

CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING

QUANTUM

Prothioconazole 480 SC

FUNGICIDE

ACTIVE CONSTITUENT: 480 g/L PROTHIOCONAZOLE

GROUP **3** FUNGICIDE

For the control of various diseases in cereals and canola as specified in the DIRECTIONS FOR USE table.

APVMA Approval No.: 95805/154877

SC Formulation Type
Suspension Concentrate

**BE PROUDLY
AUSTRALIAN**

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DIRECTIONS FOR USE

RESTRAINTS:

A maximum of two applications may be made per cereal or canola crop.

DO NOT apply where the slope exceeds 7%.

DO NOT apply if heavy rains or storms that are likely to cause runoff are forecast within 48 hours.

DO NOT apply to waterlogged soils.

DO NOT irrigate to the point of run-off for at least 48 hours after application.

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at apvma.gov.au/spraydrift.

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

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 table/s 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 one to two hours before sunset and persist until one to two 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 of the following table titled 'Buffer zones for boom sprayers') are observed.

Buffer zones for boom sprayers	
Application rate	Mandatory downwind buffer zones (metres)
Up to maximum label rate	Natural aquatic areas
	5 metres

DIRECTIONS FOR USE

CROP	STATE	DISEASE	RATE		TIMING
Barley	All states	Net form Net Blotch (<i>Pyrenophora teres f. teres</i>)	120 - 240 mL/ha Adjuvant: Apply with a non-ionic surfactant, at 0.25% v/v		Monitor crops from mid tillering. On susceptible varieties apply at the first sign of disease development. Monitor and reapply within 14 to 21 days if conditions favour disease development. Use the higher rates (up to 240 mL/ha) where conditions favour severe disease.
		Spot form net blotch (<i>Pyrenophora teres f. maculata</i>)			
Wheat	All states	Stripe Rust (<i>Puccinia striiformis</i>)	120 - 240 mL/ha Adjuvant: Apply with a non-ionic surfactant, at 0.25% v/v		Monitor crops from early stem elongation, and on susceptible varieties apply at the first sign of infection. Use the higher rate (up to 240 mL/ha) in higher yielding crops where conditions favour disease development or susceptible varieties are grown. Continue to monitor crops after application, re-application may be required if conditions favour disease development and initial application is made before the flag leaf has emerged.
		Yellow Leaf Spot (<i>Pyrenophora tritici-repentis</i>)			Monitor crops from late tillering and spray before disease has infected any of the top three leaves of the crop. Aim to protect the three top leaves of the plant from disease.
		Septoria Nodorum – glume Blotch (<i>Parastagonospora nodorum</i>)			Monitor crops from late tillering. Aim to protect the three top leaves of the plant from disease.
Oats	All states	Leaf Rust (<i>Puccinia coronata f. sp. avenae</i>)	240 mL/ha Adjuvant: Apply with a non-ionic surfactant, at 0.25% v/v		Monitor crops from early stem elongation, and on susceptible varieties apply at the first sign of infection. Refer to General Instructions – Disease control in Oats, for potential risks associated with application to oats.
		Septoria Blotch (<i>Phaeosphaeria avenaria</i>)	120 - 240 mL/ha Adjuvant: Apply with a non-ionic surfactant, at 0.25% v/v		Monitor crops from early tillering and on susceptible varieties apply at the first sign of infection. Use the higher rate (up to 240 mL/ha) in higher yielding crops where conditions favour disease development or susceptible varieties are grown. Continue to monitor crops after application. Re-application may be required if conditions favour disease development. Refer to General Instructions – Disease control in Oats, for potential risks associated with application to oats

CROP	STATE	DISEASE	RATE		TIMING
Canola	All states	Blackleg (<i>Leptosphaeria maculans</i>)	200-240 mL/ha		Apply at the 4 to 6 leaf crop stage of blackleg susceptible varieties (blackleg ratings of MS or lower) or in situations of high blackleg risk (refer to General Instructions – Disease control in Canola). Will reduce lodging and stem canker from blackleg. A follow up application may be required at green bud stage in high disease risk situations or where an effective blackleg seed treatment has not been used.
		Sclerotinia Stem Rot (<i>Sclerotinia sclerotiorum</i>)			Apply QUANTUM PROTHIOCONAZOLE 480 SC FUNGICIDE between 20 and 50% (full bloom) flowering. For best results apply as a preventative application at 20-30% flowering prior to significant disease expression (refer to General Instructions – Disease control in Canola) . Good coverage throughout the entire canopy is essential. Using a water rate at the higher end of the range (i.e. 100 L/ha for ground application will improve spray coverage. Apply the higher rate (240 mL/ha) under high disease pressure.

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

WITHHOLDING PERIODS:

Canola: Harvest – NOT REQUIRED WHEN USED AS DIRECTED

**Grazing – DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER
APPLICATION**

Cereals: Harvest – DO NOT HARVEST FOR 9 WEEKS AFTER APPLICATION

**Grazing – DO NOT GRAZE OR CUT FOR STOCK FOOD FOR 14 DAYS AFTER
APPLICATION**

EXPORT OF TREATED PRODUCE

Growers should note that MRLs or import tolerances do not exist in all markets for produce treated with QUANTUM PROTHIOCONAZOLE 480 SC FUNGICIDE. If you are growing produce for export, please check with supplier for the latest information on MRLs and import tolerances before using QUANTUM PROTHIOCONAZOLE 480 SC FUNGICIDE.

GENERAL INSTRUCTIONS

Foliar diseases on cereal crops

Monitor the crop regularly for symptoms of disease. Generally spray at the first sign of disease, although this will depend on factors such as expected weather conditions and the particular crop variety resistance. Refer to Directions for Use for particular disease recommendations. Up to two sprays of QUANTUM PROTHIOCONAZOLE 480 SC FUNGICIDE may be applied per season to the crop. Ensure good coverage of all susceptible plant parts.

Disease control in oats

Caution: Varieties most at risk may exhibit early senescing and bronzing of leaves trait under various stress conditions not related to fungicide sprays.

Disease control in canola

Blackleg

Higher blackleg risk can be expected in higher rainfall districts (above 500 mm annual rainfall), where crops are grown within 500 m of a previous year's stubble and in later sown crops (May to August). Other factors will also increase the risk of blackleg infection, including the intensity of canola cropping in a district, rainfall before sowing and the frequency of growing the same canola cultivar. Consult industry guidelines for more detailed assessment of blackleg risk in specific situations. Up to two sprays of QUANTUM PROTHIOCONAZOLE 480 SC FUNGICIDE may be applied per season to the crop.

Sclerotinia

QUANTUM PROTHIOCONAZOLE 480 SC FUNGICIDE is most effective when application is made prior to conditions conducive to sclerotinia infection.

Infection and disease development are most conducive in warmer winter or spring conditions with extended periods of leaf wetness due to rainfall, dew and high humidity. Sclerotinia is most likely to develop where day temperatures are warmer coinciding with a saturated soil profile and rainfall events. Refer also to industry guidelines for advice on conditions under which sclerotinia are most likely to develop.

Control of sclerotinia stem rot is more effective in crops which have a uniform flowering. Uneven flowering (e.g. caused by staggered germinations) makes optimum spray timing difficult and two sprays may be required in these crops.

Generally a single application of QUANTUM PROTHIOCONAZOLE 480 SC FUNGICIDE at 20 to 30% flowering will control sclerotinia in crops with a short flowering interval. Crops with an extended flowering period may require a second application prior to 50% flowering (full-bloom) to adequately control sclerotinia if conditions late in the season are conducive to development of disease.

Length of protection may be reduced in bulky crops where coverage is difficult and where there is growth dilution of the fungicide. For optimum protection, application should be directed to obtain coverage on petals, leaves and stems.

MIXING

Prior to pouring, shake container vigorously, then add the required quantity of HARQUEBUS to water in the spray vat with agitators in motion. Add the required amount of adjuvant if necessary and mix thoroughly.

APPLICATION

Ground:

Wheat, barley, and oats: Apply product using a spray volume of 70 – 100 L/ha and a MEDIUM spray droplet size category.

Canola: Apply product using a spray volume of 60 – 100 L/ha and a MEDIUM spray droplet size category.

USE OF ADJUVANT

Suitable Adjuvants	Comments
non-ionic surfactant at 0.25% v/v	Can be used at all rates of QUANTUM PROTHIOCONAZOLE 480 SC FUNGICIDE for ground application.

FUNGICIDE RESISTANCE WARNING

QUANTUM PROTHIOCONAZOLE 480 SC FUNGICIDE is a member of the DMI group of fungicides. For fungicide resistance management the product is a Group 3 fungicide. Some naturally occurring individual fungi resistant to the product and other Group 3 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 this product and other Group 3 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, Quantum Agrosciences Holdings Pty Ltd accepts no liability for any losses that result from failure of this product to control resistant fungi.

GROUP 3 FUNGICIDE

PRECAUTIONS

Re-entry Period: 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 day's use.

PROTECTION OF WILDLIFE, FISH, CRUSTACEANS AND ENVIRONMENT

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

STORAGE AND DISPOSAL

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. If not recycling, break, crush, or puncture and deliver empty packaging 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. Do not use empty container for any other purpose.

SAFETY DIRECTIONS

May irritate the eyes and skin. Repeated exposure may cause allergic disorders. Avoid contact with eyes and skin.

When opening the container, preparing product for use and using the prepared product, 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.

FIRST AID

First aid is not generally required. If in doubt, contact a Poisons Information Centre (Phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor.

SAFETY DATA SHEET

For further information refer to Safety Data Sheet (SDS) which can be obtained from the supplier.

CONDITIONS OF SALE: Quantum Agrosciences Holdings Pty Ltd shall not be liable for any loss injury damage or death whether consequential or otherwise whatsoever or howsoever arising whether through negligence or otherwise in connection with the sale supply use or application of this product. The supply of this product is on the express condition that the purchaser does not rely on Quantum Agrosciences Holdings Pty Ltd's skill or judgement in purchasing or using the same and every person dealing with this product does so at his own risk absolutely. No representative of Quantum Agrosciences Holdings Pty Ltd has any authority to add to or alter these conditions.

Additional information required under the Globally Harmonised System (GHS) classification of the substance/mixture: **May damage fertility. Suspected of damaging the unborn child. Very toxic to aquatic life with long lasting effects.** Do not handle until all safety precautions have been read and understood. Wear protective gloves and protective clothing. Avoid release to the environment.



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