BASF
The Chemical Company

GROUP 7 FUNGICIDE

SPECIMEN

Endura®
fungicide

For use in dry and succulent beans, head and stem Brassicas, leafy Brassica greens, bulb vegetables, celery, cucurbit vegetables, fruiting vegetables, grapes, lettuce, peanut, succulent and dried shelled peas, potato, rapeseed, root and tuber vegetables, and soybean

Active Ingredient:	
Boscalid: 3-pyridinecarboxamide, 2-chloro-N-(4'-chloro(1,1'-biphenyl)-2-yl)- . . .	70.0%
Other Ingredients:	30.0%
Total:	100.0%

(0.7 oz ai [0.044 lb ai] in 1 oz of **Endura® fungicide**)

EPA Reg. No. 7969-197 **EPA Est. No.**

KEEP OUT OF REACH OF CHILDREN

WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See inside for complete **First Aid**, **Precautionary Statements**, **Directions For Use**, **Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

In case of an emergency endangering life or property involving this product, call day or night 1-800-832-HELP (4357).

Net Contents:

BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

FIRST AID	
If in eyes	• Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes. • Call a poison control center or doctor for treatment advice.
If on skin or clothing	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
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 inhaled	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth to mouth, if possible. • Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357).	

Precautionary Statements

Hazards to Humans and Domestic Animals

Warning. Causes substantial but temporary eye injury. Harmful if absorbed through skin. Harmful if swallowed. **DO NOT** get in eyes or on clothing. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)
Applicators and other handlers must wear:

- Protective eyewear (goggles, face shield or safety glasses)
- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls Statement
When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

DO NOT apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment washwaters.

Surface Water Advisory
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 water tables are more prone to produce runoff that contains this product. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features, such as ponds, streams, and springs, will reduce the potential for contamination of water from rainfall runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and restricted-entry intervals. 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:

- Protective eyewear (goggles, face shield or safety glasses)
- Coveralls
- Chemical-resistant gloves
- Shoes plus socks

Storage and Disposal

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Disposal
Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container Handling
Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. 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.

(continued)

Storage and Disposal *(continued)*

Triple rinse containers too large to shake (capacity > 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank. 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.

In Case of Emergency

In case of large-scale spillage regarding this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to be taken in case material is released or spilled:

- Dike and contain spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with water.
- Wash clothing before reuse.
- Keep spill out of all sewers and open bodies of water.

General Information

This package contains **Endura® fungicide**, a water dispersible granule (WG). Boscalid, the active ingredient in **Endura**, belongs to the group of respiration inhibitors classified by the US EPA and Canada PMRA as carboxamides, or target site of action **Group 7** fungicides. **Endura** has a new mode of action and is effective against pathogens resistant to other fungicides.

Endura has a protective effect because it inhibits spore germination and a curative effect because it inhibits mycelial growth and sporulation of the fungus on the leaf surface. However, optimum disease control is achieved when **Endura** is applied in a regularly scheduled protective spray program and used in a rotation program with other fungicides.

Because of its high specific activity and rainfastness, **Endura® fungicide** has good residual activity against target fungi.

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

Resistance Management

Endura contains boscalid, a **Group 7** fungicide, and is effective against pathogens resistant to fungicides with modes of action different from those of carboxamide (anilide) fungicides (target site **Group 7**), such as dicarboximides, sterol inhibitors, benzimidazoles, QoI fungicides, and phenylamides. Fungal isolates resistant to **Group 7** fungicides may eventually dominate the fungal population if **Group 7** fungicides are used predominantly and repeatedly in the same field in successive years as the primary method of control for the targeted pathogen species. This may result in reduction of disease control of **Endura** or other **Group 7** fungicides.

To maintain the performance of **Endura** in the field, **DO NOT** exceed the total number of sequential applications of **Endura** and the total number of applications of **Endura** per season stated in **Table 1. Crop-specific Restrictions and Limitations** and **Table 2. Crop-specific Use Directions**. Adhere to the label instructions regarding the consecutive use of **Endura** or other target site of action **Group 7** fungicides that have a similar site of action on the same pathogens.

The following recommendations may be considered to delay the development of fungicide resistance:

1. **Tank mixtures.** Use tank mixtures with fungicides from different target site of action groups that are registered/permitted for the same use and that are effective against the pathogens of concern. Use at least the minimum labeled rates of each fungicide in the tank mix.
2. **IPM. Endura** should be integrated into an overall disease and pest management program. Cultural practices known to reduce disease development should be followed. Consult your local extension specialist, certified crop advisor and/or BASF representative for additional IPM strategies established for your area. **Endura** may be used in Agricultural Extension advisory (disease forecasting) programs which recommend application timing based on environmental factors favorable for disease development.
3. **Monitoring.** Monitor efficacy of all fungicides used in the disease management program against the targeted pathogen and record other factors that may influence fungicide performance and/or disease development.
4. **Reporting.** If a **Group 7** target site fungicide, such as **Endura**, appears to be less or no longer effective against a pathogen that it previously controlled or suppressed, contact a BASF representative, local extension specialist, or certified crop advisor to assist in determining the cause of reduced performance.

Cleaning Spray Equipment

Spraying equipment must be cleaned thoroughly before and after applying this product, particularly if a product with the potential to injure crops was used prior to **Endura.**

Application Instructions

Apply rates of **Endura** as instructed by **Table 2. Crop-specific Use Directions**. Apply **Endura** with ground sprayer, aerial equipment or through sprinkler irrigation equipment. Equipment should be checked frequently for calibration. Under low-level disease conditions, use the minimum application rates; use maximum application rates and shortened spray schedules for severe or threatening disease conditions. **DO NOT** apply when conditions favor drift from target area.

Ground Application

Apply **Endura** in sufficient water to ensure thorough coverage of foliage, bloom, and fruit. Thorough coverage is required for optimum disease control.

Directed or Banded Sprays

The rates on the **Endura** label reflect the amount of product that should be applied uniformly over an acre of ground on a broadcast basis.

In some crops, **Endura** may be applied as a directed or banded spray over the rows or plant beds, with the alleys or row middles left unsprayed. For such uses, the labeled **Endura** rates should be reduced in proportion to the area actually sprayed. This adjustment is necessary to avoid applying the product at use rates higher than permitted according to label directions.

The following formula may be used to determine the broadcast-equivalent rate for doing directed or banded sprays:

$$\frac{\text{sprayed bed width}}{} + \frac{\text{unsprayed row middles width}}{} = \frac{\text{total row width}}{}$$

$$\frac{\text{sprayed bed width in inches}}{\text{total row width in inches}} \times \frac{\text{broadcast rate}}{\text{treated acre}} = \frac{\text{band rate}}{\text{field acre}}$$

Example: A directed spray application will be made to 45 inches plant beds that are separated by 15 inches of unsprayed row middles.

$$\frac{\text{45 inches}}{\text{sprayed bed width}} + \frac{\text{15 inches}}{\text{unsprayed row middles}} = \frac{\text{60 inches}}{\text{total row width}}$$

The calculation to determine the appropriate equivalent rate of product to use for this situation based on a label broadcast rate of 6 ozs/acre follows:

$$\frac{\text{45 inches sprayed bed width}}{\text{60 inches total row width}} \times \frac{\text{6 ozs Endura}}{\text{treated acre}} = \frac{\text{4.5 ozs Endura}}{\text{field acre}}$$

Aerial Application
For all crops listed in this label, aerial application can be made and thorough coverage is required to obtain optimum disease control. Avoid applications under conditions when uniform coverage cannot be obtained or when spray drift may occur. Use no less than 5 gallons of spray solution per acre. For aerial applications to tree and vine crops, use no less than 10 gallons of spray solution per acre. For all other crops, thorough coverage is required for optimum disease control.

Directions For Use Through Sprinkler Irrigation Systems
Sprayer Preparation. Thoroughly clean chemical tank and injector system. Flush system with clean water.

Application Instructions. Apply **Endura® fungicide** at rates and timings as described in this label.

Use Precautions for Sprinkler Irrigation Applications
- Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side [wheel] roll, traveler, big gun, solid set, or hand move irrigation systems. **DO NOT** apply this product through any other type of irrigation system.
- Add this product to the pesticide supply tank containing sufficient water to maintain a continuous flow by the injection equipment. In continuous moving systems, inject this product-water mixture continuously, applying the labeled rate per acre for that crop. **DO NOT** exceed 1/2 inch (13,577 gallons) per acre. In stationary or noncontinuous moving systems, inject the product-water mixture in the last 15 to 30 minutes of each set allowing sufficient time for all of the required pesticide to be applied by all the sprinkler heads and applying the labeled rate per acre for that crop. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. Thorough coverage of foliage is required for good control. Maintain good agitation during the entire application.
- If you have questions about calibration, contact State Extension Service specialist, equipment manufacturers or other experts.
- The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

Specific Instructions for Public Water Systems
1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, discharge the water from the public water system into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

Additives and General Tank Mixing Information

Endura® fungicide can be tank mixed with most recommended fungicides and insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives as specified in **Table 2. Crop-specific Use Directions**.

Under some conditions, the use of additives or adjuvants may improve the performance of **Endura**.

However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can also influence crop tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Endura** with other products. Therefore, before using any tank mix (fungicides, insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives), test the combination on a small portion of the crop to be treated to ensure that a phytotoxic response will not occur as a result of application.

When an adjuvant is to be used with this product, BASF recommends the use of a Chemical Producers and Distributors Association certified adjuvant.

Consult a BASF representative or local agricultural authorities for more information concerning additives.

Compatibility Test and Mixing Order

If tank mixtures are used, adhere to restrictions due to rates, label directions and precautions on all labels.

Compatibility Test for Tank Mix Components
Add components in the following sequence using 2 teaspoons for each pound or 1 teaspoon for each pint of label rate per acre.

1. **Water.** For 100 gallons per acre spray volume, use 16 cups (1 gallon) of water. For other spray volumes, adjust rates accordingly. Use only water from the intended source at the source temperature.
2. **Water-dispersible products** (dry flowables, wettable powders, suspension concentrates, or suspo-emulsions). Cap the jar and invert 10 cycles.
3. **Water-soluble products.** Cap the jar and invert 10 cycles.
4. **Emulsifiable concentrates** (oil concentrate or methylated seed oil when applicable). Cap the jar and invert 10 cycles.
5. **Water-soluble additives.** Cap the jar and invert 10 cycles.
6. Let the solution stand for 15 minutes.
7. **Evaluate** the solution for uniformity and stability. The spray solution should not have free oil on the surface, or fine particles that precipitate to the bottom, or thick (clabbered) texture. **DO NOT** use any spray solution that could clog spray nozzles.

Mixing Order
1. **Water.** Begin by agitating a thoroughly clean sprayer tank 3/4 full of clean water.
2. **Agitation.** Maintain constant agitation throughout mixing and application.
3. **Inductor.** If an inductor is used, rinse it thoroughly after each component has been added.
4. **Products in PVA bags.** Place any product contained in water-soluble PVA bags into the mixing tank. Wait until water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.
5. **Water-dispersible products** (such as **Endura**, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions).
6. **Water-soluble products.**
7. **Emulsifiable concentrates** (such as oil concentrates when applicable).
8. **Water-soluble additives** (such as AMS or UAN when applicable).
9. **Remaining quantity water.** Make sure that each component is thoroughly mixed and suspended before adding tank mix partners. Make constant agitation during application.

General Restrictions and Limitations - All Crops

- **Maximum seasonal use rate. DO NOT** apply more than the maximum rate per acre as listed in **Table 1. Crop-specific Restrictions and Limitations** and **Table 2. Crop-specific Use Directions.**
- **Maximum rate per application. DO NOT** apply more than the maximum rate per acre per application as listed in **Table 1. Crop-specific Restrictions and Limitations** and **Table 2. Crop-specific Use Directions.**
- **DO NOT** make more than the total number of applications of **Endura** per season, as listed in **Table 1. Crop-specific Restrictions and Limitations** and **Table 2. Crop-specific Use Directions.**
- **Preharvest Interval (PHI).** See **Table 1. Crop-specific Restrictions and Limitations** and **Table 2. Crop-specific Use Directions.**
- **Livestock Feeding Restrictions. DO NOT** feed peanut hay to livestock.
- **DO NOT** apply more than the maximum seasonal use rate of ai/A for each specific crop from any combination of products (e.g. **Pristine® fungicide**, **Endura**).
- **Plantback Restrictions.** Crops with registered uses may be replanted at any time. All other crops grown for food or feed may be planted after **14 days**.
- **DO NOT use on cowpea, field pea, grain lupin, sugar beet, garden beet, radish and turnip.**
- **Endura** is not for use in greenhouse or transplant production systems.

Table 1. Crop-specific Restrictions and Limitations

Crop	Minimum Time from Application to Harvest (PHI) (days)	Maximum Rate per Acre per Application (ozs product)	Maximum Number of Applications per Season[2]	Maximum Rate per Acre per Season (ozs product)
Beans, Dry[1]	21	11	2	22
Beans, Succulent[1]	7	11	2	22
Head and Stem Brassicas[1] Broccoli Cabbage Cauliflower	0	9	2	18
Leafy Brassica Greens[1]	14	9	2	18
Bulb Vegetables Group[1] Garlic Leeks Onion	7	6.8	6	41
Celery[1]	0	9	2	18
Cucurbit Vegetables Group[1] Cantaloupe Cucumber Melon Pumpkin Squash Watermelon	0	6.5	4	26
Fruiting Vegetables Group[1] Bell Pepper Chili Pepper Eggplant Tomato*	0	3.5	6	21
Tomato*		12.5	2	25
Grapes*	14	4.5	5	22.5
		8	3	24
Lettuce[1]	14	11	2	22
Peanut	14	10	3	30
Dried Shelled Peas[1]	21	11	2	22
Succulent Peas[1] (edible podded and shelled)	7	11	2	22

(continued)

Table 1. Crop-specific Restrictions and Limitations *(continued)*

Crop	Minimum Time from Application to Harvest (PHI) (days)	Maximum Rate per Acre per Application (ozs product)	Maximum Number of Applications per Season[2]	Maximum Rate per Acre per Season (ozs product)
Potato*	10	4.5	4	18
		10	2	20
Rapeseed[1]	21	6	2	12
Root and Tuber Vegetables* Arrowroot Chinese artichoke Jerusalem artichoke Edible canna Chayote (root) Ginger Leren Sweet potato Turmeric Yam bean True yam	10	4.5	4	20
		10	2	20
Root and Tuber Vegetables* Carrot Celeriac Ginseng Horseradish Skirret	0	4.5	5	22.5
		7.8[a]	3[a]	23.4[a]
Soybean	21	11	2	22

[1] For a complete list of crops within a crop group, see **Crop-specific Use Directions**.
[2] At the maximum use rate only, except for tomato, grapes, potato, and root and tuber vegetables.
[a] Not for use in California.
* Maximum rate per acre, number of applications per season, and maximum rate per acre per season vary for tomato, grapes, potato, and root and tuber vegetables depending on the target disease. Refer to **Crop-specific Use Directions** for Fruiting Vegetables, Grapes, Potato, and Root and Tuber Vegetables for maximum rates and number of applications by target disease.

Crop-specific Use Directions

Table 2. Crop-specific Use Directions

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Beans, Dried and Succulent Broad bean Guar Lablab bean *Lupinus* spp. Sweet lupin White lupin White sweet lupin *Phaseolus* spp. Field bean Kidney bean Lima bean Navy bean Pink bean Pinto bean Runner bean Snap bean Tepary bean Wax bean *Vigna* spp. Adzuki bean Asparagus bean Blackeyed pea Catjang Chinese long bean Crowder pea Jack bean Moth bean Mung bean Rice bean Southern pea Urd bean Yard long bean	Ascochyta blight (*Phoma exigua, Ascochyta* spp.) Botrytis gray mold (*Botrytis cinerea*) White mold (*Sclerotinia sclerotiorum*)	8 to 11	2	22	Dried Beans 21 Succulent Beans 7
Chickpea (garbanzo bean) Lentil	Ascochyta blight *(Phoma exigua, Ascochyta* spp.)	6			

Application Directions. Apply **Endura® fungicide** at the beginning of flowering or prior to onset of disease. Use the higher rate for extended protection and maximum yield benefit. Apply a second time at full bloom if conditions are favorable for disease development or if heavy disease has already set in.

Ascochyta blight in chickpeas and lentils develops quickly once established, so early detection and application is essential to reduce losses.

Apply at the beginning of flowering. Make a second application 7 to 10 days later if disease persists or weather conditions are favorable for disease development.

Resistance Management. To limit the potential for development of resistance, **DO NOT** make more than two (2) applications of **Endura** per season.

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Brassica Leafy Vegetables **Head and Stem Brassicas** Broccoli Brussels sprouts Chinese broccoli (gai lon) Cabbage Chinese cabbage (napa) Chinese mustard (gai choy) Cauliflower Cavalo broccolo Kohlrabi	Alternaria blight (Black spot) (*Alternaria* spp.) Gray mold (*Botrytis cinerea*) Sclerotinia stem rot (*Sclerotinia sclerotiorum, S. minor*) **Suppression Only:** Powdery mildew (*Erysiphe polygoni*) Rhizoctonia bottom rot (*Rhizoctonia solani*)	6 to 9	2	18	0
Application Directions. Begin applications of **Endura® fungicide** 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. **Resistance Management.** To limit the potential for development of resistance, **DO NOT** make more than two (2) applications of **Endura** per season.					

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
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) (*Alternaria* spp.) Gray mold (*Botrytis cinerea*) Sclerotinia stem rot (*Sclerotinia sclerotiorum, S. minor*) **Suppression Only:** Powdery mildew (*Erysiphe polygoni*) Rhizoctonia bottom rot (*Rhizoctonia solani*)	6 to 9	2	18	14
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. **Resistance Management.** To limit the potential for development of resistance, **DO NOT** make more than two (2) applications of **Endura** per season.					

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Bulb Vegetables Group Garlic Leek Onions (all varieties) Shallot	Botrytis leaf blight (*Botrytis* spp.) Purple blotch (*Alternaria porri*)	6.8	6	41	7
Application Directions. For control of purple blotch and Botrytis leaf blight, begin applications of **Endura® fungicide** prior to disease development and continue on a 7- to 14-day interval. Use the shorter interval when disease pressure is high. **Resistance Management.** To limit the potential for development of resistance, **DO NOT** make more than six (6) 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.					

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Celery **Celery (Chinese)**	Alternaria leaf spot (*Alternaria* spp.) **<u>Suppression Only:</u>** Powdery mildew (*Erysiphe* spp.)	4.5 to 9	2	18	0
	Botrytis rot (*Botrytis* spp.) Phoma (*Phoma* spp.) Sclerotinia rot and blight (*Sclerotinia* spp.)	8 to 9			
Application Directions. Begin applications of **Endura** prior to the onset of disease development and continue on a 7-day interval. Use the higher rate 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.					

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Cucurbit Vegetables Includes all types and hybrids of: Chayote Chinese waxgourd Citron melon Cucumber Gherkin Pumpkin Watermelon **Edible Gourd** Chinese okra Cucuzza Hyotan **Momordica spp.** Balsam apple Balsam pear Bitter melon Chinese cucumber **Muskmelon** Cantaloupe Casaba Crenshaw melon Golden pershaw melon Honeydew melon Honey balls Mango melon Persian melon Pineapple melon Santa Claus melon Snake melon **Summer Squash** Crookneck squash Scallop squash Straightneck squash Vegetable marrow Zucchini **Winter Squash** Acorn squash Butternut squash Calabaza Hubbard squash Spaghetti squash	Alternaria blight (*Alternaria cucumerina*) Gummy stem blight (*Didymella bryoniae*) **Suppression Only:** Powdery mildew (*Sphaerotheca fuliginea, Erysiphe cichoracearum*)	6.5	4	26	0

Application Directions. Begin applications of **Endura® fungicide** prior to disease development and continue on a 7- to 14-day interval.

Use the shorter interval when disease pressure is high.

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 one (1) application of **Endura** before alternating to a labeled fungicide with a different mode of action for at least one (1) application.

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Fruiting Vegetable Group Eggplant Ground cherry Pepino Pepper (all varieties) Tomatillo Tomato	Early Blight (*Alternaria solani*)	2.5 to 3.5 or 2.5 to 3.5 ozs per 100 gallons of spray volume (dilute)*	6	21	0
	Target spot (*Corynespora cassiicola*)	3.5			
Tomato	Black mold (*Alternaria alternata*)	3.5 to 5	5	25	
	Botrytis gray mold (*Botrytis cinerea*)	9 to 12.5	2		

Application Directions. Begin applications of **Endura® fungicide** prior to disease development and continue on a 7- to 14-day interval for early blight, Botrytis gray mold, and Black mold.

Use the higher rate and the shorter interval when disease pressure is high.

*For applications based on dilute volume, plants should be sprayed to runoff. Apply a minimum of 20 gallons of spray volume per acre, and increase the spray volume as the plants grow during the season. Spray volume should be proportional to the amount of plant tissue to such that 100 gallons of spray per acre is used on mature plants.

Resistance Management. To limit the potential for development of resistance, **DO NOT** make more than six (6) applications of **Endura** at the low rate or two (2) applications of **Endura** at the high rate per season. **DO NOT** make more than two (2) sequential applications of **Endura** before alternating to a labeled fungicide with a different mode of action.

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Grapes	Powdery mildew (*Uncinula necator*)	4.5	5	24	14
	Botrytis gray mold (*Botrytis cinerea*)	8	3		

Application Directions. For powdery mildew control, begin applications of **Endura** at budbreak or prior to the onset of disease and continue on a 10- to 14-day interval.

For the control of Botrytis gray mold, begin applications of **Endura** prior to disease development and when conditions favor disease development during early bloom, bunch pre-closure or veraison.

Use the shorter interval when disease pressure is high.

Resistance Management. To limit the potential for development of resistance, **DO NOT** make more than five (5) applications of **Endura** at the low rate or three (3) applications of **Endura** at the high rate per season.

DO NOT make more than two (2) sequential applications of **Endura** before alternating to a labeled fungicide with a different mode of action.

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Lettuce Head and Leaf	Lettuce drop (*Sclerotinia minor, S. sclerotiorum*) Botrytis rot (*Botrytis cinerea*) Phoma basal rot (*Phoma exigua*) **Suppression Only:** Rhizoctonia bottom rot (*Rhizoctonia solani*) Lettuce powdery mildew (*Erysiphe cichoracearum*)	8 to 11	2	22	14

Application Directions. A protective fungicide barrier is needed to maximize disease control.

On direct-seeded lettuce, make the first application immediately after emergence or prior to disease development.

On transplanted lettuce, make the first application immediately after transplanting or prior to the onset of disease.

Make a second application if the soil surface is disturbed by cultivation or thinning and if conditions continue to favor disease development.

Use the higher rate 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® fungicide** per season.

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Peanut	Early leaf spot (*Cercospora arachidicola*) Late leaf spot (*Cercosporidium personatum*)	6.5 to 10	3	30	14
	Sclerotinia blight (*Sclerotinia minor*) Web blotch (*Phoma arachidicola*) **Suppression Only:** Sclerotium stem rot, Southern stem rot (*Sclerotium rolfsii*)	8 to 10			

Application Directions. For control of early and late leaf spot and web blotch, begin applications of **Endura® fungicide** prior to the onset of disease and continue on a 14-day interval.

For control of Sclerotinia blight, begin applications of **Endura** prior to the onset of disease or at 45 to 60 days after planting. Make a second application 14 to 21days later.

For suppression of Southern stem rot (*Sclerotium rolfsii*), apply **Endura** prior to disease development or at 45 to 60 days after planting. Two additional applications may be made at 14-day intervals. For improved control of Southern stem rot, **Endura** may be mixed with other labeled, effective fungicide.

Use the higher rate and/or shorter spray interval when disease pressure is high or in fields with a history of disease.

Resistance Management. To limit the potential for development of resistance, **DO NOT** make more than three (3) applications of **Endura** per season.

DO NOT make more than two (2) sequential applications of **Endura** before alternating to a labeled fungicide with a different mode of action.

Restrictions. DO NOT feed peanut hay to livestock. DO NOT graze or harvest for forage use.

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Dried Shelled Peas Lentil (*Lens*) Pea (*Pisum*) Garden pea Green pea Pigeon pea	Alternaria leaf and pod spot (*Alternaria* spp.) Botrytis gray mold (*Botrytis cinerea*) Mycosphaerella blight (*Mycosphaerella* spp.) White mold (*Sclerotinia sclerotiorum*) **<u>Suppression Only:</u>** Powdery mildew (*Erysiphe polygoni*)	8 to 11	2	22	21
	Ascochyta blight (*Phoma exigua, Ascochyta* spp.)	6			

Application Directions. For optimal disease control, begin applications of **Endura® fungicide** 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.

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Succulent Peas **Edible Podded Peas** Pea (*Pisum*) Dwarf pea Edible podded pea Pigeon pea Snow pea Sugar snap pea Soybean (immature seed) Sword bean **Succulent Shelled Peas** Pea (*Pisum*) English pea Garden pea Green pea Pigeon pea	Alternaria leaf and pod spot (*Alternaria* spp.) Ascochyta blight (*Phoma exigua, Ascochyta* spp.) Botrytis gray mold (*Botrytis cinerea*) Mycosphaerella blight (*Mycosphaerella* spp.) White mold (*Sclerotinia sclerotiorum*) **Suppression Only:** Powdery mildew (*Erysiphe polygoni*)	8 to 11	2	22	7
Application Directions. For optimal disease control, begin applications of **Endura® fungicide** 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.**					

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Potato	Early blight (*Alternaria* spp.)	2.5 to 4.5	4	20	10
	White mold (*Sclerotinia sclerotiorum*) **<u>Suppression Only:</u>** Gray mold (*Botrytis cinerea*)	5.5 to 10	2		
Application Directions. For control of *Sclerotinia* white mold, begin applications of **Endura® fungicide** prior to infection. Generally, the first infections begin when the rows start to close and/or when the plants start flowering. Make a second application 14 days later if conditions continue to be favorable for disease development. For control of *Alternaria* early blight or suppression of *Botrytis* gray mold, begin applications of **Endura** prior to the onset of disease and continue applications at 7- to 14-day intervals if conditions continue to be favorable for disease development. Use the higher rates when disease has been confirmed in your area or weather conditions are conducive to disease development. The use of additives or adjuvants may improve the performance of **Endura**. For additional details and precautions, refer to **Additives and General Tank Mixing Information**. No restriction on livestock grazing or feeding. **Resistance Management.** To limit the potential for development of resistance, **DO NOT** make more than four (4) applications of **Endura** at the low rate or two (2) applications of **Endura** at the high rate per season. **DO NOT** make more than two (2) sequential applications of **Endura** before alternating to a labeled fungicide with a different mode of action.					

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Rapeseed (Cultivars, Varieties and/or Hybrids, including Canola and Crambe)	Sclerotinia stem rot (*Sclerotinia sclerotiorum*)	5 to 6	2	12	21
Application Directions. Begin applications of **Endura** at 20% to 50% flowering or prior to the onset of disease. Use the higher rate for extended protection. Apply a second time if conditions continue to be favorable for disease development. No restriction on livestock grazing or feeding. **Resistance Management.** To limit the potential for development of resistance, **DO NOT** make more than two (2) applications of **Endura** per season.					

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Root and Tuber Vegetables, 1C Arrowroot Chinese artichoke Jerusalem artichoke Edible canna Chayote (root) Ginger Leren Sweet potato Turmeric Yam bean True yam	Early blight (*Alternaria solani*)	2.5 to 4.5	4	20	10
	Sclerotinia white mold (*Sclerotinia sclerotiorum*)	5.5 to 10	2		

Application Directions. For optimal disease control, begin applications of **Endura® fungicide** 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.

Resistance Management. To limit the potential for development of resistance, **DO NOT** make more than four (4) applications of **Endura** at the low rate or two (2) applications of **Endura** at the high rate 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.

Restrictions. DO NOT use on garden beets, sugar beets, radishes or turnips.

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Root and Tuber Vegetables, 1A Carrot Celeriac Ginseng Horseradish Skirret	Alternaria leaf spot (*Alternaria dauci*, *Alternaria* spp.) Powdery mildew (*Erysiphe* spp.)	4.5	5	22.5	0
	*Cottony rot, White rot of rhizomes, Watery soft rot (*Sclerotinia sclerotiorum*) *Gray mold rot (*Botrytis cinerea*)	7.8	3	23.4	

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.

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.

Restrictions. DO NOT use on garden beets, sugar beets, radishes or turnips.

*Not for use in California.

Table 2. Crop-specific Use Directions *(continued)*

Crop	Target Disease	Product Use Rate per Application (ozs/A)	Maximum Number of Applications per Season	Maximum Product Rate per Season (ozs/A)	Minimum Time from Application to Harvest (PHI) (days)
Soybean	Alternaria leaf spot (*Alternaria* spp.)	3.5 to 5.5	2	22	21
	Suppression Only: Brown spot (*Sepotoria glycines*) Cercospora blight and leaf spot (*Cercospora kikuchii*) Frogeye leaf spot (*Cercospora sojina*) Rhizoctonia aerial blight (*Rhizoctonia solani*)	5.5			
	Suppression Only: White mold (*Sclerotinia sclerotiorum*)	5.5 to 11			
Application Directions. Begin applications of **Endura® fungicide** prior to disease development or when conditions are conducive for disease development and continue on a 7- to 14-day interval. Use the 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.					

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