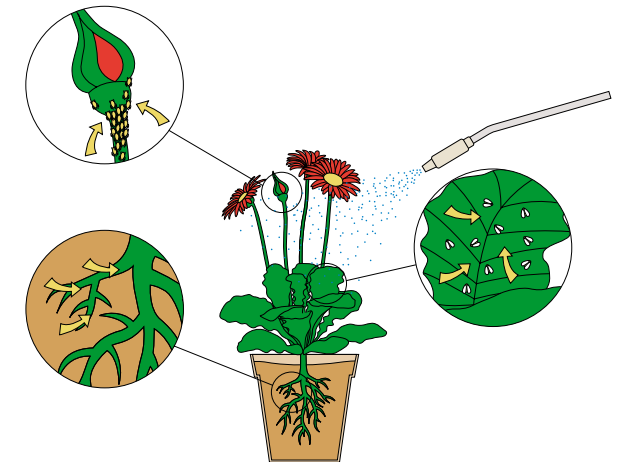
Crown is easy to mix and even easier to apply. For the best results, use Crown in Spring, when your plant begins new growth and insects start to stir.

### Triple action control

Crown works both on contact with the target pests and systemically through root and leaf uptake. The result is faster knockdown for longer.

Additionally, very low concentrations are required for effective control.

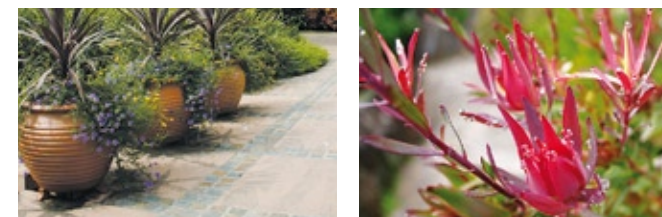
Being a new technology formulation, Crown will be useful in rotation with other older insecticides to prevent resistance build-up in the target pest.



- Not available in NZ

# Procide®

An advanced, very broad spectrum contact and residual suspension insecticide and miticide, safe for all ornamental plants



Procide is an advanced, contact and long residual suspension concentrate insecticide and miticide for use on all ornamental plants.

## A smarter weapon against insect and mite pests

Due to the fast knockdown activity of Procide it is a lower cost alternative to systemic insecticides, enabling you to monitor pest levels and deliver a fast acting knock down application to targeted areas.

Procide is ideal as a preventative application during known higher insect activity times. A fortnightly application ensures full protection against target pests.

## Longer residual activity

Procide uses an advanced pyrethroid chemistry that is light stable. This provides significantly longer residual activity; reducing spray frequency and therefore the total amount used to completely protect your crop. Less sprays needed means lower overall costs of insect control and less pesticide entering the environment.

## Faster acting

The pyrethroid chemistry in Procide has more insecticidal activity than other classes of insecticides, such as organo-phosphates and carbamates. Procide acts faster to control target insects, even at low rates.

## Safer on plants

Procide is formulated as a Suspension Concentrate (SC) without harsh solvents. This means that Procide is safe to apply to plant foliage with a minimal risk of burning.

## Key features and benefits

- Ideal preventative
- Less pesticide into the environment
- Low risk of plant phytotoxicity
- Fewer spray applications needed
- Monitor pests and use as a knockdown as needed
- No additional surfactants needed



## Cautions for use

Do not use in situations where predatory mites are established and are already providing effective mite control.

Do not apply if rainfall is expected before spray deposits dry on leaf surfaces.

## Smart in use

Procide contains an effective surfactant to aid in wetting of foliage and complete contact with target pests.

## Procide 80SC applicable APVMA Permits

Target	Rate	Permit
Identified quarantine pests	25 mL/100L	PER10043 – All States
Spiralling Whitefly ( <i>Aleurodicus dispersus</i> )	50 mL/100L	PER10564 – QLD only

See permit for detailed application rates.

For more permit info [www.apvma.gov.au/permits/permits.shtml](http://www.apvma.gov.au/permits/permits.shtml)

## Technical information

Pack Size	Formulation	Active Constituents	Mode of Action Group	Poison Schedule	Code
1 L	Liquid Suspension Concentrate contact and residual Insecticide/Miticide	80g/L Bifenthrin	Group 3A Insecticide	S6	9060A

## Target disease species

Crop	Pest	Rate
All nursery and cut flower ornamental plants	Two Spotted mite ( <i>Tetranychus urticae</i> )	35-50 mL /100L
	Aphids	25 mL/100L
	Caterpillars and loopers including <i>heliiothis</i> (corn ear worm, native bud-worm) <i>Helicoverpa</i> spp, light brown apple moth ( <i>Epiphyas postvittana</i> ), and geranium plume moth ( <i>Sphenarches anisodactylus</i> )	25 mL/100L
	Whitefly ( <i>Trialeurodes vaporariorum</i> ) Pointsettia white fly ( <i>Bemisia tabaci</i> Biotype B)	25-50 mL /100L
	Mealy bug ( <i>Pseudococcus longispinus</i> )	25 mL/100L
	Plague thrips ( <i>Thrips imaginis</i> , <i>Thrips simplex</i> and <i>Thrips hawaiiensis</i> )	25 mL/100L
	Cutworm ( <i>Agrotis</i> spp.) in beds, containers and pots	1.5L/ha 15 mL/100m <sup>2</sup> 7.5 mL/100L

Apply at first sign of pest infestation and before pest populations build up to damaging levels. Repeat as necessary on 10-14 day interval. Best results are obtained from preventative rather than curative applications. Where indicated, use the higher dosage for knockdown of established pest infestation or when longer residual activity is required. Spray to run off using a spray volume of 10-15 litres per 100m<sup>2</sup>.

- Not available in NZ



# MaxGuard®

Fast acting, contact insecticide for immediate control of problem insects

## The most advanced weapon in the fight against surface feeding insects

MaxGuard delivers fast acting, contact pyrethroid insecticide for immediate control of problem insects, such as Lawn armyworm, Sod webworm, Argentine stem weevil adults, African black beetle adults\*, Billbug adults, Cutworms and Ants, including Stinging ants.



MaxGuard is a cost effective alternative to preventative systemic insecticides that enables you to monitor pest populations, identify a damage threshold and deliver a targeted treatment that works immediately. Always keep MaxGuard handy when emergency treatment is required to act quickly.

## Safer to apply

MaxGuard 2G and MaxGuard NPK are not scheduled poisons. With minimal contact when applying the granular formulations, they are extremely safe for users. Additionally, there are no restrictions on transport and storage as MaxGuard products are not classified as dangerous goods on land.

## Smarter chemistry

MaxGuard uses an advanced pyrethroid chemistry that is uniquely light stable. This provides significantly longer residual control (dependant on application rate) than conventional pyrethroids. MaxGuard is very effective even at low application rates.

\* MaxGuard 2G and 80SC only

## Flexible delivery

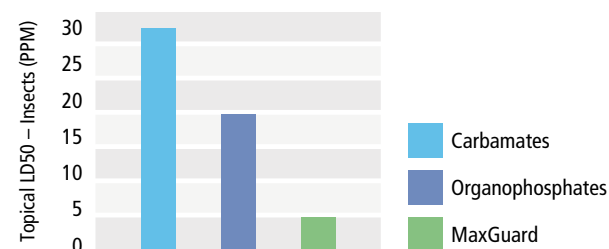
The tables opposite provide a guide to using MaxGuard and will assist in selecting the right product for your needs.

## Faster to act

MaxGuard chemistry has more insecticidal activity than other classes of insecticides such as organophosphates and carbamates, therefore requiring less active ingredient to control pest problems. MaxGuard acts faster to combat target insects at low rates.

## Key features and benefits

- Single application delivers fertiliser and insect control
- Stimulates post-recovery of damage from insects, which assists in the repair of damage to leaves, stolons and rhizomes
- The application method is easy using a spreader
- High safety margin / low toxicity
- Quicker turf recovery
- Requires less active ingredient to control pest problems than other classes of insecticides



## Technical information

### MaxGuard

Pack Size	Formulation	Active Constituents	Mode of Action Group	Poison Schedule	Code
22.7kg	Granular Insecticide	2g/kg Bifenthrin	Group 3A Insecticide	Not scheduled	9050H
20kg	Granular Insecticide + NPK	0.86g/kg Bifenthrin + NPK 28+1.3+6.6	Group 3A Insecticide	Not scheduled	9051

### MaxGuard 80SC

Pack Size	Formulation	Active Constituents	Mode of Action Group	Poison Schedule	Code
1L	Liquid Suspension Concentrate contact and residual Insecticide	80g/L Bifenthrin	Group 3A Insecticide	S6	9055A

## ► Did you know...

MaxGuard NPK provides the convenience of a granular turf insecticide combined with a slow release 28+1.3+6.6 fertiliser, making it ideal for post damage recovery and insect control.

It is not a scheduled poison and, with minimal contact when applying, is extremely safe for users. With a chemistry that has more insecticidal activity than other classes of insecticides such as organophosphates and carbamates, MaxGuard requires less active ingredient to control pests – acting faster to combat target insects at a lower rate of 140kg/ha.

• Not available in NZ

# MaxGuard<sup>®</sup>

## MaxGuard 2G. Ready to use granular turf insecticide.

Target	Rate	Critical comments
Lawn armyworm ( <i>Spodoptera mauritia</i> )	60 kg/ha (0.6 kg/100 m <sup>2</sup> )	Broadcast MaxGuard 2G with suitable application equipment to ensure uniform coverage over the treated area. To ensure optimum control, irrigate the treated area with up to 4 mm of water soon after application. Inspect the treated areas for continuing activity. Reapply as required. Where a rate range is indicated use lower rates under lower insect pressure and higher rates under higher insect pressure.
Sod webworm ( <i>Herpetogramma licarsialis</i> )	60 kg/ha (0.6 kg/100 m <sup>2</sup> )	
Cutworm ( <i>Agrotis</i> sp.)	60 kg/ha (0.6 kg/100 m <sup>2</sup> )	
Argentine stem weevil adults ( <i>Listronotus bonariensis</i> )	60-120 kg/ha (0.6-1.2 kg/100 m <sup>2</sup> )	
African black beetle adults ( <i>Heteronychus arator</i> )	120-180 kg/ha (1.2-1.8 kg/100 m <sup>2</sup> )	
Billbug adults ( <i>Sphenophorus brunnipennis</i> )	60-120 kg/ha (0.6-1.2 kg/100 m <sup>2</sup> )	
Black ant, Coastal brown ant, Funnel ant, Meat ant, Sugar ant and Stinging ant only.	60-220 kg/ha (0.6-2.2 kg/100 m <sup>2</sup> )	Apply granules to areas where ants are active. Where possible, apply granules directly to the nest. Use the low rate for maintenance treatments or to control light infestations and the high rate for heavy infestations and for maximum residual control. The elimination of Funnel ants from a particular site will generally require more than one application. Initial applications should be broadcast over affected areas. As the initial numbers of active colonies is reduced, application should shift to targeting active mounds. Apply granules directly to the mound and in the area immediately surrounding active mounds (300 mm radius).

## MaxGuard 2G applicable APVMA Permits

Target	Rate			Permit
	Protection Period (mths)	Dose Rate (ppm)	Potting Mix Rate	
Red imported fire ant	0-12	12	3.9 kg/m <sup>3</sup>	PER10536 – NSW only. PER10562 – QLD only (standard potting mix with bulk density of 0.65)
Identified quarantine soil pests susceptible to Bifenthrin	Potting Mix	Bulk Density	Product Rate g/L	PER9796 – All states
	25% sand/75% peat	0.85	2.7	

See permit for detailed application rates. For more permit info: [www.apvma.gov.au/permits/permits.shtml](http://www.apvma.gov.au/permits/permits.shtml)

## MaxGuard NPK. The convenience of a granular turf insecticide combined with a slow release fertiliser.

Target	Rate	Critical comments
Lawn armyworm ( <i>Spodoptera mauritia</i> )	140 kg/ha (1.4 kg/100 m <sup>2</sup> )	Use this product in situations where a fertiliser application is required and where insect pests are either present or expected. Apply every 2-3 months in a regular maintenance programme. Broadcast MaxGuard NPK with suitable application equipment to ensure uniform coverage over the treated area. To ensure optimum control, irrigate the treated area with up to 4 mm of water immediately after application. Inspect treated areas for continuing activity. High populations of Argentine stem weevil and Billbug may require follow up treatment with MaxGuard 2G Granular Insecticide.
Sod webworm ( <i>Herpetogramma licarsialis</i> )	140 kg/ha (1.4 kg/100 m <sup>2</sup> )	
Cutworm ( <i>Agrotis</i> sp.)	140 kg/ha (1.4 kg/100 m <sup>2</sup> )	
Argentine stem weevil adults ( <i>Listronotus bonariensis</i> )	140 kg/ha (1.4 kg/100 m <sup>2</sup> )	
Billbug adults ( <i>Sphenophorus brunnipennis</i> )	140 kg/ha (1.4 kg/100 m <sup>2</sup> )	
Black ant, Coastal brown ant, Funnel ant, Meat ant, Sugar ant and Stinging ant only	140 kg/ha (1.4 kg/100 m <sup>2</sup> )	
Turf nutrition NPK 28+1.3+6.6	140 kg/ha (1.4 kg/100 m <sup>2</sup> )	Scotts unique Poly-S technology provides slow release nitrogen for 6-10 weeks feeding as well as potassium, phosphorus and sulphur. Ideal for post damage recovery and insect control.