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

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Ruhi Rezaaiyan
Syngenta Crop Protection, Inc.
P.O. Box 18300
Greensboro, NC 27419-8300

APR 21 2010

SUBJECT: Label Amendment
Quadris Top
EPA Reg. No. 100-1313; Decision # 403565
Your Submission Dated November 14, 2008

Dear Ms. Rezaaiyan:

The amended master, container, and supplemental labeling referred to above, submitted in connection with registration under the Federal Insecticide Fungicide and Rodenticide Act (FIFRA), as amended to add the following crops, bulb vegetables, brassica (cole) leafy vegetables, cucurbit vegetables, citrus fruit, grapes, tree nuts and pistachios, is acceptable provided that you:

1. Make the following changes to the master, container, and supplemental labels:

- On page 2 add "(PPE)" after the heading Personal Protective Equipment.

- On page 3, 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."

- In the Specific Use Restrictions, for all crops with the exception of the nut crops, you must state "per season." For the nut crops you must state "per crop."

- On page 16 almonds, change 1.5 lbs in 4th bullet to 1.2 lbs as on EPA Reg # 100-1098.

- On page 17 change the last bullet in the Brassica section to read "Do not apply within 1 day of harvest (1 day PHI)".

- On page 18 Bulb vegetables PHI must be 7 and 14 for green onion.

- On page 19 Citrus PHI must be 7 not 1.

- On page 20 Cucurbit PHI must be 7 not 1.

- Change all the Optional Language statements for all crops to the following:

    1. Optional language if label has a rate range: If disease pressure is high, use the highest rate.

    2. Optional language if label has a single rate and interval range. If disease pressure is high, use the shortest interval.

    3. Optional language if label has a rate range and interval range: If disease pressure is high use the shortest interval and highest rate.

Should you wish to add/retain a reference to the company's website on page 9 of your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

As an alternative, you may refer consumers to the company's phone number or email address.

2. As a condition of registration the following data gaps must be satisfied:

A. Supporting storage stability (860.1380) data for the triazole metabolites are required to support the storage conditions (frozen) and intervals (up to 24.8 months) of raw agricultural and processed commodity samples collected for the studies reviewed. The U.S. Triazole Task Force (USTTF), whose members include Syngenta Crop Protection, Inc. among others, submitted a multi-year storage stability study for the triazole metabolites in various crop matrices and processed commodities (MRID 47606601) which is currently under review in HED (D363016). **Approval of the new uses herein are conditioned upon acceptance of this submitted study.**

B. The requirement for storage stability data for cattle commodities that was previously identified in DP# 340379 (8/9/07, W. Wassell and M. Sahafeyan) is a requirement to support this action. Data depicting the stability of residues of difenoconazole and CGA 205375 in milk and cattle tissues during frozen storage for up to 10 months for milk and 9 months for tissues is still needed, along with the studies cited by the petitioner (report numbers ABR-93012 and 202/99), which contain storage stability data for difenoconazole and CGA 205375.

Additionally, there are no poultry feedstuff associated with the uses being approved, but the requirement for storage stability data for poultry commodities that was previously identified in DP# 340379 (8/9/07, W. Wassell and M. Sahafeyan) is still needed, as well as data depicting the stability of residues of difenoconazole and CGA 205375 in egg and poultry tissue samples during frozen storage for up to 7 months for egg and 6 months for tissue samples. The cited studies (report numbers ABR-93012 and 202/99), which contain storage stability data for difenoconazole and CGA 205375, are needed.

Syngenta submitted a response to these requirement on 1/18/10 under EPA Reg. No. 100-1262, via MRIDs 47957201; 47957202, and 47957203. **Approval of the new uses herein are conditioned upon acceptance of these submitted studies.**

C. Confined accumulation in rotational crops - **Submit by 4/7/2011.** The requirement for an additional confined rotational crop study (860.1850) that was previously identified in DP# 344680 (11/5/07, M. Sahafeyan) is still needed. Submit a confined rotational crop study which reflects phenyl-ring labeling at 1x the proposed maximum seasonal foliar application rate (0.46 lb ai/A).

D. Immunotoxicity study (870.7800) - **Submit by November 30, 2011.**

E. Freshwater Fish Toxicity Study (850.1075): **Submit by 4/7/2011.** Data that satisfy this requirement were provided for the bluegill sunfish and rainbow trout. However, the fathead

minnow was the species used for the freshwater fish early-life stage study (850.1400) requirement. Because this test species is different from the two species used for the freshwater fish acute toxicity tests, a 96-hour LC50 for fathead minnow is needed.

F. Estuarine/Marine fish Early-Life Stage study (850.1400): **Submit by 4/7/2011**. No data were available to assess the chronic toxicity of difenoconazole to estuarine/marine fish. A study evaluating the chronic effects of difenoconazole on sheepshead minnow is needed to satisfy this data requirement. The LC50s for estuarine/marine fish were comparable to the LC50s for freshwater fish, suggesting similar acute sensitivity to difenoconazole. However, it was not possible to use the acute to chronic ratio (ACR) as the acute and chronic freshwater fish studies utilized two different species. Because of its expected use or mobility patterns, difenoconazole may enter estuarine/marine environments in significant concentrations. In the absence of acceptable data, potential chronic risks to estuarine/marine fish are unknown but RQs would be assumed to exceed LOCs for listed species.

G. Submitted data for freshwater fish were classified as supplemental; therefore, acceptable data for freshwater fish is also required. **Submit by 4/7/2011**. The test may be repeated with the fathead minnow or be conducted using a rainbow trout (preferred) or bluegill sunfish. The submitted fathead minnow early-life study was classified as supplemental. If the study is repeated with either a rainbow trout (preferred) or bluegill sunfish and found to be acceptable, the data gap for the fathead minnow acute toxicity test would be eliminated. However, if the early-life stage study is repeated with the fathead minnow, then the data gap for the fathead minnow acute toxicity test remains.

H. Estuarine/Marine Invertebrate Life Cycle Study (850.1350): The submitted mysid shrimp study was classified as supplemental because reproductive effects were observed at all treatment levels. Acceptable estuarine/marine invertebrate data, which establishes a definitive NOAEC, is required. A new mysid study was submitted to EPA as a condition of registration on January 19, 2009, MRID No. 47648603. **Approval of the new uses herein are conditioned upon acceptance of this submitted study.**

I. Avian Acute Oral Toxicity Study (850.2100): **Submit by 4/7/2011**. 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.

J. Terrestrial Plant Toxicity, Tier 1 (seeding emergence) (850.4100): **Submit by 4/7/2011**. 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 ≥25% effect to various growth parameters relative to the control. The submitted non-GLP study (MRID 469502-02; supplemental), which tested multiple concentrations, does not measure growth or other required endpoints. Currently, the lack of acceptable data caused habitat modification to be assumed as an indirect effect to all listed species.

K. Terrestrial Plant Toxicity, Tier I (vegetative vigor) (850.4150): **Submit by 4/7/2011**. 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 ≥ 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.

L. Metabolite toxicity studies - **Submit by 4/7/2012**. Due to the degradation of difenoconazole to the major metabolites CGA-71019 (1,2,4-triazole) and CGA-142856 (triazolyl acetic acid), which are of toxicological concern, an ecological risk assessment is still required to determine the exposure and effects to non-target terrestrial and aquatic organisms. 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 three guidelines: Avian Acute Oral Toxicity Study (850.2100); Acute Freshwater Fish Toxicity Study (850.1075); Acute Freshwater Invertebrate Toxicity Study (850.1010).

M. Sediment dwelling organisms - There is uncertainty associated with risk to sediment dwelling organisms. Pore water concentrations indicated that the concentrations of difenoconazole in the sediment are similar to that in the water column. Because difenoconazole is persistent, a study evaluating risk to sediment dwelling organisms was previously identified as a data gap. A sediment toxicity study determining the effects of difenoconazole residues to benthic organisms has been submitted and is currently under review to determine if it satisfies the data requirement. This sediment toxicity study was submitted as a condition of registration on January 18, 2009 via MRID No. 47648601. **Approval of the new uses herein are conditioned upon acceptance of this submitted study.**

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 any questions regarding this correspondence, contact Rose Kearns of my staff by phone at 703-305-5611 or via email at kearns.rosemary@epa.gov or myself at 703-308-9443 or via email at kish.tony@epa.gov.

Sincerely,

Tony Kish
Product Manager (22)
Fungicide Branch
Registration Division (7504P)

Enclosure

GROUP 11 | 3 FUNGICIDES

Quadris Top™

Fungicide

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

_____ gallons
Net Contents

ACCEPTED
with COMMENTS
In EPA Letter Dated
APR 21 2010

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1313

FIRST AID	
If swallowed	• 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	• 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	• 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, 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

GENERAL USE PRECAUTIONS

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.

GENERAL INFORMATION

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.

GENERAL USE INSTRUCTIONS

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 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

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
Brassica (Cole) leafy vegetables Bulb vegetables Canola Cereals (wheat, barley, triticale) Cotton Cucurbit vegetables Eggplant Pepper Potatoes Sweet corn Tomatoes 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. More information on managing spray drift can be found on the SYNGENTA CROP PROTECTION website under Stewardship http://www.syngentacropprotection-us.com/Env_Stewardship/driftmanagement/index.aspx?nav=drift_management

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 ½-⅔ 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.

Tank Mixtures: All directions for use, crops/sites, use rates, dilution rates, precautions, and limitations which appear on the tank-mix product label must be observed. The label dosage for the tank-mix partner is not to be exceeded, and the most restrictive label precautions and limitations are to be followed.

Mixing in the Spray Tank

- Add ½-⅔ 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 ⅛-½ 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.

SPECIFIC DIRECTIONS FOR USE

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Almonds	Blossom Blight (*Monilinia* spp.)	8 - 10	For blossom blight, begin applications at early bloom and continue through petal fall. Make no more than 2 sequential applications before alternating to another fungicide with a different mode of action.
	Alternaria leafspot (*A. alternata*) Anthracnose (*Colletotrichum acutatum*) Scab (*Venturia carpophilia*) Shot hole (*Wilsonomyces carpophilus*) Leaf Blight (*Seimatosporium lichenicola*) Leaf rust (*Tranzschelia discolor*)	10 - 14	For all other diseases, begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 14-21 day schedule making no more than 2 sequential before alternating to another fungicide with a non-QoI (Group 11) mode of action. If monitoring or history indicates the presence of Alternaria, apply 14 ozs./A of Quadris Top in the late spring (mid April to beginning of May) and then repeat the treatment 2-3 weeks later. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not use with an adjuvant.
- Do not apply more than 56 (was changed from 28 fl.) fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.5 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 28 days of harvest (28 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Brassica (Cole) leafy Vegetables subgroup Broccoli Brussels sprouts Cabbage Cauliflower Collards Kale Mustard greens See additional crops below. Including all cultivars and/or hybrids of these.	Alternaria diseases (*Alternaria* spp.) Anthracnose (*Colletotrichum higginsianum*) Cercospora leafspot (*C. brassicicola*) Powdery mildew (*Erysiphe polygoni*) White rust (*Albugo candida*) Downy mildew (*Peronospora parasitica*)	8 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 7-14 day schedule making no more than 1 application before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground, chemigation, or aerial application. A minimum of 15 gals./A for ground applications is recommended. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.		

Complete list of brassica leafy vegetables: Broccoli; broccoli, Chinese (gai lon); broccoli raab (rapini); Brussels sprouts; cabbage; cabbage, Chinese (bok choy); cabbage, Chinese (napa); cabbage, Chinese mustard(gai choy); cauliflower; cavalo broccolo; collards; kale; kohlrabi; mizuna; mustard greens; mustard spinach; rape greens

Specific Use Restrictions:

- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per season of difenoconazole containing products.
- Do not apply more than 0.75 lb. ai/A per season of azoxystrobin containing products.
- Do not apply within 0 days of harvest (1 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Bulb Vegetables Onion, bulb Garlic Shallot Onion, green Leek Welch onion	Cercospora leafspot (*C. duddiae*) Leaf blotch (*Cladosporium allii-cepae*) Powdery Mildew (*Leveillula taurica*) Purple blotch (*Alternaria porri*) Stemphyllium leaf blight (*S. vesicarium*) Downy mildew (*Peronospora destructor*) Botrytis leaf blight (*B. squamosa*)	8 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 7-14 day schedule making no more than 1 application before alternating to another fungicide with a non-QoI (Group 11) mode of action. For downy mildew and Botrytis leaf blight, use 12-14 oz of Quadris Top. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground, chemigation, or aerial application. A minimum of 15 gals./A for ground applications is recommended. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.		

Complete list of bulb vegetables: Chive, fresh leaves; chive, Chinese, fresh leaves; daylily, bulb; elegans hosta; fritillaria, bulb; fritillaria, leaves; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; lily, bulb; onion, Beltsville bunching; onion, bulb; onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; onion, pearl; onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; shallot, bulb; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these.

Specific Use Restrictions:

- For green onions, do not apply more than 42 fl. ozs./A of Quadris Top per crop.
- For green onions, do not apply more than 0.34 lb ai /A per season of difenoconazole containing products.
- For dry bulb onions, do not apply more than 56 fl. ozs./A per season of Quadris Top per crop.
- For dry bulb onions, do not apply more than 0.46 lb. ai/A per season of difenoconazole containing products.
- For the Bulb crop group, do not apply more than 1.5 lbs. ai/A per season of azoxystrobin containing products.
- Do not apply within 7 days of harvest (7 day PHI).

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Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Citrus Grapefruit Lemon Lime Orange (sour and sweet) Tangerine Including all cultivars and/or hybrids of these	Greasy spot *(Mycosphaerella citri)*	10 – 15.4	Quadris Top applications should begin prior to disease development and continue throughout the season on 7-21 day intervals following the resistance management guidelines. Applications may be made by ground or air. An adjuvant may be added at recommended rates. A horticultural spray oil should be used to improve control of greasy spot. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. Make no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) different mode of action. Do not make more than 4 applications of Quadris Top or other Group 11 fungicides per season.
	Greasy spot rind blotch *(Mycosphaerella citri)* Melanose *(Diaporthe citri)* Scab *(Elsinoe fawcettii)* Albinism *(Alternaria alternata pv citri)* Post bloom fruit drop (PFD) *(Colletotrichum acutatum)* Alternaria leaf and fruit spot *(Alternaria citri)* Diplodia stem-end rot (*Diplodia natalensis*) Phomopsis stem-end rot (*Phomopsis citrii*) Anthracnose (*Colletotrichum* spp.) Black spot (*Guignardia citricarpa*)	10 – 15.4	Quadris Top applications should begin prior to disease development and continue throughout the season on 7-21 day intervals following the resistance management guidelines. Applications may be made by ground or air. An adjuvant may be added at recommended rates. A horticultural spray oil should be used to improve control of greasy spot. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. Make no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) different mode of action. Do not make more than 4 applications of Quadris Top or other Group 11 fungicides per season.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Complete list of citrus fruits: Calamondin; citrus citron; citrus hybrids (includes chironja, tangelo, tangor); grapefruit; kumquat; lemon; lime; mandarin (tangerine); orange, sour; orange, sweet; pummelo; Satsuma mandarin

Specific Use Restrictions:

- Do not use Quadris Top in citrus plant propagation nurseries.
- Do not apply more than 61.5 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.5 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.5 lbs. ai/A per crop of azoxystrobin containing products.
- May be applied the day of harvest (0 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Cucurbit Vegetables Cantaloupe Cucumber Honeydew Muskmelon Watermelon Pumpkin Squash Zucchini Including cultivars and/or hybrids of these. See additional cucurbit crops below.	Powdery mildew (*Sphaerotheca fuliginea, Erysiphe cichoracearum*) Alternaria leaf blight (*A. cucumerina*) Alternaria leaf spot (*A. alternata*) Anthracnose (*Colletotrichum orbiculare*) Cercospora leafspot (*C. citrullina*) Gummy stem blight (*Didymella bryoniae*) Septoria leaf blight (*S. cucurbitacearum*) Plectosporium blight (*P. tabacinum*) Phoma blight (*P. exigua*) Phyllosticta leafspot (*P. cucurbitacearum*) Belly rot (*Rhizoctonia solani*) Downy mildew (*Psuedoperonospora cubensis*) Myrothecium canker (*M. roridum*)	10 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 7-14 day schedule making no more than 1 application of a QoI containing fungicide before alternating to another fungicide with a different mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. For belly rot control, the first application should be made at the 1-3 leaf crop stage with a second application just prior to vine tip or 10-14 days later, whichever occurs first.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground, chemigation, or aerial application. A minimum of 15 gals./A for ground applications is recommended (20 for gummy stem blight). For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.		

Complete list of cucurbit vegetables: Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); Momordica spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

Specific Use Restrictions:

- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per season of difenoconazole containing products.
- Do not apply more than 1.5 lbs. ai/A per season of azoxystrobin containing products.
- Do not apply within 1 day of harvest (1 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Filberts (Hazelnuts)	Eastern Filbert Blight (*Anisogramma anomala*)	12 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 14-21 day schedule making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) different mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not use with an adjuvant.
- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.2 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 45 days of harvest (45 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Grapes	Alternaria rot (*A. alternata*) Powdery mildew (*Uncinula necator*) Rotbrenner (*Pseudopezicula tracheiphila*) Septoria leaf spot (*S. ampelina*) Phomopsis cane and leafpot (*P. viticola*) Black Rot (*Guignarda bidwellii*) Angular leafspot (*Mycosphearella angulata*) Anthracnose (*Elsinoe ampelina*) Leaf Blight (*Pseudocercospora vitis*) Downy mildew (*Plasmopara viticola*) Suppression only: Botrytis bunch rot (*B. cinerea*)	10 - 14	For powdery mildew, begin at bud break and apply on a 10-21 day interval, making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action. For Phomopsis diseases, apply at bud break, before shoots are 0.5 inches in length, and then again when shoots are 5-6 inches in length. For Black rot - begin when shoot length is 1-3 inches and continue on a 10 day interval. For all other diseases, begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 10-14 day schedule making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Optional language if have a rate range:* If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. **ATTENTION** Quadris Top is extremely phytoxic to certain apple varieties. Refer to caution in General Use section of label.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.5 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 14 days of harvest (14 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Pecans	Pecan Scab (*Cladosporium caryigenum*) Downy Spot (*Mycosphaerella caryigena*) Liver Spot (*Gnomonia caryae pv pecanae*) Vein Spot (*Gnomomia nerviseda*) Zonate Leaf Spot (*Grovesinia pyramidalis)* Powdery Mildew (*Microsphaera penicillata*)	8 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 14-21 day schedule making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not use with an adjuvant.
- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.2 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 45 days of harvest (45 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Peppers and other Fruiting Vegetables: Peppers Bell pepper Non-bell pepper Sweet non-bell Eggplant Okra *See TOMATOES section for specific directions.*	Anthracnose *(Colletotrichum* spp.) Cercospora leafspot *(C. capsici)* Gray leafspot *(Stemphyllium solani)* Powdery mildew *(Oidiopsis sicula)*	8.0 - 14.0	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. *Optional language if have a rate range:* If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. The addition of a spreading/penetrating type adjuvant may enhance efficacy.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not apply more than 55.3 fl. ozs./A/season of Quadris Top.
- Do not apply more than 0.46 lb. ai/A/season of difenoconazole containing products.
- Do not apply more than 1.0 lb. ai/A/season of azoxystrobin containing products.
- May be applied the day of harvest (0 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Pistachios	Panicle and Shoot Blight (*Botryosphaeria dothidea*) Alternaria late blight (*Alternaria* spp.) Septoria leaf spot (*S. pistaciarum*)	10 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 14-21 day schedule making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not use with an adjuvant.
- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.5 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 14 days of harvest (14 day PHI).

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Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Potatoes	Black dot *(Colletotrichum coccodes)* Brown spot *(Alternaria alternata)* Early blight *(Alternaria solani)* Powdery mildew *(Erysiphe cichoracearum)* Septoria leafspot *(S. lycopersici)*	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. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. 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:

- Do not apply more than 55.3 fl. ozs./A/season of Quadris Top.
- Do not apply more than 0.46 lb. ai/A/season of difenoconazole containing products.
- Do not apply more than 2.0 lbs. ai/A/season of azoxystrobin containing products
- Do not apply within 14 days of harvest (14 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Sugar beets	Cercospora leafspot (*C. beticola*) Powdery mildew (*Erysiphe polygoni*)	10 - 14	Begin applications prior to disease development and continue throughout the season on a 10-21 day interval. Make no more than 2 consecutive applications before switching to another effective fungicide with a different mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. The addition of a spreading/penetrating type adjuvant such as a non-ionic surfactant or crop oil concentrate or blend is recommended when applying by ground or air.
	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:

- Do not apply more than 55.3 fl. ozs/A/season of Quadris Top.
- Do not apply within 7 days of harvest (7 day PHI).
- Do not apply more than 2.0 lbs. ai/A/season of azoxystrobin containing products.
- Do not apply more than 0.46 lb. ai/A/season of difenoconazole containing products.

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Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Tomatoes Tomatillo	Early blight *(Alternaria solani)* Black mold *(A. alternata)* Gray leafspot *(Stemphylium botryosum)* Powdery mildew *(Leveillula taurica)* Septoria leafspot *(S. lycopersici)* Target spot *(Corynespora cassiicola)* Anthracnose *(Colletotrichum* spp.) Leaf mold *(Fulvia fulva)*	7.5 - 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. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. **Use of Adjuvants**: Under certain weather conditions (particularly high temperatures) Quadris Top in combination with high rates of silicone-based or oil containing (petroleum or crop) additives or adjuvants may cause injury. Do not exceed 0.125% adjuvant (v/v). Consult a Syngenta representative for more information concerning additives or adjuvants. A tank mixture with Dimethoate may cause crop injury. On fresh market tomatoes do not use adjuvants or tank mix Quadris Top with any EC product.
	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:

- Do not apply more than 47 fl. ozs./A/season of Quadris Top.
- Do not apply until 21 days after transplanting or 35 days after seeding.
- Do not use on varieties in which the mature tomatoes will be less than 2 inches (such as cherry tomatoes).
- Do not apply more than 0.46 lb. ai/A/season of difenoconazole containing products.
- Do not apply more than 0.6 lb. ai/A/season of azoxystrobin containing products.

May be applied the day of harvest (0 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Tree Nuts Beechnut Brazil Nut Butternut Cashew Chestnut Chinquapin Hickory Macadamia Walnut, Black Walnut, English See specific Directions for Almonds Filberts Pecans Pistachios	Foliar Diseases	10 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 14-21 day schedule making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not use with an adjuvant.
- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.2 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 45 days of harvest (45 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Vegetables, tuberous and corm, subgroup *For listing of crops in this group, see * below.* *See POTATOES for specific use directions.*	Black dot *(Colletotrichum coccodes)* Brown spot *(Alternaria alternata)* Early blight *(Alternaria* spp.) Powdery mildew *(Erysiphe cichoracearum)* Septoria leafspot *(Septoria* spp.) Ascochyta leafspot *(A. cynarae)* Rust *(Uromyces betae, Puccinia helianthi)*	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. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. The addition of a spreading/penetrating type adjuvant may enhance efficacy.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

*Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Burdock, Canna, Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (Taro), Ginger, Leren, Sweet Potato, Tanier, Tumeric, Yam (bean and true).

Specific Use Restrictions:

- Do not apply more than 55.3 fl. ozs./A/season of Quadris Top.
- Do not apply more than 0.46 lb. ai/A/season of difenoconazole containing products.
- Do not apply more than 2.0 lbs. ai/A/season of azoxystrobin containing products.
- Do not apply within 14 days of harvest (14 day PHI).

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
15.4	0.2	0.125

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.

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 1313A

[BASE LABEL]

GROUP 11 3 FUNGICIDES

Quadris Top™

Fungicide

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

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.

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

_____ gallons
Net Contents

FIRST AID	
If swallowed	• 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	• 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	• 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.

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.

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

SCP 1313A

Quadris Top 1313 TOL AMEND-B - bb - 2-2-10

000100-RGRG.20081114B.QUADRIS-TOP-TOL-AMEND-NOV2008.pdf

SUPPLEMENTAL LABEL

Syngenta Crop Protection, Inc.
P. O. Box 18300
Greensboro, North Carolina 27419-8300
SCP 1313-S1 1108

ACCEPTED
with COMMENTS
In EPA Letter Dated

APR 21 2010
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 100-1313

Quadris Top™

Fungicide

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

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

*CAS No. 215934-32-0
**CAS No.119446-68-3

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

EPA Reg. No. 100-1313

KEEP OUT OF REACH OF CHILDREN.

CAUTION

All applicable directions, restrictions and precautions on the EPA-registered label are to be followed. Before using Quadris Top Fungicide as permitted according to this supplemental label, read and follow all applicable directions, restrictions, and precautions on the EPA registered label on or attached to the pesticide product container. This Supplemental Labeling contains revised use instructions and or restrictions that may be different from those that appear on the container label. This Supplemental Labeling must be in the possession of the user at the time of pesticide application. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

SPECIFIC DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. All applicable directions, restrictions and precautions on all EPA-registered products are to be followed. This label and the Federally registered label must be in the possession of the user at the time of pesticide application.

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Almonds	Blossom Blight (*Monilinia* spp.)	8 - 10	For blossom blight, begin applications at early bloom and continue through petal fall. Make no more than 2 sequential applications before alternating to another fungicide with a different mode of action.
	Alternaria leafspot (*A. alternata*) Anthracnose (*Colletotrichum acutatum*) Scab (*Venturia carpophilia*) Shot hole (*Wilsonomyces carpophilus*) Leaf Blight (*Seimatosporium lichenicola*) Leaf rust (*Tranzschelia discolor*)	10 - 14	For all other diseases, begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 14-21 day schedule making no more than 2 sequential before alternating to another fungicide with a non-QoI (Group 11) mode of action. If monitoring or history indicates the presence of Alternaria, apply 14 ozs./A of Quadris Top in the late spring (mid April to beginning of May) and then repeat the treatment 2-3 weeks later. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not use with an adjuvant.
- Do not apply more than 56 (was changed from 28 fl.) fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.5 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 28 days of harvest (28 day PHI).

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Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Brassica (Cole) leafy Vegetables subgroup Broccoli Brussels sprouts Cabbage Cauliflower Collards Kale Mustard greens See additional crops below. Including all cultivars and/or hybrids of these.	Alternaria diseases (*Alternaria* spp.) Anthracnose (*Colletotrichum higginsianum*) Cercospora leafspot (*C. brassicicola*) Powdery mildew (*Erysiphe polygoni*) White rust (*Albugo candida*) Downy mildew (*Peronospora parasitica*)	8 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 7-14 day schedule making no more than 1 application before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground, chemigation, or aerial application. A minimum of 15 gals./A for ground applications is recommended. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.		

Complete list of brassica leafy vegetables: Broccoli; broccoli, Chinese (gai lon); broccoli raab (rapini); Brussels sprouts; cabbage; cabbage, Chinese (bok choy); cabbage, Chinese (napa); cabbage, Chinese mustard(gai choy); cauliflower; cavalo broccolo; collards; kale; kohlrabi; mizuna; mustard greens; mustard spinach; rape greens

Specific Use Restrictions:

- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per season of difenoconazole containing products.
- Do not apply more than 0.75 lb. ai/A per season of azoxystrobin containing products.
- Do not apply within 0 days of harvest (1 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Bulb Vegetables Onion, bulb Garlic Shallot Onion, green Leek Welch onion	Cercospora leafspot (*C. duddiae*) Leaf blotch (*Cladosporium allii-cepae*) Powdery Mildew (*Leveillula taurica*) Purple blotch (*Alternaria porri*) Stemphyllium leaf blight (*S. vesicarium*) Downy mildew (*Peronospora destructor*) Botrytis leaf blight (*B. squamosa*)	8 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 7-14 day schedule making no more than 1 application before alternating to another fungicide with a non-QoI (Group 11) mode of action. For downy mildew and Botrytis leaf blight, use 12-14 oz of Quadris Top. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground, chemigation, or aerial application. A minimum of 15 gals./A for ground applications is recommended. For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.		

Complete list of bulb vegetables: Chive, fresh leaves; chive, Chinese, fresh leaves; daylily, bulb; elegans hosta; fritillaria, bulb; fritillaria, leaves; garlic, bulb; garlic, great-headed, bulb; garlic, serpent, bulb; kurrat; lady's leek; leek; leek, wild; lily, bulb; onion, Beltsville bunching; onion, bulb; onion, Chinese, bulb; onion, fresh; onion, green; onion, macrostem; onion, pearl; onion, potato, bulb; onion, tree, tops; onion, Welsh, tops; shallot, bulb; shallot, fresh leaves; cultivars, varieties, and/or hybrids of these.

Specific Use Restrictions:

- For green onions, do not apply more than 42 fl. ozs./A of Quadris Top per crop.
- For green onions, do not apply more than 0.34 lb ai /A per season of difenoconazole containing products.
- For dry bulb onions, do not apply more than 56 fl. ozs./A per season of Quadris Top per crop.
- For dry bulb onions, do not apply more than 0.46 lb. ai/A per season of difenoconazole containing products.
- For the Bulb crop group, do not apply more than 1.5 lbs. ai/A per season of azoxystrobin containing products.
- Do not apply within 7 days of harvest (7 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Citrus Grapefruit Lemon Lime Orange (sour and sweet) Tangerine Including all cultivars and/or hybrids of these	Greasy spot *(Mycosphaerella citri)*	10 – 15.4	Quadris Top applications should begin prior to disease development and continue throughout the season on 7-21 day intervals following the resistance management guidelines. Applications may be made by ground or air. An adjuvant may be added at recommended rates. A horticultural spray oil should be used to improve control of greasy spot. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. Make no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) different mode of action. Do not make more than 4 applications of Quadris Top or other Group 11 fungicides per season.
	Greasy spot rind blotch *(Mycosphaerella citri)* Melanose *(Diaporthe citri)* Scab *(Elsinoe fawcettii)* Albinism *(Alternaria alternata pv citri)* Post bloom fruit drop (PFD) *(Colletotrichum acutatum)* Alternaria leaf and fruit spot *(Alternaria citri)* Diplodia stem-end rot (*Diplodia natalensis*) Phomopsis stem-end rot (*Phomopsis citrii*) Anthracnose (*Colletotrichum* spp.) Black spot (*Guignardia citricarpa*)	10 – 15.4	Quadris Top applications should begin prior to disease development and continue throughout the season on 7-21 day intervals following the resistance management guidelines. Applications may be made by ground or air. An adjuvant may be added at recommended rates. A horticultural spray oil should be used to improve control of greasy spot. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. Make no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) different mode of action. Do not make more than 4 applications of Quadris Top or other Group 11 fungicides per season.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Complete list of citrus fruits: Calamondin; citrus citron; citrus hybrids (includes chironja, tangelo, tangor); grapefruit; kumquat; lemon; lime; mandarin (tangerine); orange, sour; orange, sweet; pummelo; Satsuma mandarin

Specific Use Restrictions:

- Do not use Quadris Top in citrus plant propagation nurseries.
- Do not apply more than 61.5 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.5 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.5 lbs. ai/A per crop of azoxystrobin containing products.
- May be applied the day of harvest (0 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Cucurbit Vegetables Cantaloupe Cucumber Honeydew Muskmelon Watermelon Pumpkin Squash Zucchini Including cultivars and/or hybrids of these. See additional cucurbit crops below.	Powdery mildew (*Sphaerotheca fuliginea, Erysiphe cichoracearum*) Alternaria leaf blight (*A. cucumerina*) Alternaria leaf spot (*A. alternata*) Anthracnose (*Colletotrichum orbiculare*) Cercospora leafspot (*C. citrullina*) Gummy stem blight (*Didymella bryoniae*) Septoria leaf blight (*S. cucurbitacearum*) Plectosporium blight (*P. tabacinum*) Phoma blight (*P. exigua*) Phyllosticta leafspot (*P. cucurbitacearum*) Belly rot (*Rhizoctonia solani*) Downy mildew (*Psuedoperonospora cubensis*) Myrothecium canker (*M. roridum*)	10 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 7-14 day schedule making no more than 1 application of a QoI containing fungicide before alternating to another fungicide with a different mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. For belly rot control, the first application should be made at the 1-3 leaf crop stage with a second application just prior to vine tip or 10-14 days later, whichever occurs first.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground, chemigation, or aerial application. A minimum of 15 gals./A for ground applications is recommended (20 for gummy stem blight). For chemigation, apply in 0.1-0.25 inches/A of water. Chemigation with excessive water may lead to a decrease in efficacy.		

Complete list of cucurbit vegetables: Chayote (fruit); Chinese waxgourd (Chinese preserving melon); citron melon; cucumber; gherkin; gourd, edible (includes hyotan, cucuzza, hechima, Chinese okra); Momordica spp (includes balsam apple, balsam pear, bittermelon, Chinese cucumber); muskmelon (includes cantaloupe); pumpkin; squash, summer; squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

Specific Use Restrictions:

- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per season of difenoconazole containing products.
- Do not apply more than 1.5 lbs. ai/A per season of azoxystrobin containing products.
- Do not apply within 1 day of harvest (1 day PHI).

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Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Filberts (Hazelnuts)	Eastern Filbert Blight (*Anisogramma anomala*)	12 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 14-21 day schedule making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) different mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not use with an adjuvant.
- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.2 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 45 days of harvest (45 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Grapes	Alternaria rot (*A. alternata*) Powdery mildew (*Uncinula necator*) Rotbrenner (*Pseudopezicula tracheiphila*) Septoria leaf spot (*S. ampelina*) Phomopsis cane and leafpot (*P. viticola*) Black Rot (*Guignarda bidwellii*) Angular leafspot (*Mycosphearella angulata*) Anthracnose (*Elsinoe ampelina*) Leaf Blight (*Pseudocercospora vitis*) Downy mildew (*Plasmopara viticola*) Suppression only: Botrytis bunch rot (*B. cinerea*)	10 - 14	For powdery mildew, begin at bud break and apply on a 10-21 day interval, making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action. For Phomopsis diseases, apply at bud break, before shoots are 0.5 inches in length, and then again when shoots are 5-6 inches in length. For Black rot - begin when shoot length is 1-3 inches and continue on a 10 day interval. For all other diseases, begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 10-14 day schedule making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. **ATTENTION** Quadris Top is extremely phytoxic to certain apple varieties. Refer to caution in General Use section of label.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.5 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 14 days of harvest (14 day PHI).

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Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Pecans	Pecan Scab (*Cladosporium caryigenum*) Downy Spot (*Mycosphaerella caryigena*) Liver Spot (*Gnomonia caryae pv pecanae*) Vein Spot (*Gnomomia nerviseda*) Zonate Leaf Spot (*Grovesinia pyramidalis)* Powdery Mildew (*Microsphaera penicillata*)	8 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 14-21 day schedule making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not use with an adjuvant.
- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.2 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 45 days of harvest (45 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Pistachios	Panicle and Shoot Blight (*Botryosphaeria dothidea*) Alternaria late blight (*Alternaria* spp.) Septoria leaf spot (*S. pistaciarum*)	10 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 14-21 day schedule making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not use with an adjuvant.
- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.5 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 14 days of harvest (14 day PHI).

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Sugar beets	Cercospora leafspot (*C. beticola*) Powdery mildew (*Erysiphe polygoni*)	10 - 14	Begin applications prior to disease development and continue throughout the season on a 10-21 day interval. Make no more than 2 consecutive applications before switching to another effective fungicide with a different mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval. The addition of a spreading/penetrating type adjuvant such as a non-ionic surfactant or crop oil concentrate or blend is recommended when applying by ground or air.
	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:

- Do not apply more than 55.3 fl. ozs/A/season of Quadris Top.
- Do not apply within 7 days of harvest (7 day PHI).
- Do not apply more than 2.0 lbs. ai/A/season of azoxystrobin containing products.
- Do not apply more than 0.46 lb. ai/A/season of difenoconazole containing products.

Crop	Target Diseases	Use Rate fl. oz. product/A	Remarks
Tree Nuts Beechnut Brazil Nut Butternut Cashew Chestnut Chinquapin Hickory Macadamia Walnut, Black Walnut, English See specific Directions for Almonds Filberts Pecans Pistachios	Foliar Diseases	10 - 14	Begin applications prior to disease onset when conditions are conducive for disease. Apply Quadris Top on a 14-21 day schedule making no more than 2 sequential applications before alternating to another fungicide with a non-QoI (Group 11) mode of action. *Optional language if have a rate range*: If disease pressure is high, use the shortest interval and highest rate. *Optional language if have a single rate:* If disease pressure is high, use the shortest interval.
	Application: For best results, sufficient water volume must be used to provide thorough coverage. Quadris Top can be applied by either ground or aerial application. A minimum of 15 gals./A for ground applications is recommended. For aerial applications a minimum of 10 gals./A of water is recommended.		

Specific Use Restrictions:

- Do not use with an adjuvant.
- Do not apply more than 56 fl. ozs./A of Quadris Top per crop.
- Do not apply more than 0.46 lb. ai/A per crop of difenoconazole containing products.
- Do not apply more than 1.2 lbs. ai/A per crop of azoxystrobin containing products.
- Do not apply within 45 days of harvest (45 day PHI).

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

SCP 1313-S1 1108

Quadris Top 1313-S1 1108-B - bb - 2-2-10

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