



# Clean Sweep Trio

Fungicide

*Tri-Active Control Technology*

*Multi-site protection delivering strong  
Curative & Preventative Performance*

*Effective ERI & Fairy Ring control*

## Product Overview

Clean Sweep Trio Fungicide is a unique fungicide formulation containing 119g/L Thiophanate-methyl, 37.5g/L Fluazinam and 36g/L Tebuconazole.

Clean Sweep Trio Fungicide is registered for the broad spectrum, curative and preventative control of ERI, Fairy Ring, Anthracnose, Brown Patch, Dollar Spot and Helminthosporium in all recreational turf management situations.

Clean Sweep Trio Fungicide is a Suspension Concentrate (SC) formulation.

Clean Sweep Trio Fungicide is formulated in Australia.



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## Key Features

- > Tri-Active Control Technology.
- > Unique, industry first 3-way fungicide mixture.
- > Strong curative and preventative activity.
- > Broad Spectrum Activity – registered for the control of 9 causal pathogens.
- > Excellent activity on ERI (Couchgrass Decline and Take All Patch) pathogens.
- > Excellent preventative and early curative control of Fairy Ring.
- > Strong inside – out protection.
- > Contains Thiophanate-methyl – a newer systemic fungicide molecule for the Australian turf industry.
- > Non-strobilurin based. Can be used in rotation with strobilurin based fungicides, particularly in the summer months.
- > Easy to position for maximum disease control. All 3 active ingredients will be effective when used as a foliar applied fungicide for leaf diseases, or as a soil applied fungicide for root diseases.

## Mode of Action

### GROUP 1 | 29 | 3 FUNGICIDE

**Tebuconazole** is a systemic fungicide that once absorbed by roots and leaves moves upwards (acropetal) within the plant. Tebuconazole possesses curative, protective and eradicator activity when controlling turfgrass fungi. Tebuconazole is a Group 3 fungicide. It works in controlling turf pathogens by disrupting the fungi's membrane function. It is classified as a DMI inhibitor as it stops the demethylation step in the biosynthesis of ergosterol, a vital component of cell walls in many fungi.

**Fluazinam**, a member of the pyridinamine family, disrupts the energy production in the fungus by restricting ATP production, a key molecule used for production of physiological processes in fungal cells. Fluazinam has only minor systemic activity. It has stronger protectant / preventative properties than curative activity, however data indicates that with multiple applications curative control can be achieved. Fluazinam is the only registered fungicide for turf in FRAC Group 29. It has no known resistance and as a multi-site contact, it has very low risk of developing resistance. Fluazinam has good soil activity, with soil half life of up to 32 days.

**Thiophanate-methyl** is a member of the benzimidazole group of fungicides. It is a broad spectrum systemic fungicide with protective and curative action and is absorbed by the roots and leaves of turf. Thiophanate-methyl is a tubulin inhibitor fungicide falling into the FRAC Group 1. Its Mode of Action is the inhibition of microtubule assembly. Thiophanate-methyl breaks down to carbendazim and methyl within the plant and soil. In mammals, Thiophanate-methyl does not metabolise to carbendazim.

## Field Performance with ProForce Clean Sweep Trio Fungicide – excellent control of Couch Decline disease



*Field Trial conducted by Independent Field Trial Contractor – Gcenseo.*

Trial was applied as Curative applications on the 6th December, 2019. 3 applications of ProForce Clean Sweep Trio were applied monthly at the rate of 20L/ha.

Trial Location: Norman Park Bowls Club.

**ERI Disease Management Considerations:** Timely preventative applications are more effective than curative treatments. Initiate applications in spring before temperatures reach 18°C (Magnaporthe). Make 3 applications at monthly intervals before key disease symptoms occur. Initiate applications in autumn when air temps reach 26°C and RH 75% or higher. Position the product into the rootzone for most effective performance.

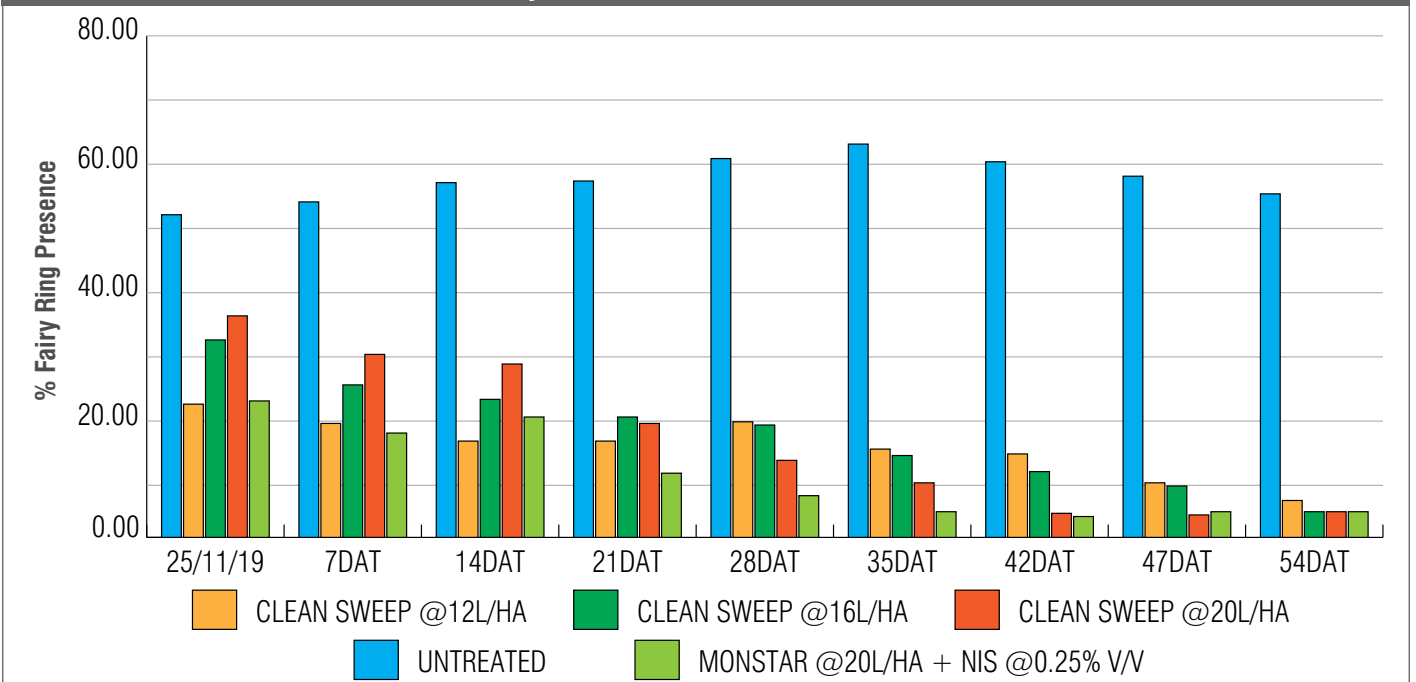
**Fairy Ring Management Considerations:** Preventive Fairy Ring control can be much more effective and consistent over curative measures. For effective Fairy Ring prevention, multiple fungicide applications need to be applied prior to soil temperatures reaching 21°C (using a 5-day average soil temperature at a 5cm depth) in spring. Ideal application timing for the initial application is between 15-18°C. Preventative fungicide applications in cooler climates can be initiated when soil temperatures reach 12°C. Repeat applications of ProForce Clean Sweep Trio at 3-4 weekly intervals will obtain the best results.



## Clean Sweep Trio Fungicide – Use Rates

SITUATION	DISEASE	RATE/HA	CRITICAL COMMENTS
Turf including but not limited to golf greens, tees and fairways, bowling clubs, sports fields, racetracks, turf farms and other managed turf situations	Dollar Spot ( <i>Sclerotinia homeocarpa</i> ), Helminthosporium Disease ( <i>Bipolaris</i> , <i>Drechslera</i> & <i>Exserohilum</i> spp.), Anthracnose ( <i>Colletotrichum</i> spp.), Brown Patch ( <i>Rhizoctonia solani</i> )	12-20 L/ha in 400-800 L of water per hectare	<p><b>Preventative applications:</b> Spray when conditions are favourable for disease development. Make a second application 14-21 days later if conditions continue to favour disease development.</p> <p><b>Early curative applications:</b> Spray as soon as possible after first symptoms are detected. Use rates towards the higher end of the range and shorten intervals.</p> <p>DO NOT mow or water treated area until turf or lawn is thoroughly dry, ideally allow 24 hours.</p> <p><b>Brown Patch:</b> If hyphae are detected in the root zone use 1000 L/ha water.</p>
	Fairy Ring ( <i>Basidiomycete</i> )	20 L/ha in a minimum of 1000 L of water per hectare	Apply preventatively when conditions are favourable for disease development or as an early curative as soon as possible after first symptoms are detected. Make a second application 21-28 days later. The use of a quality non-ionic soil surfactant is recommended prior to or at the time of application. Irrigate following application to position the fungicide into the rootzone, where the disease is active.
	Ectotrophic Root infecting Fungi (ERI) including Couchgrass Decline and Take All Patch	20 L/ha in a minimum of 1000 L of water per hectare	<p><b>Preventative applications:</b> Spray in early spring and late autumn, after renovation and recovery of active growth. Make a second application 1 month later. Ongoing monthly treatments may be required.</p> <p><b>Early curative applications:</b> Spray as soon as possible after first symptoms are detected. Make a second application 1 month later.</p>

### Early curative control of Fairy Ring with ProForce Clean Sweep Trio Fungicide and an industry Standard versus an untreated control



Trial conducted by Botanic Research, Nov 19 – Jan 20.

Two early curative applications were made 30 days apart. Monstar was included as an industry standard.

Trial Location: Palmer Sea Reef Golf Course, Port Douglas, QLD.



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## Maximising performance

### Leaf and Crown Diseases

eg. Dollar Spot, Helminthosporium, Anthracnose, Brown Patch

- > Application volume should be adequate to ensure thorough and even coverage of the turf leaves and penetration into the crowns. Ideal application volumes should be between 400-800 L/ha.
- > For best results use coarse [Turbo Teejet\* or AIXR Teejet\* (11004 or 11005)] nozzles, at 5 km/h and 3 bar pressure.
- > In higher cut turf (>15 mm) a significant spray shielding effect can occur, impacting negatively on spray penetration and even coverage at low application volumes.
- > Good control requires good coverage. Application should be made in sufficient water to ensure thorough coverage.

### Root Infecting Diseases

eg. Fairy Ring, Ectotrophic Root Infecting Fungi (ERI), Brown Patch

- > Apply in a minimum of 1000 L water/ha using coarse [Turbo Teejet\* or AIXR Teejet\* (11004 or 11005)] nozzles, at 3-4 km/h and 3 bar pressure and irrigate within 1 hour of application to wash the product into the upper root zone.

### General Application Considerations

- > Make preventative applications when conditions are favourable for disease development. Make a second application 14-28 days later if conditions continue to favour disease development.
- > For early curative disease control, spray as soon as possible after first symptoms of disease activity are detected. Use rates towards the higher end of the range and shorten intervals to maximise control.
- > Avoid mowing treated area until turf or lawn is thoroughly dry, ideally allow 24 hours.

Fairy Ring



## 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 will be formulated in Australia using imported materials. Our Xcel Fertiliser and BioForce Biological range will be 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 Phoyasn Analytical, Westgate Labs, Botanic Research, Biological Crop Protection and Royal Botanic Gardens.

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