



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

December 23, 2019

Tonya Brown
Product Registration
Regulatory Affairs
BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709-3528

Subject: Registration Review Label Mitigation for Kresoxim-methyl
Product Name: Cygnus Fungicide
EPA Registration Number: 7969-124
Application Dates: October 26, 2018
Decision Numbers: 557209

Dear Ms. Brown:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Kresoxim-methyl Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

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If you have any questions about this letter, please contact Jaclyn Pyne by phone at 703-347-0445, or via email at pyne.jaclyn@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington".

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

Kresoxim-methyl

Group

11

Fungicide

Cygnus[®] Fungicide

For use on ornamentals in greenhouses, lath- and shade-houses, outdoor nurseries, retail nurseries and other nonresidential landscape areas

Active Ingredient:

kresoxim-methyl (methyl (E)-2-methoxyimino-2-[2-(o-tolyloxymethyl)phenyl] acetate) 50.0%

Other Ingredients: 50.0%

Total: 100.0%

EPA Reg No. 7969-124

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

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

See the attached booklet 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:

ACCEPTED
Dec 23, 2019
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 7969-124

FIRST AID

If on skin or clothing	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.
If in eyes	<ul style="list-style-type: none">• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.• Remove contact lenses, if present, after first 5 minutes; then continue rinsing eye.• Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• DO NOT induce vomiting unless told to do so by a poison control center or doctor.• DO NOT give anything by mouth to an unconscious person.
If inhaled	<ul style="list-style-type: none">• Move person to fresh air.• If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth to mouth, if possible.• Call a poison control center or doctor for further treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact BASF Corporation for emergency medical treatment information: 1-800-832-HELP (4357)	

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. **DO NOT** get on skin, in eyes, or on clothing. Avoid breathing vapor or spray mist.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Protective eyewear (goggles, face shield or safety glasses)
- Long-sleeved shirt and long pants
- Chemical-resistant gloves made out of: barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride ≥ 14 mils, or viton ≥ 14 mils
- Shoes plus socks

User Safety Requirements

Follow the manufacturer's instructions for cleaning and maintaining PPE. If there are 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 RECOMMENDATIONS

Users should:

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

Environmental Hazards

This pesticide is toxic to freshwater and estuarine fish and invertebrates. **DO NOT** apply directly to water, areas where surface water is present, or intertidal areas below the mean high water mark. **DO NOT** contaminate water when disposing of equipment wash waters.

Surface Water Advisory

This chemical can contaminate surface water through spray drift. Under some conditions, it may also have a high potential for runoff into surface water (via both dissolution in runoff water and adsorption to eroding soil), for several days, post-application. These include poorly draining or wet soils with readily visible slopes towards adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and highly erodible soils cultivated using poor agricultural practices such as conventional tillage and down the slope plowing, and areas where an intense or sustained rainfall is forecasted to occur within 48 hours.

Ground Water Advisory

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

All applicable directions, restrictions, precautions and **Conditions of Sale and Warranty** are to be followed. This labeling must be in the user's possession during application.

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.

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

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

- Protective eyewear (goggles, faceshield or safety glasses)
- Long-sleeved shirt and long pants
- Chemical-resistant gloves made out of: barrier laminate, butyl rubber \geq 14 mils, nitrile rubber \geq 14 mils, neoprene rubber \geq 14 mils, natural rubber \geq 14 mils, polyethylene, polyvinyl chloride \geq 14 mils, or viton \geq 14 mils
- 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.

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 representative at the nearest EPA Regional Office for guidance.

Container Handling

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

Triple rinse containers small enough to shake

(capacity \leq 50 pounds) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake

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

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

In Case of Spill

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

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

In case of medical emergency regarding this product, call:

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

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

- Wear the personal protective equipment (PPE) specified on the label.
- Recover the material for reuse according to label directions whenever possible. Sweep and/or shovel the spilled material into an appropriate closed container. Avoid the creation of dusty conditions.
- Remove and wash clothing and personal protective equipment before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

This package contains **Cygnus® fungicide**, a 50% water-dispersible granule (WG). **Cygnus** is a foliar fungicide that has protective, and curative activity against powdery mildews, and protective activity against certain leaf spots, rusts, anthracnoses and downy mildews. For best results against powdery mildews, leaf spots, rusts, anthracnoses and downy mildews, a protective barrier of **Cygnus** must be established and maintained on the plant surface. (Refer to **Table 1. Cygnus® fungicide Application Rates and Timing** for more details.

Mode of Action

Kresoxim-methyl, the active ingredient in **Cygnus**, belongs to the group of respiration inhibitors classified by the U.S. EPA and Canada PMRA as Quinone Outside Inhibitors (QoI), or Target Site of Action **Group 11** Fungicides.

Plant Safety and Phytotoxicity

The phytotoxic potential of **Cygnus** has been assessed on a wide variety of common ornamental plants. Refer to **Table 2. Cygnus® fungicide Plant Species Evaluated** for the list of plants that have not shown sensitivity to **Cygnus**. Refer to **Table 3. Plant Species Sensitive to Cygnus® fungicide** for those plants known to be sensitive to **Cygnus**.

However, not all plant species and their varieties and cultivars have been tested for sensitivity to **Cygnus**. In addition, all possible tank mix combinations, sequential pesticide treatments, and adjuvants or surfactants have not been evaluated. Local conditions can also influence crop tolerance and may not match those under which BASF has conducted testing. Therefore, before using **Cygnus**, test the product on a group of representative plants to ensure that a phytotoxic response will not occur.

Plant Sensitivity Precaution

Cygnus may cause injury to the Asian pear "Olympic" variety and certain sensitive sweet cherry varieties including Angela, Cavalier, Chelan, Coral Champagne, Emperor Francis, Royalton, Schmidt, Somerset, Summit, Sweetheart, Valera, Van, Vandalay, Vista, and Viva. Consult a BASF representative or local agricultural authorities for more information concerning additional cherry varieties that may be sensitive to **Cygnus**. Use special care when applying **Cygnus** to prevent contact with the sensitive plant species and varieties listed in **Table 3. Plant Species Sensitive to Cygnus® fungicide**. Avoid offtarget movement.

Resistance Management

For resistance management, please note that **Cygnus** contains a **Group 11** fungicide. Any fungal population may contain individuals naturally resistant to **Cygnus** and other **Group 11** fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Appropriate resistance management strategies must be followed.

Cygnus contains Kresoxim-methyl, 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**), including, dicarboximides, sterol inhibitors, benzimidazoles, or phenylamides. Fungal isolates resistant to **Group 11** fungicides including, kresoxim-methyl, azoxystrobin, trifloxystrobin, and pyraclostrobin, 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 **Cygnus** or other **Group 11** fungicides.

The following instructions may delay the development of fungicide resistance:

1. Rotate the use of **Cygnus** or other **Group 11** fungicides within a growing season sequence with different target-site-of-action groups that control the same pathogens.
2. **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.
3. **IPM:** Integrate **Cygnus** into an over all disease and pest management program that includes scouting, uses historical information related to pesticide use and crop rotation, and which considers host plant resistance, impact of environmental conditions on disease development, disease thresholds, as well as cultural, biological and other chemical control practices. Follow cultural practices known to reduce disease development. Consult your local extension specialist, certified crop advisor and/or BASF representative for additional IPM strategies established for your area. **Cygnus** may be used in Agricultural Extension advisory (disease

forecasting) programs, which base application timing on environmental factors favorable for disease development.

4. **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 11** target site fungicide, including **Cygnus**[®] fungicide, 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.

Cleaning Spray Equipment

Spray 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 **Cygnus**.

Application Instructions

Ground Application

Apply **Cygnus** in sufficient spray solution water to ensure thorough coverage of foliage, bloom, or fruit to the point of drip. Thorough coverage of all plant surface is required for optimum disease control. Under low-level disease conditions, use the minimum application rates. Maximum application rates and shortened application intervals are advised for severe or threatening disease conditions.

DO NOT apply when conditions favor drift from target area or when wind speed is greater than 10 mph. Check equipment frequently for calibration.

Boom Height - For ground equipment, the boom should remain level with the crop and have minimal bounce.

Shielded Sprayers - Consider using shielded sprayers. Shielding the boom or individual nozzles can reduce spray drift. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

For the control of scab, apply 1.0 to 1.6 ozs of **Cygnus** per 100 gallons of water at 10-day to 14-day intervals as a preventative treatment. Start applications at bud break or when environmental conditions are favorable for disease development. Use the higher rate of **Cygnus** when heavy infection pressure exists or is anticipated. **DO NOT** make more than two sequential applications of **Cygnus**. Then alternate labeled non-strobilurin fungicides with a different mode of action for at least two sequential applications before reapplying **Cygnus**.

For the control of rose black spot and ornamental leaf spots, apply 1.6 to 3.2 ozs of **Cygnus** per 100 gallons of water at 7-day to 14-day intervals as a preventative treatment. **DO NOT** make more than two sequential applications of **Cygnus**. Then alternate labeled non-strobilurin fungicides with a different mode of action for at least two sequential applications before reapplying **Cygnus**.

For the control of powdery mildew, apply 1.6 to 3.2 ozs of **Cygnus** per 100 gallons of water as a preventative treatment or at the first signs of disease. Applications made at the first signs of powdery mildew will require higher rates and shorter spray intervals. The addition of up to 0.06% of a non-organosilicone spreader-sticker type adjuvant may improve powdery mildew control. **DO NOT** use organosilicone-based adjuvants with **Cygnus**. Alternate each application of **Cygnus** with two sequential applications of labeled non-strobilurin fungicides with a different mode of action.

For the control of rusts, anthracnose and downy mildew, apply **Cygnus** only as a preventative treatment at 3.2 to 6.4 ozs per 100 gallons of water at 7-day to 10-day intervals. The addition of up to 0.06% of a non-organosilicone spreader-sticker type adjuvant may improve rust control. **DO NOT** use organosilicone-based adjuvants with **Cygnus**. For control of rusts, **DO NOT** make more than two sequential applications of **Cygnus**. Then alternate labeled non-strobilurin fungicides with a different mode of action for at least two sequential applications before reapplying **Cygnus**.

Spray to the point of drip for all applications, making sure not to exceed the maximum single application rate of 6.4 ozs/A product (0.2 lb ai). Refer to **Table 1. Cygnus**[®] fungicide Application Rates and Timing for specific recommendations for disease control.

To limit the potential for development of resistance to **Cygnus** and other **Group 11** fungicides:

- For outdoor use, **DO NOT** make more than six applications of any strobilurin fungicide per season.
- For use in greenhouses, **DO NOT** make more than eight applications of **Cygnus** or other strobilurin fungicide per year.

Spray Drift Management

The applicator is responsible for avoiding off-site spray drift. Be aware of nearby non-target sites and environmental conditions.

DO NOT apply when conditions favor drift beyond area intended for application.

Boom Height - For ground equipment, the boom should remain level with the crop and have minimal bounce.

Shielded Sprayers - Consider using shielded sprayers. Shielding the boom or individual nozzles can reduce spray drift. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

Conditions that may contribute to spray drift include spray droplet size, spray nozzle/pressure combinations, wind speed and direction, temperature/humidity, thermal inversion, etc. Consult your state extension agent for spray drift prevention guidelines in your area. All ground application equipment must be properly maintained and calibrated according to manufacturer specifications.

Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions (see **Wind**; **Temperature and Humidity** and **Temperature Inversions** sections).

Controlling Droplet Size

- **Volume** - Use the highest practical spray volume for the application. Increasing the spray volume so that larger droplets are produced will reduce spray drift. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- **Pressure** - Use the lowest manufacturer recommended spray pressure for the nozzle to produce the target spray volume and droplet size.
- **Spray Nozzle** - Use nozzles designed to reduce spray drift. Ensure that the spray nozzle is designed for the intended application.

Wind

Applicators must be familiar with local wind patterns and terrain that could affect spray drift. Drift potential generally increases with wind speed. Avoid applications during gusty wind conditions. Drift potential is lowest when wind speed does not exceed 10 mph.

Temperature and Humidity

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

Temperature Inversions

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

Additives

Additives or spray adjuvants are usually not necessary for use with **Cygnus® fungicide**. The addition of up to 0.06% of a non-organosilicone spreader-sticker type adjuvant may improve spray coverage and control of certain diseases.

DO NOT use organosilicone-based adjuvants with Cygnus, as crop phytotoxicity may result on certain ornamental species. Consult a BASF representative or local agricultural authorities for more information concerning additives.

Tank Mixing Information

If tank mixtures are used, it is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Cygnus may be tank mixed with most registered fungicides and insecticides. However, all varieties and cultivars have not been tested with possible tank mix combinations. Local conditions can influence crop tolerance and may not match those under which BASF has conducted testing. Before using any tank mix (fungicides, insecticides, plant growth regulators, additives or spray adjuvants), test the combination on a small representative group of plants to ensure that a phytotoxic response will not occur as a result of application.

Compatibility Test for Tank Mix Components

Before tank mixing components, always perform a compatibility jar test.

For 20 gallons per acre spray volume, use 3.3 cups (800 ml) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature.

Add components in the sequence indicated in the **Mixing Order** using 2 teaspoons for each pound or 1 teaspoon for each pint of recommended label rate per acre.

Always cap the jar and invert 10 cycles between component additions.

When all components have been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution must not have free oil on the surface, nor fine particles that precipitate to the bottom, nor thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** use the ingredients in the same tank mix.

Mixing Order

1. **Water** - Begin by filling a thoroughly clean sprayer tank three-quarters 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** (including **Cygnus**[®] fungicide, dry flowables, wettable powders, suspension concentrates, or suspo-emulsions)
6. **Water-soluble products**
7. **Emulsifiable concentrates** (including oil concentrate when applicable)
8. **Water-soluble additives** (including AMS or UAN when applicable)
9. **Remaining quantity of water**

Maintain constant agitation during application.

Restrictions and Limitations - Greenhouse Use

- **DO NOT** make more than 8 applications of **Cygnus** per year.
- **DO NOT** apply more than 0.2 lb ai/A per single application.
- **DO NOT** apply more than 25.6 ozs of **Cygnus** (0.8 lb ai) per acre per year.
- **DO NOT** apply to crops subjected to stress conditions including excessive heat, as crop injury may result.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity or plant stunting) produced by prior pesticide applications, because this injury may be enhanced or prolonged.
- **DO NOT** use organosilicone-based adjuvants.
- **DO NOT** apply this product as a smoke, mist, fog or aerosol.
- **DO NOT** apply through any type of irrigation equipment.
- **DO NOT** use fruit from ornamental plants for food or feed purposes.
- **DO NOT** sell, distribute, or use in Nassau and Suffolk Counties in New York State.

Restrictions and Limitations - Outdoor Use

- **DO NOT** apply more than 0.2 lb ai/A per single application.
- **DO NOT** apply more than a total of 25.6 ozs of **Cygnus** (0.8 lb ai) per acre per year.
- **DO NOT** apply to crops subjected to stress conditions including drought or widely fluctuating temperatures or excessive heat, as crop injury may result.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity or plant stunting) produced by prior pesticide applications, because this injury may be enhanced or prolonged.
- **DO NOT** use organosilicone-based adjuvants.
- **DO NOT** apply by air.
- **DO NOT** apply through any type of irrigation equipment.
- **DO NOT** use fruit from ornamental plants for food or feed purposes.
- **DO NOT** sell, distribute, or use in Nassau and Suffolk Counties in New York State.

Table 1. Cygnus® fungicide Application Rates and Timing

Disease	Cygnus rate per 100 gallons per Acre	Directions for Use
A. Scab <i>Venturia inaequalis</i> <i>Venturia pirina</i>	1.0 to 1.6 ozs	Begin at bud break or when environmental conditions are favorable for disease development. Continue on a 10-day to 14-day interval.
B. Powdery Mildews <i>Erysiphe</i> spp. <i>Microsphaera</i> spp. <i>Oidium</i> spp. <i>Phyllactinia</i> spp. <i>Podosphaera</i> spp. <i>Sphaerotheca</i> spp. <i>Uncinula</i> spp.	1.6 to 3.2 ozs	Apply as a protective spray or at the first signs of disease. Continue on a 7-day to 14-day interval. Applications made at the first signs of disease require shorter spray intervals. The addition of up to 0.06% of a non-organosilicone spreader-sticker type adjuvant may improve powdery mildew control.
C. Leaf spots Rose black spot <i>Diplocarpon rosae</i> Leaf spots <i>Alternaria</i> spp. <i>Blumeriella jaapii</i> <i>Didymellina</i> spp. <i>Drepanopeziza</i> spp. <i>Mycosphaerella</i> spp. <i>Phyllosticta</i> spp. <i>Septoria</i> spp.	1.6 to 3.2 ozs	Apply as a protective spray and continue on a 7-day to 14-day interval.
D. Rusts Carnation rust <i>Puccinia dianthi</i> Chrysanthemum rust <i>Puccinia horiana</i> Quince rust <i>Gymnosporangium</i> spp. Rose rust <i>Phragmidium</i> spp. Snapdragon rust <i>Puccinia antirrhini</i>	3.2 to 6.4 ozs	Apply strictly as a protective spray and continue on a 7-day to 10-day interval. The addition of up to 0.06% of a non-organosilicone spreader-sticker type adjuvant may improve rust control.
E. Anthracnose <i>Colletotrichum</i> spp.	3.2 to 6.4 ozs	Apply strictly as a protective spray and continue on a 7-day to 10-day interval.
F. Downy mildews Rose downy mildew <i>Peronospora sparsa</i> Snapdragon downy mildew <i>Peronospora antirrhini</i>	3.2 to 6.4 ozs	Apply strictly as a protective spray and continue on a 7-day to 10-day interval.

Table 2. Cygnus® fungicide Plant Species Evaluated

Plants in this table have not shown sensitivity to Cygnus when it is applied according to the use directions stated in this label. DO NOT use fruit from ornamental plants for food or feed purposes.

Plant common name (Disease code letter refers to the 6 groups in Table 1. Cygnus® fungicide Application Rates and Timing)	Scientific name
Ageratum (B)	<i>Ageratum houstonianum</i>
Alberta spruce	<i>Picea glauca</i> var. <i>albertiana</i>
Alstroemeria (C)	<i>Alstroemeria</i> spp.
Apple, nonbearing (A, B)	<i>Malus</i> spp.
Artichoke, ornamental (B)	<i>Cynara</i> spp.
Aster (B)	<i>Aster</i> spp.
Azalea (B)	<i>Rhododendron</i> spp.
Carnation (D)	<i>Dianthus</i> spp.
Cedar, Japanese	<i>Cryptomeria japonica</i>
Celosia (C)	<i>Celosia</i> spp.
Chrysanthemum (B, D)	<i>Chrysanthemum</i> spp.
Cherry, flowering – Kwanzan (B, C)	<i>Prunus serrulata</i> ‘Kwanzan’
Cherry, flowering – Mt. Fuji (Shirotae) (B, C)	<i>Prunus serrulata</i> ‘Mt. Fuji’ (Shirotae)
Cherry, flowering – Shirofugen (B, C)	<i>Prunus serrulata</i> ‘Shirofugen’
Cherry, flowering – Yoshino (B, C)	<i>Prunus yedoensis</i>
Cherry, flowering – Okame (B, C)	<i>Prunus</i> x ‘Okame’ (<i>P. incisa</i> x <i>P. campanulata</i>)
Cherry laurel, English (B)	<i>Prunus laurocerasus</i>
Cinquefoil (B)	<i>Potentilla fruticosa</i>
Citrus, nonbearing (B)	<i>Citrus</i> spp.
Clematis (B)	<i>Clematis</i> spp.
Columbine (B)	<i>Aquilegia</i> spp.
Crabapple, nonbearing (A, B)	<i>Malus</i> spp.
Currant (B, C)	<i>Ribes</i> spp.
Dahlia (B)	<i>Dahlia</i> spp.
Dogwood (B)	<i>Cornus</i> spp.
Dracaena	<i>Dracaena marginata</i>
Dusty miller (B, E)	<i>Centaurea cineraria</i>
Euonymus (B)	<i>Euonymus</i> spp.
Gazania (C)	<i>Gazania</i> spp.
Geranium (B)	<i>Pelargonium</i> spp.
Gerbera (B)	<i>Gerbera</i> spp.
Gladiolus (C)	<i>Gladiolus</i> spp.
Hawthorn - English (A, B, D)	<i>Crataegus</i> spp.
Hawthorn - Indian	<i>Rhaphiolepis</i> spp.
Honeysuckle (B)	<i>Lonicera</i> spp.
Hosta (C)	<i>Hosta</i> spp.
Hydrangea (B, C)	<i>Hydrangea</i> spp.
Impatiens (C)	<i>Impatiens</i> spp.
Iris (C)	<i>Iris</i> spp.
Juniper (C)	<i>Juniperus</i> spp.
Larkspur (B)	<i>Delphinium</i> spp.
Lilac (B)	<i>Syringa</i> spp.
Lily (C)	<i>Lilium</i> spp.
Limonium (C)	<i>Limonium</i> spp.
Live-forever (B)	<i>Hylotelephium (Sedum)</i> spp.
Loquat, nonbearing (A)	<i>Eriobotrya japonica</i>
Magnolia, Chinese (B)	<i>Magnolia soulangeana</i>
Maple - hedge, Norway , sycamore, southern (B)	<i>Acer campestre</i> , <i>A. Platanoides</i> , , <i>A. pseudoplatanus</i> , <i>A. barbatum</i>
Marigold (C)	<i>Tagetes</i> spp.
Monarda (B)	<i>Monarda</i> spp.
Oak - water, English, swamp chestnut (B)	<i>Quercus</i> spp. - <i>Q. nigra</i> , <i>Q. robur</i> , <i>Q. prinus</i>

(continued)

Table 2. Cygnus® fungicide Plant Species Evaluated (continued)

Plant common name (Disease code letter refers to the 6 groups in Table 1. Cygnus® fungicide Application Rates and Timing)	Scientific name
Pansy (B)	<i>Viola</i> spp.
Peach/nectarine, nonbearing (B)	<i>Prunus persica</i>
Pear, nonbearing (A, B)	<i>Prunus</i> spp.
Petunia (C)	<i>Petunia</i> spp.
Phlox (B)	<i>Phlox</i> spp.
Plum, ornamental (B, C)	<i>Prunus</i> spp.
Poinsettia (B)	<i>Euphorbia pulcherrima</i>
Portulaca (C)	<i>Portulaca</i> spp.
Rose (B, C, D, F)	<i>Rosa</i> spp.
Rosemary, ornamental (B)	<i>Rosmarinus officinalis</i> 'prostratus'
Serviceberry (B)	<i>Amelanchier ovalis</i> , <i>A. lamarckii</i>
Snapdragon (B, D, F)	<i>Antirrhinum</i> spp.
Sprenger asparagus (C)	<i>Asparagus densiflorus</i>
Spiderwort (C)	<i>Tradescantia</i> spp.
Spiraea (B)	<i>Spiraea</i> spp.
Tick seed (B)	<i>Coreopsis</i> spp.
Tulip	<i>Tulipa</i> spp.
Verbena (B)	<i>Verbena</i> spp.
Veronica (B)	<i>Veronica</i> spp.
Viburnum (B)	<i>Viburnum</i> spp.
Vinca (C)	<i>Vinca</i> spp.
Yew (C)	<i>Taxus</i> spp.
Zinnia (B)	<i>Zinnia</i> spp.

Table 3. Plant Species Sensitive to Cygnus® fungicide
(DO NOT expose these species or varieties to Cygnus)

Common name	Scientific name
<p>Sweet cherry Sensitive varieties: Angela, Cavalier, Chelan, Coral Champagne, Emperor Francis, Royalton, Schmidt, Somerset, Summit, Sweetheart, Valera, Van, Vandalay, Vista, and Viva</p>	<i>Prunus avium</i>
<p>Asian pear Variety: Olympic</p>	<i>Prunus</i> spp.

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