

Product Name: Impala Fungicide
APVMA Approval No: 80146/133639



Label Name:	Impala Fungicide
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Signal Headings:	CAUTION KEEP OUT OF REACH OF CHILDREN READ SAFETY DIRECTIONS BEFORE OPENING OR USING
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Constituent Statements:	96 g/L AZOXYSTROBIN 194 g/L TRITICONAZOLE
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Mode of Action:	GROUP 3 11 FUNGICIDE
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Statement of Claims:	Home Garden Dual Systemic Action to Control Over 10 Turf Diseases Commercial For Broad Spectrum Systemic Control of Turf Diseases
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Net Contents:	Home Garden 200 mL - 1 L Commercial 1 - 20 L
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Restrains:	This section contains file attachment.
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Directions for Use:	This section contains file attachment.
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Other Limitations:	Commercial WARNING
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Impala Fungicide is extremely phytotoxic to certain apple varieties.
DO NOT spray Impala Fungicide where spray drift may reach apple trees.
DO NOT spray when conditions favour drift beyond the area intended for application.
Conditions that may contribute to drift include thermal inversions, excessive wind speed, certain sprayer nozzle/pressure combinations, small spray droplet size, etc.

Withholding Periods: Commercial
DO NOT graze treated areas or feed turf clippings from treated areas to livestock or poultry.

Trade Advice:

General Instructions:

Home Garden
HOW TO PREPARE
Prior to pouring, shake container vigorously, then add the required quantity of Impala Fungicide to clean water in a garden sprayer (or watering can) and mix thoroughly. The prepared spray must be used on the day it is mixed.
DO NOT apply to waterlogged soil. DO NOT apply if heavy rains or storms that are likely to cause runoff are forecast within 3 days. DO NOT apply when soil is dry, and plants are suffering from moisture stress. DO NOT spray when shade temperatures are likely to exceed 30°C. DO NOT use on edible plants.

Compatibility
DO NOT mix with products or fertiliser with high salt content, i.e. ferrous sulphate or ammonium sulphate.

Commercial
GENERAL INSTRUCTIONS
Impala Fungicide contains 96 g/L azoxystrobin & 194 g/L triticonazole in the form of a suspension concentrate.

ERI Disease Management
Using fungicides for the control of ERI diseases has to be in conjunction with management practices aiming to optimise fertility, drainage, soil structure and pH, while minimising turf stress.

Turf Nutrition
This product acts very rapidly and where the turf is of a low nutritional status, a slight yellowing may be seen. This will be corrected by nitrogenous fertiliser application. Where possible, it is recommended that the fertiliser program should precede the fungicide application.

Growth Regulator Effects

- On turf that is primarily *Poa annua* Impala Fungicide may give a growth regulator effect.
- Applications made to *Poa annua* treated with a growth regulator (i.e. trinexapac-ethyl) may result in overregulation, discolouration and possible thinning, when high rates of the growth regulator are being used. Reducing growth regulator rates or eliminating an application is suggested when using Impala Fungicide.
- Tank-mixing of Impala Fungicide with a growth regulator is not suggested on *Poa annua* turf. For best results, separate these applications.
- Treatments may cause Bent grass to be darker green in colour and tighter in texture.
- Varietal differences in certain ultradwarf Couch grasses may produce transient discolouration on some varieties (such as Tifeagle, Tifdwarf (Tifton 419) and Tifgreen (Tifton 328)). It is recommended that small areas be tested for turf safety before large-scale application occurs. Avoid exceeding application rates through overlapping sprayed areas. Turf safety testing is best assessed at 1 to 4 weeks after application.

• One of Impala Fungicide's active constituents is 'triticonazole', which is a member of the triazole chemical family. Members of this family may have growth regulatory effects. This may be more evident on ultradwarf Couch grass varieties (such as Tifeagle, Tifdwarf (Tifton 419) and Tifgreen (Tifton 328)). This should be taken into consideration when applying Impala Fungicide leading into or during turf renovation periods.

Application

Ensure even application in order to achieve even disease control. Avoid overlapping sprays.

Leaf and Crown Diseases: Application volume for leaf and crown infecting diseases (Anthracnose, Brown Patch, Dollar Spot, Grey Leaf Spot, Helminthosporium diseases, Pythium Blight and Fusarium) should be adequate to ensure thorough and even coverage of the turf leaves and penetration to the crowns. Ideal application volume should be 350 to 500 L/ha. Example: For best results use medium [e.g. XR Teejet* (11004 or 11005)] to coarse [e.g. 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.

Root Diseases: Application volumes for root infecting diseases (Brown Patch, Couchgrass Decline, Fairy Ring, Pythium Root Rot, Spring Dead Spot and Take-all Patch) should be as high as possible (approximately 1000 L/ha) to ensure placement close to the soil surface. When lower application volumes are used, washing in should commence as soon as possible after application. Example: For best results use extremely coarse droplets [e.g. Turbo Floodjet (TF5) or TurfJet (TTJ10)] and total application volume of approximately 1000 L/ha. Preferably spray onto wet or dewy grass. Irrigate with 6 to 10 mm of water commencing within 1 hour of application.

Application Records

Users of this product **MUST** make an accurate written record of the details of each spray application within 24 hours following application and must **KEEP** this record for at least 2 years.

The spray application details that must be recorded are:

1. Date, with start and finish times of application
2. Location / address of area(s) sprayed
3. Full name of the product, product batch number (BN) and date of manufacture (DOM)
4. Amount of product used per hectare and the number of hectares treated
5. Turf species/situation and weed/pest/disease
6. Wind speed and direction during application
7. Air temperature and relative humidity during application
8. Spray irrigation or rainfall after application, start time, duration and amount (mm)
9. Equipment used; nozzle brand, type, spray angle, operating pressure and total water volume applied per hectare
10. Name and address of person applying this product

(Additional record details may be required by the State or Territory where this product is used.)

Incompatibility

To avoid hydrolysis Impala Fungicide needs the spray tank water to be within a pH range of 6 to 8. **DO NOT** mix with products or fertiliser with high salt content, i.e. ferrous sulphate or ammonium sulphate.

Compatibility

As formulations of other manufacturers' products are beyond the control of Turf Culture Pty Ltd, all mixtures should be tested prior to mixing commercial quantities. Compatibility testing should consist of assessing both; uniformed mixtures (i.e. no separation) and no rapid sediment build up (i.e. no flocculation).

Resistance Warning:

Commercial
FUNGICIDE RESISTANCE WARNING

GROUP 3 11 FUNGICIDE

Impala Fungicide is a combination of a member of the DMI and quinine outside inhibitors (Qols) groups of fungicides. For fungicide resistance management Impala Fungicide is both a Group 3 and a Group 11 fungicide. Some naturally occurring individual fungi resistant to Impala Fungicide and other Group 3 and/or Group 11 fungicides may exist through normal genetic variability in any fungal population. The resistant individuals can eventually dominate the fungal population if these fungicides are used repeatedly. These resistant fungi will not be controlled by Impala Fungicide or other Group 3 and/or Group 11 fungicides, thus resulting in a reduction in efficacy and possible yield loss. Since the occurrence of resistant fungi is difficult to detect prior to use, Turf Culture Pty Ltd accepts no liability for any losses that may result from the failure of Impala Fungicide to control resistant fungi.

Fungicides belonging to Group 11 should not exceed 1/3 (one third) of the total number of fungicide applications for a season.

Precautions:

Home Garden

DO NOT allow entry into treated areas until the spray has dried (including pets).

DO NOT spray Impala Fungicide where spray drift may reach apple trees. Impala Fungicide is extremely phytotoxic to certain apple varieties.

Apply no more than 2 consecutive applications of Impala Fungicide per disease per season.

DO NOT allow containers or spray to get into drains, sewers, ponds or streams.

DO NOT feed grass clippings from treated areas to poultry or other animals.

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Re-entry Periods

Public

DO NOT allow entry into treated areas until the spray has dried.

Workers

DO NOT enter treated areas until the spray has dried, unless wearing cotton overalls buttoned to the neck and wrist (or equivalent clothing) and chemical resistant gloves.

Clothing must be laundered after each days use.

Protections:

Commercial

PROTECTION OF CROPS, NATIVE AND OTHER NON-TARGET PLANTS

DO NOT apply under weather conditions, or from spraying equipment, that may cause spray to drift onto nearby susceptible plants/crops, cropping lands or pastures.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

Integrated Pest Management

Not compatible with integrated pest management (IPM) programs utilising beneficial arthropods. Minimise spray drift to reduce harmful effects on beneficial arthropods in non-crop areas.

Risk to non-target insects: Impala Fungicide may have adverse effects on some non-target beneficial insects, in particular predatory bugs. This should be taken into account where Integrated Pest Management utilising these organisms is practiced.

Storage and Disposal:

Home Garden

Store in the closed, original container in a cool, well-ventilated, dry place out of reach of children and pets. DO NOT store in direct sunlight. Dispose of empty container by wrapping in paper, placing in plastic bag and putting in garbage.

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	<p>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.</p> <p>If not recycling, break, crush or puncture and deliver empty packaging for appropriate disposal 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 relevant Local, State or Territory government regulations. DO NOT burn empty containers or product.</p>
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Safety Directions:	<p>Home Garden Wash hands after use.</p> <p>Commercial When opening the container and preparing spray, wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length chemical-resistant gloves. If applying by boomspray equipment wear cotton overalls buttoned to the neck and wrist (or equivalent clothing). If applying by handheld equipment wear cotton overalls buttoned to the neck and wrist (or equivalent clothing) and elbow-length chemical-resistant gloves. Wash hands after use. After each day's use wash gloves and contaminated clothing.</p>
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First Aid Instructions:	<p>Home Garden & Commercial If poisoning occurs contact a doctor or Poisons Information Centre. Phone Australia 13 11 26.</p>
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First Aid Warnings:	
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Restraints

DO NOT use this product through any type of irrigation system or ultra-low volume spray system.

DO NOT apply to turf under heat or moisture stress.

DO NOT apply to waterlogged soil.

DO NOT apply more than 1 application per year on Couch varieties C29, Greenlees Park, National Park, Tifway, Sportsway and Wagga City.

DO NOT apply if heavy rains or storms that are likely to cause runoff 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

www.apvma.gov.au/spraydrift

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply by aircraft.

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 zones in the relevant buffer zone tables below provide 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.

DO NOT apply by a boom sprayer unless the following requirements are met:

- Spray droplets not smaller than a Medium spray droplet size category.
- Minimum distances between the application site and downwind sensitive areas (see 'Mandatory buffer zones' section) are observed.

Mandatory buffer zones for boom sprayers

Application rate	Bystander areas	Natural aquatic areas	Pollinator areas	Vegetation areas	Livestock areas
Up to 6 L / ha	0 metres	20 metres	0 metres	40 metres	15 metres

Home Garden

Impala Fungicide Dual Action Systemic Fungicide

Impala Fungicide is an effective combination of two fungicides to prevent and control diseases in lawns. Impala's two active constituents work outside and inside the plant, helping prevent early fungal infection and established disease control, controlling all life cycle stages of turf diseases.

HOW TO USE:

Measure lawn area before application.

Situation	Disease	Rate	Critical Comments
Turf / Lawns	<p><u>Leaf and Crown Diseases</u> as listed;</p> <p>Anthracnose (<i>Colletotrichum graminicola</i>),</p> <p>Brown Patch (<i>Rhizoctonia solani</i>),</p> <p>Grey Leaf Spot (<i>Pyricularia grisea</i>),</p> <p>Helminthosporium Disease (<i>Bipolaris spp</i>, <i>Drechslera spp</i>, <i>Exserohilum spp</i>),</p> <p>Fusarium (<i>Fusarium nivale</i>, <i>Microdochium nivale</i>),</p> <p>Dollar Spot (<i>Sclerotinia homoeocarpa</i>),</p> <p>Pythium Leaf Blight, Seedling Damping Off (<i>Pythium spp</i>)</p>	<p>Garden Sprayer Mix 60 mL in 5L of water and evenly spray onto 100 square metres of lawn</p> <p>Watering Can Mix 6 mL in 9 litres of water and evenly apply to 10 square metres of lawn</p>	<p>For Preventative Control: Apply every 21-28 days when conditions favour disease development (e.g. warm, rainy weather).</p> <p>For Curative Control: Apply when disease symptoms first appear and repeat every 14-21 days.</p> <p>When spraying with Garden Sprayer ensure thorough and even coverage of the lawn.</p> <p>Irrigate the area sprayed with approx. 6 mm of rainfall equivalent commencing within 1 hour of application. DO NOT allow the product to dry on the leaf and crown surfaces.</p> <p>When irrigating the product into the soil after application DO NOT irrigate to the point of runoff (i.e. do not flood or irrigate more irrigation (mm) per hour than what the treated area's infiltration rate is – the soil moisture absorption rate).</p> <p>In high pressure Pythium curative situations use a suitable curative fungicide first and then follow up with Impala Fungicide.</p>
	<p><u>Root Diseases</u> as listed;</p> <p>Brown Patch (<i>Rhizoctonia solani</i>),</p> <p>Fairy Ring (<i>Basidiomycetes fungi</i>),</p> <p>Pythium Root Rot (<i>Pythium spp</i>),</p> <p>Ectotrophic Root Infecting Fungi (ERI) including;</p> <p>Couchgrass Decline (<i>Gaeumannomyces graminis var. graminis</i>),</p> <p>Spring Dead Spot (<i>Ophiosphaerella narmari</i>),</p> <p>Take-all Patch (<i>Gaeumannomyces graminis var. avenae</i>)</p>	<p>Garden Sprayer Mix 60 mL in 5L of water and evenly spray onto 100 square metres of lawn</p> <p>Watering Can Mix 6 mL in 9 litres of water and evenly apply to 10 square metres of lawn</p>	<p>When spraying with Garden Sprayer ensure thorough and even coverage of the lawn.</p> <p>Irrigate the area sprayed with approx. 6 mm of rainfall equivalent commencing within 1 hour of application. DO NOT allow the product to dry on the leaf and crown surfaces. DO NOT irrigate to the point of runoff (i.e. DO NOT flood or irrigate more irrigation (mm) per hour than what the treated area's infiltration rate is – the soil moisture absorption rate).</p> <p>Irrigate the area sprayed again with approx. 6 mm of rainfall equivalent 3 days after application.</p> <p>Fairy Ring: Apply preventatively when conditions are favorable for disease development or as an early curative as soon as possible after first symptoms are detected. Make a second application 21 days later.</p> <p>Ectotrophic Root Infecting Fungi (ERI) - Autumn strategy <u>Preventative applications:</u> Spray in late February. Make a second application 1 month later.</p> <p>Ectotrophic Root Infecting Fungi (ERI) - Spring and summer strategy <u>Preventative applications:</u> Spray in mid-October. Make a second application 1 month later. <u>Early curative applications:</u> Spray as soon as possible after first symptoms are detected. Make a second application 1 month later.</p>

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

Commercial

DIRECTIONS FOR USE

Situation	Disease	Rate	Critical Comments
Turf	Anthracnose (<i>Colletotrichum graminicola</i>), Brown Patch, (<i>Rhizoctonia solani</i>), Grey Leaf Spot (<i>Pyricularia grisea</i>), Helminthosporium Disease (<i>Bipolaris spp, Drechslera spp, Exserohilum spp</i>), Take-All Patch (<i>Gaeumannomyces graminis var. avenae</i>), Fusarium (<i>Fusarium nivale, Microdochium nivale</i>)	6 L per ha or 60 mL per 100m ²	Begin applications before symptoms occur when conditions first favour disease and continue applications while conditions remain favourable for disease development. Apply no more than 2 consecutive Impala Fungicide applications at 28 day intervals for all diseases. Apply Impala Fungicide in a preventative fungicide program containing fungicides from different Mode of Action Groups.
	Dollar Spot (<i>Sclerotinia homoeocarpa</i>)		Begin applications before symptoms occur when conditions first favour disease and continue applications while conditions remain favourable for disease development. Apply no more than 2 consecutive Impala Fungicide applications at 21 day intervals for Dollar Spot. Apply Impala Fungicide in a preventative fungicide program containing fungicides from different Mode of Action Groups.
	Fairy Ring (<i>Basidiomycetes spp.</i>)		Apply preventatively when conditions are favorable for disease development or as an early curative as soon as possible after first symptoms are detected. Make a second application 21 days later. Apply no more than 2 consecutive Impala Fungicide applications at 28 day intervals for all diseases. Apply Impala Fungicide in a preventative fungicide program containing fungicides from different Mode of Action Groups.
	Pythium Leaf Blight, Pythium Root Rot, Seedling Damping Off (<i>Pythium spp</i>)		Begin applications before symptoms occur when conditions first favour disease and continue applications while conditions remain favourable for disease development. Apply no more than 2 consecutive Impala Fungicide applications at 14 to 21 day intervals for Pythium. In high pressure curative situations use a suitable curative fungicide first and then follow up with Impala Fungicide. Apply Impala Fungicide in a preventative fungicide program containing fungicides from different Mode of Action Groups.

Situation	Disease	Rate	Critical Comments
	<p>Ectotrophic Root Infecting Fungi (ERI) Spring Dead Spot <i>(Ophiosphaerella narmari)</i>,</p> <p>Take-all Patch <i>(Gaeumannomyces graminis var. avenae)</i></p>		<p>Autumn strategy Preventative applications: Spray in January to April, after renovation and recovery of active growth. Make a second application 1 month later. DO NOT renovate treated greens until active growth has recommenced in Spring. Refer to Application section for detailed information.</p>
	<p>Ectotrophic Root Infecting Fungi (ERI) Couchgrass Decline <i>(Gaeumannomyces graminis var. graminis)</i>,</p> <p>Take-all Patch <i>(Gaeumannomyces graminis var. avenae)</i></p>		<p>Spring and summer strategy Preventative applications: Spray in September to November, after renovation and recovery of active growth. Make a second application 1 month later. Early curative applications: Spray as soon as possible after first symptoms are detected. Make a second application 1 month later. Refer to Application section for detailed information.</p>

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 UNLESS AUTHORISED UNDER APPROPRIATE LEGISLATION**