

GROUP	<b>3</b>	FUNGICIDE
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## **ROXAR™ FUNGICIDE**

**For control or suppression of diseases on Wheat (Spring, Winter and Durum);  
Barley; Crop Subgroup 6C including Dry Pea, Dry Bean, Lentil, Chickpea;  
Corn (Field and Seed); Crop Subgroup 20A (Rapeseed/Canola);  
Sugar Beets.**

**COMMERCIAL**

MICRO EMULSION

ACTIVE INGREDIENT: Tetraconazole.....210.0 g/L

READ THE LABEL BEFORE USING  
KEEP OUT OF REACH OF CHILDREN

REGISTRATION NUMBER: 32200 PEST CONTROL PRODUCTS ACT

NET CONTENTS: 250 mL – 1000 L

**For Product Use Information Call 1-800-438-6071**

UPL AgroSolutions Canada Inc.  
PO Box 12219  
Research Triangle Park, NC 27709

**FOR CHEMICAL EMERGENCY:  
spill, leak, fire, exposure, or accident, call CHEMTREC 1-800-424-9300.**

## PRECAUTIONS

### KEEP OUT OF REACH OF CHILDREN

**DO NOT** apply in greenhouses.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

Apply only to agricultural crops when the potential for drift to areas of human habitation and human activity, such as houses, cottages, schools and recreational areas, is minimal. Take into consideration wind speed, wind direction, temperature inversions, application equipment, and sprayer settings.

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. The pilot is allowed to load premixed chemicals with a closed system.

It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Wear coveralls over a long-sleeved shirt, long pants, chemical-resistant gloves, socks and shoes during mixing, loading, application, clean-up and repair. Gloves and coveralls are not required during application within a closed cab.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

### FIRST AID

**If swallowed:** Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

**If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control centre or doctor for treatment advice.

**If inhaled:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

### TOXICOLOGICAL INFORMATION

There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. Treat symptomatically.

## **ENVIRONMENTAL PRECAUTIONS**

**TOXIC** to aquatic organisms, non-target terrestrial plants, birds, and certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland. Observe buffer zones specified under DIRECTIONS FOR USE.

Tetraconazole is persistent and may carryover. It is recommended that any products containing tetraconazole not be used in areas treated with this product during the previous season.

To reduce runoff from treated areas into aquatic habitats avoid application to areas with a moderate to steep slope, compacted soil, or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

## **DIRECTIONS FOR USE**

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

**DO NOT** contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

## **GENERAL INFORMATION**

ROXAR Fungicide is formulated as 210 grams of active ingredient per litre micro emulsion (ME). The active ingredient in ROXAR Fungicide is tetraconazole, a triazole fungicide (Group3) that works by inhibiting demethylation and other processes in sterol biosynthesis. Tetraconazole is a systemic, protectant and curative fungicide and is absorbed quickly into the plant tissue. Optimal disease control is achieved when ROXAR Fungicide is applied in a regularly scheduled spray program. ROXAR Fungicide can be applied with a non-ionic surfactant at 0.2 – 0.25% v/v.

## **RAINFASTNESS**

ROXAR Fungicide is rainfast 2 hour after application. **Do not** apply if rain is expected within 2 hours of application or disease control may be reduced.

## **COMPATIBILITY OF MIXTURES**

ROXAR Fungicide is believed to be compatible with most commonly used agricultural fungicides, insecticides, growth regulators, micronutrients and adjuvants. It is always advisable to conduct a spray tank compatibility test before mixing this product with other products. To determine the physical compatibility of ROXAR Fungicide conduct a simple jar test as follows:

1. Add 500 mL of water to a 1 L jar. The water should be from the same source and temperature which will be used in the spray tank mixing operation.

2. Add 1 mL of ROXAR Fungicide to the jar; gently mix until product goes into suspension.
3. Add the proportionate amount of the mix product(s), with agitation. Add products in the following order: dry formulations, solutions, suspension concentrates, micro-emulsions, emulsifiable concentrates, and surfactants.
4. Add 1 mL of a non-ionic surfactant (if being used).
5. Place cap on jar, invert 10 times, let stand for 15 minutes, evaluate.
6. An ideal tank-mix combination will be uniform and free of suspended particles. If any of the following conditions are observed the mixture should not be used:
  - a) Layer of oil or globules on the mixture's surface.
  - b) Flocculation: fine particles in suspension or as a layer on the bottom of the jar.
  - c) Clabbering: Thickening texture (coagulated) like gelatin.
7. It is recommended that combinations be used on a small number of plants before treating large areas.

### **SPRAYER PREPARATION**

Before applying ROXAR Fungicide, start with clean, well maintained application equipment. The spray tank, as well as all hoses and booms, must be cleaned to ensure no residue from the previous spraying operation remains in the sprayer. The spray equipment must be cleaned according to the manufacturer's directions for the last product used before the equipment is used to apply ROXAR Fungicide. If two or more products were tank mixed prior to ROXAR Fungicide application, follow the most restrictive cleanup procedure.

Frequently check all application equipment (pressure, nozzles) to ensure complete coverage of the target crop and accurate rate of pesticide application.

### **MIXING INSTRUCTIONS**

1. Fill clean spray tank 1/2 to 2/3 of desired level with clean water.
2. While agitating, slowly add the ROXAR Fungicide to the spray tank. Agitation should create a rippling or rolling action on the water surface.
3. If tank-mixing ROXAR Fungicide with other labeled pesticides, add water soluble bags first, followed by dry formulations, solutions, suspension concentrates, micro-emulsions, emulsifiable concentrates, and then surfactants.
4. Add a non-ionic surfactant (if being used).
5. Fill spray tank to desired level with water. Agitation should continue until all spray solution has been applied.
6. Mix only the amount of spray solution that can be applied the day of mixing. ROXAR Fungicide should be applied within 24 hours of mixing.

### **SPRAYER CLEAN-UP**

Clean spray equipment each day following a ROXAR Fungicide application or following a ROXAR Fungicide application to a new product. After ROXAR Fungicide is applied; use the following steps to clean the spray equipment:

1. Completely drain the spray tank, rinse the sprayer thoroughly, including the inside and outside of the tank and all in-line screens.

2. Fill the spray tank with clean water and flush all hoses, booms, screens and nozzles.
3. Drain tank completely.
4. Remove all nozzles and screens and rinse them in clean water.

### **GROUND APPLICATION**

Apply product in sufficient water for thorough coverage of foliage, vines and fruit. To obtain adequate coverage of typical agricultural crops, total spray volume usually will range from 200 to 1400 liters per hectare. Increase spray volume as plant growth increases. Spray coverage is affected by nozzle type and spacing, sprayer pressure, liters per hectare, applicator speed, and other factors.

Field sprayer application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Boom height must be 60 cm or less above the crop or ground.

### **AERIAL APPLICATION**

#### **Wheat, barley, corn and crop subgroup 20A (rapeseed/canola) only**

Aerial application: **DO NOT** apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply when wind speed is greater than 16 km/h at flying height at the site of application. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE S572.1) medium classification. Reduce drift caused by turbulent wingtip vortices. Nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan.

Prior to aerial application, check aircraft for uniformity of spray pattern, spray swath width and output. Spray volumes of 50 litres/ha are generally optimum. If foliage is dense, use an output that will ensure optimum fungicide penetration. Spray swaths should be marked using flaggers who are in completely enclosed vehicles, by counting rows or by some other marking device.

Apply only by fixed-wing or rotary aircraft equipment which has been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label.

Label rates, conditions and precautions are crop specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. Where no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ensure uniform application. To avoid streaked, uneven or overlapped application, use appropriate marking devices.

#### **Aerial Use Precautions**

Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage. Apply only under conditions of good practice specific to aerial application as outlined in the National Aerial Pesticide Application Manual, developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides

**Aerial Operator Precautions**

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

Read and understand the entire label before opening this product. If you have questions, call the manufacturer at 1-800-438-6071 or obtain technical advice from the distributor or your provincial agricultural representative.

**ROTATIONAL CROP RESTRICTIONS**

Do not plant crops within 30 days following the last application of ROXAR Fungicide. Wheat, barley, dried shelled pea and bean (crop subgroup 6C), crop subgroup 20A (rapeseed/canola), fruiting vegetables (crop group 8-09), cucurbit vegetables (crop group 9), corn, grape, gooseberry, strawberry and sugar beet can be planted immediately after the last application.

**RESTRICTIONS AND LIMITATIONS**

1. **Do not** make more than two (2) applications of ROXAR Fungicide to wheat, barley, dried shelled pea and bean (crop subgroup 6C) and crop subgroup 20A (rapeseed/canola), and one (1) application to sugar beets and corn per year.
2. **Chemigation: Do not** apply ROXAR Fungicide through any type of irrigation system.
3. **DO NOT** enter or allow worker entry into treated areas during the restricted entry intervals (REIs) specified in the following table:

Crop	Post-application Activities	Restricted Entry Interval
Corn	Detasseling	21 days
	Hand-set irrigation	6 days
	Scouting, full foliage	2 days
	All other activities	12 hours
Dry Bean/Dry Pea	Hand-set irrigation	9 days
	Scouting	5 days
	All other activities	12 hours
Crop Subgroup 20A (rapeseed/canola)	Scouting	6 days
	All other activities	12 hours
Sugar Beets	Irrigation activities	3 days
	All other activities	12 hours
Wheat Barley	Scouting	3 days
	All other activities	12 hours

### CROP SPECIFIC USE RATES AND RECOMMENDATIONS

Crop	Disease Controlled	Product Use Rate per Application (mL/ha)	Maximum Number of Applications per Season	Maximum Product Rate per Season (mL/ha)	Minimum Time from Application to Harvest (PHI)
Wheat (Durum, Winter, Spring), Barley	Septoria Leaf Spot and Glume Blotch ( <i>Septoria tritici</i> ) (suppression) Tan spot ( <i>Pyrenophora tritici-repentis</i> ) Stem Rust ( <i>Puccinia graminis</i> ) Stripe Rust ( <i>Puccinia striiformis</i> ) Net Blotch ( <i>Pyrenophora teres</i> ) Barley Scald ( <i>Rhynchosporium secalis</i> )	333	2	666	40 day PHI for grain and 7 day PHI for forage and hay.
	Fusarium Head Blight ( <i>Fusarium graminearum</i> ) (suppression)	524	1		
<p><b>Use Recommendations:</b> For optimum results, begin applications preventively and repeat if needed 14 to 21 days after the first application. For leaf and stem diseases, apply prior to disease development from tillering up to late head emergence before flowering. Under severe disease conditions, shorter spray intervals should be used. For fusarium head blight, apply when at least 75% of the head on the main stem has emerged to when 50% of the heads on the main stem are in flower. Apply in a minimum of 100 L of water per hectare by ground application and a minimum of 50 L of water per hectare by aerial application. If forage/hay will be harvested, make only one application.</p>					
Dried Shelled Pea and Bean (Crop Subgroup 6C)*	Powdery Mildew of pea ( <i>Erysiphe pisi</i> ) (suppression) Sclerotinia White Mould/ Stem Rot ( <i>Sclerotinia sclerotiorum</i> ) (suppression) Ascochyta Blight of pea ( <i>Mycosphaerella pinodes</i> ) (suppression) Ascochyta Leaf and Pod Spot of lentil and pea ( <i>Ascochyta lentis, A. pisi</i> ) (suppression)	333-533	2	1066	14 day PHI
<p><b>Use Recommendations:</b> For optimum results, begin applications preventively and repeat if needed after 14 to 21 days after the first application. Apply at the beginning of flowering or disease development. Use the higher rates and shorter interval when disease pressure is high. Apply in a minimum of 100 L of water per hectare by ground application. DO NOT apply by air. EVITO 480 SC Fungicide at 292 mL/ha can be tankmixed with Roxar Fungicide for management of Ascochyta.</p>					
Crop Subgroup 20A (rapeseed/canola)*	Sclerotinia Stem Rot ( <i>Sclerotinia sclerotiorum</i> ) (suppression)	333-533	2	1066	21 day PHI
<p><b>Use Recommendations:</b> For optimum results, begin applications preventatively and repeat if needed 7 to 14 days after the first application. Use the higher rates and shorter interval when disease pressure is high. Apply in a minimum of 100 L of water per hectare by ground application and a minimum of 50 L of water per hectare by aerial application.</p>					
Corn (Field and Seed)	Common Rust ( <i>Puccinia sorghi</i> )	480	1	480	30 day PHI.

	Southern Corn Leaf Blight ( <i>Cochliobolus heterostrophus</i> ) Northern Corn Leaf Blight ( <i>Setosphaeria turcica</i> , anamorph: <i>Exserohilum turcicum</i> )				
<b>Use Recommendations:</b> For optimum results, begin application preventatively between the 4 leaf collar stage (V4) and dough stage (R4). A non-ionic surfactant at 0.2% v/v can be added. Do not use adjuvants in sprays made between the 8 leaf collar stage (V8) and lowest branch of the tassel visible but prior to silk emergence (VT). Apply in a minimum of 100 L of water per hectare by ground application and a minimum of 50 L of water per hectare by aerial application.					
Sugar Beets	Cercospora leaf spot ( <i>Cercospora beticola</i> ), Powdery Mildew ( <i>Erysiphe polygoni</i> )	565	1	565	14 days
<b>Use Recommendations:</b> Apply beginning when conditions are favorable for Cercospora leafspot or powdery mildew. Application of this product must be alternated with a non-triazole fungicide which is registered for use on sugar beets.					

\* Crop Subgroup 6C - Bean (*Lupinus* spp.) (includes: grain lupin, sweet lupin, white lupin and white sweet lupin), Bean (*Phaseolus* spp.) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean), Bean (*Vigna* spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean), Broad bean (fava bean) (*Vicia faba*), Chickpea (garbanzo bean) (*Cicer arietinum*), Guar (*Cyamopsis tetragonoloba*), Lablab bean (hyacinth bean) (*Lablab purpureus*), Lentil (*Lens esculenta*), Pea (*Pisum* spp.) (includes field pea), Pigeon pea (*Cajanus cajan*)

\* Crop Subgroup 20A (rapeseed/canola) - Borage; crambe; cuphea; echium; flax seed; gold of pleasure; hare's ear mustard; lesquerella; lunaria; meadowfoam; milkweed; mustard seed; oil radish; poppy seed; rapeseed; sesame; sweet rocket cultivars, varieties, and/or hybrids of these.

**Buffer zones:**

Spot treatments using hand-held equipment do not require a buffer zone.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive terrestrial habitats (such as grasslands, forested areas, shelter belts, woodlots, hedgerows, riparian areas and shrublands).

Method of application	Crop		Buffer Zones (metres) Required for the Protection of Terrestrial Habitat:
Field sprayer	Crop subgroup 20A (rapeseed/canola), dried shelled pea and bean (Crop Subgroup 6C), barley and wheat (durum, winter, spring)		1
Aerial	Barley and wheat (durum, winter, spring)	Fixed wing	15
		Rotary wing	10



	Crop subgroup 20A (rapeseed/canola)	Fixed wing	15
		Rotary wing	15

For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASAE) category indicated on the labels for those tank mix partners.

The buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site.

### **RESISTANCE MANAGEMENT**

For resistance management, please note that ROXAR Fungicide contains a Group 3 fungicide. Any fungal population may contain individuals naturally resistant to ROXAR Fungicide and other Group 3 fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance:

- Where possible, rotate the use of ROXAR Fungicide or other Group 3 fungicides with different groups that control the same pathogens.
- Use tank mixtures with fungicides from a different group that is effective on the target pathogen, when such use is permitted.
- Fungicide use should be based on an integrated disease management program that includes scouting, historical information related to pesticide use and crop rotation and considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices.
- Where possible, make use of predictive disease models to effectively time fungicide applications.
- Monitor treated fungal populations for resistance development.
- Notify UPL AgroSolutions Canada Inc if reduced sensitivity of the pathogen to ROXAR Fungicide is suspected.
- If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different target site of action, if available.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
- For further information and to report suspected resistance, contact UPL AgroSolutions Canada Inc at 1-800-438-6071.

## **STORAGE**

To prevent contamination store this product away from food or feed.

## **DISPOSAL**

### **For recyclable containers:**

Do not reuse this container for any purpose. This is a recyclable container and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site:

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

### **For Returnable Containers:**

Do not reuse this container for any purpose. For disposal, this empty container may be returned to the point of purchase (distributor/dealer).

### **For Returnable-Refillable Containers:**

For disposal, this container may be returned to the point of purchase (distributor/dealer). It must be refilled by the distributor/dealer with the same product. Do not reuse this container for any other purpose.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

## **NOTICE TO USER**

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.

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