TOMATOES

General Information

PRODUCT INFORMATION

Quadris Opti is a broad spectrum, preventative fungicide with systemic and curative properties recommended for the control of many important plant diseases. Quadris Opti may be applied as a foliar spray in alternating spray programs or in tank mixes with other registered, crop protection products. All applications should be made according to the use directions that follow.

USE PRECAUTIONS

Crops in this label may be planted immediately after last treatment. Do not plant other crops within 45 days after last application.

Do not use for disease control in greenhouses.

ATTENTION

Quadris Opti 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 Opti 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 Opti 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.

Adjuvants: When an adjuvant is to be used with this product, the use of an adjuvant

that meets the standards of the Chemical Producers and Distributors Association (CPDA) adjuvant certification is recommended.

Integrated Pest (Disease) Management

Quadris Opti 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. The Specific Use Directions section in this label identifies specific IPM recommendations for each crop. Consult your local agricultural authorities for additional IPM strategies established for your area. Quadris Opti 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

The Specific Use Directions section in this label provides resistance management strategies specific for each crop and disease. Consult your local or state agricultural authorities for resistance management strategies that are complementary to those in this label. Azoxystrobin, a strobilurin fungicide, (QoI Group 11 Fungicide which requires alternation with an active ingredient that has a different mode of action) is not cross resistant with other classes of fungicides which have different modes of action. Chlorothalonil is a multisite fungicide (Multisite Group M Fungicide) partner for azoxystrobin.

Spraying/Mixing

Quadris Opti may be applied with all types of spray equipment commonly used for making ground and aerial applications. Do not apply Quadris Opti through any type of ultra low volume (ULV) spray system. Proper adjustments and calibration of spraying equipment to give good canopy penetration and coverage is essential for good disease control. The higher rates in the rate range and/or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when environmental conditions conducive to disease exist.

For ground applications, apply Quadris Opti in sufficient water volume for adequate coverage and canopy penetration. For aerial applications, apply Quadris Opti in a minimum of five gallons of water per acre. Where feasible, ground application should be used because it provides better canopy penetration and coverage.

To prepare spray solution, partially fill the spray tank with clean water and begin

agitation. Add the specified amount of Quadris Opti to the tank, allowing time for good dispersion. Then add an adjuvant, if recommended. If tank mixes are required, product should be added to the spray tank in the following order: Quadris Opti, WG or dry flowable formulations, wettable powders and flowable (aqueous suspensions) products. Finish filling the tank to the desired volume to obtain the proper spray concentration. Maintain agitation throughout the spraying operation. Do not allow spray mixture to stand overnight or for prolonged periods. Make up only the amount of spray required for immediate use. Sprayers should be thoroughly cleaned immediately after application.

Quadris Opti is compatible with many commonly used fungicides, liquid fertilizers, herbicides, insecticides and biological control products. If tank mixes are desired, observe all directions, precautions, and limitations on labeling of all products used. DO NOT combine with DiPel ES, DiPel ES-NT or Latron B-1956 as phytotoxicity may result from the combination when applied to the crops on this label. Consult compatibility charts or your local or state agricultural authorities for compatibility information.

Quadris Opti has demonstrated some phytotoxic effects when mixed with products that are formulated as EC’s. These effects are enhanced if applications are made under cool, cloudy conditions and these conditions remain for several days following application. In addition, adjuvants that contain some form of silicone have also contributed to phytotoxicity.

Quadris Opti may be incompatible with fertilizers when low water volumes are used. Cold temperatures and water quality exacerbate these compatibility problems. Conduct a physical compatibility test as described in the paragraph below before making a field application.

SPRAY DRIFT MANAGEMENT

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DO NOT spray Quadris Opti 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 Opti 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.

Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat.

This product must not be applied within 150 feet (for aerial and air-blast applications) or 25 feet (for ground applications) of marine/estuarine water bodies unless there is an untreated buffer area of that width between the area to be treated and the water body.

Aerial Spray Drift Precautions
Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Aerial Drift Reduction Advisory Information
[This section is advisory in nature and does not supercede the mandatory label requirements.]

Information on Droplet Size
The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly, or under unfavorable conditions (see Wind, Temperature).

Directions for Use Through Sprinkler Chemigation Systems
Spray Preparation: Chemical tank and injector system should be thoroughly cleaned. Flush system with clean water.

Application Instructions: Apply Quadris Opti at rates and timings as described in this label.

Use Precautions for Sprinkler Applications:
Sprinkler Irrigation: Apply this product through sprinkler irrigation systems including center pivot, lateral move, end tow, side [wheel] roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system except as specified on this label.

Apply with center pivot or continuous-move equipment distributing 1/2 acre-inch or less during treatment. In general, use the least amount of water required for proper distribution and coverage. If stationary systems (solid set, handlines or wheel lines other than continuous-move) are used, this product should be injected into no more than the last 20-30 minutes of the set. Do not apply when winds are greater than 10-15 mph to avoid drift or wind skips. Do not apply when wind speed favors drift beyond the area intended for treatment. Plant injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform treated water. Thorough coverage of foliage is required for good control. Good agitation should be maintained during the entire application period.

If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.

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

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

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.

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.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. 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.

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.

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.

Limitations, Restrictions, and Exceptions

TOMATOES

Remarks
Integrated Pest (Disease) Management: Quadris Opti should be integrated into an overall disease management strategy that includes proper selection of varieties with disease tolerance, removal of plant debris in which inoculum overwinters, plant residue management, crop rotation and proper timing and placement of irrigation.

Resistance Management: No more than one application of Quadris Opti or other strobilurins (QoI Group 11 Fungicides) should be made before alternating with a fungicide with a different mode of action. Do not make more than five (5) foliar applications of Quadris Opti or other QoI Group 11 fungicides per acre per year.

Application Directions: Quadris Opti applications should begin prior to disease development and continue throughout the season following the resistance management guidelines.

Quadris Opti should be applied on a 5- to 7-day schedule for control of late blight. For all other diseases, make applications on a 7- to 21-day schedule. If conditions are favorable for severe epidemics, use the shorter application intervals. Applications may be made by ground, air or chemigation.

Quadris Opti should not be applied until 21 days after transplanting or 35 days after seeding.

Quadris Opti should not be applied within +/- 6 days of a postemergence broadcast application of Sencor.

Adjuvants should not be used as they may increase the potential for severe phytotoxicity.

Specific Use Restrictions:
1) Do not apply more than 0.5 lb ai of azoxystrobin per acre per year.
2) Do not apply more than 15.0 lb ai of Chlorothalonil or Chlorothalonil-containing products per acre per year.
3) May be applied the day of harvest (0-day PHI).

Method
Broadcast/Foliar Air
Broadcast/Foliar Ground

Rates

field_rates 0

field_rates 1

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Restricted Entry Interval

12 hours

Timings

Prior to disease development.