

100-1313

4/5/2011

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Ms. Ruhi Rezaaiyan
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, N.C. 27419

APR 05 2011

Subject: Label Amendment to add golf course turf
Quadris Top
EPA Reg. No. 100-1313
Submission dated 10/2/2009
Decision No. 421486

Dear Ms. Rezaaiyan,

The amended label referred to above, in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

1. On page 3-4 and 30-31, add the following paragraph which was omitted from the Environmental Hazards section: "This product may contaminate water through drift or spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this products' potential to reach surface water."
2. On page 24, change the table title to "Quadris Top Rate Conversion Table for Food Use".
3. As a condition of registration the following data gaps must for Difenconcazole be satisfied as noted in the last ecological risk assessment Decision # 361251; dated August 26, 2009; letter of label amendment to add the following crops, bulb vegetables, brassica (cole) leafy vegetables, cucurbit vegetables, citrus fruit, grapes, tree nuts and pistachios,

Decision #403565; dated April 21, 2010 and current ecological risk assessment DP 377719, enclosed for your review.

- **Estuarine/Marine Invertebrate Life Cycle Study (850.1350):** Because of its expected use or mobility patterns, difenoconazole may enter estuarine/marine environments in significant concentrations. The two submitted mysid shrimp studies (one of which was reviewed and included for the first time in this assessment) were classified as supplemental because reproductive effects were observed at all treatment levels and because of other issues as described in **Section 4.1.1**. Acceptable estuarine/marine invertebrate data, which establishes a definitive NOAEC, is required.
- **Avian Acute Oral Toxicity Study (850.2100):** Data that assess the effects of difenoconazole for one passerine species and either one waterfowl species or one upland game bird species for terrestrial, aquatic, forestry, and residential outdoor uses are required. The current method of calculating a weight-adjusted LD₅₀ using bobwhite quail or mallard duck data may over- or under-estimate risks to passerines because these birds may metabolize the chemical differently. Because the 850.2100 guideline has not yet been finalized, protocols for the study of passerine species should be submitted to EPA for approval prior to study initiation.
- **Terrestrial Plant Toxicity, Tier I (seedling emergence) (850.4100):** Testing of a typical end-use product (TEP) is required for all pesticides having outdoor uses at the proposed maximum application rate. Tier II studies are not required unless Tier I studies indicate a $\geq 25\%$ effect to various growth parameters relative to the control. The submitted non-GLP study (MRID 469502-03; supplemental), which tested multiple concentrations, does not measure growth or other required endpoints. Currently, the lack of acceptable data causes habitat modification to be assumed as an indirect effect to all listed species.
- **Terrestrial Plant Toxicity, Tier I (vegetative vigor) (850.4150):** Testing of a TEP is required for all pesticides having outdoor uses at the proposed maximum application rate. Tier II studies are not required unless Tier I studies indicate a $\geq 25\%$ effect to various growth parameters relative to the control. The submitted non-GLP study (MRID 469502-03; supplemental), which tested multiple concentrations, does not measure growth or other required endpoints. Currently, the lack of acceptable data causes habitat modification to be assumed as an indirect effect to all listed species.
- Due to the degradation of difenoconazole to the major degradates CGA-71019 (1,2,4-triazole) and CGA-142856 (triazole acetic acid), which are of toxicological concern, potential risks resulting from exposure to these degradates needs to be evaluated as part of the ecological risk assessment for difenoconazole. Therefore, studies evaluating the acute effects of these two degradates on fish, birds, and daphnids are required. These data requirements can be satisfied by the following guidelines. Submit the studies by 4/7/2012.
 - Avian Acute Oral Toxicity Study (850.2100)

- o Acute Freshwater Fish Toxicity Study (850.1075)
- o Acute Freshwater Invertebrate Toxicity Study (850.1010)
- o Acute Freshwater and Estuarine/Marine Fish Early-Life Stage Study (850.1400).

Approval of golf course use herein is conditioned upon the receipt and acceptance of the noted studies. A copy of the label stamped "accept with comments" is enclosed. Submit one copy of your final printed labeling before you release the product for shipment. If you have questions concerning this letter, please contact Shaunta Hill at 703-347-8961 or myself at 703-308-3194.

Sincerely,



Shaja B. Joyner
Product Manager, Team 20
Fungicide Branch
Registration Division (7505P)

Enclosure(s):

1. Difenconazole Ecological Risk Assessment. DP 377719
2. Difenconazole Human Exposure Risk Assessment. DP371382
3. Difenconazole Occupational and Residential Exposure Assessment. DP371037
4. Difenconazole (Parent Only) Drinking Water Assessment. DP371044
5. Revised Dermal Absorption Factor for Difenconazole for MRID 46950333. DP378941
6. DER for Freshwater Sediment Emergence Test MRID 47648601
7. DER for Mysid Chronic Toxicity Test MRID 47648603

GROUP 11 | 3 FUNGICIDES

Quadris Top™

Fungicide

For control of certain diseases in fruiting vegetables, potatoes, tomatoes, and tuberous and corm vegetables

A broad-spectrum fungicide for prevention and control of certain diseases in golf course turfgrass only.

Active Ingredients:	
Azoxystrobin*	18.2%
Difenoconazole**	11.4%
Other Ingredients:	70.4%
Total:	100.0%

*CAS No. 131860-33-8
**CAS No. 119446-68-3

Contains 1.67 lbs. of azoxystrobin active ingredient and 1.05 lbs. of difenoconazole active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use inside booklet.

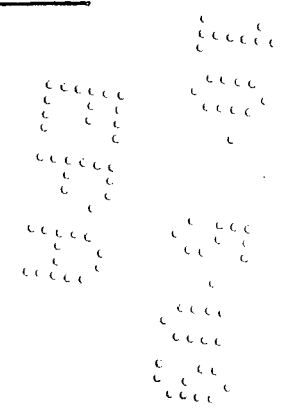
EPA Reg. No. 100-1313

EPA Est.

SCP 1313A

- _____ quarts
- 1 gallon
- 2.5 gallons
- 10 gallons
- 30 gallons
- _____ gallons
- Net Contents

**ACCEPTED
with COMMENTS
In EPA Letter Dated:
APR 05 2011
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
100-1313**



FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • 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 center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call 1-800-888-8372	

PRECAUTIONARY STATEMENTS

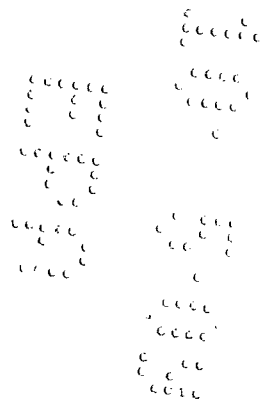
Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wear protective eyewear. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for category F or G on an EPA chemical resistance category selection chart.



Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves made of any waterproof material such as polyvinyl chloride, nitrile rubber or butyl rubber.

User Safety Requirements

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.

Engineering Control Statements

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- 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.

Environmental Hazards

Difenoconazole is toxic to fish, mammals and aquatic invertebrates. Drift and runoff may be hazardous to **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 discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or regional office of the EPA.

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Notify State and/or Federal authorities and Syngenta immediately if you observe any adverse environmental effects due to use of this product.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, INC. or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling:

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls
- Chemical-resistant gloves made of any waterproof materials such as polyvinyl chloride, nitrile rubber or butyl rubber.
- Shoes plus socks

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

PRODUCT INFORMATION - FOOD CROP USES

Quadris Top is a broad-spectrum product containing two fungicides. It has preventative, systemic and curative properties and is recommended for the control of many important plant diseases. Quadris Top provides excellent disease control of many leaf spots and powdery mildews. Quadris Top is applied as a foliar spray and can be used in block, alternating spray or tank-mix programs with other crop protection products. All applications should be made according to the use directions that follow.

PRODUCT INFORMATION - GOLF COURSE TURF

Quadris Top is a broad-spectrum product containing two fungicides. It has preventative, systemic and curative properties and is recommended for the control of many important turf diseases. Quadris Top provides excellent disease control of many leaf spots and powdery mildews. Quadris Top is applied as a foliar spray and can be used in block, alternating spray or tank-mix programs with other turf protection products. All applications should be made according to the use directions that follow.

FOOD CROP - USE PRECAUTIONS AND RESTRICTIONS

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

ATTENTION

Quadris Top is extremely phytotoxic to certain apple varieties.

AVOID SPRAY DRIFT. Extreme care must be used to prevent injury to apple trees (and apple fruit).

DO NOT spray Quadris Top where spray drift may reach apple trees.

DO NOT spray when conditions favor drift beyond area intended for application. Conditions which may contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, spray droplet size, etc. Contact your State extension agent for spray drift prevention guidelines in your area.

DO NOT use spray equipment which has been previously used to apply Quadris Top to spray apple trees. Even trace amounts can cause unacceptable phytotoxicity to certain apple and crabapple varieties.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

GOLF COURSE TURF - USE PRECAUTIONS AND RESTRICTIONS

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN TURF INJURY AND/OR POOR DISEASE CONTROL.

ATTENTION

DO NOT apply by air.

DO NOT apply through irrigation systems (chemigation)

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

DO NOT spray when conditions favor drift beyond area intended for application. Conditions which may contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, spray droplet size, etc. Contact your State extension agent for spray drift prevention guidelines in your area.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

FOOD CROP - USE INFORMATION

Application: Thorough coverage is necessary to provide good disease control. Make no more spray solution than is needed for application. Avoid spray overlap, as crop injury may occur.

Adjuvants: When an adjuvant is to be used with this product, Syngenta recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Efficacy: Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if the maximum amount of Quadris Top has been used. If resistant isolates to Group 3 or Group 11 fungicides are present, efficacy can be reduced for certain diseases. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure with highly susceptible varieties, or when environmental conditions are conducive to disease.

Integrated Pest Management (IPM): Quadris Top should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area. Quadris Top may be used in State Agricultural Extension advisory (disease forecasting)

programs which recommend application timing based on environmental factors favorable for disease development.

Resistance Management

GROUP	11	3	FUNGICIDES
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Quadris Top contains two fungicides - azoxystrobin, a strobilurin fungicide in Group 11 and difenoconazole, a triazole fungicide in Group 3. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season. Syngenta encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label. Quadris Top should not be alternated or tank mixed with any fungicide to which resistance has already developed.

As part of a resistance management strategy:

- Apply a maximum of 4 sprays during one crop cycle.
- Apply no more than 2 sequential applications unless otherwise stated in the crop section.
- When tank mixing or alternating, use an effective partner - one that provides satisfactory disease control when used alone at the mixture rate.

Rotational Crops: Please see the following table for the crop rotational restrictions:

Rotational Crops	Planting Time From Last Quadris Top Application
Canola Cereals (wheat, barley, triticale) Cotton Eggplant Pepper Sweet corn Tomatoes Potatoes Tuberous & Corm vegetable subgroup	0 days
Sugar beets	36 days
Buckwheat Millet Oats Rye	12 months
All other crops Intended for Food and Feed	8 months

Crop Tolerance: Plant tolerance has been found to be acceptable for all crops on the label, however, not all possible tank-mix combinations have been tested under all conditions. When possible, it is recommended to test the combinations on a small portion of the crop to ensure that a phytotoxic response will not occur as a result of application. See precautions regarding apple phytotoxicity.

Greenhouse Use: For resistance management do not use Quadris Top for transplant production.

Spray Drift Management: To avoid spray drift, do not apply when conditions favor drift beyond the target area. The interaction of many equipment and weather related factors determine the potential for spray drift. AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

GOLF COURSE TURF - USE INFORMATION

Application: Thorough coverage is necessary to provide good disease control. Make no more spray solution than is needed for application. Avoid spray overlap, as turf injury may occur.

Adjuvants: When an adjuvant is to be used with this product, Syngenta recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Efficacy: Under certain conditions conducive to extended infection periods, use another registered fungicide for additional applications if the maximum amount of Quadris Top has been used. If resistant isolates to Group 3 or Group 11 fungicides are present, efficacy can be reduced for certain diseases. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure with highly susceptible varieties, or when environmental conditions are conducive to disease.

Integrated Pest Management (IPM): Quadris Top should be integrated into an overall disease and pest management strategy whenever the use of a fungicide is required. Cultural practices known to reduce disease development should be followed. Consult your local agricultural authorities for additional IPM strategies established for your area. Quadris Top may be used in State Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.

Resistance Management

GROUP 11 3 FUNGICIDES

Quadris Top contains two fungicides - azoxystrobin, a strobilurin fungicide in Group 11 and difenoconazole, a triazole fungicide in Group 3. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season. Syngenta encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label. Quadris Top should not be alternated or tank mixed with any fungicide to which resistance has already developed.

Turfgrass Tolerance: Plant tolerance has been found to be acceptable for all turfgrass species on the label, however, not all possible tank-mix combinations have been tested under all conditions. When possible, it is recommended to test the combinations on a small portion of the turf to ensure that a phytotoxic response will not occur as a result of application.

Spray Drift Management: To avoid spray drift, do not apply when conditions favor drift beyond the target area. The interaction of many equipment and weather related factors determine the potential for spray drift. AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

FOOD CROP - MIXING AND APPLICATION METHODS

Spray Equipment**Nozzles**

- Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.
- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump should be *16-mesh or coarser*.
- Do not place a screen in the recirculation line.
- Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles.
- Check nozzle manufacturer's recommendations.

Pump

- Use a pump with capacity to:
 - (1) Maintain 35-40 psi at nozzles.
 - (2) Provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10% of tank volume per minute.
- Use a jet agitator or liquid sparge tube for agitation.
- Do not air sparge.

For more information on spray equipment and calibration, consult sprayer manufacturers and state recommendations. For specific local directions and spray schedules, consult the current state agricultural recommendations.

Mixing Instructions

- Quadris Top is a suspension concentrate (SC) formulation.
- Prepare no more spray mixture than is required for the immediate operation.
- Thoroughly clean spray equipment before using this product.
- Agitate the spray solution before and during application.
- Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.

Quadris Top Alone (No Tank Mix)

- Add $\frac{1}{2}$ - $\frac{2}{3}$ of the required amount of water to the spray or mixing tank.
- With the agitator running, add Quadris Top to the tank.
- Continue agitation while adding the remainder of the water.

- Begin application of the spray solution after Quadris Top has completely dispersed into the mix water.
- Maintain agitation until all of the mixture has been sprayed.

Quadris Top + Tank Mixtures: Quadris Top is usually compatible with all tank-mix partners listed on this label. To determine the physical compatibility of Quadris Top with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

Mixing in the Spray Tank

- Add $\frac{1}{2}$ - $\frac{2}{3}$ of the required amount of water to the spray or mixing tank.
- With the agitator running, add the tank-mix partner(s) into the tank in the same order as described above.
- Allow the material to completely dissolve and disperse into the mix water. Continue agitation while adding the remainder of the water and Quadris Top to the spray tank.
- Allow Quadris Top to completely disperse.
- Spray the mixture with the agitator running.

Application Instructions

Quadris Top may be applied with all types of spray equipment commonly used for making ground and aerial applications. Proper adjustments and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control.

Ground Application

- Apply in a minimum of 10 gals. of water per acre, unless specified otherwise.
- Do not apply through any ultra-low volume (ULV) spray system.
- Thorough coverage is necessary to provide good disease control.

Aerial Application

- Use only on crops where aerial applications are indicated.
- Thorough coverage is necessary to provide good disease control.
- Apply in a minimum of 5 gallons of water per acre unless specified otherwise.
- Avoid application under conditions when uniform coverage cannot be obtained or when excessive spray drift may occur.
- Do not apply directly to humans or animals.
- Do not apply through any ultra-low volume (ULV) spray system.

ATTENTION

Quadris Top is extremely phytotoxic to certain apple varieties.

~~AVOID SPRAY DRIFT.~~ Extreme care must be used to prevent injury to apple trees (and apple fruit).

DO NOT spray Quadris Top where spray drift may reach apple trees.

DO NOT spray when conditions favor drift beyond area intended for application. Conditions which may contribute to drift include thermal inversion, wind speed and direction, sprayer nozzle/pressure combinations, spray droplet size, etc. Contact your State extension agent for spray drift prevention guidelines in your area.

DO NOT use spray equipment which has been previously used to apply Quadris Top to spray apple trees. Even trace amounts can cause unacceptable phytotoxicity to certain apple and crabapple varieties.

AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

Application Through Irrigation Systems (Chemigation)

- Use only on crops for which chemigation is specified on this label.
- Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- Apply in 0.1-0.25 inches/acre. Excessive water may reduce efficacy.
- If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place.
- 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.

Operating Instructions

1. 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.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.

3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

Center Pivot Irrigation Equipment

Notes: (1) Use only with drive systems which provide uniform water distribution. (2) Do not use end guns when chemigating Quadris Top through center pivot systems because of non-uniform application.

- Determine the size of the area to be treated.
- Determine the time required to apply 1/8-1/2 inch of water over the area to be treated when the system and injection equipment are operated at normal pressures as recommended by the equipment manufacturer. When applying Quadris Top through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution. Run the system at 80-95% of the manufacturer's rated capacity.
- Using water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of Quadris Top required to treat the area covered by the irrigation system.
- Add the required amount of Quadris Top and sufficient water to meet the injection time requirements to the solution tank.

- Make sure the system is fully charged with water before starting injection of the Quadris Top solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- Maintain constant solution tank agitation during the injection period.
- Continue to operate the system until the Quadris Top solution has cleared the sprinkler head.

Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

- Determine the acreage covered by the sprinklers.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 20 to 30-minute interval. When applying Quadris Top through irrigation equipment use the lowest obtainable water volume while maintaining uniform distribution.
- Determine the amount of Quadris Top required to treat the area covered by the irrigation system.
- Add the required amount of Quadris Top into the same quantity of water used to calibrate the injection period.
- Operate the system at the same pressure and time interval established during the calibration.
- Stop injection equipment after treatment is completed. Continue to operate the system until the Quadris Top solution has cleared the last sprinkler head.

SPECIFIC INSTRUCTIONS FOR PUBLIC WATER SYSTEMS

1. 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.
2. 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.

3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. 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.
5. 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.
6. 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.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

GOLF COURSE TURF - MIXING AND APPLICATION METHODS

Spray Equipment

Nozzles

- Equip sprayers with nozzles that provide accurate and uniform application.
- Nozzles should be the same size and uniformly spaced across the boom.
- Calibrate sprayer before use.
- It is suggested that screens be used to protect the pump and to prevent nozzles from clogging.
- Screens placed on suction side of pump should be *16-mesh or coarser*.
- Do not place a screen in the recirculation line.
- Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles.
- Check nozzle manufacturer's recommendations.

Pump

- Use a pump with capacity to:
 - (1) Maintain 35-40 psi at nozzles.
 - (2) Provide sufficient agitation in tank to keep mixture in suspension - this requires recirculation of 10% of tank volume per minute.

- Use a jet agitator or liquid sparge tube for agitation.
- Do not air sparge.

For more information on spray equipment and calibration, consult sprayer manufacturers and state recommendations. For specific local directions and spray schedules, consult the current state agricultural recommendations.

Mixing Instructions

- Quadris Top is a suspension concentrate (SC) formulation.
- Prepare no more spray mixture than is required for the immediate operation.
- Thoroughly clean spray equipment before using this product.
- Agitate the spray solution before and during application.
- Rinse spray tank thoroughly with clean water after each day's use and dispose of pesticide rinsate by application to an already treated area.

Quadris Top Alone (No Tank Mix)

- Add 1/2-2/3 of the required amount of water to the spray or mixing tank.
- With the agitator running, add Quadris Top to the tank.
- Continue agitation while adding the remainder of the water.
- Begin application of the spray solution after Quadris Top has completely dispersed into the mix water.
- Maintain agitation until all of the mixture has been sprayed.

Quadris Top + Tank Mixtures: Quadris Top is usually compatible with many tank-mix partners registered for use on turf. To determine the physical compatibility of Quadris Top with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

Mixing in the Spray Tank

- Add 1/2-2/3 of the required amount of water to the spray or mixing tank.
- With the agitator running, add the tank-mix partner(s) into the tank in the same order as described above.
- Allow the material to completely dissolve and disperse into the mix water. Continue agitation while adding the remainder of the water and Quadris Top to the spray tank.
- Allow Quadris Top to completely disperse.
- Spray the mixture with the agitator running.

Application Instructions

DO NOT apply by air.

DO NOT apply through irrigation systems (chemigation)

Quadris Top may be applied with all types of spray equipment commonly used for making ground applications. Proper adjustments and calibration of spraying equipment to give good coverage is essential for good disease control.

Ground Application

- Apply in sufficient water to provide good coverage. Typical application volumes range from 30 to 450 gallons of spray per acre.
- Thorough coverage is necessary to provide good disease control.

FOOD CROPS - SPECIFIC DIRECTIONS FOR USE

Crop	Disease	Rate fl. oz./Acre	Remarks
<p>Peppers and other Fruiting Vegetables:</p> <p>Peppers Bell pepper Non-bell pepper Sweet non-bell Eggplant</p> <p>See TOMATOES section for specific directions.</p>	<p>Anthracnose (<i>Colletotrichum</i> spp.)</p> <p>Cercospora leaf spot (<i>C. capsici</i>)</p> <p>Gray leaf spot (<i>Stemphyllium solani</i>)</p> <p>Powdery mildew (<i>Oidiopsis sicula</i>)</p>	<p>8.0-14.0</p>	<p>Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective fungicide with a different mode of action. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.</p> <p>The addition of a spreading/penetrating type adjuvant may enhance efficacy.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Quadris Top may be applied by ground, chemigation, or aerial application.</p>			
<p>Specific Use Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 55.3 fl. oz./A/season of Quadris Top. • May be applied the day of harvest (0 day PHI). • Do not apply more than 1.0 lb. ai/A/season of azoxystrobin-containing products. • Do not apply more than 0.46 lb. ai/A/season of difenoconazole-containing products. 			

Crop	Disease	Rate fl. oz./Acre	Remarks
Potatoes	Black dot (<i>Colletotrichum coccodes</i>)	8.0-14.0	Begin applications prior to disease development and continue throughout the season on a 7-14 day interval. Make no more than 2 consecutive applications before switching to another effective fungicide with a different mode of action. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. The addition of a spreading/penetrating type adjuvant may enhance efficacy.
	Brown spot (<i>Alternaria alternata</i>)		
	Early blight (<i>Alternaria solani</i>)		
	Powdery mildew (<i>Erysiphe cichoracearum</i>)		
	Septoria leaf spot (<i>S. lycopersici</i>)		
Application: For best results, use sufficient water volume to provide thorough coverage. Quadris Top may be applied by ground, chemigation, or aerial application.			
Specific Use Restrictions: <ul style="list-style-type: none"> • Do not apply more than 55.3 fl. oz./A/season of Quadris Top. • Do not apply within 14 days of harvest (14 day PHI). • Do not apply more than 2.0 lb. ai/A/season of azoxystrobin-containing products • Do not apply more than 0.46 lb. ai/A/season of difenoconazole-containing products. 			

Crop	Disease	Rate fl. oz./Acre	Remarks
Tomatoes Tomatillo	Early blight (<i>Alternaria solani</i>) Black mold (<i>A. alternata</i>) Gray leaf spot (<i>Stemphylium botryosum</i>) Powdery mildew (<i>Leveillula taurica</i>) Septoria leaf spot (<i>S. lycopersici</i>) Target spot (<i>Corynespora cassiicola</i>) Anthracnose (<i>Colletotrichum</i> spp.) Leaf mold (<i>Fulvia fulva</i>)	8.0	Begin applications prior to disease development and continue throughout the season on a 7-10 day interval. Make no more than 2 consecutive applications before switching to another effective fungicide with a different mode of action. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease. The addition of a spreading/penetrating type adjuvant may enhance efficacy.
Application: For best results, use sufficient water volume to provide thorough coverage. Quadris Top may be applied by ground, chemigation, or aerial application.			
Specific Use Restrictions: <ul style="list-style-type: none"> • Do not apply more than 47 fl. oz./A/season of Quadris Top. • Do not apply more than 0.6 lb. ai/A/season of azoxystrobin-containing products. • Do not apply more than 0.46 lb. ai/A/season of difenoconazole-containing products. • May be applied the day of harvest (0 day PHI). • Do not use on varieties in which the mature tomatoes will be less than 2 inches (such as cherry tomatoes). • Do not apply until 21 days after transplanting or 35 days after seeding. 			

Crop	Disease	Rate fl. oz./Acre	Remarks
<p>Vegetables, tuberous and corm, subgroup</p> <p><i>For listing of crops in this group, see * below.</i></p> <p><i>See POTATOES for specific use directions.</i></p>	<p>Black dot (<i>Colletotrichum coccodes</i>)</p> <p>Brown spot (<i>Alternaria alternata</i>)</p> <p>Early blight (<i>Alternaria</i> spp.)</p> <p>Powdery mildew (<i>Erysiphe cichoracearum</i>)</p> <p>Septoria leaf spot (<i>Septoria</i> spp.)</p> <p>Ascochyta leaf spot (<i>A. cynarae</i>)</p> <p>Rust (<i>Uromyces betae</i>, <i>Puccinia helianthi</i>)</p>	8.0-14.0	<p>Begin applications prior to disease development and continue throughout the season on a 7-14 day interval. Make no more than 2 consecutive applications before switching to another effective fungicide with a different mode of action. Use the shorter interval and/or higher rates under high pressure or when conditions are conducive to disease.</p> <p>The addition of a spreading/penetrating type adjuvant may enhance efficacy.</p>
<p>Application: For best results, use sufficient water volume to provide thorough coverage. Quadris Top may be applied by ground, chemigation, or aerial application.</p>			
<p>*Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna, Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (Taro), Ginger, Leren, Sweet Potato, Tanier, Tumeric, Yam (bean and true).</p>			
<p>Specific Use Restrictions:</p> <ul style="list-style-type: none"> • Do not apply more than 55.3 fl. oz./A/season of Quadris Top. • Do not apply within 14 days of harvest (14 day PHI). • Do not apply more than 2.0 lb. ai/A/season of azoxystrobin-containing products. • Do not apply more than 0.46 lb. ai/A/season of difenoconazole-containing products. 			

Product Conversion Table

Fl. oz. product/acre	Lb. ai azoxystrobin	Lb. ai difenoconazole
8.0	0.1	0.07
10.0	0.13	0.08
12.0	0.16	0.10
14.0	0.18	0.12

***GOLF COURSE TURF - SPECIFIC DIRECTIONS FOR USE**

Target Diseases	Use Rate (fl. oz. product per 1000 sq. ft.)	Use Rate (fl. oz. product per acre)	Application Interval (days)	Remarks*
Anthracnose (<i>Colletotrichum cereale</i>) (formerly known as <i>C. graminicola</i>)	0.25-0.70 (7-21 ml)	11.0-30.5 (322-902 ml)	14-28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development. The maximum interval of application for greens is 14 days.
Brown Patch and Large patch (<i>Rhizoctonia solani</i>)	0.25-0.45 (7-13 ml)	11.0-19.5 (322-580 ml)	14	For higher cut cool season turfgrass and St. Augustinegrass and centipedegrass (fairways, lawns, sod farms, etc. above 0.375 inch in height). Apply when conditions are favorable for disease development.
Brown Patch (<i>Rhizoctonia solani</i>) and other Rhizoctonia (<i>R. spp.</i>) diseases such as Large Patch, Zoysia Patch, Leaf and Sheath Spot (<i>R. zea</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-28	For brown patch, apply when conditions are favorable for disease development. For large patch of all warm-season turfgrasses, make 1 or 2 applications in fall prior to infection or when conditions are favorable for infection. For Zoysia patch, make 1 or 2 applications approximately one month prior to zoysiagrass dormancy. Reapply 14 to 28 days later. For Leaf and Sheath spot (<i>R. zea</i>), apply when conditions are favorable for infection such as sequential days, periods of temperatures at or above 90°F. Curative control may necessitate several applications. Target spray applications at crown of turfgrass.
Brown Ring Patch (<i>Waitea circinata</i> var. <i>circinata</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-28	Apply when conditions are favorable for disease development.
Cool Weather Brown Patch, Yellow Patch (<i>Rhizoctonia cerealis</i>)	0.70 (21 ml)	30.5 (902 ml)	28	Make 1 or 2 applications in fall or when conditions are favorable for disease development.
Dollar Spot (<i>Sclerotinia homoeocarpa</i>)	0.25-0.70 (7-21 ml)	11.0-30.5 (322-902 ml)	14-28	Apply preventively when conditions are favorable for disease development. For non-residential turf, if dollar spot is active, use higher rates and combine with Daconil.
Fairy Ring (<i>Lycoperdon spp.</i> , <i>Agrocybe pediades</i> , and <i>Bovistia plumbea</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-28	Apply as soon as possible after fairy ring symptoms develop. Apply in 2-4 gals. water per 1000 sq. ft. Add the recommended rate of a wetting agent to the final spray. Severely damaged or thin turf may require reseeding. Fairy ring symptoms may take 2 to 3 weeks to disappear following application. If area is hydrophobic use wetting agents and irrigate prior to application(s) of Quadris Top. Reapplication after 28 days may be required in some cases.
Microdochium Patch (Formerly known as Fusarium Patch) (<i>Microdochium nivale</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-28	Use preventatively. Begin applications when conditions are favorable for disease infection, prior to disease symptom development.

Target Diseases	Use Rate (fl. oz. product per 1000 sq. ft.)	Use Rate (fl. oz. product per acre)	Application Interval (days)	Remarks*
**Gray Leaf Spot (<i>Pyricularia grisea</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-21	Use Quadris Top in a preventive disease control program. Begin applications before disease is present and alternate with other fungicide chemistries that control gray leaf spot.
Leaf Rust Stem Rust Stripe Rust (<i>Puccinia</i> spp.)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Leaf Spot (<i>Bipolaris sorokiniana</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-21	Apply when conditions are favorable for disease development.
Melting Out (<i>Drechslera poae</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-21	Apply when conditions are favorable for disease development
Necrotic Ring Spot (<i>Ophiosphaerella korrae</i>)	0.70 (21 ml)	30.5 (902 ml)	14-28	Apply when conditions are favorable for disease development.
Pink Patch (<i>Limonomyces roseipellis</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-28	Apply when conditions are favorable for disease development.
Powdery Mildew (<i>Erysiphe graminis</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-28	Begin applications when conditions are favorable for disease infection, prior to disease symptom development.
Red Thread (<i>Laetisaria fuciformis</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-28	Apply when conditions are favorable for disease development.
Southern Blight (<i>Sclerotium rolfsii</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-28	Apply when conditions are favorable for disease development.
Summer Patch (<i>Magnaporthe poae</i>)	0.45-0.70 (13-21 ml)	19.5-30.5 (580-902 ml)	14-28	Apply when conditions are favorable for disease development. Initiate applications when soil temperatures reach 65°F at a 2 inch soil depth.
Take-all Patch (<i>Gaeumannomyces graminis</i> var. <i>avenae</i>)	0.35 (10 ml)	15.0 (451 ml)	28	Begin applications when conditions are favorable for disease infection prior to disease symptom development. Make two applications 28 days apart in the spring and two applications 28 days apart in the fall.

*Do not exceed 0.50 gallons Quadris Top per acre per year (1.45 fl. oz. Quadris Top per 1000 square feet per year).

**Do not apply more than two sequential applications of Quadris Top for control of Gray Leaf Spot. For all other diseases when Gray Leaf Spot is not present, do not apply more than three sequential applications of Quadris Top.

One gallon (128 fl. oz.) Quadris Top contains 1.67 lb. azoxystrobin and 1.05 lb. difenoconazole. Do not apply more than 0.52 lb. difenoconazole per acre per year.

One gallon = 3785 milliliters

One fluid ounce (fl. oz.) = 29.6 milliliters

Quadris Top: Rate Conversion Chart for Turf

Fl. oz. Product Per 1000 Sq. Ft.	Fl. oz. Product Per Acre	Milliliters (ml) Product Per 1000 Sq. Ft.	Milliliters (ml) Product Per Acre	Maximum yearly applications
0.25	11	7	322	5
0.35	15	10	451	4
0.45	19.5	13	580	3
0.70	30.5	20.5	902	2

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage

Store in original container only. Store in a cool, dry and well-ventilated place. Protect from excessive heat. Keep container closed when not in use. Do not store near food or feed.

Pesticide Disposal

Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Disposal

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available.

Residue Removal [capacities equal to or less than 5 gallons]

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

For Bulk and Minibulk Containers:

Residue Removal [capacities greater than 5 gallons]

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Container Disposal [Bulk]


Refillable container. Refill this container with Quadris Top only. Do not reuse this container for any other purpose.

Residue Removal [Bulk]

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

After filling and before transporting, check for leaks. Do not refill or transport damaged or leaking container.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

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For non-emergency (e.g., current product information), call
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1313

320235

[BASE LABEL]

GROUP 11 3 FUNGICIDES

Quadris Top™

Fungicide

For control of certain diseases in fruiting vegetables, potatoes, tomatoes, and tuberous and corm vegetables

A broad-spectrum fungicide for prevention and control of certain diseases in golf course turfgrass only.

Active Ingredients:

Azoxystrobin*	18.2%
Difenoconazole**	11.4%
<hr/>	
Other Ingredients:	70.4%
Total:	100.0%

*CAS No. 131860-33-8

**CAS No. 119446-68-3

Contains 1.67 lbs. of azoxystrobin active ingredient and 1.05 lbs. of difenoconazole active ingredient per gallon.

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements and directions for use inside booklet.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

EPA Reg. No. 100-1313

EPA Est.

SCP 1313A

_____ quarts
1 gallon
2.5 gallons
Net Contents

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none"> • 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 center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER For 24-Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call 1-800-888-8372	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

Environmental Hazards

Difenoconazole is toxic to fish, mammals and aquatic invertebrates. Drift and runoff may be hazardous to **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 discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or regional office of the EPA.

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

Notify State and/or Federal authorities and Syngenta immediately if you observe any adverse environmental effects due to use of this product.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage

Store in original container only. Store in a cool, dry and well-ventilated place. Protect from excessive heat. Keep container closed when not in use. Do not store near food or feed.

Pesticide Disposal

Pesticide wastes may be toxic. Improper disposal of unused pesticide, spray mixture, or rinse water is a violation of federal law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance in proper disposal methods.

Container Disposal

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available.

Residue Removal [capacities equal to or less than 5 gallons]

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

CONTAINER IS NOT SAFE FOR FOOD, FEED, OR DRINKING WATER.

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Manufactured for:
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Greensboro, North Carolina 27419-8300

SCP 1313A-

Quadris Top 1313 MAS AMEND 1009 – bb – 10-2-09

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