

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

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Charles T. Levey Product Registration Manager BASF Corporation 26 Davis Drive, P.O. Box 13528 Research Triangle Park, NC, 27709

FEB 0 4 2009

Subject:

Forum Fungicide

EPA Registration No. 241-427

Your Amendment dated September 15, 2008

Decision No. 401149

Dear Mr. Levey:

The labeling (master label) referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

- 1. In the "Precautionary Statements" section add the heading "User Safety Requirements" in bold text after the heading "Applicators and other handlers must wear:"
- 2. In the "User Safety Recommendations" section, add the word, "exist" after the word, "washables" so that the sentence reads, "Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent..."
- 3. In the "User Safety Recommendations" box add a 3<sup>rd</sup> bullet with the following sentence, "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."
- 4. Block the "Storage and Disposal" statement section with a solid line (a box) to increase the statement's prominence. The box must end after the "Pressure rinse as follows" section.
- 5. In the "Compatibility" section, prior to "Aerial Spray Applications" section reinsert the paragraph from page 4 of the September 28, 2007 label entitled, "Tank Mixes With Fungicides" on the proposed label, after the paragraph that reads,

### COMPATIBILITY

"The tank mixing behavior of this fungicide with other pesticides has not been fully investigated..."

- 6. In the "Directions for Application" table for Fruiting Vegetables (except Tomato), under the restrictions heading, on page 11, revise the sentence "Not registered for use on these crops in California" to "Not for use in California".
- 7. In the "Directions for Applications" table for the crop use Taro, on page 16 delete the product name "Forum herbicide" to "Forum fungicide".
- 8. In the "Directions for Applications" table for the crop use Taro, under the restrictions heading, revise the sentence "Not registered for use on these crops in California" to "Not for use in California".

The supplemental label for tank mix requirements, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following change is made:

- 1. The tan mix supplemental labeling must be incorporated into the main label by December 31, 2010 or at your next label printing, whichever comes first.
- 2. In the "Directions for Use section, second paragraph, delete the word "caution" and replace it with the word, "pre-cautionary statements " so that the sentence shall read, "Observe all pre-cautionary statements and limitations on this label..."

One copy of the label stamped "Accepted with comments" is enclosed for your records. Please submit one copy of the final printed label that incorporates the required changes before the product is released for shipment. If you have any questions, please contact Tamue L. Gibson by phone at (703) 305-9096 or via email at gibson.tamue@epa.gov.

Sincerely,

Shaja Brothers Joyner Product Manager (20)

Fungicide Branch

Registration Division (7505P)

Enclosure



Group

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**Fungicide** 

ACCEPTED
with COMMENTS
In EPA Letter Dated

FEB 4

2009

Under the Federal Inscribide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under MFA Reg. No.

241-427



FUNGICIDE

For use in Brassica Leafy Vegetables, Bulb Vegetables, Cucurbit Vegetables, Fruiting Vegetables, Hops, Lettuce, Potatoes, Taro, Tobacco, and Field-grown Tomatoes

**Active Ingredient:** 

 dimethomorph\*
 43.5%

 Other Ingredients:
 56.5%

 Total:
 100.0%

 \*Equivalent to 4.17 pounds dimethomorph per gallon.
 100.0%

Equivalent to 1.17 pounds annother per game

EPA Reg. No. 241-427 U.S. Patent No. 5,952,496 EPA Est. No.

# KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCIÓN

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 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 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>			
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

### **CAUTION**

Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco. Remove and wash contaminated clothing before reuse.

### Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for **Category A** on an EPA chemical-resistance category selection chart.

### Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material, such as polyethylene or polyvinyl chloride
- Shoes plus socks

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

### **User Safety Recommendations**

### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside.
   Then wash thoroughly and put on clean clothing.

#### **Environmental Hazards**

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

### **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 when wind conditions favor drift.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

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, wear:

- · Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material, such as polyethylene or polyvinyl chloride
- Shoes plus socks

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### Storage and Disposal

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

#### **Pesticide Storage**

Store in a cool, well-ventilated area. **DO NOT** allow to become overheated in storage. Keep container closed when not in use.

### Pesticide Disposal

Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

#### **Container Disposal**

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 ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake (capacity > 5 gallons) 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 and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

#### In Case of Spill

In case of large-scale spillage regarding this product, call: CHEMTREC 1-800-424-9300
BASF Corporation 1-800-832-HELP (4357)

### **GENERAL INFORMATION**

# THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF FUNGICIDE APPLICATION.

**DO NOT** apply this product through any type of irrigation system unless the label instructions on chemigation are followed. See below for **Chemigation Use Directions**.

Use **Forum® fungicide** in a preventive spray program to manage the target diseases. Maximum results can only be achieved by thorough plant coverage. **Forum** must be used in accordance with this label. It is recommended that this product be used within an Integrated Pest Management (IPM) Program.

Fungus strains have developed resistance to some fungicides after repeated use. Because the development of resistance cannot be predicted, always use **Forum** in a resistance management program. Tank mixing and thorough spray coverage are methods that can help to minimize the development of fungus strains with resistance to **Forum**. Tank mixing requirements for **Forum** vary depending on the crop. To maximize disease control, apply **Forum** in a regularly scheduled protective spray program and use in a rotation program with other fungicides.

**Forum** is not for use in greenhouse or transplant production.

The use of **Forum** in all tobacco transplant production systems (including greenhouse, float-beds, and traditional ground beds) is **STRICTLY PROHIBITED**.

. DO NOT use Forum in transplant water.

Carefully read, understand, and follow all directions and precautions.

Disease pressure, plant growth rate, and environmental conditions will determine the length of the spray interval and performance benefits of tank mixing **Forum** with other fungicides. Consult local disease forecast advisory system recommendations to determine the predicted disease pressure and the associated application rates and intervals. All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers. Determine the size of the area to be sprayed and the output rate to determine the quantities of **Forum** and water needed for accurate application. Apply material with adequate spray pressure, water volume, and proper nozzle arrangement to provide full coverage. The addition of a spreading/penetrating adjuvant is recommended to improve disease control performance.

### Mode of Action

Dimethomorph, the active ingredient of **Forum**, belongs to the group of cell wall synthesis inhibitors, classified by the USEPA and Canada PMRA as target site of action **Group 40** fungicides.

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#### RESISTANCE MANAGEMENT

Forum® fungicide contains dimethomorph, a Group 40 fungicide, and is effective against pathogens resistant to fungicides with modes of action different from Group 40. Fungal isolates resistant to Group 40 fungicides may eventually dominate the fungal population if Group 40 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 by Forum or other Group 40 fungicides.

To maintain the performance of **Forum** in the field, **DO NOT** exceed the total number of sequential applications of **Forum** and the total number of applications of **Forum** per season stated in the **DIRECTIONS FOR APPLICATION** section. Adhere to the label instructions regarding the consecutive use of **Forum** or other target site of action **Group 40** 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. Forum 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. Forum 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. If a Group 40 target site fungicide, such as Forum, appears to be less effective against a pathogen that it previously controlled or suppressed, contact a BASF representative, local extension specialist, or certified crop advisor for further investigation.

# ADDITIVES AND GENERAL TANK MIXING INFORMATION

Forum can be tank mixed with most recommended fungicides, insecticides, herbicides, liquid fertilizers, biological control products, adjuvants, and additives, as specified in the crop-specific instructions in the DIRECTIONS FOR APPLICATION section of this label. Under some conditions, the use of additives or adjuvants may improve the performance of Forum; however, all varieties and cultivars have not been tested with all 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 **Forum** 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.

#### MIXING INSTRUCTIONS

Fill the spray tank until it is approximately 1/2 full with clean water. Shake the **Forum** container well; then slowly add **Forum** to the spray tank while agitating. Agitation must be engaged prior to the addition of the product to obtain a complete and uniform mixture of **Forum**.

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

### Mixing Order

- 1. **Water.** Begin by agitating a thoroughly clean sprayer tank 1/2 full of clean water.
- 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.
- Water-dispersible products (wettable powders, dry flowables, suspension concentrates, including Forum, or suspo-emulsions).
- 4. Water-soluble products.
- 5. **Emulsifiable concentrates** (oil concentrate or methylated seed oil, when applicable).
- 6. Water-soluble additives [ammonium sulfate (AMS) or urea ammonium nitrate (UAN), when applicable].
- 7. Remaining quantity water.

Maintain maximum constant agitation during application. Thorough agitation is required if the mixture is allowed to stand for a prolonged period of time.

### COMPATIBILITY

The tank mixing behavior of this fungicide with other pesticides has not been fully investigated. If tank mixing with other pesticides is desirable, conduct a jar test with rates and volumes of carrier typically used in an agricultural application. Look for signs of separation, globules, sludge, flakes, or other precipitates. **DO NOT** tank mix with the other pesticides if the jar test with **Forum** has indicated incompatibility.

### **AERIAL SPRAY APPLICATIONS**

Aerial application is permitted for all labeled crops except hops. Because complete coverage is important for effective disease control, aerial application at low volumes may result in reduced control because of lack of canopy penetration and coverage. Prior to aerial application, check the aircraft for uniformity of spray pattern, spray swath width, and output. If hollow cone or whirlplate

nozzles are used, it is recommended that they be positioned straight down or slightly backward. When using nozzles that produce relatively straight streams (e.g. Dseries orifice with no core), the recommended positioning is straight back or slightly down from back. Uniformly apply with properly calibrated aerial equipment in 5 or more gallons of water per acre. If foliage is dense, use an output that will ensure optimum fungicide penetration. Spray swaths should be marked using flaggers who are in completely enclosed vehicles, by counting rows, or by using some other marking device. **DO NOT** apply when weather conditions favor drift.

### **CHEMIGATION USE DIRECTIONS**

**Forum®** fungicide can be applied prior to the onset of disease infection on a regular protectant spray schedule, not an irrigation schedule.

Chemigation applications must be made according to the crop-specific spray schedule interval in the **DIRECTIONS FOR APPLICATION** section of this label and may depend on disease pressure and environmental conditions. Consult local disease control advisory system recommendations to determine the predicted disease pressure and the associated application rates and intervals. Chemigation applications may need to be supplemented with ground or aerial applications if irrigation cycles are less frequent than what is specified on the label to obtain optimum control.

Apply **Forum** only through sprinkler irrigation systems including center pivot, lateral move, side (wheel) roll, solid set, or hand move irrigation systems. **DO NOT** apply product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.

If you have questions about calibration, contact State Extension Service Specialists, equipment manufacturers, or other experts.

The irrigation system must be correctly calibrated (with water only) to ensure that the specified rate of **Forum** is applied.

**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. 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.

Chemigation systems connected to public water systems must contain a functional reduced-pressure zone (RPZ) backflow preventer, or the functional equivalent, in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the

public water system should be discharged 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.

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. The system should have properly working nozzles providing the recommended output and pattern. The chemigation system should also be free of leaks.

### Overhead sprinkler irrigation system requirements:

- 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 back flow.
- 2. The pesticide injection pipeline must contain a functional, automatic quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3. 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.
- 4. 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.
- 5. The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point that 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.
- DO NOT apply when wind speed favors drift beyond the area intended for treatment.

# The following routine checks will help to ensure that the sprinkler irrigation system is working properly:

- 1. Use a calibrated injection metering pump, as specified by the manufacturer.
- 2. Metering pumps, the supply tank, and any associated equipment must be clean and dry before adding diluted **Forum** to the system for injection.
- Check the metering pump periodically to confirm that Forum is being injected continuously and at the proper calibration throughout the irrigation period.
- 4. Continuous agitation must be maintained in the supply tank during the entire overhead sprinkler irrigation period.

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Center Pivot and Lateral Move Irrigation Equipment (use only with electric or oil hydraulic drive systems that provide a uniform water distribution)

- 1. Determine size of area to be treated.
- Determine the time required to apply the least amount of water. No more than 0.2 inches of water should be applied over the area to be treated when the system and injection equipment are operated at normal pressures recommended by the equipment manufacturer's rated capacity.
- 3. Using only water, determine the injection pump output when operated at normal line pressure.
- Determine the amount of Forum<sup>®</sup> fungicide required to treat area.
- Add the required amount of **Forum** and sufficient water to meet the injection time requirements of the solution tank.
- 6. Maintain constant solution tank agitation during the injection period.
- 7. Stop injection equipment after treatment is completed. Continue to operate the system until **Forum** solution has cleared the last sprinkler head.

# Solid Set, Side (wheel) Roll, and Hand Move Irrigation Equipment

- 1. Determine acreage covered by sprinkler.
- 2. Fill injector solution tank with water and adjust flow rate to use contents over a 10- to 30-minute interval.
- Determine the amount of Forum required to treat the area.
- Add the required amount of **Forum** into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.
- 6. Operate system at normal pressures recommended by the manufacturer of the injection equipment and use for the time interval established during calibration.
- 7. Inject **Forum** at the end of the irrigation cycle, or as a separate application, to maximize foliar fungicide retention.
- 8. Stop injection equipment after treatment is completed. Continue to operate the system until **Forum** solution has cleared the last sprinkler head.

### **DIRECTIONS FOR APPLICATION**

Maximum benefit of **Forum® fungicide** from foliar applications requires thorough coverage of the plant. To obtain thorough coverage of foliage, use proper spray pressure and a minimum of 20 gallons of water per acre for ground applications and 5 gallons of water per acre for aerial applications. Because complete coverage is important for effective disease control, aerial application may result in reduced control because of lack of canopy penetration and coverage.

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Brassica Leafy Vegetables Leafy: Broccoli raab Chinese cabbage (Bok choy) Collards Kale Mizuma Mustard greens Mustard spinach Rape greens Head and Stem: Broccoli Chinese broccoli Brussels sprouts Cabbage Chinese cabbage (Napa) Chinese mustard Cauliflower Cavalo broccolo Kohlrabi	Downy mildew (Peronospora parasitica)	per Acre per	Use <b>Forum</b> as a preventive	
			application must be another downy mildew fungicide with a mode of action different from Forum (non-Group 40) for at least 1 application. If Forum has been applied as a mix with another downy mildew fungicide, a second sequential application of Forum (alone or as a mix) is permitted before rotating to a non-Group 40 downy mildew fungicide for at least 1 application.	

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Vegetables	Downy mildew (Peronospora destructor)	6.	Use Forum® fungicide as a preventive application before infection occurs.	<b>DO NOT</b> make more than 5 applications per season.
Garlic Garlic, great-headed Leek		*.	The minimum application interval for <b>Forum</b> is 5 days.	DO NOT exceed 30 ozs per acre per growing season.
Onion, dry bulb Onion, green Onion, Welch Shallot			When disease is present in or near the area, prediction models indicate favorable disease conditions; or when an epidemic is underway, performance may be improved by using Forum as a tank mix with another fungicide and by decreasing the interval between sprays.	DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons of water per acre for aerial applications.  Bulbs or leaves may be harvested on the day of the last application after sprays have dried.
			The addition of a spreading/penetrating adjuvant is recommended to improve disease control performance.	
			If Forum has been applied as the only downy mildew fungicide, the next sequential application must be another downy mildew fungicide with a mode of action different from Forum (non-Group 40) for at least 1 application. If Forum has been applied as a mix with another downy mildew fungicide, a second sequential application of Forum (alone or as a mix) is permitted before rotating to a non-Group 40 downy mildew fungicide for at least 1 application.	

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Cucurbit Vegetables  Cantaloupe Chayote Chinese waxgourd Citron melon Cucumber Gherkin Gourd, edible Melon Momordica spp. Muskmelon Pumpkin Squash, summer Squash, winter Watermelon	Downy mildew (Pseudoperono- spora cubensis)	6	Forum® fungicide must be applied as a tank mix with another fungicide that has a different mode of action (non-Group 40 fungicides).  Begin applications prior to the onset of disease infection. The minimum application interval for Forum is 5 days.  A spreading/penetrating adjuvant must be added at recommended rates.  DO NOT make more than 2 sequential applications of Forum before alternating to another fungicide with a mode of action different from Forum (non-Group 40 fungicides) for at least 1 application.	DO NOT make more than 5 applications per season.  DO NOT exceed 30 ozs per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons of water per acre for aerial applications.  Cucurbits may be harvested on the day of the last application after sprays have dried.

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Cucurbit Vegetables (continued)  Cantaloupe Chayote Chinese waxgourd Citron melon Cucumber Gherkin Gourd, edible Melon Momordica spp. Muskmelon Pumpkin Squash, summer Squash, winter Watermelon	Phytophthora blight or Crown rot (Phytophthora capsici)	6	Forum® fungicide must be applied as a tank mix with another fungicide that has a different mode of action (non-Group 40 fungicides).  Begin applications when plants are 4- to 6-inches high or prior to the onset of disease infection and spray to runoff. The minimum application interval for Forum is 5 days.  The addition of a spreading/penetrating adjuvant is recommended to improve diease control performance.	DO NOT make more than 5 applications per season.  DO NOT exceed 30 ozs per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons of water per acre for aerial applications.  Cucurbits may be harvested on the day of the last application after sprays have dried.
			DO NOT make more than 2 sequential applications of Forum before alternating to another fungicide with a mode of action different from Forum (non-Group 40 fungicides) for at least 1 application.	

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Fruiting Vegetables (except Tomato)  Eggplant Ground cherry Pepino Pepper (all varieties) Tomatillo	Suppression only Phytophthora blight (Phytophthora capsici)	6	Forum® fungicide must be applied as a tank mix with another fungicide that has a different mode of action (non-Group 40 fungicides). Use Forum as a preventive application before infection occurs, beginning when plants are 4- to 6-inches high. The minimum application interval for Forum is 5 days.  The addition of a spreading/penetrating adjuvant is recommended to improve disease control performance.  DO NOT make more than 2 sequential applications of Forum before alternating to another fungicide with a mode of action different from Forum (non-Group 40 fungicides) for at least 1 application.	DO NOT make more than 5 applications per season.  DO NOT exceed 30 ozs per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons of water per acre for aerial applications.  May be harvested the day of the last application, after spray has dried.  Not registered for use on these crops in California.

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Hops	Downy mildew (Pseudoperono- spora humuli)	6	Use Forum® fungicide as a preventive application before infection occurs. The minimum application interval for Forum is 10 days.	DO NOT make more than 3 applications per season.  DO NOT exceed 18 ozs per acre per growing season.
			When disease is present in or near the area, prediction models indicate favorable disease conditions; or when an epidemic is underway, performance may be improved by using Forum as a tank mix with another fungicide	DO NOT use less than 20 gallons of water per acre.  DO NOT apply within 7 days of harvest.  DO NOT make aerial applications to hops.
			The addition of a spreading/penetrating adjuvant is recommended to improve disease control performance.	
			If Forum has been applied as the only downy mildew fungicide, the next sequential application must be another downy mildew fungicide with a mode of action different from Forum (non-Group 40) for at least 1 application. If Forum has been applied as a mix with another downy mildew fungicide, a second sequential application of Forum (alone or as a mix) is permitted before rotating to a non-Group 40 downy mildew fungicide for at least 1 application.	

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Lettuce (head and leaf)	Downy mildew ( <i>Bremia lactucae</i> )	6	Use Forum® fungicide as a preventive application before infection occurs. The minimum application interval for Forum is 7 days.	DO NOT make more than 5 applications per season.  DO NOT exceed 30 ozs per acre per growing season.
			When disease is present in or near the area, prediction models indicate favorable disease conditions; or when an epidemic is underway, performance may be improved by using <b>Forum</b> as a tank mix with another fungicide.	DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons of water per acre for aerial applications.  Plants may be harvested on the day of the last application after sprays have
			The addition of a spreading/penetrating adjuvant is recommended to improve disease control performance.	dried.
			If Forum has been applied as the only downy mildew fungicide, the next sequential application must be another downy mildew fungicide with a mode of action different from Forum (non-Group 40) for at least 1 application. If Forum has been applied as a mix with another downy mildew fungicide, a second sequential application of Forum (alone or as a mix) is permitted before	
			rotating to a non- <b>Group 40</b> downy mildew fungicide for at least 1 application.	

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Potatoes	Late blight (Phytophthora infestans)	6	Use Forum® fungicide as a preventive application before infection occurs. The minimum application interval for Forum is 5 days.  When disease is present in or near the area, prediction models indicate favorable disease conditions; or when an epidemic is underway, performance may be improved by using Forum as a tank mix with another fungicide.	po NoT exceed 30 ozs per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons of water per acre for aerial applications.  DO NOT apply within 4 days of harvest in all states.
			Consult local late blight advisory system recommendations to determine the predicted levels of disease pressure and recommended spray interval.  The addition of a spreading/penetrating adjuvant is recommended to improve disease control performance.	
			Apply spray to obtain thorough and complete plant coverage.	
			If Forum has been applied as the only late blight fungicide, the next sequential application must be another late blight fungicide with a mode of action different from Forum (non-Group 40) for at least 1 application. If Forum has been applied as a mix with another late blight fungicide, a second sequential application of Forum (alone or as a mix) is permitted before rotating to a non-Group 40 late blight fungicide for at least 1 application.	
			Forum may be applied after vine kill.	

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Potatoes (continued)	Suppression only Tuber blight (Phytophthora infestans)	6	gicide, the next sequential application must be another tuber blight fungicide with a mode of action different from Forum (non-Group 40) for at least 1 application. If Forum has been applied as a mix with another tuber blight fungicide, a second sequential application of Forum (alone or as a mix) is permitted before rotating to a non-Group 40 tuber blight fungicide for at least 1 application.  Forum may be applied	DO NOT exceed 30 ozs per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons of water per acre for aerial applications.  DO NOT apply within 4 days of harvest in all states.
			after vine kill.	

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Taro	Suppression only Phytophthora rot and Leaf blight (Phytophthora spp.)	6	Use Forum® herbicide as a preventive application before infection occurs. The minimum application interval for Forum is 7 days.  When disease is present in or near the area, prediction models indicate favorable disease conditions; or when an epidemic is underway, performance may be improved by using Forum as a tank mix with another fungicide.  The addition of a spreading/penetrating adjuvant is recommended to improve	DO NOT make more than 5 applications per season.  DO NOT exceed 30 ozs per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons of water per acre for aerial applications.  DO NOT apply within 7 or 30 days of harvest for the greens and corms, respectively.  Not registered for use on these crops in
			disease control performance.  If Forum has been applied as the only Phytophthora fungicide, the next sequential application must be another Phytophthora fungicide with a mode of action different from Forum (non-Group 40) for at least 1 application. If Forum has been applied as a mix with another Phytophthora fungicide, a second sequential application of Forum (alone or as a mix) is permitted before rotating to a non-Group 40 Phytophthora fungicide for at least 1 application.	California.

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Tobacco	Blue mold (Peronospora tabacina)	2 to 8 ground 8 air	See specific use directions in the section titled DIRECTIONS FOR USE IN FIELD-GROWN TOBACCO.  Forum® fungicide must be applied as a tank mix with another fungicide that has a different mode of action (non-Group 40 fungicides).  DO NOT make more than 2 sequential applications of Forum before alternating to another fungicide with a mode of action different from Forum (non-Group 40 fungicides) for at least 1 application.	per acre per growing season.  DO NOT use less than 15 gallons of water per acre for aerial applications.  DO NOT exceed 8 ozs per acre per application.  Tobacco may be harvested the day of the last application, after spray has dried.

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Tomato - Nonstaked	Late blight (Phytophthora infestans)	6	Use Forum® fungicide as a preventive application before infection occurs, beginning when plants are 4- to 6-inches high. The minimum application interval for Forum is 5 days.	per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications and 5 gallons of
			When disease is present in or near the area, prediction models indicate favorable disease conditions; or when an epidemic is underway, performance may be improved by using <b>Forum</b> as a tank mix with another fungicide.	water per acre for aerial applications. <b>DO NOT</b> apply within 4 days of harvest in all states.
			The addition of a spreading/penetrating adjuvant is recommended to improve disease control performance.	
			Apply spray to obtain thorough and complete plant coverage.	
			If Forum has been applied as the only late blight fungicide, the next sequential application must be another late blight fungicide with a mode of action different from Forum (non-Group 40) for at least 1 application. If Forum has been applied as a mix with another late blight fungicide, a second sequential application of Forum (alone or as a mix) is per-	
			mitted before rotating to a non- <b>Group 40</b> late blight fungicide for at least 1 application.	

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Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Tomato - Staked	Late blight (Phytophthora infestans)	6	Use Forum® fungicide as a preventive application before infection occurs, beginning when plants are 4- to 6-inches high. The minimum application interval for Forum is 5 days.	per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications.
			When disease is present in or near the area, prediction models indicate favorable disease conditions; or when an epidemic is underway, performance may be improved by using Forum as a tank mix with another fungicide.	DO NOT apply within 4 days of harvest in all states.
			The addition of a spreading/penetrating adjuvant is recommended to improve disease control performance.	
			For ground application, use a minimum of 20 gallons of spray volume and increase the spray volume as the plants grow during the season. Spray volume should be proportional to the amount of plant tissue to be covered such that 100 gallons of spray per acre is used on mature plants. For aerial applications, follow the directions for non-staked tomatoes above.	
			Apply spray to obtain thorough and complete plant coverage.	

Crop	Target Disease	Use Rate (ozs Product per Acre per Application)	Instructions	Restrictions
Tomato - Staked (continued)	Late blight (Phytophthora infestans)	6	If Forum® fungicide has been applied as the only late blight fungicide, the next sequential application must be another late blight fungicide with a mode of action different from Forum (non-Group 40) for at least 1 application. If Forum has been applied as a mix with another late blight fungicide, a second sequential application of Forum (alone or as a mix) is permitted before rotating to a non-Group 40 late blight fungicide for at least 1 application.	DO NOT exceed 30 ozs per acre per growing season.  DO NOT use less than 20 gallons of water per acre for ground applications.  DO NOT apply within 4 days of harvest in all states.

### **DIRECTIONS FOR USE IN FIELD-GROWN TOBACCO**

ACCEPTABLE CONTROL OF BLUE MOLD AND MANAGEMENT OF FUNGICIDE RESISTANCE WITH Forum<sup>®</sup> fungicide REQUIRES THOROUGH COVERAGE TO LEAF SURFACES THROUGHOUT THE ENTIRE PLANT CANOPY.

The use of Forum in all tobacco transplant production systems (including greenhouse, float-beds, and traditional ground beds) is STRICTLY PROHIBITED. DO NOT use Forum in transplant water.

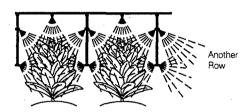
#### TRACTOR-DRIVEN SPRAYER APPLICATIONS TO TOBACCO

To obtain thorough coverage of the foliage, use proper spray pressure, fungicide nozzles (such as hollow cones), proper nozzle spacing (nozzles over the row and multiple nozzles on the drops, **SEE DIAGRAM** following), and slow tractor speed. The following diagram outlines the correct spray nozzle configuration for field applications in tobacco.

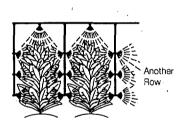
# Application Following Transplanting up to 3 Weeks

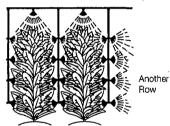


# Application to Mid-size Plants (3 to 5 weeks after transplanting)



# Application to Large Plants (6 weeks after transplanting up to topping)





### **BACKPACK SPRAYER APPLICATIONS TO TOBACCO**

**Forum** can be applied with backpack mist blowers or air-blast blowers. **DO NOT** apply with hand-pumped backpack sprayers because of low pressure and poor plant coverage. Spray to foliar runoff. Thorough plant coverage is essential for preventive control of blue mold.

### TANK MIXES WITH OTHER PRODUCTS

The crop safety and tank mix compatibility of tank mixes of **Forum** with insecticides have not been fully investigated. Refer to the **ADDITIVES AND GENERAL TANK MIXING INFORMATION** section for additional details and precautions.

**DO NOT** mix **Forum** with surfactants, foliar fertilizers, household bleach, or sucker-control materials when making applications to tobacco.

### Application Timing, Rates, and Spray Volumes to Control Blue Mold in Tobacco

Weeks of Growth after Transplant	Forum® fungicide Rate (ozs product)	Spray Volume for Tractor-driven Sprayer (gallons/acre)	Spray Volume for Backpack Sprayer (gallons/acre)
Recently transplanted to 3 weeks after transplanting	2	20	. 10
3 to 4 weeks after transplanting (knee high)	3	40	20
4 to 5 weeks after transplanting (waist high)	4	60 .	30
6 to 7 weeks after transplanting (chest high)	6	80	40.
7 weeks after transplanting and beyond (shoulder height up to topping)	7 ·	100	50

### **AERIAL SPRAY APPLICATIONS TO TOBACCO**

Aerial applications can be used by growers who have limitations with ground applications, or when weather conditions are unfavorable for timely applications by ground. All aerial and ground application equipment must be properly maintained and calibrated before application.

Determine the area to be sprayed and the output rate to determine the quantities of **Forum** and water needed for accurate application. To obtain thorough coverage of the foliage, **use a minimum of 15 gallons per acre** with nozzle positioning and orientation that favors plant coverage while minimizing drift.

For aerial applications, use 8 ozs of **Forum** per acre for applications at all growth stages. **DO NOT** use rates lower than 8 ozs of **Forum** per acre for aerial application.

# APPLICATION TIMING AND FREQUENCY IN TOBACCO

Begin applications when the **Blue Mold Advisory states that conditions favor development of blue mold**, and before the onset of disease infection. Continue applications on a 5- to 7-day spray schedule until weather conditions favoring infection and sporulation decrease.

### **TOBACCO USE RESTRICTIONS**

**DO NOT** exceed 8 ozs per acre per application. **DO NOT** exceed 30 ozs per acre of **Forum** per season for all types of applications. **Forum preharvest interval is 0 days.** Refer to tank mix partner labeling for preharvest interval restrictions.

The use of **Forum** in all tobacco transplant production systems (including greenhouses, float-beds, and traditional ground beds) prior to transplanting is **STRICTLY PROHIBITED**.

To reduce the possibility of developing tobacco blue mold resistance to both Forum and to mefenoxam products, the tank mixing of Forum with mefenoxam products is <u>STRICTLY PROHIBITED</u>. DO NOT use Forum in transplant water.

Blue mold fungal strains have developed resistance to some crop protection products after repeated use. Because the development of resistance cannot be predicted, always use **Forum** in a blue mold resistance management program. Tank mixing with non-**Group 40** fungicides and thorough spray coverage are necessary to minimize the development of blue mold strains with resistance to **Forum**.

### **ROTATIONAL CROP GUIDELINES**

After making the last Forum application, rotational crops may be planted at the following intervals:

#### 1. Anytime

Brassica leafy vegetables Lettuce (head and leaf)
Bulb vegetables Potatoes
Cucurbit vegetables Taro
Fruiting vegetables Tobacco
Hops Tomatoes

#### 2. One month

Barley

Oats

Leafy vegetables
(such as carrot, radish, and sugar beet)

Wheat

Celery)

Root/tuber vegetables
(such as carrot, radish, and sugar beet)

Wheat

### 3. Seven months

Alfalfa Peas
Beans Rice
Clover Sorghum
Corn Soybeans

### 4. Twelve months

All other crops

### **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, 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.

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Supplemental: NVA 2008-04-261-0275 Supersedes: NVA 2006-04-261-0042

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





The Chemical Company



ACCEPTED with COMMENTS in EPA Letter Dated

EB 4 2009

Under the Federal Inscettide, Fundicide, and Rodenticide Act as amended, for the pesticide registered und

241-427



### Tank Mix Requirements for Forum® fungicide Use

The **Directions For Use** on this supplemental label specifically supersede those appearing on the **Forum** container label which indicate that **Forum** must be used as a tank mix with a fungicide that has a different mode of action and is effective against the pathogen of concern.

### EPA Reg. No. 241-427

### Active Ingredient:

dimethomorph*	 43.5%
Total:	 100.0%

<sup>\*</sup>Equivalent to 4.17 pounds dimethomorph per gallon.

### **Directions For Use**

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

Observe all cautions and limitations on this label and on the labels of products used in combination with **Forum**. **DO NOT** use **Forum** other than in accordance with the instructions set forth on this label. Keep containers closed to avoid spills and contamination.

Refer to the **Forum** main label, EPA Reg. No. 241-427, for complete **Directions For Use** and all applicable restrictions and precautions. This supplemental label and the full **Forum** container label must be in the possession of the user at the time of pesticide application.

### **General Information**

Tank mixing requirements for **Forum** vary depending on the crop. See **Directions For Application** section for specific crop requirements.

### **Directions For Application**

To reduce the risk of fungicide resistance development in specific crops, Forum must be tank mixed with another fungicide that has a different mode of action (non-Group 40 fungicide, previously Group 15) and is effective against the pathogen of concern. See the following Crop-specific Tank Mix Requirements table.

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### **Crop-specific Tank Mix Requirements**

Crop Or Crop Group	Tank Mix Requirements
Brassica Leafy Vegetables	No*
Bulb Vegetables	No*
Cucurbit Vegetables	Yes
Fruiting Vegetables (Except Tomato)	Yes
Hops	No*
Lettuce (Head and Leaf)	No*
Potatoes	No*
Taro	No*
Tobacco	Yes
Tomato (Staked and Nonstaked)	No*

\*When disease is present in or near the area, prediction models indicate favorable disease conditions, or when an epidemic is underway, performance may be improved by using Forum as a tank mix with another fungicide and by decreasing the interval between sprays. The addition of an adjuvant is recommended to improve disease control performance. If Forum has been applied as the only downy mildew fungicide, the next sequential application must be another downy mildew fungicide with a mode of action different from Forum (non-Group 40) for at least 1 application. If Forum has been applied as a mix with another downy mildew fungicide, a second sequential application of Forum (alone or as a mix) is permitted before rotating to a non-Group 40 downy mildew fungicide for at least 1 application.

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

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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. 1108

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