7969-247 04-23-2008 1/12

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Mr. Khalid H. Akkari
BSAF Corp.
P.O. Box 13528
26 Davis Drive
Research Triangle Park, NC 27709

APR 23 2008

Dear Mr. Akkari:

Subject: Multiva Fungicide
EPA Reg. No. 7969-247
Your Submission of April 22, 2008

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, is acceptable. A stamped copy of the label is enclosed for your records. Submit one copy of the final printed label before you release the product for shipment.

Sincerely yours,

Mary L. Waller
Product Manager (21)
Fungicide Branch
Registration Division (7505P)

Enclosure

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BASF
The Chemical Company

Group 3 11 Fungicide

ACCEPTED
with COMMENTS
In EPA Letter Dated:
4/23/2008
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 7969-247

# Multiva™

## fungicide

**For use in disease control and plant health in the following crops: barley, oats, rye, soybeans, sugar beets, triticale and wheat.**

| **Active Ingredients:** | |
|---|---|
| **pyraclostrobin*:** (carbamic acid, [2-[[[1-(4-chlorophenyl)-1*H*-pyrazol-3-yl]oxy]methyl]phenyl]methoxy-,methyl ester) | 12.0% |
| **metconazole**:** 5-[(4-chlorophenyl)methyl]-2,2-dimethyl-1-(1*H*-1,2,4-triazol-1-ylmethyl)cyclopentanol | 7.4% |
| **Other Ingredients*****: | 80.6% |
| **Total:** | 100.0% |

*Equivalent to 1.083 pounds of pyraclostrobin per gallon.
**Equivalent to 0.67 pound of metconazole per gallon.
***Contains petroleum distillates

**EPA Reg. No. 7969-247** **EPA Est. No.**

**KEEP OUT OF REACH OF CHILDREN**

## WARNING/AVISO

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

See inside booklet for complete **First Aid, Precautionary Statements, Directions For Use**, and **Conditions of Sale and Warranty.**

**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** | • Call a poison control center or doctor immediately for treatment advice.<br>• **DO NOT** give any liquid to the person.<br>• **DO NOT** induce vomiting unless told to do so by a poison control center or doctor.<br>• **DO NOT** give anything by mouth to an unconscious person. |
| **If in eyes** | • Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.<br>• Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes.<br>• Call a poison control center for treatment advice. |
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15 to 20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If inhaled** | • Move person to fresh air.<br>• If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth-to-mouth, if possible.<br>• Call a poison control center for further treatment advice. |
| **Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage. Contains petroleum distillates - vomiting may cause aspiration pneumonia.** | |
| **HOT LINE NUMBER**<br>Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357). | |

## Precautionary Statements

### Hazards to Humans and Domestic Animals

**WARNING.** May be fatal if swallowed. Causes substantial but temporary eye injury. **DO NOT** get in eyes or clothing. Harmful if inhaled. Avoid breathing vapor or spray mist.

**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.

**Applicators and other handlers must wear**
- Coveralls over short-sleeved shirt and short pants
- Protective eyewear (goggles, face shield, or safety glasses with front, brow, and temple protection)
- Socks
- Chemical-resistant footwear
- Chemical-resistant gloves made of any waterproof material (such as nitrile, butyl, neoprene and/or barrier laminate)
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, and loading

Follow the 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.

## Engineering Controls Statement

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

## User Safety Recommendation

**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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## Environmental Hazards

This pesticide is toxic to fish and aquatic invertebrates. Drift or runoff may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment wash water or rinsate.

**Groundwater Advisory**
This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**Surface Water Advisory**
This product may contaminate water through drift of spray in wind. This product has a high potential for runoff for several months or more after application. Poorly draining soils or soils with shallow water tables are more prone to 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 forecasted to occur within 48 hours. Sound erosion control practices will

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reduce this product's contribution to surface water contamination.

## Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. **DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

### Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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), notification to workers, and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Protective eyewear (goggles, face shield, or safety glasses with front, brow, and temple protection)
- Chemical-resistant gloves made of any waterproof material (such as nitrile, butyl, neoprene, and/or barrier laminate)
- Shoes plus socks

## 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. 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.

**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 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 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. 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 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.

**Refillable Container.** Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

**Triple rinse as follows:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure 2 more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with the pesticide product. **DO NOT** reuse the container for any other purpose. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is

damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

**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) |

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

## General Information

**Multiva™ fungicide** is a broad-spectrum fungicide containing 2 active ingredients, pyraclostrobin and metconazole. **Multiva** provides systemic, curative and long-lasting residual control of target plant diseases.

To maximize disease control and improve plant health, apply **Multiva** in a regularly scheduled protective spray program and use in a rotation program with other fungicides.

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

**Mode of Action**
Each of the components in **Multiva** provides a different mode of action against plant pathogenic fungi. Pyraclostrobin belongs to the group of respiration inhibitors classified by the US EPA and Canada PMRA as Quinone Outside Inhibitors (QoI) or target site of action **Group 11** fungicides. Metconazole inhibits demethylation of sterol biosynthesis (DMI), disrupting cell membrane synthesis or target site of action **Group 3** fungicides.

**Resistance Management**
**Multiva** contains pyraclostrobin, a **Group 11** fungicide, and is effective against pathogens resistant to fungicides with modes of action different from those of QoI fungicides (target site **Group 11**), such as dicarboximides, sterol inhibitors, benzimidazoles, or phenylamides.

Fungal isolates resistant to **Group 11** fungicides, such as pyraclostrobin, azoxystrobin, fluoxastrobin, trifloxystrobin, and kresoxim-methyl, may eventually dominate the fungal population if **Group 11** 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 **Multiva** or other **Group 11** fungicides.

To maintain the performance of **Multiva** in the field, **DO NOT** exceed the maximum seasonal use rate or the total number of applications of **Multiva** per season and the maximum number of applications of **Multiva** stated in **General Restrictions and Limitations - All Crops** and **Multiva Crop-specific Directions For Use**. Adhere to the label instructions regarding the use of **Multiva** or other target site of action **Group 11** fungicides that have a similar site of action on the same pathogens.

**Resistance Management Advisory**
The following recommendations may be considered to delay the development of fungicide resistance:

**1. Tank Mixtures.** Use tank mixtures with effective 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. Integrated Pest Management (IPM). Multiva** 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. **Multiva** 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.

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

**Directions For Use Through Sprinkler Irrigation Systems**

**Sprayer Preparation.** Chemical tank and injector system should be thoroughly cleaned. Flush system with clean water.

**Application Instructions.** Apply **Multiva** at rates and timings as required in this label.

**Use Precautions For Sprinkler Irrigation Applications**
- Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side [wheel] roll, traveler, big gun, solid set, or hand move irrigation systems.
  **DO NOT** apply this product through any other type of irrigation system.
- Add this product to the pesticide supply tank containing sufficient water to maintain a continuous flow by the injection equipment. In continuous moving systems, inject this product/water mixture continuously, applying the labeled rate per acre for that crop.
  **DO NOT** exceed 1/2 inch (13,577 gallons) per acre.
  In stationary or non-continuous moving systems, inject the product/water mixture in the last 15 to 30 minutes of each set allowing sufficient time for all of

the required pesticide to be applied by all the sprinkler heads and applying the labeled rate per acre for that crop. **DO NOT** apply when wind speed favors drift beyond the area intended for treatment. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. Thorough coverage of foliage is required for good control. Good agitation should be maintained during the entire application period.

- If you have questions about calibration, you should contact state extension service specialists, equipment manufacturers or other experts.
- The system must contain a functional check valve, vacuum-relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide-injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch that will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation, or under supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

**Specific Instructions for Public Water Systems**

1. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
4. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## Application Instructions

Apply rates of **Multiva™ fungicide** as instructed by **Multiva Crop-specific Directions For Use**. Apply **Multiva** with ground sprayer, aerial equipment or through sprinkler irrigation equipment. Equipment should be checked frequently for calibration.

Under low-level disease conditions, the minimum application rates can be used while maximum application rates and shortened spray schedules are recommended for severe or threatening disease conditions.

**Ground Application.** Apply **Multiva** in sufficient water to ensure thorough coverage of foliage, blooms, and fruit. Thorough coverage is required for optimum disease control.

**Aerial Application.** Use no less than 5 gallons of spray solution per acre, except as specified in the following paragraph. **DO NOT** apply when conditions favor drift from target area.

Aerial applications of **Multiva** may be made to barley, oats, rye, soybeans, triticale and wheat in water volumes of 2 or more gallons of spray solution per acre (gpa). For application volumes of 2 to < 5 gpa, the spray solution must contain crop oil with emulsifier properties at a rate of 0.5 to 1.0 pt/acre. The higher oil rate is recommended when weather conditions become less conducive to spray droplets reaching the target; air temperature is > 85° F or relative humidity is < 60%; or when application volume is less than or equal to 3 gpa.

For applications of 5 gpa or more, use an approved adjuvant at standard rates (for example, NIS at 1 to 2 pints/100 gallons of spray mix [0.125% to 0.25% volume/volume (v/v)]). Select spray nozzles, pumping pressure, and sprayer height to provide medium-to-fine spray droplets that penetrate throughout the crop canopy. Spray calibration must be conducted to confirm spray droplet sizes. Continue to monitor spray

application (including weather conditions) to assure proper droplet size and canopy penetration.

- **DO NOT** use less than 2 gpa spray volume by aerial application.
- No livestock feeding restrictions for all crops on the label.

**No aerial application in New York State except as permitted under FIFRA Section 24(c), Special Local Need Registration.**

**Spray Drift Management**
**DO NOT** spray when conditions favor drift beyond area intended for application. Conditions which may 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 aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

Avoiding spray drift at the application site is the responsibility of the applicator.

**Aerial Application Methods and Equipment**
The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

**DO NOT** apply under circumstances where possible drift to endangered species, unprotected persons, to food, forage, or other plantings that might be damaged, or crops thereof rendered unfit for sale, use or consumption can occur.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements **DO NOT** apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the aerial drift reduction advisory information.

**Information on Droplet Size**
The most effective way to reduce drift potential is to apply large droplets. Use the largest droplet size consistent with acceptable efficacy. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see **Wind**; **Temperature and Humidity**; and **Temperature Inversions**).

**Controlling Droplet Size**

- **Volume.** Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure. DO NOT** exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles.** Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation.** Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type.** Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**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, which 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.

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**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.

## Additives and General Tank Mixing Information

Under some conditions, the use of additives or adjuvants may improve the performance of **Multiva™ fungicide**. However, under some conditions, the use of additives or adjuvants with **Multiva** may cause crop response.

**DO NOT** tank mix with products containing a prohibition against tank mixing. Follow the most restrictive labeling requirements of any tank mix product.

**Multiva** can be tank mixed with most recommended fungicides. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can also influence crop tolerance and may not match those under which BASF has conducted testing. Physical incompatibility, reduced disease control, or crop injury may result from mixing **Multiva** 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.

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

## Mixing Order

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

## General Restrictions and Limitations - All Crops

- **Maximum seasonal use rate. DO NOT** apply more than the maximum rate per acre per season as listed in **Multiva Crop-specific Restrictions and Limitations** and **Multiva Crop-specific Directions For Use**.
- **Maximum rate per application. DO NOT** apply more than the maximum rate per acre per application as listed in **Multiva Crop-specific Restrictions and Limitations** and **Multiva Crop-specific Directions For Use**.
- **DO NOT** make more than the total number of applications per season, as listed in **Multiva Crop-specific Restrictions and Limitations** and not exceeding the maximum seasonal use rate.

  Also see **Multiva Crop-specific Directions For Use**.
- **Preharvest Interval (PHI).** See **Multiva Crop-specific Restrictions and Limitations** and **Multiva Crop-specific Directions For Use**.
- **DO NOT** use **Multiva** in greenhouse or transplant production.
- **Feeding restrictions.** See **Multiva Crop-specific Directions For Use**.
- **Crop rotation restriction**
  Leafy vegetables and Brassica leafy vegetables may be planted 30 days after the last application.

  Crops on this label (barley, oats, rye, soybeans, sugar beets, triticale and wheat) and peanuts may be planted immediately following the last application.

  All other crops may be planted 120 days after the last application.

**Table 1. Multiva™ fungicide Crop-specific Restrictions and Limitations**

| Crop | Minimum Time from Application to Harvest (PHI) (days) | Maximum Product Rate per Acre per Application (fl ozs) | Maximum Number of Sequential Applications | Maximum Product Rate per Acre per Season (fl ozs) |
|---|---|---|---|---|
| **Barley, Oats, Rye, Triticale and Wheat** | 30 | 11 | 2 | 22 |
| **Soybeans** | 30 | 9 | 3 | 27 |
| **Sugar beets (roots and tops)** | 14 | 10 | 3 | 30 |
| Aerial application is permitted for all labeled crops. **No aerial application in New York State except as permitted under FIFRA Section 24(c), Special Local Need Registration.** | | | | |

**Table 2. Multiva Crop-specific Directions For Use**

| Crop | Target Disease | Product Use Rate per Application | Maximum Number of Applications per Season | Maximum Product Rate per Season | Minimum Time from Application to Harvest (PHI) |
|---|---|---|---|---|---|
| **Barley**<br>**Oats**<br>**Rye**<br>**Triticale**<br>**Wheat** | Black point (Kernel blight, Smudge) *(Alternaria* spp., *Cochliobolus sativus, Helminthosporium* spp.)<br>Leaf blotch *(Pyrenophora* spp.)<br>Net blotch *(Pyrenophora teres)*<br>Powdery mildew *(Erysiphe graminis)*<br>Rust *(Puccinia* spp.)<br>Scald *(Rhynchosporium secalis)*<br>Septoria leaf and glume blotch *(Septoria* spp., *Stagonospora* spp.)<br>Spot blotch *(Cochliobolus sativus)*<br>Tan spot (Yellow leaf spot) *(Pyrenophora trichostoma)* | 6 to 11 fl ozs per acre | 2 | 22 fl ozs per acre | Apply no later than the beginning of flowering (Zadok's 59 or Feekes 10.5). |

**Application Directions.** For optimal disease control, begin applications of **Multiva** prior to disease development. To maximize yields in cereals, it is important to protect the flag leaf. For diseases other than head scab, apply **Multiva** immediately after flag leaf emergence for optimum results.

Rates up to 11 fl ozs/A of **Multiva** may be used for severe disease pressure.

The minimum retreatment interval (RTI) is 6 to 8 days after the first application.

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

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

**DO NOT** harvest barley hay within 14 days of last application.

**Table 2. Multiva™ fungicide Crop-specific Directions For Use *(continued)***

| Crop | Target Disease | Product Use Rate per Application | Maximum Number of Applications per Season | Maximum Product Rate per Season | Minimum Time from Application to Harvest (PHI) |
|---|---|---|---|---|---|
| **Soybeans** (*Glycine max*) | Alternaria leaf spot (*Alternaria* spp.)<br>Anthracnose (*Colletotrichum truncatum*)<br>Asian soybean rust (*Phakopsora pachyrhizi*)<br>Brown spot (*Septoria glycines*)<br>Frogeye leaf spot (*Cercospora sojina*)<br>Pod and stem blight (*Diaporthe phaseolorum*)<br>Rhizoctonia aerial blight (*Rhizoctonia solani*)<br>**Suppression only**<br>Cercospora blight (*Cercospora kikuchii*) | 7 to 9 fl ozs per acre | 3 | 27 fl ozs per acre | 30 days |

**Application Directions. Multiva** can be applied from vegetative through full seed (R6 stage) soybeans. **Multiva** provides preventive and curative control of soybean rust.

For optimal soybean rust control, make initial application of **Multiva fungicide** between early flowering and podset (R1 to R3 growth stage) or prior to rust development. If environmental conditions favor continued rust development or if monitoring shows active rust symptoms, repeat application 14 to 21 days after the first application. Use the higher rate and shorter interval when rust pressure is high.

For optimal control of other soybean diseases listed above and optimal plant health, apply **Multiva** between full-flower and pod-set stage (R2 to R4 growth stage) or prior to disease development.

**DO NOT** use adjuvants (except crop oil) or tank mix with products with high adjuvant load (see **Application Instructions**).

Soybean forage may be fed no sooner than 14 days after last application. Soybean hay may be fed no sooner than 21 days after last treatment with **Multiva**.

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

**Table 2. Multiva™ fungicide Crop-specific Directions For Use *(continued)***

| Crop | Target Disease | Product Use Rate per Application | Maximum Number of Applications per Season | Maximum Product Rate per Season | Minimum Time from Application to Harvest (PHI) |
|---|---|---|---|---|---|
| **Sugar beets (roots and tops)** | Cercospora leaf spot *(Cercospora beticola)*<br>Powdery mildew *(Erysiphe betae)* | 7 to 10 fl ozs per acre | 3 | 30 fl ozs per acre | 14 days |
| **Application Directions.** Begin applications prior to disease development. Apply **Multiva** at 14-day intervals.<br>Use the higher rate when disease pressure is high.<br>**DO NOT** use silicone-containing adjuvants with this product.<br>No livestock feeding restrictions.<br>**Resistance Management.** To limit the potential for development of resistance, **DO NOT** make more than 3 applications of **Multiva** per season. | | | | | |

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## 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.

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