# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460



OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Dr. Raymond S. Brinkmeyer Regulatory Leader Dow AgroSciences, LLC 9330 Zionsville Road Indianapolis, IN 46268

JUN 1 2 2009

Subject:

Quintec

EPA Registration No. 62719-375

Your Amendment dated December 17, 2007Adding the new use- artichoke,

stone fruit (group 12), winter squash, edible gourds, and pumpkin

PRIA Decision No. 390591

# Dear Dr. Brinkmeyer:

The master labeling referred to above, submitted in connection with registration under section under 3(c)(7)(b) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) is acceptable provided you make the following changes:

- 1. Pages 1 and 6, in the "Precautionary Statements" section, revise the second sentence to include the following phrase, "and before eating, drinking, chewing gum, and using the toilet." The sentence should read, "Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, and using the toilet."
- 2. Page 1 and 6, add "User Safety Requirements" heading.
- 3. Page 1 and 6, add the word, "exist" after the word "washables".
- 4. Page 10, within the "Application Guidelines" section, after the sentence, "Apply uniformly in a minimum spray volume..." list the entire crop groups as the heading preceding the crop table. The heading must read, "Artichoke, Cherry, Grape, Head and Lettuce, Hops, Melons, Pepper, Stone Fruits, Strawberry; Winter Squash, Gourds, and Pumpkin"
- 5. Page 10, within the "Application Guidelines" table for each crop group, revise the heading "Optimum Spray Interval (Days)" to "Retreatment Interval (Day)".
- 6. In the "Application Guidelines" table for each crop group, add the table headings to page 11.
- 7. In the "Minimum Spray Interval" for "Grape", delete the minimum spray interval statement "5 days for 1 to 2 fl oz per acre rate" and revise the statement to "7 days for 1-2 fl oz per acre rate: 14 days for 3-4 fl oz per acre rate."

- 8. In the "Minimum Spray Interval" for "Stone Fruits", delete the maximum application rate "32 fl oz" and revise the rate to "8 fl oz". The sentence should be revised to "Do not apply more than 8 fl oz of Quintec per acre per application or 32 fl oz of Quintec per acre per calendar year."
- 9. In the "Minimum Spray Interval" for "Stone Fruits", revise the 3<sup>rd</sup> bullet. The sentence should read, "Do not make more than four applications of Quintec per crop, nor more than two consecutive applications of Quintec."
- 10. In the "Minimum Spray Interval" for "Winter Squash, Gourds and Pumpkin", delete the maximum application rate "32 fl oz" and revise the rate to "8 fl oz". The sentence should be revised to "Do not apply more than 8 fl oz of Quintec per acre per application or 32 fl oz of Quintec per acre per calendar year."
- 11. In the "Minimum Spray Interval" for "Winter Squash, Gourds and Pumpkin," revise the 3<sup>rd</sup> bullet. "Do not make more than four applications of Quintec per crop, nor more than two consecutive applications of Quintec."

# Data Requirements:

- 12. Submit a confined rotational crop study (OPPTS Guideline No. 860.1850) by December 2010.
- 13. Submit a 28-day inhalation study Rat. The Agency requires this study based on the concern for repeated exposure on the use pattern. Since the active ingredient is in toxicity category IV, a waiver can be granted for the 28-day inhalation study provided an extrapolated inhalation MOE (based on an oral NOAEL) is demonstrated to be approximately 10-fold higher than the LOC.
- 14. Submit to the Agency an immunotoxicity study (OPPTS Guideline No. 870.7800) by April 2010.
- 15. Submit a Mysid chronic toxicity study (OPPTS Guideline No.850.1350) and fish early life stage study (OPPTS Guideline No.850.1400) both for freshwater and estuarine/marine species by June 2011.
- 16. Submit an Aquatic vascular plant study (OPPTS Guideline No.850.4400) by September 2010.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). One copy of the label stamped "Accepted with comments" is enclosed for your records. If you have any questions, please contact Tamue L. Gibson by phone at (703) 305-9096 or via email at Gibson.tamue@epa.gov.

Sincerely,

Shaja B. Joyner

Product Manager (20)

Fungicide Branch

Registration Division (7505P)

**Enclosures** 

T6S / Quintec / MSTR Amend / 06-02-09

ACCEPTED
with COMMENTS
In EPA Letter Dated:

JUN 1 2 2009

Page 1

(Base label):

**Quintec**®

**Fungicide** 

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

62719-315

A protectant fungicide for the control of powdery mildew in artichoke, gourds, lettuce, melons, pepper, pumpkin, stone fruits, strawberry, winter squash, grapes, hops, and cherry.

Group	13	FUNGICIDE
	•	
Active Ingredient:	•	,
quinoxyfen: 5,7-di	chloro-4-(p-fluorophe	enoxy)
quinoline		22.58%
Other Ingredients	••••	77.42%
Total	*************************	100.00%
	•	
Contains 2.08 lb of act	ive ingredient per ga	illon.

Keep Out of Reach of Children

# CAUTION

# **Precautionary Statements**

#### **Hazards to Humans and Domestic Animals**

Harmful If Swallowed • Harmful If Absorbed Through Skin

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

## Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- · Chemical-resistant gloves
- · Shoes plus socks

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.

#### **User Safety Recommendations**

Users should:

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

#### **Engineering Controls**

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.

Page 2

## 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 do so 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

#### **Environmental Hazards**

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor runoff or drift from the target area. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow watertables 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 product's contribution to surface water contamination.

In counties east of the Rocky Mountains where the gray bat, Indiana bat, and the Ozark big-eared bat occur, do not apply this product one-half hour before dusk to one-half hour after dawn.

# Agricultural Use Requirements

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

## (Storage and Disposal for rigid containers 5 gal or less)

#### Storage and Disposal

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

**Pesticide Storage:** Avoid freezing. Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure 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 1/4 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

## (Storage and Disposal for refillable rigid containers larger than 5 gal)

## Storage and Disposal

Page 3

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

**Pesticide Storage:** Avoid freezing. Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

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. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### (Storage and Disposal for nonrefillable rigid containers larger than 5 gal)

## Storage and Disposal

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

**Pesticide Storage:** Avoid freezing. Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

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#### Refer to label booklet for Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs, or clothing.

EPA Reg. No. 62719-375

EPA. Est.

Trademark of Dow AgroSciences LLC Produced for Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268

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Net Contents \_\_\_\_

(Label booklet cover)

# **Quintec**®

# Fungicide

A protectant fungicide for the control of powdery mildew in artichoke, gourds, lettuce, melons, pepper, pumpkin, stone fruits, strawberry, winter squash, grapes, hops, and cherry.

Group	13	FUNGICIDE	
quinoline Other Ingredients	lichloro-4-(p-fluorophe	22.58% 77.42%	
Contains 2.08 lb of a	ctive ingredient per ga	llon.	
Keep Out of Rea	ch of Children		•
Use this product only Part 170. Refer to the		s labeling and with the	Worker Protection Standard, 40 CFR uirements" in the Directions for Use
Refer to inside of la Use.	bel booklet for additi	ional precautionary i	nformation including Directions for
Warranty Disclaime		Jse, and Limitation o	ons. Before using this product, read f Remedies at end of label booklet. If
In case of emergence	y endangering health o	or the environment inve	olving this product, call 1-800-992-5994.
Agricultural Chemica	l: Do not ship or store	with food, feeds, drugs	s, or clothing.
EPA Reg. No. 62719	-375	•	EPA. Est
<sup>®</sup> Trademark of Dow A Produced for Dow AgroSciences 9330 Zionsville Roa Indianapolis, IN 462	LLC d		
,,			Net Contents

(Page 1 through end)

# **Precautionary Statements**

# Hazards to Humans and Domestic Animals

# CAUTION

Harmful If Swallowed • Harmful If Absorbed Through Skin

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

# Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- Chemical-resistant gloves
- · Shoes plus socks

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.

## **User Safety Recommendations**

Users should:

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

## **Engineering Controls**

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## 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 do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

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Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

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This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor runoff or drift from the target area. Do not contaminate water when cleaning equipment or disposing of equipment washwaters.

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be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

In counties east of the Rocky Mountains where the gray bat, Indiana bat, and the Ozark big-eared bat occur, do not apply this product one-half hour before dusk to one-half hour after dawn.

## **Directions for Use**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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 material
- · Shoes plus socks

#### Storage and Disposal

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

**Pesticide Storage:** Avoid freezing. Store in original container only. In case of leak or spill, use absorbent materials to contain liquids and dispose as waste.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

#### Nonrefillable containers 5 gallons or less:

Container Handling: Nonrefillable container. Do not reuse or refill this container.

Triple rinse or pressure 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 1/4 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

#### Refillable containers 5 gallons or larger:

**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose.

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. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water and, if possible, spray all sides while adding water. If practical, agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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#### **General Use Directions**

Quintec<sup>®</sup> fungicide is a protectant fungicide for the control of powdery mildew diseases. Quintec does not control existing or latent powdery mildew infections and must be applied on a protectant schedule (latency is the period between infection of plant tissues and the development of visible symptoms). Quintec is compatible with most commonly used insecticides, miticides and fungicides.

## **General Use Precautions and Restrictions**

- Do not graze or harvest forage from cover crops within areas treated with Quintec.
- · Do not aerially apply this product.
- Chemigation: Do not apply this product through any type of irrigation system.
- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels used in mixtures.

#### **Rotational Crop Restrictions**

The following rotational crops may be planted at intervals defined below following the final application of Quintec.

Crops	Re-Planting Interval
registered crops	no restrictions
Brassica (cole) leafy vegetables (crop group 5) <sup>1</sup> cucurbit vegetables (crop group 9) <sup>2</sup> fruiting vegetables (crop group 8) <sup>3</sup> and okra leafy vegetables (crop group 4) <sup>4</sup> root and tuber vegetables (crop group 1) <sup>5</sup> sunflower	30 days
all other crops grown for food or feed	12 months

<sup>1</sup>Brassica (cole) leafy vegetables including broccoli, broccoli raab, Brussels sprouts, cabbage, cauliflower, cavalo broccolo, Chinese broccoli (gai lon), Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens, white flowering broccoli.

<sup>2</sup> Cucurbit vegetables including acorn squash, balsam apple, balsam pear, bitter melon, butternut squash, calabaza, cantaloupe, casaba, chayote, Chinese cucumber, Chinese okra, Chinese preserving melon, Chinese waxgourd, citron melon, crenshaw melon, crookneck squash, cucumber, cucuzza, edible gourd, gherkin, golden pershaw melon, hechima, honey balls, honeydew melon, hubbard squash, hyotan, mango melon, muskmelon, Persian melon, pineapple melon, pumpkin, Santa Claus melon, scallop squash, snake melon, spaghetti squash, straightneck squash, summer squash, true cantaloupe, vegetable marrow, watermelon, winter squash, zucchini.

<sup>3</sup>Fruiting vegetables including bell pepper, chili pepper, cooking pepper, eggplant, groundcherry, hot

pepper, pepino, pepper, pimento, sweet pepper, tomatillo, tomato.

<sup>4</sup>Leafy vegetables including amaranth, arugula, cardoon, celery, celtuce, chervil, Chinese celery, Chinese spinach, corn salad, dandelion, dock (sorrel), edible-leaved chrysanthemum, endive (escarole), Florence fennel (finochio), garden cress, garden purslane, garland chrysanthemum, head lettuce, leaf lettuce, leafy amaranth, New Zealand spinach, orach, parsley, radicchio (red chicory), rhubarb, spinach, fennel, Swiss chard, tampala, upland cress, vine spinach, winter cress, winter purslane, yellow rocket.

<sup>5</sup>Root and tuber vegetables including arracacha, arrowroot, bitter cassava, black salsify, carrot, celeriac (celery root), chayote (root), chicory, Chinese artichoke, chufa, dasheen (taro), edible burdock, edible canna, garden beet, ginger, ginseng, horseradish, Jerusalem artichoke, leren, oriental radish (daikon), parsnip, potato, radish, rutabaga, salsify (oyster plant), skirret, Spanish salsify, sugar beet, sweet cassava, sweet potato, tanier, true, yam, turmeric, turnip, turnip-rooted chervil, turnip-rooted parsley, yam bean.

#### **Disease Resistance Management**

The number of sprays of Quintec per crop must not exceed 50% of the total number of powdery mildew sprays. Quintec is in mode of action Group 13. Alternation with other modes of action is recommended after each application of Quintec. When more than one application of Quintec is made per crop, at least one of the applications of Quintec must be a tank mixture with a product that is effective on powdery mildew and has a mode of action different from Quintec. Apply the alternate product or tank mix within 14 days of applying Quintec. Do not make more than two consecutive applications of Quintec.

To delay development of fungicide/bactericide resistance, the following practices are recommended:

- Avoid the consecutive use of Quintec or other target site of action Group 13 fungicides/bactericides that have a similar target site of action on the same pathogens.
- Use tank mixtures or premixes with fungicides/bactericides from different target site of action groups as long as the involved products are all registered for the same use and are both effective at the tank mix or prepack rate on the pathogen(s) of concern.
- Base fungicide/bactericide use on a comprehensive Integrated Pest Management (IPM) program.
- Monitor treated fungal/bacterial populations for loss of field efficacy.
- Contact your local extension specialist, certified crop advisors, and/or manufacturer for fungicide/bactericide resistance management and/or IPM recommendations for specific crops and resistant pathogens.
- For further information or to report suspected resistance, you may contact your local Dow AgroSciences representative or by calling 800-258-3033.

# Mixing Instructions

Fill the spray tank to at least one-half the required spray volume and start agitation. Add (in order) dry flowable, wettable powder, and Quintec or other flowable (aqueous suspension) products to the spray tank. Then add the specified rate of emulsifiable concentrate and solution products. Allow time for thorough mixing after adding each product. Finish filling spray tank and maintain continuous agitation in the spray tank during mixing, filling and spraying operations.

#### Oil Sprays

13 of 16

Oil sprays may be integrated as part of a powdery mildew management program. Consult local university extension for specific information.

#### Use of Surfactants

Quintec contains sufficient surfactant to ensure mixability and plant coverage. The use of additional surfactant is not required.

#### Tank Mixing

Quintec may be applied in tank mix combination with labeled rates of other pesticides, including fungicides, insecticides, or other chemicals used in the culture of the labeled crop provided: (1) the tank mix product is labeled for the timing and method of application for the intended use; and (2) tank mixing with Quintec or other pesticides is not prohibited by the label of the tank mix product.

#### **Tank Mixing Precautions:**

- Read carefully and follow all applicable use directions including application rates, use precautions, and limitations on the respective product labels.
- Do not exceed specified application rates or maximum use rates if products with the same active ingredient are applied together
- For tank mix partners packaged in water soluble packaging, do not use with products containing boron or mix in equipment previously used to apply boron-containing mixtures unless the tank and spray equipment have been adequately cleaned.
- Always perform a (jar) test to ensure compatibility of products used in tank mixtures.

Tank Mix Compatibility Testing: A jar test is recommended prior to tank mixing to ensure compatibility of Quintec and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Rainfast Requirement: When applied alone, Quintec is rainfast 1 hour after application.

## **Application Guidelines**

#### **Application Timing**

Apply Quintec before visible symptoms of powdery mildew appear. Quintec will not control latent or established infections of powdery mildew. If powdery mildew infection is established, Quintec should be applied in tank mix combination with a curative fungicide or following application of a curative spray or, if multiple diseases are present, following application of a broad-spectrum fungicide. Under low disease conditions (as per a predictive modeling system), minimum label use rates per application can be used. Maximum label rates and short application intervals are recommended for severe or threatening disease conditions.

Apply uniformly in a minimum spray volume of 30 gallons per acre that assures thorough coverage of the crop. Disease control may be reduced at low spray volumes or if spray coverage is inadequate.

#### Cherry, Grape, Hops

Crop	Disease	Optimum Spray Interval (Days)	Rate of Quintec (fl oz/acre) <sup>1</sup>
artichoke	powdery mildew	6 - 7	8
	(Erysiphe çichoracearum)	10 - 14	4 – 6
cherry	powdery mildew (Podosphaera clandestina)	10 - 14	7
grape	powdery mildew	7	1 - 2
	(Uncinula necator)	14	3 - 4

		21	5 - 6.6
head and leaf lettuce	powdery mildew (Erysiphe cichoracearum)	10 – 14	4 – 6
hops	powdery mildew (Sphaerotheca macularis)	14	4 - 8.2
melons <sup>z</sup>	powdery mildew (Sphaerotheca fuliginea)	10 - 14	4 – 6
pepper <sup>3</sup>	powdery mildew (L'eveillula taurica, Oidiopsis tuarica)	10 - 14	4-6
stone fruits <sup>4</sup>	powdery mildew (Podosphaera clandestina)	6 - 8 10 - 14	8 7
strawberry	powdery mildew (Sphaerotheca macularis)	10 - 14	4 – 6
winter squash,	powdery mildew	6 - 8	8
gourds, pumpkin	(Sphaerotheca fuliginea)	10 - 14	4-6

<sup>&</sup>lt;sup>1</sup>When applied as a dilute spray, maintain the per acre use rate.

#### **Specific Use Restrictions:**

#### Artichoke

- · Preharvest Interval: None
- Maximum Application Rate: Do not apply more than 32 fl oz of Quintec per acre per calendar year.
- Do not make more than two consecutive applications of Quintec.
- Carefully inspect the crop several days after each application of Quintec and at regular intervals during crop development. Under certain environmental conditions, Quintec may cause leaf spotting and chlorosis. If these symptoms occur after applying Quintec, discontinue its use.

#### Cherry

- Preharvest Interval: Do not apply within 7 days of harvest.
- Maximum Application Rate: Do not apply more than 7 fl oz of Quintec per acre per application or more than 35 fl oz of Quintec per acre per calendar year.
- · Minimum Spray Interval: 7 days.
- Do not make more than five applications of Quintec per calendar year.

#### Grape

- Preharvest Interval: Do not apply within 14 days of harvest.
- Maximum Application Rate: Do not apply more than 6.6 fl oz of Quintec per acre per application or more than 33 fl oz of Quintec per acre per calendar year.
- Minimum Spray Interval: 5 days for 1 to 2 fl oz per acre rate; 7 days for 3 to 4 fl oz per acre rate; 14 days for 5 to 6.6 fl oz per acre rate.
- Do not make more than five applications of Quintec per calendar year.

#### Head and Leaf Lettuce

- Preharvest Interval: Do not apply within 1 day of harvest.
- Maximum Application Rate: Do not apply more than 6 fl oz of Quintec per acre per application or more than 24 fl oz of Quintec per acre per crop.
- Do not make more than four applications of Quintec per crop, nor more than two consecutive applications of Quintec.

<sup>&</sup>lt;sup>2</sup>Melons including citron melon, muskmelon (cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon, true cantaloupe), watermelon

<sup>&</sup>lt;sup>3</sup>Pepper including bell pepper, chili pepper, cooking pepper, non-bell pepper, pimento, sweet pepper <sup>4</sup>Stone fruits including apricot, chickasaw plum, damson plum, Japanese plum, nectarine, peach, plum, plumcot, prune (fresh)

 Carefully inspect the crop several days after each application of Quintec and at regular intervals during crop development. Under certain environmental conditions, Quintec may cause leaf spotting and chlorosis. If these symptoms occur after applying Quintec, discontinue its use.

#### Hops

- Preharvest Interval: Do not apply within 21 days of harvest.
- Maximum Application Rate: Do not apply more than 8.2 fl oz of Quintec per acre per application or more than 33 fl oz of Quintec per acre per calendar year.
- Minimum Spray Interval: 7 days.
- Do not make more than four applications of Quintec per calendar year.

#### Melons

- Preharvest Interval: Do not apply within 3 days of harvest.
- Maximum Application Rate: Do not apply more than 6 fl oz of Quintec per acre per application or more than 24 fl oz of Quintec per acre per crop.
- Do not make more than four applications of Quintec per crop, nor more than two consecutive applications of Quintec.
- Carefully inspect the crop several days after each application of Quintec and at regular intervals during crop development. Under certain environmental conditions, Quintec may cause leaf spotting and chlorosis. If these symptoms occur after applying Quintec, discontinue its use.

#### Pepper

- · Preharvest Interval: Do not apply within 3 days of harvest.
- Maximum Application Rate: Do not apply more than 6 fl oz of Quintec per acre per application or more than 24 fl oz of Quintec per acre per calendar year.
- Do not make more than four applications of Quintec per crop, nor more than two consecutive applications of Quintec.
- Carefully inspect the crop several days after each application of Quintec and at regular intervals during crop development. Under certain environmental conditions, Quintec may cause leaf spotting and chlorosis. If these symptoms occur after applying Quintec, discontinue its use.

#### Stone Fruits

- · Preharvest Interval: Do not apply within 7 days of harvest.
- Maximum Application Rate: Do not apply more than 32 fl oz of Quintec per acre per calendar year.
- · Do not make more than two consecutive applications of Quintec.
- Carefully inspect the crop several days after each application of Quintec and at regular intervals during crop development. Under certain environmental conditions, Quintec may cause leaf spotting and chlorosis. If these symptoms occur after applying Quintec, discontinue its use.

#### Strawberry

- · Preharvest Interval: Do not apply within 1 day of harvest.
- Maximum Application Rate: Do not apply more than 6 fl oz of Quintec per acre per application or more than 24 fl oz of Quintec per acre per crop.
- Do not make more than four applications of Quintec per crop, nor more than two consecutive applications of Quintec.
- Carefully inspect the crop several days after each application of Quintec and at regular intervals during crop development. Under certain environmental conditions, Quintec may cause leaf spotting and chlorosis. If these symptoms occur after the first application of Quintec, discontinue its use.

#### Winter Squash, Gourds and Pumpkin

- Preharvest Interval: Do not apply within 3 days of harvest.
- · Maximum Application Rate: Do not apply more than 32 fl oz of Quintec per acre per calendar year.
- Do not make more than two consecutive applications of Quintec.

 Carefully inspect the crop several days after each application of Quintec and at regular intervals during crop development. Under certain environmental conditions, Quintec may cause leaf spotting and chlorosis. If these symptoms occur after applying Quintec, discontinue its use.

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