

GROUP	11	3	FUNGICIDES
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QUADRIS TOP®

FUNGICIDE

SUSPENSION

AGRICULTURAL

Fungicide for control or suppression of broad-spectrum diseases in labelled crops.

ACTIVE INGREDIENTS:

Azoxystrobin 200 g/L
Difenoconazole.....125 g/L

Contains 1,2-benzisothiazolin-3-one at 0.031% or 1,2-benzisothiazolin-3-one at 0.048% and 2-bromo-2-nitropropane-1,3-diol at 0.03% as preservatives.

**READ THE LABEL AND ATTACHED BOOKLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN**

CAUTION



POISON

EYE IRRITANT

REGISTRATION NO: **30518**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: **0.5 L – 1000 L**

Syngenta Canada Inc.
140 Research Lane, Research Park
Guelph, Ontario N1G 4Z3
Telephone: 1-877-964-3682

Label

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. The user assumes the risk to persons or property that arises from any such use of this product.

FIRST AID

IN CASE OF POISONING, contact a physician or a poison control centre **IMMEDIATELY**. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

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 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.

TOXICOLOGICAL INFORMATION

There is no specific antidote. Treat symptomatically.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN AND ANIMALS. Keep unused product in original container tightly closed, locked up and away from food.

Harmful if swallowed. May irritate eyes. Avoid contact with eyes.

For brassica (cole) Leafy vegetables (crop group 5) a restricted entry interval (REI) of 3 days is required for hand harvesting and an REI of 1 day is required for scouting. For all other crops and activities, **DO NOT** enter or allow worker entry into treated areas during the REI of 12 hours.

If this pest control product is to be used on a commodity that may be exported to other countries in the world and you require information on acceptable residue levels in these countries, please contact Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682.

PERSONAL PROTECTIVE EQUIPMENT

Wear coveralls or long sleeved shirt and long pants, chemical resistant gloves, shoes, and socks when mixing, loading applying or during equipment clean up or repair. In addition, wear goggles when mixing, loading or during equipment cleanup and repair. Gloves are not required during application within a closed cab.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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

All users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.

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Apply only when the potential for drift to areas of human habitation or areas of 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.

ENVIRONMENTAL HAZARDS

Difenoconazole is toxic to aquatic organisms (or invertebrates), fish and mammals.

Drift and runoff may be hazardous to aquatic estuarine/marine organisms in water adjacent to treated area.

Azoxystrobin is toxic to freshwater and estuarine/marine fish and aquatic invertebrates. Azoxystrobin can be persistent for several months or longer. Azoxystrobin has degradation products which have properties similar to chemicals which are known to leach through soil to ground water under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow may result in ground water contamination.

Do not apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.

Do not contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

This product may contaminate water through drift and spray. 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. Sound erosion control practices will reduce this products' potential to reach surface

water. Provincial buffer zones must be observed. Observe buffer zones specified in Table 1 under GENERAL DIRECTIONS FOR USE.

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

STORAGE

STORE IN A COOL, DRY PLACE. Do not store food, beverages or tobacco products in storage area.

DECONTAMINATION AND DISPOSAL

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 cleanup of spills.

CONTAINER DISPOSAL:

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 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 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.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,
CALL 1-800-327-8633 (FASTMED)***

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Pamphlet

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TOXICOLOGICAL INFORMATION

There is no specific antidote. Treat symptomatically.

PRECAUTIONS

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Harmful if swallowed. May irritate eyes. Avoid contact with eyes.

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Do not apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, ditches and wetlands), estuaries or marine habitats.

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water. Provincial buffer zones must be observed. Observe buffer zones specified in Table 1 under GENERAL DIRECTIONS FOR USE.

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

STORAGE

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CALL 1-800-327-8633 (FASTMED)***

GENERAL INFORMATION

QUADRIS TOP® is a broad-spectrum product containing two fungicides. It has preventative, systemic and curative properties. QUADRIS TOP provides control of leaf spots and powdery

mildews. QUADRIS TOP is applied as a foliar spray in alternating spray programs with other crop protection products. All applications must be made according to the use directions that follow.

QUADRIS TOP is extremely phytotoxic to certain apple varieties. Avoid spray drift. Extreme care must be taken to prevent injury to apple trees (and apple fruit). DO NOT spray QUADRIS TOP where spray drift may reach apple trees.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR DISEASE CONTROL, AND/OR ILLEGAL RESIDUES.

SPRAY EQUIPMENT

Thorough coverage is necessary to provide good disease control. Applications using nozzles, sufficient water volume and pressure to provide thorough and uniform coverage generally provide the most effective disease control.

To avoid spray drift, do not apply when conditions favor drift beyond the target area. Avoid spray overlap, as crop injury may occur.

For more information on spray equipment and calibration, consult sprayer manufacturers and provincial recommendations.

GENERAL USE DIRECTIONS

Do not apply QUADRIS TOP through irrigation equipment.

GROUND SPRAYER APPLICATION

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) medium classification. Boom height must be 60 cm or less above the crop or ground.

Airblast application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

BUFFER ZONES

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Table 1. Buffer Zones

Method of Application	Crop	Buffer Zones (metres) Required for the Protection of:				
		Freshwater Habitats of Depths:		Estuarine/Marine Habitats of Depths:		Terrestrial Habitat
		Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m	
Field sprayer*	Potatoes and sweet potatoes, carrots, sugar beets, bulb vegetables, brassica leaf vegetables, dried shelled pea and bean, fruiting vegetables, and cucurbits vegetables	3	1	1	1	
	Low growing berry (Crop group 13-07G, except cranberry)	1	1	1	1	1
Aerial	Potatoes	25	4	15	5	
Airblast	Potatoes and sweet potatoes, carrots, sugar beets, bulb vegetables, brassica leaf vegetables, dried shelled pea and bean, fruiting vegetables, and cucurbits vegetables	25	4	15	5	
Field sprayer and Chemigation	Lowbush Cranberry	1	1	1	1	1

* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shield. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

MIXING PROCEDURES

Prepare only the amount of spray mixture that is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Vigorous agitation is necessary for proper dispersal of the product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand overnight in the spray tank. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area.

1. Add ½-¾ of the required amount of water to the spray or mixing tank.
2. With the agitator running, add QUADRIS TOP to the tank. Add the tank-mix partner(s) into the tank in the same order as described below.
3. Continue agitation while adding the remainder of the water.
4. Begin application of the spray solution after QUADRIS TOP has completely dispersed into the mix water.
5. Maintain agitation until all of the mixture has been sprayed.
6. This product must not be mixed with any product which prohibits such mixing.

AERIAL APPLICATION

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) medium classification. To reduce drift caused by turbulent wingtip vortices, the nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing- or rotorspan. Apply at least 45 litres of water per hectare.

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

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.

Operator Precautions

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted.

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

The field crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing ground boom label.

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.

Product Specific Precautions

Do not spray when the wind is blowing towards a nearby sensitive crop, garden, terrestrial habitat (such as shelter-belt) or aquatic habitat.

The buffer zones specified in Table 1 above 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), sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Follow recommendations provided by local disease monitoring services or provincial spray calendars regarding the appropriate application timing for protectant fungicides in your area. Cultural practices such as canopy management and removal of overwintered plant debris should be integrated with the use of fungicides to reduce disease incidence. Use the higher rate, and the shorter application interval under conditions of heavy infection pressure, on highly susceptible varieties, or when environmental conditions are favourable for disease development.

QUADRIS TOP treatments should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, plant residue management, crop rotation, and proper timing and placement of fertilizer and irrigation. Fungicide applications should begin prior to disease infection and continue throughout the season following a resistance management strategy (see **Resistance Management Recommendations**).

ROTATIONAL CROP RESTRICTIONS

Do not plant any other crop for a period of 60 days following a QUADRIS TOP application to the preceding crop unless QUADRIS TOP and/or INSPIRE® are registered for that crop.

DIRECTIONS FOR USE

Apply the higher rate and shorter interval under conditions of high disease pressures.

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

NOT FOR USE IN GREENHOUSES APPLIED ALONE OR WITH ANY TANK MIX PARTNERS.

Crops	Potatoes and Sweet Potatoes
Diseases Controlled	Early Blight (<i>Alternaria solani</i>)
Use rate mL product/ha	566 – 1000
Application Timing/Instructions	<p>Apply as a broadcast foliar spray in sufficient water (150 L/ha) for thorough coverage.</p> <p>For aerial application (potatoes only), apply in a minimum spray volume of 45 L/ha.</p> <p>Apply on a 7 to 14 day interval, starting prior to disease establishment.</p> <p>If disease pressure is high, use the highest rate and shortest interval.</p> <p>For Early Blight, use the high rate and the shortest application interval under high disease pressures.</p>

Crops	Potatoes
Diseases Suppressed	Brown Spot (<i>Alternaria alternata</i>) Black dot (<i>Colletotrichum coccodes</i>)
Use rate mL product/ha	566 – 1000
Application Timing/Instructions	Apply as a broadcast foliar spray in sufficient water (150 L/ha) for thorough coverage. For aerial application, apply in a minimum spray volume of 45 L/ha. Apply prior to disease. Apply no more than 1 application to target these diseases. If disease pressure is high, use the highest rate.
Crops	Potatoes
Diseases Suppressed	White mould (<i>Sclerotinia sclerotiorum</i>)
Use rate mL product/ha	1000
Application Timing/Instructions	Apply as a broadcast foliar spray in sufficient water (150 L/ha) for thorough coverage. For aerial application, apply in a minimum spray volume of 45 L/ha. Begin applications at full bloom. Repeat applications at intervals of 7 to 10 days.
Crops	Carrots
Diseases Controlled	Leaf blight (<i>Alternaria dauci</i>) Cercospora leaf spot (<i>Cercospora carota</i>)
Use rate mL product/ha	566 – 1000
Application Timing/Instructions	Apply as a broadcast foliar spray in sufficient water (150 L/ha) for thorough coverage. Apply on a 7 to 14 day interval, starting prior to disease establishment. If disease pressure is high, use the highest rate and shortest interval.
Crops	Sugar beets
Diseases Controlled	Cercospora leaf spot (<i>Cercospora beticola</i>) Powdery mildew (<i>Erysiphe polygoni</i>)
Use rate mL product/ha	566 – 1000
Application Timing/Instructions	Apply on a 7 to 28 day schedule, alternating with a non-triazole fungicide (non-Group 3) that is registered for sugar beets for these diseases. If disease pressure is high, use the highest rate and shortest interval.
Restrictions: APPLY A MAXIMUM OF 3 APPLICATIONS OF QUADRIS TOP PER SEASON. DO NOT apply more than 1 treatment of QUADRIS TOP before alternating to another fungicide with a non-QoI (Group 11) mode of action. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program. DO NOT APPLY WITHIN 14 DAYS OF HARVEST FOR POTATOES AND SWEET POTATOES AND 7 DAYS OF HARVEST FOR CARROTS AND SUGAR BEETS.	

Crops	Bulb vegetables
Diseases Controlled	Purple blotch (<i>Alternaria porri</i>) Downy mildew (<i>Peronospora destructor</i>) Botrytis leaf blight (<i>Botrytis squamosa</i>)
Diseases Suppressed	Leaf Blotch (<i>Cladosporium allii-cepae</i>)* Stemphylium leaf blight (<i>S. vesicarium</i>)*
Use rate mL product/ha	710 - 1000
Application Timing/Instructions	*Apply no more than 1 application to target this disease. Apply as a broadcast foliar spray in sufficient water for thorough coverage. A minimum spray volume of 150 L/ha is recommended. Apply on a 7 to 14 day interval, starting prior to disease onset when conditions are conducive to disease. If disease pressure is high, use the highest rate and shortest interval.
Complete list of crops: Dry bulb: Onion, bulb; Onion, Chinese, bulb; Garlic, bulb; Garlic, great-headed (elephant); Shallot, bulb Green Onion: Green onions; Leek; Welch onion; Chives, fresh leaves; Chives, Chinese; Shallot, fresh leaves; Lady's leek, Onion, fresh' Onion, tree, tops; Wild leek	
Restrictions: APPLY A MAXIMUM OF 4 APPLICATIONS OF QUADRIS TOP PER SEASON on dry bulb onions subgroup. APPLY A MAXIMUM OF 3 APPLICATIONS OF QUADRIS TOP PER SEASON on green onions subgroup. DO NOT apply more than 1 treatment of QUADRIS TOP before alternating to another fungicide with a non-QoI (Group 11) mode of action. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program. DO NOT APPLY WITHIN 7 DAYS OF HARVEST. DO NOT APPLY BY AIR.	
Crops	Brassica (cole) Leafy vegetables
Diseases Controlled	Alternaria blight (<i>Alternaria brassicae</i> , <i>A. raphani</i>) Powdery mildew (<i>Erysiphe polygoni</i>)*
Use rate mL product/ha	710 - 1000
Application Timing/Instructions	Apply as a broadcast foliar spray in sufficient water for thorough coverage. A minimum spray volume of 150 L/ha is recommended. Apply on a 10 to 14 day interval, starting prior to disease onset when conditions are conducive to disease. If disease pressure is high, use the highest rate and shortest interval.
Complete list of crops: Brassica Head and Stem subgroup: Broccoli; Chinese Broccoli (gai lon); Brussels sprouts; Cabbage; Chinese cabbage (napa); Chinese mustard cabbage (gai choy); Cauliflower; Cavalo broccolo; Kohlrabi. Leafy Green subgroup: Broccoli raab; Chinese cabbage (bok choy); Collard; Kale; Mizuna; Mustard greens; Mustard spinach; Rape greens. Including all cultivars and/or hybrids of these.	
Restrictions: APPLY A MAXIMUM OF 4 APPLICATIONS OF QUADRIS TOP PER SEASON. DO NOT apply more than 1 treatment of QUADRIS TOP before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Do not apply more than 2 sequential applications of group 3 fungicides before alternating to another mode of action fungicide registered for the same use. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program. DO NOT APPLY WITHIN 3 DAYS OF HARVEST. DO NOT APPLY BY AIR.	

Crops	Dried shelled pea and beans
Diseases Controlled	Ascochyta blight (<i>Ascochyta</i> spp.) Anthraco se (<i>Colletotrichum</i> spp.)
Use rate mL product/ha	625
Application Timing/Instructions	One application must be applied before disease is established and no later than the onset of flowering. A second application can be made 7-14 days after the first application, when disease pressure is severe or when agronomic or weather conditions are conducive to disease development or movement.
Crops	Pea (<i>Pisum</i> spp.) including field pea
Diseases Controlled	Mycosphaerella blight (<i>Mycosphaerella pinodes</i>)
Use rate mL product/ha	625
Application Timing/Instructions	One application must be applied before disease is established and no later than the onset of flowering. A second application can be made 7-14 days after the first application, when disease pressure is severe or when agronomic or weather conditions are conducive to disease development or movement.
Complete list of crops: Any dried cultivar of bean (<i>Phaseolus</i> spp.); and dried cultivar of pea (<i>Pisum</i> spp.); dried cultivars of bean (<i>Lupinus</i> spp.) (includes grain lupin, sweet lupin, white lupin, and sweet white lupin); (<i>Vigna</i> spp.) (includes adzuki beans); (<i>Phaseolus</i> spp.) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean, mung bean, rice bean, southern bean, urd bean); broad bean (dry); chickpea; guar; lablab bean; lentil; pea (<i>Pisum</i> spp.) (includes field pea); and pigeon pea.	
Restrictions: APPLY A MAXIMUM OF 2 APPLICATIONS OF QUADRIS TOP PER SEASON. DO NOT apply more than 1 treatment of QUADRIS TOP before alternating to another fungicide with a non-QoI (Group 11) mode of action. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program. DO NOT APPLY WITHIN 30 DAYS OF HARVEST. Do not make more than one application to dry pea hay. Do not apply within 14 days of harvest of dry pea hay. Do not feed dried pea vines to livestock. Not all members of the legume vegetable group 6C have been tested for efficacy and phytotoxicity at the recommended label rates, and should be used at the discretion of the user.	
Crops	Fruiting vegetables
Diseases Controlled	Early Blight (<i>Alternaria solani</i>) Anthraco se (<i>Colletotrichum</i> spp.) Septoria leaf spot (<i>Septoria lycopersici</i>) Powdery Mildew (<i>Oidiopsis sicula</i> ; <i>Leveillula taurica</i>)
Use rate mL product/ha	625
Application Timing/Instructions	Apply as a broadcast foliar spray in sufficient water for thorough coverage. Apply on a 7 to 10 day interval, starting at first fruit set for all diseases except Early blight apply on a 7 to 14 day interval, starting prior to disease establishment. If disease pressure is high, use the shortest interval.

Crops	Eggplant, peppers and tomatoes
Diseases Suppressed	<i>Cercospora leafspot (C. capsici)</i>
Use rate mL product/ha	625
Application Timing/Instructions	Apply as a broadcast foliar spray in sufficient water for thorough coverage. Apply starting at first fruit set. Apply no more than 1 application to target this disease.
Crop	Tomatoes only
Diseases Controlled	Early Blight (<i>Alternaria solani</i>) Anthracnose (<i>Colletotrichum</i> spp.)
Use rate mL product/ha	375-625
Application Timing/Instructions	Apply as a broadcast foliar spray in sufficient water for thorough coverage. For anthracnose, apply on a 7 to 10 day interval, starting at first fruit set. For Early blight, apply on a 7 to 14 day interval, starting prior to disease establishment. Use the low rate only when disease pressure is expected to be low. If disease pressure is high, use the shortest interval and highest rate.
Complete list of crops: Eggplant; Groundcherry; Pepino; Pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); Tomatillo; Tomato	
Restrictions: APPLY A MAXIMUM OF 3 APPLICATIONS OF QUADRIS TOP PER SEASON. DO NOT apply more than 1 treatment of QUADRIS TOP before alternating to another fungicide with a non-QoI (Group 11) mode of action. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program. DO NOT APPLY WITHIN 1 DAY OF HARVEST. To avoid damage to tomatoes, QUADRIS TOP should not be applied within 6 days, either before or after, a broadcast application of metribuzin. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program. QUADRIS TOP should not be applied until 21 days after transplanting or 35 days after seeding.	

Crops	Cucurbit vegetables
Diseases Controlled	Powdery mildew (<i>Sphaerotheca fuliginea</i> , <i>Erysiphe cichoracearum</i>) Alternaria leaf blight (<i>Alternaria cucumerina</i>) Anthracnose (<i>Colletotrichum orniculare</i> , <i>C. lagenarium</i>) Gummy stem blight (<i>Didymella bryoniae</i>) (Suppression)
Use rate mL product/ha	710 - 1000
Application Timing/Instructions	Apply as a broadcast foliar spray in sufficient water for thorough coverage. A minimum spray volume of 150 L/ha is recommended. For gummy stem blight, a minimum spray volume of 190 L/ha is recommended. Apply on a 7 to 14 day interval, starting prior to disease onset when conditions are conducive to disease. If disease pressure is high, use the highest rate and shortest interval.
Complete list of crops: Chinese waxgourd; Citron melon; Cucumber (field); Gerkin; Gourd, edible; Momordica spp.; Muskmelons (includes cantaloupe); Pumpkin; Squash, summer (includes zucchini); Squash, winter; Watermelon. Including cultivars and/or hybrids of these.	
Restrictions: APPLY A MAXIMUM OF 4 APPLICATIONS OF QUADRIS TOP PER SEASON. DO NOT apply more than 1 treatment of QUADRIS TOP before alternating to another fungicide with a non-QoI (Group 11) mode of action. Follow all precautions, restrictions and directions on the labels of fungicide products used in an alternation program. DO NOT APPLY WITHIN 1 DAY OF HARVEST. DO NOT APPLY BY AIR.	

READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATIONS

NOTE TO USER:

The DIRECTIONS FOR USE for this product for the uses described below were developed by persons other than Syngenta Canada Inc. and accepted for registration by Health Canada under the User Requested Minor Use Label Expansion program. Syngenta Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and crop tolerance (phytotoxicity) claims for this product when used on the crops listed below.

Accordingly, the User assumes all risks related to performance and crop tolerances arising, and agrees to hold Syngenta Canada Inc. harmless from any claims based on efficacy or phytotoxicity in connection with the uses described below.

LOWBUSH CRANBERRIES – FOLIAR OR SPRINKLER CHEMIGATION APPLICATION

DISEASES CONTROLLED	Fruit rots (blotch rot (<i>Physalospora vaccinia</i>) Ripe rot (<i>Coleophoma empetri</i>) End rot (<i>Fusicoccum putrefaciens</i> syn. <i>Godronia cassandrae</i>) Bitter rot (<i>Colletotrichum acutatum</i> , <i>Glomerella cingulata</i> syn. <i>C. gloeosporioides</i>) Viscid rot (<i>Phomopsis vacinii</i>) Black rot (<i>Allantophomopsis lycopodina</i>) Cottonball (<i>Monilinia oxycocci</i>)
PRODUCT RATE L/HA	1.0
NUMBER OF APPLICATIONS	Maximum 3 per year
INTERVAL	7 to 10 days
APPLICATION TIMING	Begin applications at 5-10% bloom for fruit rots and cottonball rot. Continue applications on a 7-10 day schedule if conditions are favorable for disease development. Apply in sufficient water for thorough coverage. Use a minimum 100L/ha for foliar application or a minimum of 1000 L/ha for chemigation application.
PRE-HARVEST INTERVAL	30 days

Restrictions:

1. Apply a maximum of 3 applications of QUADRIS TOP per season.
2. **DO NOT APPLY BY AIR. DO NOT apply by chemigation if applied by foliar broadcast spray. DO NOT apply by foliar spray if applied by chemigation.**
3. Do not treat lowbush cranberry fields used for aquaculture of fish and crustacea.
4. Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat. Applicators should use care in making applications near non-target aquatic habitats.
5. Do not apply to flooded crop.
6. Do not allow release of irrigation or flood water to non-target aquatic habitat for at least 14 days after the last application.
7. Do not allow spray pattern to exceed the enclosed bed area
8. Do not apply more than one application of QUADRIS TOP or other Group 11 fungicides before alternation with a fungicide registered for the same use that is not in Group 11.

CHEMIGATION APPLICATION FOR LOWBUSH CRANBERRY

Chemigation: **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) fine/medium/coarse classification. Applications **MUST** be conducted **WITHOUT** the use of end guns.

Types of Irrigation Systems: QUADRIS TOP may be applied through sprinkler type irrigation systems only, such as overhead solid set irrigation systems. Do not apply QUADRIS TOP through any other type of irrigation system.

Injection for Chemigation: Inject the specified dosage of QUADRIS TOP into the irrigation main water stream: (1) through a constant flow, metering device; (2) into the center of the main line flow via a pitot tube or equivalent; (3) at a point ahead of at least one, right angle turn in the main stream flow such that thorough mixing with the irrigation water is ensured.

Uniform Water Distribution and System Calibration: The irrigation system must provide uniform distribution of QUADRIS TOP treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in or on the crop can result from non-uniform distribution. The system must be calibrated to uniformly distribute the rates specified for chemigation application. If you have questions about calibration, contact a provincial agricultural specialist, equipment manufacturers, or other experts.

Chemigation Monitoring: A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Required Injection and Sprinkler System Safety Devices: The system must contain a functional check valve, vacuum relief valve and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor/engine stops; or in cases where there is no water pump, when water pressure decreases to the point where pesticide distribution is adversely affected. Injection systems must use a metering pump or equivalent, such as a positive displacement injection pump (e.g., diaphragm pump, venture injection) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Using Water from Public Water Systems: Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Cleaning the Chemical Injection System: In order to apply pesticides accurately, the chemical injection system must be kept clean, free of chemical or fertilizer residues and sediments. Refer to your owner's manual or ask your equipment supplier for the cleaning procedure for your injection system.

Flushing the Irrigation System: At the end of the application period, allow time for all lines to flush the pesticide through all nozzles or emitters before turning off irrigation water. To ensure the lines are flushed and free of pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

Solid Linear Systems: Injection should be during the last 30 minutes of regular irrigation period or as a separate 30 minute application not associated with a regular irrigation.

Berry, Low Growing, Subgroup 13-07G, except Cranberry Bearberry; Bilberry; Blueberry, lowbush; Cloudberry; Lingonberry; Muntries; Partridgeberry; Strawberry; cultivars, varieties, and/or hybrids of these.	
DISEASES CONTROLLED	Anthracnose (<i>Colletotrichum</i> spp.) Powdery Mildew (<i>Sphaerotheca macularis</i>)
PRODUCT RATE L/HA	0.870 - 1.0
NUMBER OF APPLICATIONS	Maximum 3 per year
INTERVAL	7 to 14 days
APPLICATION TIMING	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 7- to 14-day schedule making no more than 2 sequential applications before alternating to another fungicide with a different mode of action. If disease pressure is high, use the shortest interval and highest rate.
WATER VOLUME	For best results, sufficient water volume must be used to provide thorough coverage.
PRE-HARVEST INTERVAL	1 day
Restrictions: 1. DO NOT apply more than 3 L/ha/season. 2. DO NOT apply by air	

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, please note that QUADRIS TOP contains a strobilurin fungicide in Group 11 and a triazole fungicide in Group 3. Any fungal population may contain individuals naturally resistant to QUADRIS TOP and other Group 11 and 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 QUADRIS TOP or other Group 11 and 3 fungicides with different groups that control the same pathogens.

Do not exceed the total number of applications of QUADRIS TOP per season per crop as stated in Table 2.

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 Syngenta Canada Inc. if reduced sensitivity of the pathogen to Quadris Top 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 site of action, if available.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.

Table 2. Application Limitations and Preharvest Intervals

Crop	PHI Interval(days)	Maximum number of applications per year
Potatoes and sweet potatoes	14	3
Carrots and sugar beets	7	3
Bulb Vegetables (dry bulb onion)	7	4
Bulb Vegetables (green onion)	7	3
Brassica (cole) Leafy Vegetables	3	4
Dried shelled pea and bean	30	2
Fruiting Vegetables	1	3
Cucurbit Vegetables	1	4
Lowbush Cranberry	30	3
Crop group 13-07G (Strawberries)	1	3

For further information and to report suspected resistance, contact company representatives at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

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