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## PRODUCT INFORMATION

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**Syngenta Crop Protection, Inc.**

Greensboro, NC 27409

www.syngenta-us.com

### **SUPPLEMENTAL LABEL FOR QUADRIS® Flowable**

#### **FUNGICIDE**

**EPA Reg. No. 100-1098**

Broad spectrum fungicide for control of plant diseases on Brassica leafy greens, bulb vegetables, carrots, celery, corn, Cucurbits, leafy vegetables (except Brassica), legume vegetables, mint, peppers, eggplant, okra, rice, soybeans, tomatoes, root and tuber vegetables, wheat and triticale.

Active Ingredient:

Azoxystrobin: methyl (*E*)-2-{2-[6-(2-cyanophenoxy)  
pyrimidin-4-yloxy]phenyl}-3-methoxyacrylate\* .....22.9%

Other Ingredients: .....77.1%

Total: .....100.0%

Contains 2.08 lbs. of active ingredient per gallon

\*IUPAC

**KEEP OUT OF REACH OF CHILDREN.**

#### **CAUTION**

**All applicable directions, restrictions and precautions on the EPA-registered label are to be followed.**

**This labeling must be in the possession of the user at the time of pesticide application.**

SCP 1098A-S5 0403

## SOILBORNE/SEEDLING DISEASE CONTROL

QUADRIS can provide control of many soilborne diseases if applied early in the growing season. Specific applications for soilborne diseases include in-furrow applications and banded applications applied over the row, either shortly after plant emergence or during herbicide applications or cultivation. These applications will provide control of pre- or post-emergence damping off and diseases that infect plants at the soil-plant interface. The use of either type of application depends on the cultural practices in the region. In some locations, one type of application may provide better disease control than the other, depending on the timing of the disease epidemic. Seedling diseases are generally controlled by in-furrow applications while banded applications are more effective against soilborne diseases that develop later in the season. Consult your local expert to get some guidance regarding application type.

For banded applications, apply QUADRIS prior to infection as a directed spray to the soil, using single or multiple nozzles, adjusted to provide thorough coverage of the lower stems and the soil surface surrounding the plants. Band width should be limited to 7 inches or less. Apply QUADRIS at a rate of 0.4-0.8 fl. oz. product (0.1-0.2 oz. a.i.)/1000 row feet (for banded applications on 22-inch rows the maximum application rate is 0.7 fl. oz./1000 row feet). These applications come into contact with the foliage and are counted as foliar applications when considering resistance management. They may be applied during cultivation or hilling operations to provide soil incorporation.

For in-furrow applications, apply QUADRIS as an in-furrow spray in 5-15 gallons of water at planting. Mount the spray nozzle so the spray is directed into the furrow just before the seed are covered. Use the higher rate when the weather conditions are expected to be conducive for disease development, if the field has a history of Pythium problems, or if minimum/low till programs are in place.

## IN-FURROW APPLICATION RATES

RATE PER 1000 ROW FEET		PRODUCT PER ACRE (fl. oz.)						
fl. Oz. product	oz. a.i.	22" rows	30" rows	32" rows	34" rows	36" rows	38" rows	40" rows
0.4	0.1	9.5	7.0	6.5	6.1	5.8	5.5	5.2
0.6	0.15	14.3	10.5	9.8	9.2	8.7	8.3	7.8

40" = 13,068 row ft, 38" = 13,754 row ft, 36" = 14,520 row ft, 34" = 15,374 row ft, 32" = 16,315 row ft, 30" = 17,424 row ft, and 22" = 23,760 row ft/Acre

## DIRECTIONS FOR APPLICATIONS

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<b>Brassica</b> <b>Leafy Greens subgroup:</b>  Broccoli raab Cabbage, Chinese Collards Kale Mizuna Mustard greens Mustard spinach Rape greens Including all cultivars and/or hybrids of these	White rust <i>(Albugo candida)</i> Black spot <i>(Alternaria spp)</i> Cercospora leaf spot <i>(Cercospora spp)</i>	6.2 - 15.4 (0.1 - 0.25)	<p><b><u>Integrated Pest (Disease) Management:</u></b> QUADRIS should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.</p> <p><b><u>Resistance Management:</u></b> Do not apply more than two sequential foliar applications of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than three (3) foliar applications of QUADRIS or other strobilurin fungicide per acre per crop year.</p> <p><b><u>Application Directions:</u></b> QUADRIS applications should begin prior to disease development and continue throughout the season on a 7-14 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.</p>
	<b>Soilborne Diseases</b> Seedling root rot, basal stem rot <i>(Rhizoctonia solani)</i>	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
Specific Use Restrictions: Do not apply more than 1.44 quarts (0.75 lb active ingredient) per acre per season. May be applied the day of harvest.			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<b>Bulb Vegetables</b>  Garlic Leek Onion, bulb Onion, green Welch onion Shallot	<b>Foliar Diseases</b> Cladosporium leaf blotch ( <i>Cladosporium allii</i> ) Purple blotch ( <i>Alternaria porri</i> ) Rust ( <i>Puccinia allii</i> ) White rot ( <i>Sclerotium cepivorum</i> )	6.2 - 12.3 (0.1 - 0.20)	<b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  <b>Resistance Management:</b> Do not apply more than two sequential foliar applications of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than six (6) foliar applications of QUADRIS or other strobilurin fungicides per crop per acre per year.
	Downy mildew ( <i>Peronospora destructor</i> ) Botrytis leaf blight ( <i>Botrytis aclada</i> )	9.2 - 15.4 (0.15 - 0.25)	<b>Application Directions:</b> For downy mildew control, do not make more than one application of QUADRIS before alternating with fungicides that have a different mode of action. Make preventative applications on a 5-7 day schedule. For all other diseases, QUADRIS applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. If applications are made by air, the higher rates should be used for adequate control. An adjuvant may be added at recommended rates to improve coverage.  Mixtures of QUADRIS with insecticides and silicone adjuvants should be tested for crop safety before application to the crop.
	<b>Soilborne Diseases</b> Rhizoctonia damping-off ( <i>Rhizoctonia solani</i> )	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions under GENERAL INFORMATION section. If the application is an in-furrow application, the spray should be made just prior to seed placement so that the majority of the chemical is under the seed. This will reduce the potential for phytotoxicity, especially if fertilizer is added to the application.
Specific Use Restrictions: Do not apply more than 2.88 quarts of product/crop/acre/season (1.5 lbs. a.i./A). May be applied the day of harvest.			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Carrots	Early blight ( <i>Cercospora carotae</i> )  Late blight ( <i>Alternaria dauci</i> )  White mold ( <i>Sclerotium rolfsii</i> )  For additional diseases, see <b>Vegetables, root, subgroup</b>	9.2 - 20.3 (0.15-0.33)	<p><b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.</p> <p><b>Resistance Management:</b> Do not apply more than two sequential foliar applications of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than six (6) foliar applications of QUADRIS or other strobilurin fungicides per crop per acre per year.</p> <p><b>Application Directions:</b> QUADRIS applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage.</p>
	<b>Soilborne Diseases</b> Rhizoctonia root rot ( <i>Rhizoctonia solani</i> )	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
<b>Specific Use Restrictions:</b> Do not apply more than 3.75 quarts of product/crop/acre/season (2.0 lbs. a.i./A). May be applied the day of harvest.			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Celery	Early blight ( <i>Cercospora apii</i> )  Late blight ( <i>Septoria apicola</i> )  For additional diseases, see <b>Leafy Vegetables</b>	9.2-15.4 (0.15 - 0.25)	<p><b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.</p> <p><b>Resistance Management:</b> Do not apply more than two sequential foliar applications of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than six (6) foliar applications of QUADRIS or other strobilurin fungicides per crop per acre per year.</p> <p><b>Application Directions:</b> QUADRIS applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage.</p>
	<b>Soilborne Diseases</b> Rhizoctonia root rot ( <i>Rhizoctonia solani</i> )	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
<b>Specific Use Restrictions:</b> Do not apply more than 2.88 quarts of product/crop/acre/season (1.5 lbs. a.i./A). May be applied the day of harvest.			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<b>Corn</b>  Field Pop Sweet (Includes Seed Production)	Rust ( <i>Puccinia sorghi</i> )	6.2 - 9.2 (0.10 - 0.15)	<p><b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation, and water management practices.</p> <p><b>Resistance Management:</b> Do not apply more than two sequential foliar applications of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than eight (8) foliar applications of QUADRIS or other strobilurin fungicides per crop per acre per year.</p> <p><b>Application Directions:</b> For gray leaf spot, apply QUADRIS at the onset of disease. A second application may be required 14 days later if disease pressure persists. For all other diseases, QUADRIS applications should begin prior to disease development and may continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage.</p>
	Anthracnose leaf blight ( <i>Colletotrichum graminicola</i> ) Gray leaf spot ( <i>Cercospora sorghi</i> ) Northern corn leaf blight ( <i>Setosphaeria turcica</i> ) Northern corn leaf spot ( <i>Cochliobolus carbonum</i> ) Southern corn leaf blight ( <i>Cochliobolus heterostrophus</i> ) Eye spot ( <i>Aureobasidium zeae</i> )	9.2 - 15.4 (0.15 - 0.25)	
	<b>Soilborne Diseases</b> Rhizoctonia root and stalk rot ( <i>Rhizoctonia solani</i> )	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
Specific Use Restrictions: Do not apply more than 3.75 quarts of product/crop/acre/season (2.0 lbs. a.i./A). Do not apply within 7 days of harvest.			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<b>Cucurbits</b>  Cantaloupe Chayote Chinese-waxgourd Cucumber Gourds Honeydew Melons <i>Momordica</i> spp. (bitter melon, balsam apple) Muskmelon Watermelon Pumpkin Squash Zucchini Including cultivars and/or hybrids of these	Anthracnose ( <i>Colletotrichum lagenarium</i> ) Belly Rot ( <i>Rhizoctonia solani</i> ) Downy Mildew ( <i>Pseudoperonospora cubensis</i> ) Gummy Stem Blight ( <i>Didymella bryoniae</i> ) Leaf spots ( <i>Alternaria</i> spp., <i>Cercospora</i> spp.) Myrothecium canker ( <i>Myrothecium roridum</i> ) Powdery Mildew ( <i>Sphaerotheca fuliginea</i> , <i>Erysiphe cichoracearum</i> )	11 - 15.4 (0.18 - 0.25)	<p><b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.</p> <p><b>Resistance Management:</b> Do not apply more than one sequential foliar application of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than six (6) foliar applications of QUADRIS or other strobilurin fungicides per crop per acre per year.</p> <p><b>Application Directions:</b> Make preventative applications on a 5-7 day schedule. 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 over or 10-14 days later whichever occurs first. For all other diseases, QUADRIS applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage.</p> <p>QUADRIS should not be tank mixed with COC, MSO or silicon adjuvants. QUADRIS should not be tank mixed with Malathion, Kelthane®, Thiodan®, Phaser®, Lannate®, Lorsban®, M-PEDE® or Botran®.</p>
	<b>Soilborne diseases</b> Rhizoctonia root rot ( <i>Rhizoctonia solani</i> )	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
Specific Use Restrictions: Do not apply more than 2.88 quarts of product/crop/acre/season (1.5 lbs. a.i./A). Do not apply within 1 day of harvest.			



Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<b>Leafy Vegetables (except brassica)</b>  Amaranth Arugula Cardoon Celery Celtuce Chervil Chrysanthemum-edible Coriander, leaves (Cilantro) Corn salad Cress Dandelion Dock, Endive Fennel Lettuce, head and leaf Orach Parsley Purslane Radicchio Rhubarb Spinach Swiss Chard Including cultivars and/or hybrids of these	<b>Foliar Diseases</b> Alternaria leaf spot ( <i>Alternaria sonchi</i> , <i>A. spp</i> ) Cercospora leaf spot ( <i>Cercospora spp</i> ) Anthracnose ( <i>Microdochium panattonianum</i> , <i>Colletotrichum dematium dematium</i> ) Septoria leaf spot ( <i>Septoria petroselini</i> ) White rust ( <i>Albugo occidentalis</i> )	6.2 - 15.4 (0.1 - 0.25)	<b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  <b>Resistance Management:</b> Do not apply more than two sequential foliar applications of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than six (6) foliar applications of QUADRIS or other strobilurin fungicides per crop per acre per year.  <b>Application Directions:</b> Make preventative applications on a 5-7 day schedule. For all other diseases, QUADRIS applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage.  <b>ATTENTION:</b> Applications of QUADRIS to leafy vegetable foliage have contributed to phytotoxicity under certain circumstances. Proceed with caution with regard to tankmixes and adjuvants when treating all leafy vegetables with QUADRIS. QUADRIS must not be tank mixed on leaf lettuce with AMBUSH WP, Pounce WP, Aliette, Warrior T, or another product that may increase the penetration of QUADRIS into the leaf surface, such as, but not limited to silicone wetters.
	Downy mildew ( <i>Bremia lactucae</i> )  Powdery mildew ( <i>Erysiphe cichoracearum</i> )	12.3-15.4 (0.2-0.25)	
	<b>Soilborne Diseases</b> Webb blight, Bottom rot, Crater rot, Root rot ( <i>Rhizoctonia solani</i> )	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
<b>Specific Use Restrictions:</b> Do not apply more than 2.88 quarts of product/crop/acre/season (1.5 lbs. a.i./A). May be applied the day of harvest.			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<b>Legume Vegetables, dry and succulent Legume Vegetables, dry and succulent (except field pea, cow pea, and soybean):</b> <u>Bean (<i>Lupinus spp.</i>)</u> (includes grain lupin, sweet lupin, white lupin, and white sweet lupin), <u>Bean (<i>Phaseolus spp.</i>)</u> (includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean), <u>Bean (<i>Vigna spp.</i>)</u> (includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, , Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean, yardlong bean), <u>Broad bean (fava bean) (<i>Vicia faba</i>)</u> , <u>Chickpea (garbanzo bean) (<i>Cicer arietinum</i>)</u> , <u>Guar (<i>Cyamopsis tetragonoloba</i>)</u> <u>Jackbean (<i>Canavalia ensiformis</i>)</u> <u>Lablab bean (hyacinth bean) (<i>Lablab purpureus</i>)</u> , <u>Lentil (<i>Lens esculenta</i>)</u> <u>Pea (<i>Pisum spp.</i>)</u> (includes dwarf pea, edible-pod pea, English pea, , garden pea, green pea, snow pea, sugar snap pea). <u>Pigeon pea (<i>Cajanus cajan</i>)</u> , <u>Sword bean (<i>Canavalia gladiata</i>)</u>	Bean rust ( <i>Uromyces appendiculatus</i> )	6.2 (0.10)	<b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, proper timing and placement of irrigation, crop rotation and crop residue management.
	Anthracnose ( <i>Colletotrichum lindemuthianum</i> ) Alternaria leaf spot ( <i>Alternaria alternata</i> ) Ascochyta leaf spot ( <i>Ascochyta phaseolorum</i> ) Rust ( <i>Phakopsora spp.</i> ) Southern blight ( <i>Sclerotium rolfsii</i> ) Web blight ( <i>Rhizoctonia solani</i> ) Ascochyta blight ( <i>Mycosphaerella pinodes</i> ) Ascochyta leaf and pod spot ( <i>Ascochyta spp</i> ) Alternaria blight ( <i>Alternaria spp</i> )	6.2-15.4 (0.10-0.25)	<b>Resistance Management:</b> Do not apply more than three sequential foliar applications of QUADRIS or other strobilurin before alternating with a fungicide that has a different mode of action. Do not make more than six (6) foliar applications of QUADRIS or other strobilurin fungicides per acre per year.  <b>Application Directions:</b> QUADRIS applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Use the higher rates under severe disease pressure. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage. For rust, use of a non-ionic surfactant is recommended.
	Soilborne diseases Rhizoctonia root rot ( <i>Rhizoctonia solani</i> )	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
Specific Use Restrictions: Do not apply more than 2.88 quarts product/acre/season (1.5 lb ai/A). May be applied the day of harvest.			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<b>Mint</b> (Fresh)  (For processing into mint oil)	Rust ( <i>Puccinia menthae</i> )  Powdery mildew ( <i>Erysiphe spp</i> )	6.2 - 15.4 (0.1 - 0.25)	<p><b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.</p> <p><b>Resistance Management:</b> Do not apply more than two sequential foliar applications of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than three (3) foliar applications of QUADRIS or other strobilurin fungicides per acre per crop year.</p> <p><b>Application Directions:</b> QUADRIS applications should begin prior to disease development and continue throughout the season on a 7-10 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.</p>
	<b>Soilborne Diseases</b> Seedling root rot, basal stem rot ( <i>Rhizoctonia solani</i> )	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
<p>Specific Use Restrictions: Do not apply more than 1.44 quarts (0.75 lb active ingredient) per acre per season.            For fresh mint may be applied the day of harvest.            For processed mint do not apply within 7 days prior to harvest.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<b>Pepper</b>  Bell Pepper Non-Bell Pepper Sweet Non-Bell Pepper  <b>Eggplant</b> <b>Okra</b>	Powdery mildew <i>(Sphaerotheca spp)</i>  Anthracnose <i>(Colletotrichum spp)</i>	6.2 - 15.4 (0.1 - 0.25)	<p><b><u>Integrated Pest (Disease) Management:</u></b> QUADRIS should be integrated into an overall disease management strategy that includes varieties with disease tolerance, proper timing of irrigation and removal of plant debris in which inoculum overwinters.</p> <p><b><u>Resistance Management:</u></b> Do not apply more than two sequential applications of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than four (4) foliar applications of QUADRIS or other strobilurin fungicide per acre per crop year.</p> <p><b><u>Application Directions:</u></b> QUADRIS applications should begin prior to disease development and continue throughout the season on a 7-14 day schedule, following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates.</p>
	Soilborne diseases Rhizoctonia seedling rot <i>(Rhizoctonia solani)</i>	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
Specific Use Restrictions: Do not apply more than 1.92 quarts (1.0 lb active ingredient) per acre per season. May be applied the day of harvest.			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Rice	<b><u>Sheath/Stem Diseases</u></b> Sheath Blight ( <i>Rhizoctonia solani</i> )	9.2 - 18.5 (0.15 - 0.30)	<b><u>Integrated Pest (Disease) Management:</u></b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation, and sound water management practices.  <b><u>Resistance Management:</u></b> When QUADRIS is being applied for panicle blast on continuous rice acreage (no rotation to other crops) no more than two sequential foliar applications of QUADRIS or other strobilurins should be made over multiple years before alternating with a fungicide with a different mode of action. Do not make more than three (3) foliar applications of QUADRIS or other strobilurin fungicides per acre per year.  <b><u>Application Directions:</u></b> QUADRIS should be applied prior to disease development. Applications may be made by ground, air or chemigation. For aerial application, volumes should be 5-10 GPA. An adjuvant may be added at recommended rates to improve coverage. For sheath blight control, application rates may vary from 9.2 to 12.3 fl. oz./A depending on the growth stage of the rice and the severity of the disease. Consult with your local extension personnel or Syngenta representative for the Syngenta Technical Bulletin on sheath blight control. For other stem/sheath diseases including sheath blight, stem rot, black sheath rot, aggregate sheath spot and sheath spot apply when disease is less than 4 inches above water line usually between panicle differentiation (PD) +5 days to PD+10 days or at initial sign of disease. Under heavy disease pressure and conditions favorable for disease development, a second application may be applied. For foliar and panicle diseases, apply QUADRIS prior to disease development. QUADRIS must be applied as a preventative treatment for blast control and applied prior to favorable conditions for blast development. For panicle blast an application should be applied at mid-boot to boot-split but prior to full head emergence. A second application should be applied when panicles are approximately 60-90% emerged from the boot (7-14 days later).
	Aggregate Sheath Spot ( <i>Rhizoctonia oryzae-sativae</i> ) Black Sheath Rot ( <i>Gaeumannomyces graminis var. graminis</i> )  Sheath Spot ( <i>Rhizoctonia oryzae</i> ) Stem Rot ( <i>Sclerotium oryzae</i> )	12.3 – 18.5 (0.20 – 0.30)	
	<b><u>Foliar Diseases</u></b> Brown Leaf spot ( <i>Cochliobolus miyabeanus</i> ) Leaf Smut ( <i>Entyloma oryzae</i> ) Narrow Brown Leaf spot ( <i>Cercospora oryzae</i> )		
	<b><u>Panicle Diseases</u></b> Kernel Smut ( <i>Neovossia barclayana</i> ) Panicle Blast ( <i>Pyricularia grisea</i> )		
	Specific Use Restrictions: Do not treat rice fields used for aquaculture of fish and crustacea. Do not apply when weather conditions favor drift from treated areas to non-target aquatic habitat. Applicators should use care in making applications near non-target aquatic habitats. Do not apply more than 1.34 quarts of product/acre/season (0.7 lb. a.i./A). Do not apply within 28 days of harvest. Do not allow release of irrigation or flood water for at least 14 days after the last application.		

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Soybeans	Aerial blight ( <i>Rhizoctonia solani</i> ) Rust ( <i>Phakopsora</i> spp.)	6.2 - 15.4 (0.1 - 0.25)	<p><b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.</p> <p><b>Resistance Management:</b> No more than two foliar applications of QUADRIS or other strobilurin fungicides should be made per growing season. Do not alternate or tank mix with fungicides to which resistance has developed in the pathogen population.</p> <p><b>Application Directions:</b> QUADRIS applications should begin prior to disease development. Use the high rates under conditions favorable for severe disease pressure, dense plant canopies, or when susceptible varieties are planted. Contact Extension personnel for local economic thresholds and timings for specific diseases in your area. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage. Use of a non-ionic surfactant with the lower use rate is recommended.</p>
	Anthrachnose ( <i>Colletotrichum truncatum</i> ) Alternaria leaf spot ( <i>Alternaria</i> spp) Brown spot ( <i>Septoria glycines</i> ) Cercospora blight and leaf spot ( <i>Cercospora kikuchii</i> ) Frogeye leafspot ( <i>Cercospora sojina</i> ) Pod and Stem blight ( <i>Diaporthe phaseolorum</i> )	12.3 - 15.4 (0.20 - 0.25)	
	<b>Soilborne Diseases</b> Southern blight ( <i>Sclerotium rolfsii</i> ) Rhizoctonia solani ( <i>Rhizoctonia solani</i> )	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
<p>Specific Use Restrictions: Do not apply more than 2.88 quarts of product/crop/acre/season (1.5 lbs. a.i./A). Do not make more than one application at 15.4 fl. oz. product/acre or 0.25 lb. a.i./A to soybean forage and hay. Do not apply within 14 days of harvest of soybeans (bean). May be applied the day of harvest to soybean forage and hay.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Tomatoes	Anthracnose ( <i>Colletotrichum coccodes</i> ) Black Mold ( <i>Alternaria alternata</i> ) Buckeye Rot ( <i>Phytophthora spp.</i> ) Early Blight ( <i>Alternaria solani</i> ) Powdery Mildew ( <i>Oidiopsis sicula</i> ) Septoria Leaf spot ( <i>Septoria lycopersici</i> ) Target spot ( <i>Corynespora cassiicola</i> )	5.0 - 6.2 (0.08 - 0.10)	<p><b>Integrated Pest (Disease) Management:</b> QUADRIS 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.</p> <p><b>Resistance Management:</b> When QUADRIS is being applied for the control of early blight, Septoria leaf spot and/or anthracnose, no more than two foliar sequential applications of QUADRIS or other strobilurins should be made before alternating with a fungicide with a different mode of action. When QUADRIS is being applied for the control of late blight, no more than two foliar sequential applications of QUADRIS or other strobilurins should be made before alternation with a fungicide with a different mode of action. If late blight should occur during an early blight spray program, switch immediately to the late blight spray program beginning with a fungicide that has a different mode of action. Do not make more than six (6) foliar applications of QUADRIS or other strobilurin fungicides per acre per year.</p> <p><b>Application Directions:</b> QUADRIS applications should begin prior to disease development and continue throughout the season following the resistance management guidelines. For late blight QUADRIS should be applied at 5-7 day interval. For all other tomato diseases QUADRIS should be applied on 7-21 day intervals. Applications may be made by ground, air or chemigation.</p>
	Late Blight ( <i>Phytophthora infestans</i> )	6.2 (0.10)	
	<b>Soilborne Diseases</b> Seedling root rot, basal stem rot ( <i>Rhizoctonia solani</i> )	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
<p>Specific Use Restrictions: QUADRIS should not be applied until 21 days after transplanting or 35 days after seeding. QUADRIS should not be applied within +/-6 days of a postemergence broadcast application of Sencor. Do not apply with an adjuvant due to the potential for phytotoxicity. Do not apply more than 1.15 quarts product/acre/season (0.6 lb. a.i./A). May be applied the day of harvest.</p>			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Triticale	See Wheat		
<b>Vegetables, leaves of root and tuber, group</b>	<b>Foliar Diseases</b>	6.2 - 20.3 (0.1 - 0.33)	<b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.
Beet,garden and sugar Burdock Carrot Cassava, bitter and sweet Celeryac (celery root) Chervil, turnip- rooted Chicory Dasheen (taro) Parsnip Radish Radish, oriental (daikon) Rutabaga Salsify, black Sweet potato Tanier Turnip Yam, true	Alternaria leaf spot <i>(Alternaria spp, A. alternata)</i> Ascochyta leaf spot <i>(Ascochyta cynarae)</i> Rust <i>(Uromyces betae, Puccinia helianthi)</i> White rust <i>(Albugo tragopogonis)</i>		<b>Resistance Management:</b> Do not apply more than two sequential foliar applications of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than six (6) foliar applications of QUADRIS or other strobilurin fungicides per crop per acre per year.
	Cercospora leaf spot <i>(Cercospora betae, C. pastinaceae)</i> Powdery mildew <i>(Erysiphe polygoni, Leveillula taurica)</i>	9.2-15.4 (0.15-0.25)	<b>Application Directions:</b> For powdery mildew control, do not make more than one application of QUADRIS before alternation with fungicides that have a different mode of action. Make preventative applications on a 5-7 day schedule. For all other diseases, QUADRIS applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage.
	<b>Soilborne Diseases</b> Circular spot, Southern blight <i>(Sclerotium rolfsii)</i> Rhizoctonia stem canker, Crown rot <i>(Rhizoctonia solani)</i> Pythium root rot <i>(Pythium aphanidermatum)</i>	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
Specific Use Restrictions: Do not apply more than 3.75 quarts of product/crop/acre/season (2.0 lbs. a.i./A). May be applied the day of harvest.			



Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<b>Vegetables, root, subgroup</b>  Beet, garden and sugar Burdock Carrot Celeriac Chervil, turnip-rooted Chicory Ginseng Horseradish Parsley, turnip-rooted Parsnip Radish Radish, oriental Rutabaga Salsify Salsify, black Salsify, Spanish Skirret Turnip	<b>Foliar Diseases</b>  Alternaria leaf spot <i>(Alternaria spp, A. alternata)</i> Ascochyta leaf spot <i>(Ascochyta cynarae)</i> Rust <i>(Uromyces betae, Puccinia helianthi)</i> White rust <i>(Albugo tragopogonis)</i>	6.2 - 20.3 (0.1 - 0.33)	<p><b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.</p> <p><b>Resistance Management:</b> Do not apply more than two sequential foliar applications of QUADRIS or other strobilurins before alternating with a fungicide that has a different mode of action. Do not make more than six (6) foliar applications of QUADRIS or other strobilurin fungicides per crop per acre per year.</p> <p><b>Application Directions:</b> For powdery mildew control do not make more than one application of QUADRIS before alternation with fungicides that have a different mode of action. Make preventative applications on a 5-7 day schedule. For all other diseases, QUADRIS applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage.</p>
	Cercospora leaf spot <i>(Cercospora betae, C. pastinaceae)</i> Powdery mildew <i>(Erysiphe polygoni, Leveillula taurica)</i>	9.2-15.4 (0.15-0.25)	
	<b>Soilborne Diseases</b> Circular spot, Southern blight <i>(Sclerotium rolfsii)</i> Rhizoctonia stem canker, Crown rot <i>(Rhizoctonia solani)</i> Pythium root rot <i>(Pythium aphanidermatum)</i>	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
Specific Use Restrictions: Do not apply more than 3.75 quarts of product/crop/acre/season (2.0 lbs. a.i./A). May be applied the day of harvest.			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
<b>Vegetables, tuberous and corm, subgroup</b>  Arracacha Arrowroot Artichoke, Chinese and Jerusalem Canna Cassava, edible, bitter and sweet Chayote (root) Chufa Dasheen (Taro) Ginger Leren Potato Sweet Potato Tanier Tumeric Yam, bean Yam, true	<b>Foliar Diseases</b>  Alternaria leaf spot <i>(Alternaria spp, A. Alternata)</i> Ascochyta leaf spot <i>(Ascochyta cynarae)</i>  Rust <i>(Uromyces betae, Puccinia helianthi)</i> White rust <i>(Albugo tragopogonis)</i>	6.2 - 20.3 (0.1 - 0.33)	<b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes selection of varieties with disease tolerance, optimum plant populations, proper fertilization, plant residue management, crop rotation and proper timing and placement of irrigation.  <b>Resistance Management:</b> Do not apply more than two sequential foliar applications of QUADRIS before alternating with a fungicide that has a different mode of action. Do not make more than six (6) foliar applications of QUADRIS or other strobilurin fungicides per crop per acre per year.  <b>Application Directions:</b> For powdery mildew control, do not make more than one application of QUADRIS before alternation with fungicides that have a different mode of action. Make preventative applications on a 5-7 day schedule. For all other diseases, QUADRIS applications should begin prior to disease development and continue throughout the season every 7-14 days following the resistance management guidelines. Applications may be made by ground, air or chemigation. An adjuvant may be added at recommended rates to improve coverage.
	Cercospora leaf spot <i>(Cercospora betae, C. pastinaceae)</i> Powdery mildew <i>(Erysiphe polygoni, Leveillula taurica)</i>	9.2-15.4 (0.15-0.25)	
	<b>Soilborne Diseases</b> Circular spot, Southern blight <i>(Sclerotium rolfsii)</i> Rhizoctonia stem canker, Crown rot <i>(Rhizoctonia solani)</i> Pythium root rot <i>(Pythium aphanidermatum)</i>	0.4-0.8 fl oz/1000 row feet	For soilborne/seedling disease control, see directions and rates under GENERAL INFORMATION section.
Specific Use Restrictions: Do not apply more than 3.75 quarts of product/crop/acre/season (2.0 lbs. a.i./A). Do not apply within 14 days of harvest.			

Crop	Target Diseases	Use Rate fl. oz. product/A (lbs. a.i./A)	Remarks
Wheat Triticale	Leaf Rust ( <i>Puccinia recondita</i> f.sp. <i>tritici</i> ) Stripe Rust ( <i>Puccinia striiformis</i> ) Stem Rust ( <i>Puccinia graminis</i> ) Septoria Leaf and Glume Blotch ( <i>Septoria tritici</i> , <i>Septoria nodorum</i> ) Tan Spot ( <i>Pyrenophora tritici-repentis</i> )	4.0 - 12.3 (0.07 - 0.20)	<b>Integrated Pest (Disease) Management:</b> QUADRIS should be integrated into an overall disease management strategy that includes proper selection of varieties with disease tolerance, proper timing and placement of irrigation, removal of plant debris in which inoculum overwinters, plant residue management, and crop rotation.  <b>Resistance Management:</b> Do not make more than two foliar applications of QUADRIS or other strobilurin fungicides per acre per year.  <b>Application Directions:</b> QUADRIS should be applied prior to disease development from jointing (Feekes 6 or Zadok's 31) up to late head emergence (Feekes 10.5 or Zadok's 59). Applications may be made by ground, air or chemigation. A crop oil concentrate adjuvant may be added at 1.0% V/V to optimize efficacy.
	Powdery Mildew ( <i>Erysiphe graminis</i> )	7.7-10.8 (0.125-0.175)	
Specific Use Restrictions: Do not apply until after forage stage (Feekes 6 or Zadok's 31). Do not apply later than Feekes growth stage 10.5 (Zadok's growth stage 59). Do not harvest treated wheat for forage. Do not apply more than 0.77 quarts product/acre/season (0.4 lb. a.i./A). Do not apply within 14 days of harvest for hay. Do not apply within 45 days of harvest for grain and straw.			

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