

7969-197

8/20/2003

1/12

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



OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

AUG 20 2003

Dr. Khalid Akkari
BASF Corp. Agricultural Products
P.O. Box 13258
Research Triangle Park, NC 27709-3528

Subject: Endura Supplemental Labeling
EPA Reg. No. 7969-197
Submission dated 8/18/2003

Dear Dr. Akkari:

The submission in connection with the registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable provided you make the following changes:

- 1) The maximum number of applications for sunflower on page 9 must be revised to 2.
- 2) On page 7, after the heading Root and Tuber Vegetables insert "(cont.)", so that it is clear there are additional use directions for this group on the next page.

Submit one copy of the final printed label before releasing the product for shipment. A stamped copy of the supplemental label is enclosed for your records. This supplemental label must be incorporated into the "master label" within 24 months. If you have questions, please contact Dennis McNeilly at (703) 308-6742 or electronically at mcneilly.dennis@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Cynthia Giles-Parker", with a large, stylized flourish at the end.

Cynthia Giles-Parker
Product Manager 22
Fungicide Branch
Registration Division (7505C)

BASF

Endura®

fungicide

Supplemental Labeling

For use in cucurbit vegetables, head and stem brassicas, leafy brassica greens, root and tuber vegetables, succulent and dried shelled peas, and sunflower.

EPA Reg. No. 7969-197

Active Ingredients:

Boscalid - (3-pyridinecarboxamide, 2-chloro-N-(4'-chloro(1,1'-biphenyl)-2-yl)) 70.0%

Inert ingredients 30.0%

Total 100.0%

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. Refer to the **Endura® fungicide** main label for precautionary statements, first aid and personal protective equipment requirements. This supplemental label must be in the user's possession during application.

General Information

Endura provides optimum disease control when applied in a regularly scheduled protective fungicide program and is used in a spray program that rotates fungicides with different modes of action. Refer to the **Endura** main label for general resistance management information and to the crop specific use recommendations and restrictions found in this label.

Application Information

Apply **Endura** according to the rate, timing, resistance management and adjuvant use recommendations in the **Crop Specific Use Directions** (Table A) in this label. Observe the additional general recommendations on application instructions, additive use and mixing order on the **Endura** main label.

Endura may be applied by ground sprayer, aerial equipment or through sprinkler irrigation systems. Refer to the **Endura** main label for specific instructions on these methods.

Restrictions and Limitations

Endura is not for use in greenhouse or transplant production systems.

Follow the restrictions and limitations outlined in the **Crop Specific Restrictions and Limitations** table (Table B) in this label for:

- Minimum pre-harvest interval (PHI)
- Maximum rate per acre
- Maximum number of applications
- Maximum rate per season
- Livestock grazing or feeding restrictions
- Aerial application restrictions

ACCEPTED
with COMMENTS
In EPA Letter Dated

AUG 20 2003

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

7969-197

Table A - Endura® fungicide Crop-Specific Use Directions

Crop	Target Diseases	Use Rate per Application	Maximum Number of Applications per Season	Maximum Rate per Season	Minimum Time from Application to Harvest (PHI)
Cucurbit Vegetables Chayote Chinese waxgourd Citron melon Cucumber Gherkin Pumpkin Watermelon Edible gourd Hyotan Cucuzza Chinese okra Momordica spp. Balsam apple Balsam pear Bitter melon Chinese cucumber Muskmelon Cantaloupe Casaba Crenshaw melon Golden pershaw melon Honeydew melon Honey balls Majo melon Persian melon Pineapple melon Santa Claus melon Snake melon Summer squash Crookneck squash Scallop squash Straightneck squash Vegetable marrow Zucchini Winter squash Butternut squash Calabaza Hubbard squash Acorn squash Spaghetti squash	Alternaria blight (<i>Alternaria cucumerina</i>) Gummy stem blight (<i>Didymella bryoniae</i>) Suppression only: Powdery mildew (<i>Sphaerotheca fuliginea</i> , <i>Erysipheichoracearum</i>)	6.5 oz. per acre	4	26 oz. per acre	0 days
<p>Application DirectionsDirections: Begin applications of Endura prior to disease development and continue on a 7 to 14 day interval. Use the higher rate and the shorter interval when disease pressure is high.</p> <p>Resistance Management: To limit the potential for development of resistance, do not make more than four (4) applications of Endura per season.</p> <p>Do not make more than one (1) application of Endura before alternating to a labeled fungicide with a different mode of action for at least one (1) application.</p>					

4/12

Table A - Endura® fungicide Crop-Specific Use Directions (CONT):

Crop	Target Diseases	Use Rate per Application	Maximum Number of Applications per Season	Maximum Rate per Season	Minimum Time from Application to Harvest (PHI)
Brassica Leafy Vegetables: Head and Stem Brassicas Broccoli Chinese broccoli (gai lan) Brussels sprouts Cabbage Chinese cabbage (napa) Chinese mustard (gai choy) Cauliflower Cavalo broccolo Kohlrabi	Alternaria blight (Black spot) (<i>Alternaria</i> spp.) Grey mold (<i>Botrytis cinerea</i>) Sclerotinia stem rot (<i>Sclerotinia sclerotiorum</i> , <i>S. minor</i>) Suppression only: Powdery mildew (<i>Erysiphe polygoni</i>) Rhizoctonia bottom rot (<i>Rhizoctonia solani</i>)	6 to 9 oz. per acre	2	18 oz. per acre	0 days
<p>Application Directions: Begin applications of Endura prior to disease development and continue on a 7 to 14 day interval. Use the higher rate and the shorter interval when disease pressure is high.</p> <p>Resistance Management: To limit the potential for development of resistance, do not make more than two (2) applications of Endura per season.</p>					

Table A - Endura® fungicide Crop-Specific Use Directions (CONT):

Crop	Target Diseases	Use Rate per Application	Maximum Number of Applications per Season	Maximum Rate per Season	Minimum Time from Application to Harvest (PHI)
Brassica Leafy Vegetables: Leafy Brassica Greens Broccoli raab (rapini) Chinese cabbage (bok choy) Collards Kale Mizuna Mustard greens Mustard spinach Rape greens	Alternaria blight (Black spot) (<i>Alternaria</i> spp.) Grey mold (<i>Botrytis cinerea</i>) Sclerotinia stem rot (<i>Sclerotinia sclerotiorum</i> , <i>S. minor</i>) Suppression only: Powdery mildew (<i>Erysiphe polygoni</i>) Rhizoctonia bottom rot (<i>Rhizoctonia solani</i>)	6 to 9 oz. per acre	2	18 oz. per acre	14 days
<p>Application Directions: Begin applications of Endura prior to disease development and continue on a 7 to 14 day interval. Use the higher rate and the shorter interval when disease pressure is high.</p> <p>Resistance Management: To limit the potential for development of resistance, do not make more than two (2) applications of Endura per season.</p>					

6/12

Table A - Endura® fungicide Crop-Specific Use Directions (CONT):

Crop	Target Diseases	Use Rate per Application	Maximum Number of Applications per Season	Maximum Rate per Season	Minimum Time from Application to Harvest (PHI)
Succulent Peas: Edible podded peas Pea (<i>Pisum</i>) Dwarf pea Edible-podded pea Snow pea Sugar snap pea Pigeon pea Soybean (immature seed) Sword bean Succulent Shelled Peas Pea (<i>Pisum</i>) English pea Garden pea Green pea Pigeon pea	Alternaria leaf and pod spot (<i>Alternaria</i> spp.) Ascochyta blight (<i>Phoma exigua</i> , <i>Ascochyta</i> spp.) Botrytis grey mold (<i>Botrytis cinerea</i>) Cercospora leaf spot (<i>Cercospora</i> spp.) Mycosphaerella blight (<i>Mycosphaerella</i> spp.) Powdery mildew (<i>Erysiphe polygoni</i>) Rust (<i>Uromyces appendiculatus</i>) White mold (<i>Sclerotinia sclerotiorum</i>)	8 to 11 oz. per acre	2	22 oz. per acre	7 days
<p>Application Directions: For optimal disease control, begin applications of Endura prior to disease development or at the beginning of flowering and repeat on a 5 to 14 day interval if conditions are conducive for disease development. Use the higher rate and shorter interval when disease pressure is high.</p> <p>Resistance Management: To limit the potential for development of resistance, do not make more than two (2) applications of Endura per season.</p> <p>Restrictions: Do not use on cowpeas. Do not feed treated pea commodities to livestock.</p>					

7/12

Table A - Endura® fungicide Crop-Specific Use Directions (CONT):

Crop	Target Diseases	Use Rate per Application	Maximum Number of Applications per Season	Maximum Rate per Season	Minimum Time from Application to Harvest (PHI)
Dried Peas <u>Lentil (<i>Lens</i>)</u> <u>Pea (<i>Pisum</i>)</u> Garden pea Green pea Pigeon pea	Alternaria leaf and pod spot (<i>Alternaria</i> spp.) Botrytis grey mold (<i>Botrytis cinerea</i>) Cercospora leaf spot (<i>Cercospora</i> spp.) Mycosphaerella blight (<i>Mycosphaerella</i> spp.) Powdery mildew (<i>Erysiphe polygoni</i>) Rust (<i>Uromyces appen- diculatus</i>) White mold (<i>Sclerotinia sclerotiorum</i>)	8 to 11 oz. per acre	2	22 oz. per acre	21 days
	Ascochyta blight (<i>Phoma exigua</i> , Ascochyta spp.)	6 oz. per acre			
Application Directions: For optimal disease control, begin applications of Endura prior to disease development or at the beginning of flowering and repeat on a 5 to 14 day interval if conditions are conducive for disease development. Use the higher rate and shorter interval when disease pressure is high. Resistance Management: To limit the potential for development of resistance, do not make more than two (2) applications of Endura per season. Restrictions: Do not use on cowpeas. Do not feed treated pea commodities to livestock.					

8/12

Table A - Endura® fungicide Crop-Specific Use Directions (CONT):

Crop	Target Diseases	Use Rate per Application	Maximum Number of Applications per Season	Maximum Rate per Season	Minimum Time from Application to Harvest (PHI)
Root and Tuber Vegetables	Early blight (<i>Alternaria solani</i>)	2.5 to 4.5 oz. per acre	4	20 oz. per acre	30 days
Arrowroot	Cercospora leaf spot (<i>Cercospora</i> spp.)				
Chinese artichoke					
Jerusalem artichoke	Rust (<i>Coleosporium ipomoeae</i>)				
Edible canna					
Chayote (root)	Septoria leaf spot (<i>Septoria</i> spp.)				
Ginger					
Leren					
Potato					
Sweet potato					
Turmeric					
Yam bean	Sclerotinia white mold (<i>Sclerotinia sclerotiorum</i>)	5.5 to 10 oz. per acre	2		
True yam					
<p>Application Directions: For optimal disease control, begin applications of Endura prior to disease development and repeat on a 7 to 14 day interval if conditions are conducive for disease development. Use the higher rate and shorter interval when disease pressure is high. For Sclerotinia white mold on potato, begin applications just prior to row closure or at the first sign of disease. A second application may be made 14 to 21 days later if conditions continue to be favorable for disease development.</p> <p>Resistance Management: To limit the potential for development of resistance, do not make more than four (4) applications of Endura per season. Do not make more than two (2) applications of Endura before alternating to a labeled fungicide with a different mode of action for at least one application.</p> <p>Restrictions: Do not use on sugar beets, garden beets, turnips or radishes.</p>					

Table A - Endura® fungicide Crop-Specific Use Directions (CONT):

Crop	Target Diseases	Use Rate per Application	Maximum Number of Applications per Season	Maximum Rate per Season	Minimum Time from Application to Harvest (PHI)
Root and Tuber Vegetables Carrot Ginseng Horseradish Skirret	Alternaria leaf spot (<i>Alternaria dauci</i> , <i>Alternaria</i> spp.) Cercospora leaf spot (<i>Cercospora</i> spp.) Grey mold rot (<i>Botrytis cinerea</i>) Powdery mildew (<i>Erysiphe</i> spp.) Septoria leaf spot (<i>Septoria</i> spp.) Watery soft rot (<i>Sclerotinia sclerotiorum</i>)	4.5 oz. per acre	5	22.5 oz. per acre	0 days
<p>Application Directions: : For optimal disease control, begin applications of Endura prior to disease development and repeat on a 7 to 14 day interval if conditions are conducive for disease development. Use the shorter interval when disease pressure is high.</p> <p>Resistance Management: To limit the potential for development of resistance, do not make more than five (5) applications of Endura per season. Do not make more than two (2) applications of Endura before alternating to a labeled fungicide with a different mode of action for at least one application.</p> <p>Restrictions: Do not use on sugar beets, garden beets, turnips or radishes.</p>					

10/12

Table A - Endura® fungicide Crop-Specific Use Directions (CONT):

Crop	Target Diseases	Use Rate per Application	Maximum Number of Applications per Season	Maximum Rate per Season	Minimum Time from Application to Harvest (PHI)
Sunflower	Alternaria leaf spot (<i>Alternaria</i> spp.)	4.5 to 9 oz. per acre	5 2	18 oz. per acre	21 days
	Botrytis grey mold (<i>Botrytis cinerea</i>)				
	Cercospora leaf spot (<i>Cercospora</i> spp.)				
	Powdery mildew (<i>Erysiphe cichoracearum</i>)				
	Rust (<i>Puccinia helianthi</i>)				
	Septoria leafspot (<i>Septoria helianthi</i>)				
	Sclerotinia head rot (<i>Sclerotinia sclerotiorum</i>)				
<p>Application Directions: For optimal disease control, begin applications of Endura prior to disease development and continue on a 7 to 14 day interval if conditions are conducive for disease development. Use the higher rate and shorter interval when disease pressure is high.</p> <p>Resistance Management: To limit the potential for development of resistance, do not make more than five (5) applications of Endura per season. Do not make more than two (2) applications of Endura before alternating to a labeled fungicide with a different mode of action for at least one application.</p>					

11/12

Table B - Endura® fungicide Restrictions and Limitations

Crop	Minimum Time from Application to Harvest (PHI) (days)	Maximum Rate per Acre per Application (oz.)	Maximum Number of Applications per Season	Maximum Rate per Acre per Season (oz.)	Livestock Grazing or Feeding	Aircraft Application
Cucurbit¹ Vegetables Group: Cantaloupe, Cucumber, Melon, Squash, Pumpkin, Watermelon	0	6.5	4	26	NA ²	Yes
Head and Stem Brassicas¹: Cabbage, Broccoli, Cauliflower	0	9	2	18	NA	Yes
Leafy Brassica Greens¹	14	9	2	18	NA	Yes
Succulent Peas (edible-podded and shelled)	7	11	2	22	No	Yes
Dried Shelled Peas	21	11	2	22	No	Yes
Root and Tuber Vegetables: Arrowroot, Chinese artichoke, Jerusalem artichoke, Edible canna, Chayote (root), Ginger, Leren, Potato, Sweet potato, Turmeric, Yam bean, True yam	30	4.5 10	4 (at 4.5 oz./acre rate) 2 (at 10 oz./acre rate)	20	No	Yes
Root and Tuber Vegetables: Carrot, Ginseng, Horseradish, Skirret	0	4.5	5	22.5	No	Yes
Sunflower	21	9	2	18	Yes	Yes
¹ For a complete list of crops within a crop group, see Table A. Endura Crop-Specific Use Directions. ² NA = Not applicable						

12/12

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Agricultural Products

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