



# Scarlet Trio Advanced

## Insecticide

*Tri-Active Control Technology*

*Reliable insecticide for 8 turf pests*

*Registered for control of Ground Pearl & Couch Fly*

### Product Overview

ProForce Scarlet Trio Advanced is a unique insecticide formulation containing 116 g/L Clothianidin, 83 g/L Clofentezine and 13 g/L Abamectin.

Scarlet Trio Advanced Insecticide is registered for the broad-spectrum control of Billbug, African Black Beetle, Argentinian Scarab, Argentine Stem Weevil, Couch Fly, Couch Mite, Ground Pearl and Mole Cricket in all recreational turf management situations.

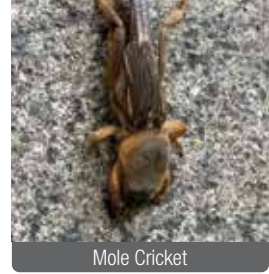




Billbug Adult



Argentine Stem Weevil Larvae



Mole Cricket

## Key Features

- > Tri-Active Control Technology.
- > Unique, industry first 3-way insecticide mixture.
- > Reliable residual performance.
- > Possesses both Contact and Systemic activity.
- > Broad Spectrum Activity – Registered for the control of 8 insect pests.
- > Only insecticide currently registered for the control of Ground Pearl in turf.
- > Additional insecticide registered for Couch Fly which currently has limited available control options.
- > Multiple modes of action to maximise insect control and spectrum of activity – Group 4A, 10A and 6.
- > Reliable control of Couch Mite, African Black Beetle, Billbug and Argentinian Scarab.
- > Can be used as a foliar application for foliage dwelling insects (e.g. Mites, Couch Fly) or used as a drench for soil borne insect pests (e.g. Ground Pearl, African Black Beetle).
- > Researched and Formulated in Australia.
- > Available in 1L and 5L pack sizes.

## Mode of Action

**GROUP 4A 10A 6 INSECTICIDE**

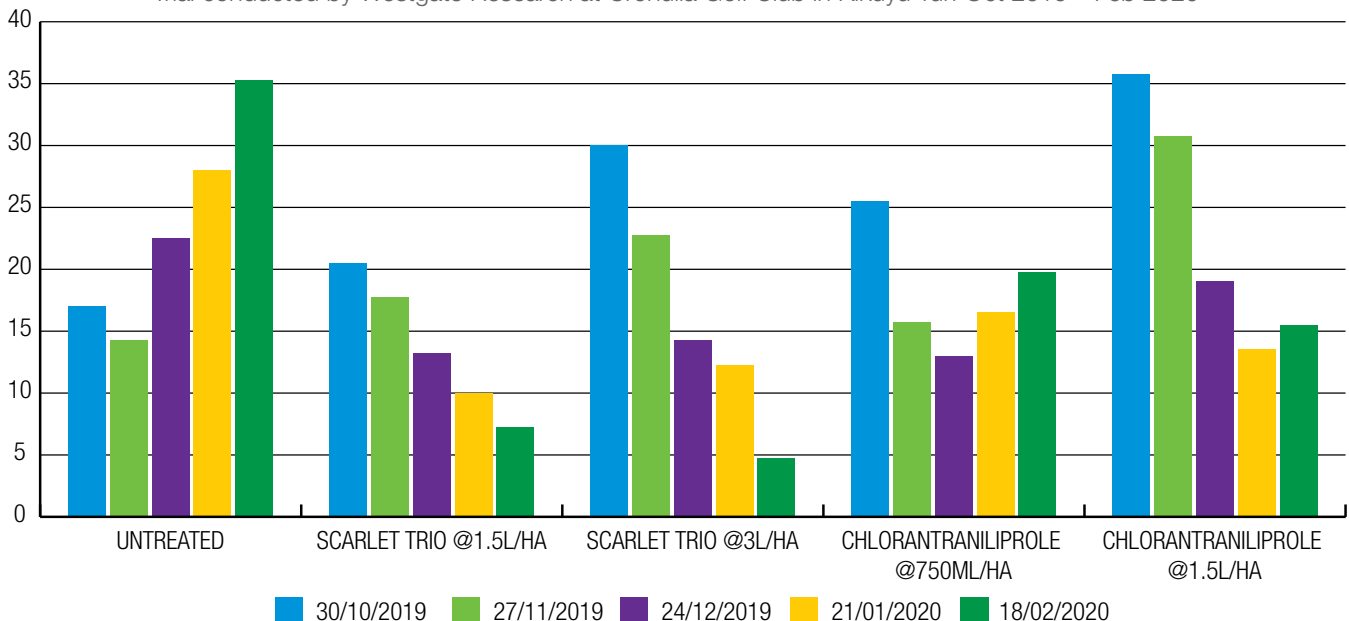
**Clothianidin** is a neonicotinoid insecticide. The active ingredient works by blocking nicotinic acetylcholine receptors, preventing acetylcholine from transmitting impulses between nerves, resulting in the target insect's paralysis and eventual death. Upon ingestion, the target insect stops feeding quickly, limiting further plant attack. Clothianidin is a systemic insecticide which is also known to possess some translaminar movement. Clothianidin is readily taken up by the foliage and roots and further distributed acropetally (upwards in the plant). Target insects can be controlled by contact action in the soil or via stomach action by ingestion of the active ingredient when feeding on the treated plant material.

**Abamectin** blocks the transmission of electrical activity in invertebrate nerve and muscle cells mostly by enhancing the effects of glutamate (an important inhibitory neurotransmitter in insects) at the glutamate-gated chloride channel. By activating glutamate-gated chloride channels, the insect becomes paralysed, stops feeding and dies. Abamectin has contact toxicity, but its stomach toxicity is much stronger. After 2-3 days of spraying abamectin, its insecticidal efficacy will be best, and the longevity of residues will last about 7-15 days. Abamectin moves via translaminar activity (one side of leaf to the other) to kill insects that hide in hard to reach plant parts. In the soil environment, abamectin is active for a short period.

**Clofentezine** is an insecticide with contact action and extended residual activity. It acts primarily by interfering with cell growth and differentiation during the final stages of embryonic (ovicide), and early larval development. IRAC (Insecticide Resistance Action committee) class Clofentezine as an insect growth regulator. Clofentezine mimics growth hormones by directly affecting cuticle formation or lipid biosynthesis, halting their ability to develop any further and essentially preventing their lifecycle completion (IRAC, 2016). Clofentezine is moderately persistent in the soil environment.

## ProForce Scarlet Trio Advanced Insecticide – Field Research Performance

Ground Pearl Adult Presence following treatment with Scarlet Trio Insecticide.  
 Trial conducted by Westgate Research at Cronulla Golf Club in Kikuyu Turf Oct 2019 – Feb 2020



Field Trial Conducted by Independent Field Trial Contractor – Westgate Labs. Trial was applied as mid-season applications on the 30th of October 2019. Repeat applications of ProForce Scarlet Trio Insecticide applications were applied at monthly intervals. Trial Location: Cronulla Golf Club.



African Black Beetle Larvae



Ground Pearl



Couch Fly Adult

Formulated in Australia

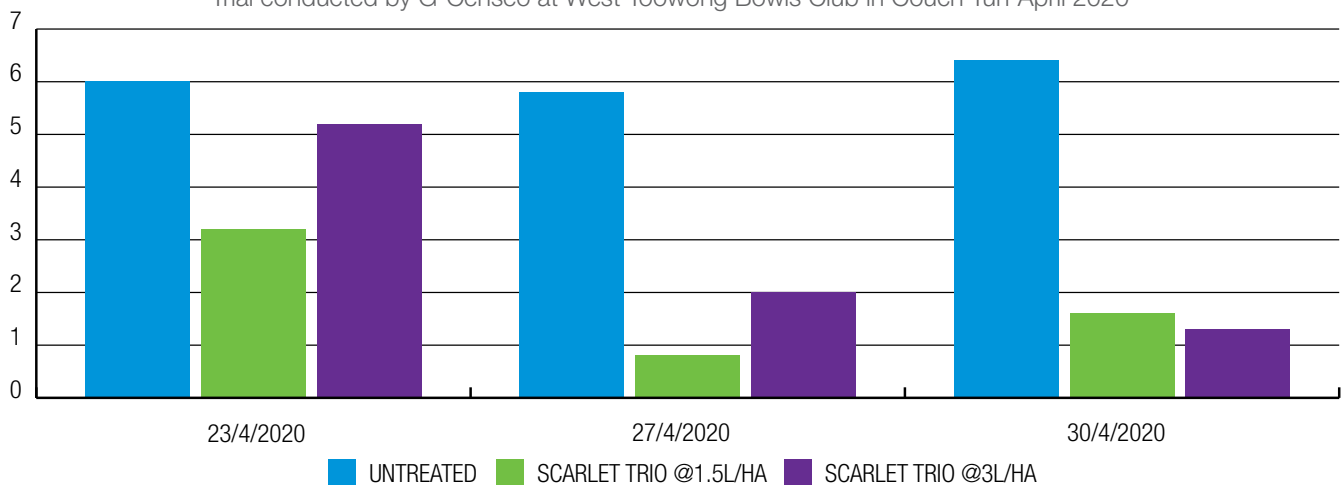


## ProForce Scarlet Trio Advanced Insecticide – Use Rates

SITUATION	PEST	RATE	CRITICAL COMMENTS
Turf (Including Golf Courses, Sportsfields, and other sport and recreational turf areas)	Billbug (La Plata Weevil) ( <i>Sphenophorus brunnipennis</i> )	3 L/ha	Monitor adult activity through late spring and early summer. Spray when numbers peak or when small larvae (4 mm) are found in the thatch or surface soil typically around late November to early December. Early application is essential to minimise damage to turf due to feeding. Ensure product placement as close to soil surface as possible. Preferably spray onto wet or dewy turf. Irrigate with at least 3 mm of water commencing within 1 hour of application. DO NOT irrigate to the point of run-off.
	Argentine Stem Weevil ( <i>Listronotus bonariensis</i> ), Argentinian Scarab ( <i>Cyclocephala signaticollis</i> ), Mole Cricket ( <i>Gryllotalpa</i> spp.)		Monitor adult activity through spring and early summer. Spray when peak numbers (preventatively) or when first visual symptoms are observed (curatively) typically around late September to January. Early application is essential to minimise damage to turf due to feeding. Irrigate with at least 3 mm of water commencing within 1 hour of application. DO NOT irrigate to the point of run-off.
	African Black Beetle ( <i>Heteronychus arator</i> )		Apply at peak egg hatch (African Black Beetle – late September through to mid-November), or when small larvae are present. Ensure product placement as close to soil surface as possible. Preferably spray onto wet or dewy turf. Irrigate with at least 3 mm water commencing within 1 hour of application. DO NOT irrigate to the point of run-off.
	Ground Pearl ( <i>Margoroides</i> spp.)		Apply when adults or crawlers are detected generally from early spring to the end of summer. Apply in 400-800 L/ha. Irrigate with at least 3 mm of water commencing within 1 hour of application. DO NOT irrigate to the point of run-off.
	Couch Mite ( <i>Aceria cynodoniensis</i> ), Couch Fly ( <i>Delia urbana</i> )		Apply product in an early curative situation (after first symptoms are apparent). Apply in 400-800 L of water per hectare. Best results are achieved if applied as populations begin to build rather than at the peak of population growth.

## Effective Control of Couch Fly

Couch Fly Presence following treatment with Scarlet Trio Insecticide.  
Trial conducted by G-Censeo at West Toowong Bowls Club in Couch Turf April 2020



Source: G-Censeo (Independent Field Trial Contractor, 2020).

Trial was applied as late season application on the 23rd of April 2020. Trial Location: West Toowong Bowls Club.

# ProForce Scarlet Trio Advanced Insecticide

## Maximising performance

- > Do not allow entry by the public into treated areas until the spray has dried.
- > Avoid spraying while bees are actively foraging. Avoid spray drift to flowering weeds or flowering crops in the vicinity of the treatment area.
- > Avoid applying more than 2 sprays per season in turf.
- > Spray droplets used should be no smaller than a COARSE spray droplet size category.
- > Mandatory downwind buffer zones – Natural Aquatic Areas: 10m, Pollinator Areas: 110m.
- > Foliar targeted applications (Mites, Couch Fly): Apply in 400-800L of water per hectare. Use of an acidifying & spreader surfactant (eg. Manta Ray) will maximise tank stability and improve coverage. Soil borne insects won't be controlled if the product is used as a foliar application.
- > Soil Targeted applications (Ground Pearl, African Black Beetle, Argentinian Scarab, Billbug, Argentinian Stem Weevil, Mole Cricket): Apply in a water volume >400L per hectare and irrigate with at least 3 mm of water commencing within 1 hour of application. Foliage based insects won't be controlled when the product is washed into the soil. Use of a soil surfactant will assist in maximising soil movement and coverage of the insecticide.

Grass Webbing Mite Damage



## About Us

Indigo Specialty Products is a privately-owned business, formed and owned by a small team of industry professionals with extensive experience in manufacture, distribution, development and product registration. We are a business focused on production & supply of plant protection, pest control, plant nutrition, soil, water management & biological products. Specialising in Australasian non-crop and niche horticultural markets, including Turf & Amenity, Nursery Production, Industrial Vegetation Management, Forestry, Pest Control and Consumer Home Garden & Pest Management.



## Formulated in Australia

Our goal is to manufacture the Indigo product ranges in Australia as much as possible, where we can oversee product quality processes, whilst allowing us the flexibility to modify products to overcome ever changing challenges. Our ProForce and HydroForce range of products are formulated in Australia using imported materials. Our Xcel Fertiliser and BioForce Biological range are manufactured in Australia to the highest possible standards.



## Developed & Researched for local conditions

We are heavily focused on local research and development to ensure our products perform at their peak in the Australian markets. We actively invest in field trial research programs and modify our formulations to match the local conditions of the key markets in which we operate to maximise performance.



## Focused on Specialty markets

We strive to be relevant in our core markets, by adding value via overcoming issues and obstacles that are present in the markets we operate within. We do this by focusing on control of key pests or diseases or by solving key management issues that our valued end user customers have. We also strive to be active in the core markets in which we operate by working closely with our allied distributor network, offering support, service and advice where required.



## Diagnostic Services

We offer a complete diagnostic services package, known as TechForce, designed to evaluate and identify key agronomic problems, so we can be better informed in recommending products for the specific situation. We also believe that by offering these services, our customers and users of our products can evaluate performance of the portfolio in a quantifiable and scientific approach. We use some of Australia's leading laboratories in delivering results for our services including Westgate Laboratories, Ground Science and Department of Primary Industries, Orange.

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