

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

Dr. Khalil Akkari BASF Corporation PO Box 13528 26 Davis Dr

OCT 1 2 2011

Research Triangle Park, NC 27709

Subject:

Application for Pesticide Notification (PRN 98-10)

Submission date:

8/30/2011

Product Name:

Honor Fungicide

EPA Reg. No.:

7969-255

**EPA Decision Number:** 

454548

#### Dear Dr. Akkari:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested fall within the scope of PRN 98-10.

The Agency acknowledges the updated language used in the "Endangered Species Concerns" section in regards to the online location of Endangered Species Bulletins and inclusion of a phone number.

The label submitted with the application has been stamped "Notification" and will be placed in our records. If you have questions concerning this letter, please contact Dominic Schuler at 703-347-0260 or via email at schuler.dominic@epa.gov

1 6

Sincerel

Tony Kish

Product Manager 22

Fungicide Branch

Registration Division (7504P)

Please read instructions on reverse before compg form	ı.		Form App	roved	,c MB No	2070-00	2-28-95 Approval expires
United Sta  Environmental Prote Washington, Do	ection Age	ncy		✓	Registra Amendi Other	tion	OPP Identifier Number
Applic	ation for l	Pesticio	le - Sect	tion	1		
1. Company/Product Number BASF Corporation (7969). EPA Reg. No. 7969	-255	2. EPA F	roduct <b>Ma</b> n	ager		3.	Proposed Classification
4. Company/Product (Name) Honor fungicide and Honor Intrinsic fungicide (BA	S 516 08F)	PM# 22		• • • • • • • • • • • • • • • • • • • •			None Restricted
5. Name and Address of Applicant (Include ZIP Code) BASF Corporation P.O. Box 13528 26 Davis Drive Research Triangle Park, NC 27709  Check if this is a new address		(b)(i), m to: EPA R		s sim	ilar or iden		th FIFRA Section 3(c)(3) composition and labeling
	Sec	tion - I			c	ccee	С
Amendment - Explain below.  Resubmission in response to Agency letter dated  Notification - Explain below.	6-30-2011	- [	Final printed Agency lett "Me Too" A Other - Expl	er dat Applica	ation.	e to	
Explanation: Use additional page(s) if necessary. (For s Notification of change to the Endangered Species Bulletins sta same changes were also made to the label with Honor Intrinsi Manager (PM-22) via the enclosed e-mail. This notification is labeling for this product.  This is not a PRIA action, therefore no PRIA code or fee are p	atements on pagic brand fungicid consistent with t	ge 3 of the le as the a he provisio	ternate trade ons of PR No	name lice 98	. The change	es were	requested by the EPA Product
	Sect	ion - II			<del> </del>		
1. Material This Product Will Be Packaged In:							
Child-Resistant Packaging  Yes  ✓ No  * Certification must be submitted  Unit Packaging  Yes  ✓ No  If "Yes"  Unit Packaging wgt.	or If "Yes		No. per container		2. Type of	Metal Plastic Glass Paper	c
3. Location of Net Contents Information 4. Size(s	s) Retail Contain			5. Lo	cation of Lab on label	el Direc	tions
6. Manner in Which Label is Affixed to Product [ ] L	ithograph aper glued itenciled		✓ Other	sle	eeve	-	
		ion - I\	<u>'</u>				
1. Contact Point (Complete items directly below for identifi	ication of indiv	dual to be	contacted,	if nec	essary, to pr	ocess th	nis application.)
Name Khalid H. Akkari	Title Product	Registrat	on Manage	er		•	one No. (Include Area Code) 647-2000 (x2976)
Cert I certify that the statements I have made on this form I acknowledge that any knowlinglly false or misleadin both under applicable law.							6. Date Application Received (Stamped)
2. Signature K. H. Akkani	3. Title Product I	Registratio	n Manager, F	Regula	tory Affairs		
4. Typed Name	5. Date	Δ		044			
Khalid H. Akkari	1	Aug	ust 30, 2	:011			

cece

cccccc

ccccc



August 30, 2011.

U.S. Environmental Protection Agency
Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P),
One Potomac Yard (South Building), Room S-4900
2777 S. Crystal Drive
Arlington, Virginia 22202

ATTN: Tony Kish - (PM-22)

Dear Mr. Kish:

SUBJECT: Notification to Update the Endangered Species Bulletin Statements on the Honor®

fungicide Label (EPA Reg. No. 7969-255) per PR Notice 98-10.

Reference: Active Ingredients: Boscalid and Pyraclostrobin

This is a Notification to update the Endangered Species Bulletin Statements on the **Honor® fungicide** label (EPA Reg. No. 7969-255) according to PR Notice 98-10, Section II N, "Other Revisions". **Honor® fungicide** contains the active ingredients Boscalid (EPA Reg. No. 7969-198) and Pyraclostrobin (EPA Reg. No. 7969-185). The change was requested by the EPA Product Manager (PM-22) via e-mail (copy enclosed). The same change was also made to the label with the alternate trade name **Honor® Intrinsic™ brand fungicide**.

The requested change is as follows:

"Endangered Species Bulletins may be accessed from EPA's website at http://www.epa.gov/espp or at http://epa.gov/espp/bulletins.htm. For those without internet access, check availability and applicability of Bulletins by calling EPA at 1-800-447-3813"

The change was made on page 3 of the **Honor® fungicide** label (Label Number – NVA 2011-04-091-0018) approved as a notification on May 11, 2011. Copies of the revised **Honor™ fungicide** and **Honor® Intrinsic™ brand fungicide** labels with the changes annotated on page 3 are enclosed.

"This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under section 12 and 14 of FIFRA."



The following documents are enclosed in support of the Notification.

- 1. EPA Form 8570-1 "Application for Pesticide" for Honor® fungicide (7969-255)
- 2. A copy of the proposed Honor® fungicide master label with the changes annotated
- 3. A copy of the proposed Honor® Intrinsic brand fungicide label with the changes annotated
- 4. Three (3) "clean" copies of the proposed Honor® fungicide master label
- 5. Three (\$) "clean" copies of the proposed Honor® Intrinsic brand fungicide label
- 6. A copy of EPA Approval Letter and for the Honor® fungicide label notification, dated May 11, 2011
- 7. A copy of the Honor® fungicide master label stamped "Notification", dated May 11, 20ଶ୍ରୀ: "

BASF is not proposing any PRIA Category since the change was requested by the EPA Product Manager and is being submitted as a notification per PR Notice 98-10 for **Honor® fungicide**. Therefore no PRIA fee is associated with this action.

This information has been included in Section II of the EPA Form 8570-1 "Application for Pesticide".

If you have any questions or need clarification or further information, I can be reached directly at (919)-547-2976, or via e-mail at khalid.akkari@basf.com.

Sincerely,

**BASF Corporation** 

Khalid H. Akkari, Ph.D.

**Product Registration Manager** 

Regulatory Affairs

enclosures

Group 7 11 Fungicide

# Honor<sup>®</sup> fungicide

#### For use in disease control and plant health on golf course turfgrass

Active Ingredients:	
pyraclostrobin, (carbamic acid, [2-[[[1-(4-chlorophenyl)-	
1H-pyrazol-3-yi]oxy]methyl]phenyl]methoxy-, methyl ester)	ó
boscalid, 3-pyridinecarboxamide, 2-chloro-N-(4'-chloro(1,1'-biphenyl)-2-yl)	6
Other Ingredients:	0
Total:	ó
0.168 oz (0.0105 lb) of pyraclostrobin in 1 oz of <b>Honor® fungicide</b>	
0.112 oz (0.007 lb) of boscalid in 1 oz of <b>Honor</b>	

EPA Reg. No. 7969-255

**EPA Est. No.** 

CCCCCC

## KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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 details):

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).

**NOTIFICATION** 

OCT 1 2 2011

**Net Contents:** 

The Chemical Company

	FIRST AID
If on skin or clothing	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed	<ul> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>
If in eyes	<ul> <li>Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.</li> <li>Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If inhaled	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably by mouth to mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
	HOTLINE 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**

**CAUTION.** Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing.

#### Personal Protective Equipment (PPE)

Some materials that are chemically resistant to this product are listed below. For more options, refer to **Category A** on an EPA chemical-resistance category selection chart.

Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals.

#### Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material (such as nitrile, butyl, neoprene, and/or barrier laminate)
- 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 or enclosed cabs 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 clear colothing.

#### Environmental Hazards 5

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. Foorly 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.

This pesticide is toxic to fish and aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. **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 or rinsate.

#### **Endangered Species Concerns**

The use of any pesticide in a manner that may kill or otherwise harm an endangered species or adversely modify their habitat is violation of federal law.

This pesticide is toxic to fish and aquatic invertebrates and should be used strictly in accordance with drift precautions on this label in order to minimize off-site exposures. **DO NOT** apply when weather conditions favor drift from treated areas to nontarget aquatic habitats. Notify state and/or federal authorities and BASF immediately if you observe any adverse environmental effects due to use of this product.

Endangered Species Bulletins may be accessed from EPA's website at http://www.epa.gov/espp or at http://epa.gov/espp/bulletins.htm. For those without internet access, check availability and applicability of Bulletins by calling EPA at 1-800-447-3813.

#### **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. This label must be in the user's possession during application.

FAILURE TO FOLLOW THE USE DIRECTIONS AND PRE-CAUTIONS ON THIS LABEL MAY RESULT IN PLANT INJURY OR POOR DISEASE CONTROL.

This product is intended for golf course use only. Not for use on residential turfgrass, turfgrass being grown for sale or other commercial use such as sod production, seed production or for research purposes.

#### NONAGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, nurseries, or greenhouses.

DO NOT enter or allow others to enter treated areas until sprays have dried.

#### STORAGE AND DISPOSAL

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

#### **Pesticide Storage**

Store in original containers only. Keep container closed when not in use. **DO NOT** store near food or feed.

#### Pesticide Disposal

Wastes resulting from using 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 representatives 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.

Pressure rinse as follows: Entippy the remaining contents into application equipment of mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use of disposals 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:

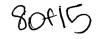
CHEMTREC 1-800-424-9300
 BASF Corporation 1-800-832-HELP (4357)

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:

 In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to label.



- Dike and contain the 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 soap and water.
- · Wash clothing before reuse.
- · Keep the spill out of all sewers and open bodies of water.

#### **Product Information**

Honor® fungicide is a broad-spectrum fungicide for the control of many important diseases of golf course turfgrass. For maximum efficacy, apply Honor preventively. Preventive applications optimize disease control resulting in improved plant health. Honor may be applied solo or in tank mixes with other registered fungicides. DO NOT exceed the specified application rate or fail to comply with use restrictions listed in the Resistance Management and Restrictions and Limitations sections. All applications must be made according to the use directions that follow. Failure to follow directions and precautions on this label may result in injury and/or inferior disease control.

This package contains **Honor**, a water-dispersible granule (WG). The active ingredients in **Honor** are pyraclostrobin, a member of the strobilurin (QoI) class of chemistry, and boscalid, a member of the carboxamide (anilide) class of chemistry. Optimum disease control is achieved when **Honor** is applied in a regularly scheduled protective spray program and used in a rotation program with other fungicides. Because of its high specific activity, **Honor** has good residual activity against target fungi.

**Mode of Action.** Pyraclostrobin and boscalid, the active ingredients of **Honor**, belong to the group of respiration inhibitors classified by the USEPA and Canada PMRA as target site of action **Group 11** and **Group 7** fungicides, respectively.

#### **Application Information**

**Honor** may be used for disease control in golf course turfgrass.

#### **Application Instructions**

For maximum efficacy, apply **Honor** prior to or in the early stages of disease development. For maximum efficacy, apply **Honor** at the rates specified in **Table 1. Honor® fungicide Application Rates and Intervals on Golf Course Turfgrass** in 1 to 4 gallons of water per 1000 square feet (43 to 174 gallons per acre). Use the shorter specified application interval and/or the higher specified rate when prolonged favorable disease conditions exist. Repeat applications at the specified interval as necessary.

- Honor is most effective when applied preventively.
- Actual length of disease control will vary depending on environmental conditions, disease pressure, and management practices.
- Calibrate spray prior to use.

- After application, allow foliage to dry prior to mowing or irrigation, except for fairy ring and Pythium root dysfunction for which the turf can be irrigated immediately following treatment.
- Apply Honor using sufficient water volume and pressure for adequate coverage of the foliage.
- Apply the specified rate of **Honor** as instructed in the Use **Directions** section with ground spray equipment.

Aerial application of **Honor** is not permitted.

#### **Spray Drift Management**

**DO NOT** spray when conditions favor drift beyond area intended for application. Conditions that contribute to drift include thermal inversion, wind speed and direction, spray nozzle/pressure combinations, spray droplet size, temperature/humidity, etc. Contact your state extension agent for spray drift prevention guidelines in your area. All application equipment must be properly maintained and calibrated using appropriate carriers. Avoiding spray drift at the application site is the responsibility of the applicator.

#### Wind

Drift potential is lowest when wind speed does not exceed 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### **Temperature and Humidity**

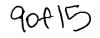
Low humidity and high temperatures increase the evaporation of spray droplets and, therefore the likelihood of increased spray drift.

Avoid spraying during conditions of low humidity and/or high temperatures. When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation.

Droplet evaporation is most severe when conditions are both hot and dry.

#### **Temperature Inversions**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing that causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light-to-no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present. inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates



indicates good vertical air mixing.

#### **Sensitive Areas**

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. bodies of water or nontarget crops) is minimal and when wind is blowing away from the sensitive areas.

#### **Resistance Management**

Honor® fungicide contains two active ingredients: pyraclostrobin, a target site Group 11 (Qol) fungicide, and boscalid, a target site Group 7 fungicide. Honor is effective against pathogens resistant to fungicides with modes of action different from those of Groups 7 and Group 11. such as the dicarboximides, sterol inhibitors, benzimidazoles, or phenylamides. Fungal isolates resistant to fungicides in Group 11 (such as pyraclostrobin, azoxystrobin, and trifloxystrobin) or Group 7 (such as boscalid and flutolanil) may eventually dominate the population if such fungicides are used predominantly and repeatedly in the same area for successive years as the primary method of control for the targeted pathogen species. This may result in reduction of disease control by Honor or other Group 7 or Group 11 fungicides. In order to maintain Honor's performance, DO NOT exceed the total number of sequential applications. Adhere to the label instructions regarding consecutive use of Honor and other Group 7 or Group 11 fungicides with a similar site of action on the same pathogens.

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

- 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. Integrate Honor into an overall disease and pest management program. Follow cultural practices known to reduce disease development. Use Honor in 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. If a Group 7 or Group 11 target site fungicide such as Honor appears to be less effective against a pathogen that it previously controlled or suppressed, contact a BASF representative or local expert for further investigation.

**DO NOT** make more than two (2) sequential applications of **Honor** in turfgrass for Pythium, gray leaf spot, dollar spot, or anthracnose. Then alternate to an effective fungicide from a different target site group before reapplying **Honor**.

**DO NOT** make more than three (3) consecutive applications of **Honor** for all other turfgrass diseases. Then alternate to an effective fungicide from a different target site group before reapplying **Honor**.

#### **Addition of Additives**

**DO NOT** use with organosilicone-based adjuvants or injury may occur. Because of the large number of additives or adjuvants that may be used, neither the manufacturer nor the seller has determined whether **Honor** can be used safely with all additives.

#### **Tank Mixing Information**

#### **Tank Mix Partners/Components**

**Honor** is compatible with most fungicide, insecticide and fertilizer products. If tank mixtures are used, adhere to restrictions due to rates, label recommendations and precautions on all labels.

Physical incompatibility, reduced disease control, or plant injury may result from mixing **Honor** with fungicides, herbicides, insecticides, additives, or fertilizers. To improve control of certain diseases, tank mix **Honor** with other effective fungicides from a different target site group.

#### **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 specified label rate per acre.

- 1. Water. For 87 gallons per acre spray volume, use 14.4 cups (3.5 liters) 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 suspect enulsions). Cap the jar and inverter cycles.
- 3. **Water-soluble products.** Cáp the jar and invert 10 cycles.
- 4. Emulsifiable concentrates (oil concentrate or methylated seed oil when applicable) babathe jar and invert 10 cycles.
- 5. Water-soluble additives. Cap the jar and invertible 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, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. **DO NOT** use any spray solution that could clog spray nozzles.

#### Mixing Order

Limit amount of spray mixture prepared to that needed for immediate use.

- 1. **Water.** Begin by agitating a thoroughly clean sprayer tank 1/2 full of clean water.
- 2. Products in PVA bags. Place the water-soluble PVA bag into the mixing tank. The water-soluble PVA bag will dissolve in water to allow the contents to disperse. Wait until all water-soluble PVA bags have fully dissolved and the product is evenly mixed in the spray tank before continuing.

- 3. Water-dispersible products (dry flowables such as Honor® fungicide, wettable powders, suspension concentrates, or suspo-emulsions)
- 4. Water-soluble products
- Emulsifiable concentrates (oil concentrate or methylated seed oil when applicable)
- Water-soluble additives (AMS or UAN when applicable)
- 7. Remaining quantity of water.

Maintain maximum constant agitation during application.

DO NOT allow mixture to stand for extended periods prior to application.

#### **Cleaning Spray Equipment**

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

#### **USE DIRECTIONS**

Honor controls anthracnose, bentgrass dead spot, Bermudagrass decline, brown patch, brown ring patch, dollar spot, fairy ring, Fusarium patch, gray leaf spot, gray snow mold, large patch, leaf spot, melting out, necrotic ringspot, pink patch, pink snow mold, powdery mildew, Pythium blight, Pythium root dysfunction, rapid blight, red thread, Rhizoctonia leaf or sheath spot, rust, summer patch, take-all patch and yellow tuft (downy mildew). For optimum control of gray snow mold and pink snow mold, tank mix Honor with another effective fungicide from a different target site group.

#### **Uses and Tolerance**

Due to variability within turfgrass species, application techniques and possible tank mixes, neither the manufacturer nor the seller has determined if **Honor** can safely be used on all turfgrasses under all conditions. Therefore, it is recommended that the user determine if **Honor** can be used safely before broad use. Apply the specified use rate of **Honor** on a small test area under conditions expected to be encountered. Monitor for any adverse effects during a 14-day period after application.

#### Rate

Use the application rates specified for each disease listed in **Table 1. Honor® fungicide Application Rates and Intervals on Golf Course Turfgrass**. Apply **Honor** in 1 to 4 gallons of water per 1000 square feet (43 to 174 gallons per acre).

#### **Restrictions and Limitations**

- Maximum seasonal use rate. DO NOT apply more than a total of 6.6 ounces of Honor per 1000 sq ft per year (18.0 pounds of Honor per acre per year).
- Refer to Table 1. Honor® fungicide Application Rates and Intervals on Golf Course Turfgrass for sequential application intervals for Honor.
- DO NOT apply this product to crops other than golf course turfgrass.
- DO NOT apply to turfgrass through any type of irrigation equipment.
- This product cannot be used to **formulate** or reformulate any other pesticide product.

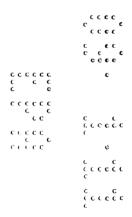


Table 1. Honor® fungicide Application Rates and Intervals on Golf Course Turfgrass

<b>Disease</b> Pathogen	Use Rate (ozs Product/ 1000 sq ft)	Use Rate (ozs Product/A)	Application Interval (days)	Comments
<b>Anthracnose<sup>1</sup></b> Colletotrichum graminicola	0.55 to 1.1	24 to 48	14 to 28	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Bentgrass dead spot Ophiosphaerella agrostis	0.55 to 1.1	24 to 48	14 to 28	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
Bermudagrass decline Gaeumannomyces graminis var. graminis	1.1	48	Not Applicable (see <b>Comments</b> )	Aids in control of Bermudagrass decline when integrated with appropriate cultural practices such as raised mowing height, proper fertilization and core aeration. Make one application in the spring following greenup and a second application in the fall when air temperatures remain above 80° F and humidity is 75% or higher. Apply in 4 gallons of water per 1000 sq ft.
<b>Brown patch</b> <i>Rhizoctonia solani</i>	0.55 to 1.1	24 to 48	14 to 28	Apply when conditions are favorable for disease development.
Brown ring patch Rhizoctonia circinata var. cir- cinata, (previously called 'Waitea patch')	1.1	48	14 to 28	Begin applications preventively or when early yellow ring development is symptomatic. Late currative applications will not be effective. Use 2 to 4 gallons of spray volume per 1000 sq ft and appropriate soil wetting agent at the time of application. Provide short irrigation cycle directly following treatment to friove fungicide through the ton Brown ring patch symptoms may take 2 to 3 weeks to disappear following application.
<b>Dollar spot¹</b> Sclerotinia homoeocarpa	0.83 to 1.1	36 to 48	14 to 28	Begin applications prior to of inthe early stages of disease development. Use the shorter specified application interval and/or the higher specified rate when prolonged favorable disease conditions exist.
Fairy ring various Basidiomycete fungi	1.1	48	28	Apply as soon as possible after fairy ring symptom development. Fairy ring symptoms may take 2 to 3 weeks to disappear following application. Use 2 to 4 gallons per 1000 sq ft spray volume and appropriate soil wetting agent at time of application. Reapplication after 28 days may be required. Provide short irrigation cycle directly following treatment to move fungicide through thatch.
Fusarium patch Microdochium nivale	0.55 to 1.1	24 to 48	14 to 28	In the absence of snow cover, use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.

(continued)

120f 15

Table 1. Honor® fungicide Application Rates and Intervals on Golf Course Turfgrass (continued)

10.0.0				n Goir Course Turigrass (continued)
<b>Disease</b> Pathogen	Use Rate (ozs Product/ 1000 sq ft)	Use Rate (ozs Product/A)	Application Interval (days)	Comments
<b>Gray leaf spot¹</b> <i>Pyricularia grisea</i>	0.55 to 1.1	24 to 48	14 to 28	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.
<b>Gray snow mold</b> Typhula incarnata	1.1	48	14 to 28	Make 2 applications, 14 to 28 days apart in late fall just prior to snow cover. For optimum control before extended periods of snow cover, make 1 or 2 applications of <b>Honor</b> at 0.83 to 1.1 ozs per 1000 sq ft tank mixed with another effective fungicide from a different target site group, such as <b>Curalan® EG fungicide</b> , <b>Iprodione Pro fungicide</b> or <b>Trinity® fungicide</b> .
Large patch (Brown patch of warm season turfgrass) Rhizoctonia solani	1.1	24 to 48	14 to 28	Apply prior to or directly at initial signs of infection in fall. Make a sequential application with <b>Honor</b> or an other effective fungicide such as <b>Trinity</b> prior to turf dormancy. Reapplication in spring at time of greenup can be made if necessary. For control of brown patch of St. Augustinegrass, centipedegrass, kikuyugrass, seashore paspalum and zoysiagrass (aka zoysia patch).
<b>Leaf spot</b> Bipolaris spp., Drechslera spp., and Exserohilum spp.	0.55 to 1.1	24 to 48	14 to 28	Apply when conditions are favorable for disease development.
Melting out Drechslera poae	0.55 to 1.1	24 to 48	14 to 28	Apply when conditions are favorable for disease developing in the conditions are favorable for
<b>Necrotic ringspot</b> Leptosphaeria korrae	1.1	48	14 to 28	Aids in control of freetratic ringspot when combined with a non-strobil fring fingicide such as <b>Trinity</b> , this phanate methyl, or chlorothalonil. Make applications in spring, fall or winter when conditions are present for outbreaks.
Pink patch Limonomyces roseipellis	0.55 to 1.1	24 to 48	14 to 28	Apply when conditions are favorable for disease development.
<b>Pink snow mold</b> <i>Microdochium nivale</i>	1.1	48	14 to 28	Make 2 applications, 14 to 28 days apart in late fall just prior to snow cover. For optimum control before extended periods of snow cover, make 1 or 2 applications of <b>Honor</b> at 0.83 to 1.1 ozs per 1000 sq ft tank mixed with another effective fungicide from a different target site group, such as <b>Curalan EG</b> , <b>Iprodione Pro</b> or <b>Trinity</b> .
Powdery mildew Blumeria graminis	0.55 to 1.1	24 to 48	14 to 28	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.

(continued)

Table 1. Honor® fungicide Application Rates and Intervals on Golf Course Turfgrass (continued)

<b>Disease</b> Pathogen	Use Rate (ozs Product/ 1000 sq ft)	<b>Use Rate</b> (ozs Product/A)	Application Interval (days)	Comments
<b>Pythium blight¹</b> Pythium aphanidermatum, Pythium spp.	1.1	48	10 to 14	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development. Tank mix <b>Honor</b> with another non-strobilurin fungicide labeled for Pythium blight control during severe disease pressure or when symptoms are already present.
<b>Pythium root dysfunction<sup>1</sup></b> <i>Pythium</i> spp., <i>Pythium volutum</i>	1.1	48	14 to 28	Apply preventively or early curative for control. Following an application of <b>Honor</b> , rotate to other effective fungicides for this disease prior to additional <b>Honor</b> applications. Irrigate immediately following application.
Rapid blight Labyrinthula terrestris	0.55 to 1.1	24 to 48	14 to 28	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development. Follow the shorter spray interval when using the lower application rate.
Red thread Laetisaria fuciformis	0.55 to 1.1	24 to 48	14 to 28	Apply when conditions are favorable for disease development.
Rhizoctonia leaf or sheath spot R. oryzae, R. zea	1.1	24 to 48	14 to 28	Rhizoctonia infection can occur under warm, humid conditions on both cool and warm season turfgrass. This disease has been associated with localized dry spots, and necrotic (brown) ring symptoms can form. Apply when conditions are favorable for disease development. Use of a soil wetting agent may be appropriate.
Rust Puccinia spp., Uromyces spp.	0.55 to 1.1	24 to 48	14 to 28	Apply when conditions are favorable for disease development.
<b>Summer patch</b> <i>Magnaporthe poae</i>	1.1	24 to 48	14 to 28	Initiate applications in the spring when soil temperatures reach 60 to 85° Fat a 2-inch soil depth, or as dictated by local recommendations.
<b>Take-all patch</b> Gaeumannomyces graminis var. avenae	1.1	48	28	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development. Make 2 applications 28-days apart in the fall and 2 applications 28-days apart in the spring.
Yellow tuft (Downy mildew) Sclerophthora macrospora	0.55 to 1.1	24 to 48	14 to 28	Use preventively. Begin applications when conditions are favorable for fungal infection, prior to disease symptom development.

**DO NOT** apply more than two (2) sequential applications of **Honor** for anthracnose, dollar spot, gray leaf spot or Pythium. For all other diseases, when anthracnose, dollar spot, gray leaf spot or Pythium are not present, **DO NOT** apply more than three (3) sequential applications of **Honor**. Then alternate to an effective non-strobilurin fungicide before reapplying **Honor**.

Table 2. Honor® fungicide Dilution Table for Spray Solutions

<b>Honor</b> (ozs Product/100 gallons spray solution)						
Use Rate (ozs Product/ 1000 sq ft)	Spray Volume (1 gallon/1000 sq ft)	Spray Volume (2 gallons/1000 sq ft)	Spray Volume (3 gallons/1000 sq ft)	Spray Volume (4 gallons/1000 sq ft)		
0.55	55	27.5	18.3	13.8		
0.83	83	41.5	27.7	20.8		
1.1	110	55.0	36.7	27.5		



#### **Conditions of Sale and Warranty**

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

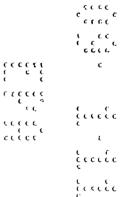
BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BUYER'S EXCLUSIVE REMEDY AND BASF'S EXCLUSIVE LIABILITY, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, SHALL BE LIMITED TO REPAYMENT OF THE PURCHASE PRICE OF THE PRODUCT.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BASF AND THE SELLER DISCLAIM ANY LIABILITY FOR CONSEQUENTIAL, EXEMPLARY, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

BASF and the Seller offer this product, and the Buyer and User accept it, subject to the foregoing **Conditions of Sale and Warranty** which may be varied only by agreement in writing signed by a duly authorized representative of BASF.



**Curalan, Honor** and **Trinity** are registered trademarks of BASF.

© 2011 BASF Corporation All rights reserved.

007969-00255.20110808.**NVA 2011-04-091-0168** Supersedes: NVA 2011-04-091-0018

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



The Chemical Company