

74779-12

10/24/2012

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

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

Mr David L. Anderson  
Rainbow Treecare Scientific Advancements  
11571 K- Tel Drive  
Minnesota, MN 55343

## NOTIFICATION

OCT 24 2012

Subject: Product Name: Myclobutanil 20EW  
EPA Reg. No. 74779-12  
Submission date: 09/06/2012  
Notification for Label Change per PRN 98-10: Add a new use restriction for  
ornamentals in New York State  
Decision Number 469975

Dear Registrant:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 9/6/2012 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have questions concerning this letter, please call Banza Djapao at 703-305-7269 or you may call me at 703-308-9354.

Sincerely,

A handwritten signature in cursive script that reads "William Cutchin".

William Cutchin  
Acting Product Manager 20  
Fungicide Branch  
Registration Division (7504P)



9/12 3/30



September 6, 2012

Shaja Joyner, PM #20  
Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
US Environmental Protection Agency  
One Potomoc Yard Room S-4900  
2777 Crystal Drive  
Arlington VA 22202

**SUBJECT: Myclobutanil 20 EW, EPA File Symbol 74779-12  
Notification**

Dear Ms. Joyner:

The state of New York is requiring that we clarify a restriction prohibiting the use of this product in Nassau and Suffolk Counties of New York. This restriction is listed on the label but not clearly associated with the ornamental use directions. To comply with New York's request, Rainbow Treecare Scientific Advancements (Rainbow) submits herewith a notification adding the following restriction under the Ornamental Use Directions:

"Not approved for use in Nassau and Suffolk Counties of New York"

Please find enclosed:

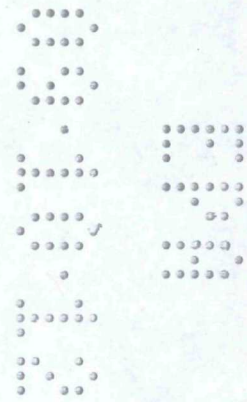
- Cover Letter
- Application for Pesticide Notification (EPA Form 8570-1)
- One (1) clean copy of the draft label
- One (1) copy of draft labeling with the change highlighted

Please contact me if you have any questions.

Sincerely,

David L. Anderson  
Director, Manufacturing & Regulatory Affairs  
Rainbow Treecare Scientific Advancements  
11571 K-Tel Drive  
Minnetonka, MN 55343  
(952) 252-0541  
[Danderson@treecarescience.com](mailto:Danderson@treecarescience.com)

Enclosures



[www.treecarescience.com](http://www.treecarescience.com)

11571 K-Tel Drive Minnetonka, MN 55343 office 952.922-3810 fax 952.252-0504

*Scientifically Proven Products with Predictable Results*

Myclobutanil 20EW  
EPA Reg #74779-12

Notification

# NOTIFICATION

OCT 24 2012

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BASE LABEL:

## MYCLOBUTANIL 20EW

A systemic, protectant and curative fungicide for disease control in turfgrass, landscape ornamentals, greenhouse and nursery ornamentals, apples, stonefruit and grapes

### ACTIVE INGREDIENT

Myclobutanil: a-butyl-a-(chlorophenyl)-1H-1,2,4, triazole-1-propanenitrile.....	19.7%
OTHER INGREDIENTS:.....	80.3%
TOTAL: .....	100.0%

Contains Petroleum Distillates  
Contains 1.67 pounds of active ingredient per gallon

### KEEP OUT OF REACH OF CHILDREN

### CAUTION

Refer to Inside of label booklet for Precautionary Statements and Directions for Use including Storage and Disposal.

FIRST AID	
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Note to Physician: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact CHEMTREC toll free at 1-800-424-9300 day or night, for emergency treatment information.	

EPA Reg. No. 74779-12  
AD090911

EPA Est. No. 70815-GA-001

NET CONTENTS: 1 quart, 1 gallon

Distributed By:  
Rainbow Treecare Scientific Advancements  
11571 K-Tel Drive  
Minnetonka, MN 55343



**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Causes moderate eye irritation. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using toilet.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

WPS Uses: Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) must wear:

1. Long-sleeved shirt and long pants
2. Chemical-resistant gloves made from barrier laminate
3. Shoes plus socks

Non-WPS Uses: Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR Part 170) must wear:

1. Long-sleeved shirt and long pants
2. Chemical-resistant gloves made from barrier laminate
3. Shoes plus socks

**USER SAFETY REQUIREMENTS**

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

**ENGINEERING CONTROLS**

When handlers use closed systems, enclosed cabs or aircraft in a manner that meet the requirements listed in the Worker Protection Standards (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:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing/ PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. 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

**PHYSICAL AND CHEMICAL HAZARDS**

Flammable. Keep away from heat and open flame.

**ENVIRONMENTAL HAZARDS**

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 washwaters or rinsate. Do not apply when weather conditions favor drift or runoff from areas treated.



BOOKLET LABEL:

MYCLOBUTANIL 20EW

A systemic, protectant and curative fungicide for disease control in turfgrass, landscape ornamentals, greenhouse and nursery ornamentals, apples, stonefruit and grapes

ACTIVE INGREDIENT

Myclobutanil: a-butyl-a-(chlorophenyl)-1H-1,2,4, triazole-1-propanenitrile.. . . . .	19.7%
OTHER INGREDIENTS: . . . . .	80.3%
TOTAL: . . . . .	100.0%

Contains Petroleum Distillates  
Contains 1.67 pounds of active ingredient per gallon

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

Refer to Inside of label booklet for Precautionary Statements and Directions for Use including Storage and Disposal.

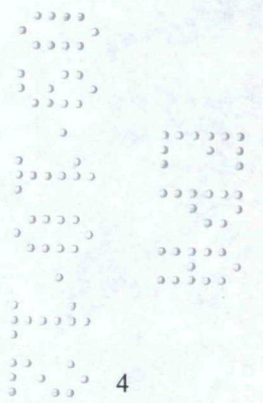
<b>FIRST AID</b>	
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
IF SWALLOWED:	Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Note to Physician: Contains petroleum distillate – vomiting may cause aspiration pneumonia.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may contact CHEMTREC toll free at 1-800-424-9300 day or night, for emergency treatment information.	

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**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Causes moderate eye irritation. Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using toilet.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

WPS Uses: Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR Part 170) must wear:

- 1. Long-sleeved shirt and long pants
- 2. Chemical-resistant gloves made from barrier laminate
- 3. Shoes plus socks

Non-WPS Uses: Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR Part 170) must wear:

- 1. Long-sleeved shirt and long pants
- 2. Chemical-resistant gloves made from barrier laminate
- 3. Shoes plus socks

**USER SAFETY REQUIREMENTS**

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

**ENGINEERING CONTROLS**

When handlers use closed systems, enclosed cabs or aircraft in a manner that meet the requirements listed in the Worker Protection Standards (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:

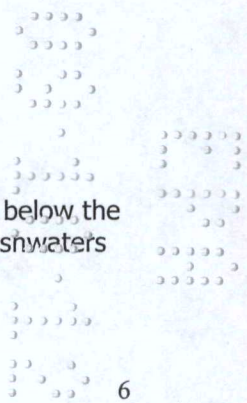
- 1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 2. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing.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

**PHYSICAL AND CHEMICAL HAZARDS**

Flammable. Keep away from heat and open flame.

**ENVIRONMENTAL HAZARDS**

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 washwaters or rinsate. Do not apply when weather conditions favor drift or runoff from areas treated.



## DIRECTIONS FOR USE

### Shake Well Before Using

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read all Directions for Use carefully before applying.

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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 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:

1. Coveralls
2. Barrier laminate gloves
3. Shoes plus socks

### NON-AGRICULTURAL USE REQUIREMENTS

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

Keep unprotected persons out of treated area until sprays have dried.

### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal

PESTICIDE STORAGE: Store in a cool, dry secure place at temperatures above freezing.

PESTICIDE DISPOSAL: Wastes resulting in the use of this product may be disposed of on site or at an approved waste disposal facility.

#### CONTAINER HANDLING:

Non-refillable containers: 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 in a sanitary landfill, or by other procedures approved by state and local authorities.

Triple rinse 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 ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a 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 for 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.

Steps to be Taken in Case Material is Released or Spilled: Contain spills immediately with inert materials (e.g., sand, earth). Transfer liquids and solid diking material to separate suitable containers for recovery or disposal. Keep spills and cleaning runoff out of municipal sewers and open bodies of water. Spills on porous surfaces can contaminate groundwater.

### PRODUCT INFORMATION

MYCLOBUTANIL 20EW fungicide is a systemic, protectant and curative fungicide for the control of diseases listed on this label in established turfgrass, (including, but not limited to residential and commercial lawns, ornamental turf, grounds, or lawns around business and office complexes, and golf course fairways, roughs, tee boxes and greens), landscape ornamentals, greenhouse and nursery ornamentals, apples, stone fruit and grapes. Optimum disease control is achieved when this product is applied in a regularly scheduled preventive program.

### PRODUCT USE PRECAUTIONS

#### Fungicide Resistance Management

MYCLOBUTANIL 20EW belongs to the sterol demethylation inhibitor (DMI) class of fungicides and is classified as a Group 3 Fungicide by EPA. Since certain fungi can develop resistance to this class of products, the use of MYCLOBUTANIL 20EW fungicide should be part of a resistance management strategy that includes alternation and/or tank mixing with fungicides of different modes of action. Consult your local or state agricultural authorities for resistance management strategies that are appropriate for your disease management program.

### MIXING DIRECTIONS

Be sure sprayer is clean and not contaminated with other materials prior to use. Fill the spray tank 1/4 to 1/2 of the total amount of water required for the load. Start agitation and maintain agitation throughout mixing and application. Add the required amount of MYCLOBUTANIL 20EW directly into the spray tank. Complete filling the tank. Always add MYCLOBUTANIL 20EW to the spray tank before adding other materials.

Compatibility: MYCLOBUTANIL 20EW is compatible with most commonly used fungicides, insecticides, growth regulators, micronutrients and spray adjuvants. When preparing tank mixtures, consult spray compatibility charts or State Cooperative Extension Service Specialist prior to use.

You must follow the more restrictive label limitations and precautions when tank mixing this product with other pesticides. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

### APPLICATION GUIDELINES

Carefully read, understand and follow label use rates and restrictions. For proper application, determine the size of the area to be treated, the specified label use rate and the gallonage to be applied to the area. Prepare only the amount of spray solution required to treat the measured area. Careful calibration of spray equipment is specified prior to use.

**GROUND APPLICATION:** Thorough coverage sprays generally result in optimum disease control. Application equipment should be properly calibrated and provide uniform spray coverage.

**HANDGUN OR PRESSURIZED SPRAYERS:** For best results when applying this product on a protectant schedule, ensure thorough coverage of all plant parts.

**CHEMIGATION (SPRINKLER IRRIGATION):** MYCLOBUTANIL 20EW must be applied on a regular protectant fungicide schedule, not an irrigation schedule. If irrigation cycles are less frequent than the specified application intervals for MYCLOBUTANIL 20EW, ground or handgun applications must supplement chemigation applications to achieve adequate disease control. Apply this product only through solid set or hand-move sprinkler irrigation systems. Do not apply this product through any other type of irrigation system. Crop injury, lack of fungicidal effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

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. Before applying Myclobutanil 20EW through sprinkler irrigation equipment, the chemigation system must meet the following specifications.

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.

Before applying MYCLOBUTANIL 20EW through sprinkler irrigation equipment, the chemigation system must meet the following specifications:

- Public water system means a system for the provision to the public of piped water for human consumption if such system that 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), back flow 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 flow outlet end of the pipe fill and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- Systems not connected to a public water supply must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located in the irrigation pipeline to prevent water source contamination from back flow.
- 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, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.
- The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

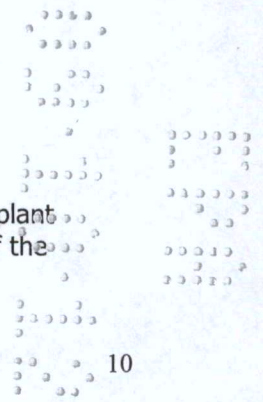
#### Specific Instructions for Solid-Set and Hand Move Irrigation Equipment

- Determine area covered by sprinkler.
- Fill injector solution tank with water and adjust flow rate to use the contents over a 10 to 30 minute interval.
- Determine the amount of MYCLOBUTANIL 20EW required for the area to be treated.
- Add the required amount of MYCLOBUTANIL 20EW into the same quantity of water used to calibrate the injection equipment.
- Maintain constant solution tank agitation during the injection period.
- Operate system at normal pressures specified by the manufacturer of the injection equipment and used for the time interval established during calibration.
- Inject MYCLOBUTANIL 20EW at the end of an irrigation cycle or as a separate application to maximize foliar absorption and retention.
- Stop injection equipment after treatment is completed. Continue to operate the system until the MYCLOBUTANIL 20EW solution has cleared the last sprinkler head.

### USE DIRECTIONS FOR TURFGRASS

### PRODUCT INFORMATION

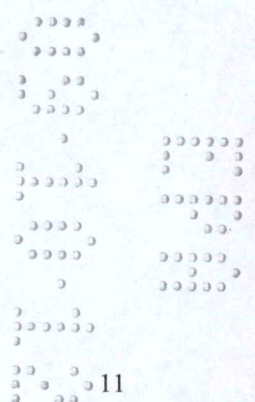
Use MYCLOBUTANIL 20EW in conjunction with turf management practices that promote good plant health and optimum disease control. The key to selecting a fungicide is the proper diagnosis of the



organism causing the disease. Diagnostic kits, extension experts, or other identification methods should be used when developing disease control strategies.

In non-residential turfgrass (including, but not limited to commercial lawns, ornamental turf, grounds or lawns around business and office complexes, and golf course fairways, roughs, tee boxes, and greens), optimum disease control is achieved when MYCLOBUTANIL 20EW is applied in a preventive disease control program at a rate of 1.0 to 2.4 fluid ounces per 1000 square feet. In residential turfgrass, optimum disease control is achieved when MYCLOBUTANIL 20EW is applied in a preventive disease control program at a rate of 1.2 fl. oz per 1000 sq. ft. See the tables below for specific application rates for various diseases.

Apply MYCLOBUTANIL 20EW in sufficient water to ensure thorough coverage. For foliar diseases, use approximately 1 gallon of water per 1,000 square feet. Use 2 to 3 gallons of spray solution per 1000 square feet to control diseases causing root and crown rots. Under conditions favorable for high disease development, reduce the spray interval between applications of MYCLOBUTANIL 20EW. Under light to moderate disease pressure, apply MYCLOBUTANIL 20EW at the low use rate and/or longer treatment interval. When disease pressure is high or when used as a curative treatment, use higher rates of MYCLOBUTANIL 20EW and/or shorter treatment interval unless otherwise specified. See tables below for specific application rates for various diseases.



NON-RESIDENTIAL TURGRASS <sup>1</sup>				
DISEASE	MYCLOBUTANIL 20EW (fl oz/1000 sq ft)	APPLICATION INTERVAL (Days)	SPECIFIC INSTRUCTIONS	RESTRICTIONS
Anthracnose Red thread Septoria leaf spot	1.2	14 - 21	Apply when conditions are favorable for disease development.	Do not apply more than 13.8 fl oz of MYCLOBUTANIL 20EW per 1000 sq ft per year.  For Nassau and Suffolk Counties in New York State, do not apply more than 3.43 fl oz of MYCLOBUTANIL 20EW per 1000 sq ft per year (1.95 lb myclobutanil per acre).
Brown patch		14	Begin applications when conditions are favorable for disease development, but before disease symptoms are apparent. If disease is present, mix MYCLOBUTANIL 20EW with an EPA registered contact fungicide. Under conditions of high temperature and humidity, use the shorter spray interval.	
Copper spot Zonate leaf spot			Apply when conditions are favorable for disease development.	
Crown rot Leaf spot Melting-out				
Dollar spot		0.5	14	
	14		Tank mix with a low label rate of chlorothalonil.	
	1		21 - 28	Tank mix with the label rate of chlorothalonil.
	1.0 - 2.4		14 - 28	If using this rate without tank mixing, make no more than 3 consecutive applications for control of dollar spot before rotating to a registered fungicide with a different mode of action.
Fusarium blight	1.2 - 2.4	14 - 21	Apply when conditions are favorable for disease development.	

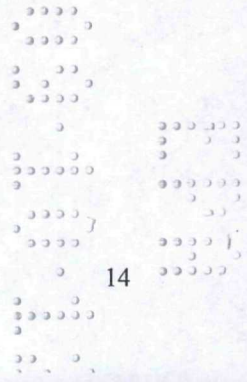
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NON-RESIDENTIAL TURGRASS <sup>1</sup>				
DISEASE	MYCLOBUTANIL 20EW (fl oz/1000 sq ft)	APPLICATION INTERVAL (Days)	SPECIFIC INSTRUCTIONS	RESTRICTIONS
Fusarium patch (pink snow mold)	1.2 - 2.4	Fall - Winter	Apply prior to snow cover.	Do not apply more than 13.8 fl oz of MYCLOBUTANIL 20EW per 1000 sq ft per year.  For Nassau and Suffolk Counties in New York State, do not apply more than 3.43 fl oz of MYCLOBUTANIL 20EW per 1000 sq ft per year (1.95 lb myclobutanil per acre).
Gray leaf spot		14	Apply when conditions are favorable for disease development. If using the lower rate, tank mix with a registered contact fungicide at its registered rate.	
Leaf smuts	1.2	14	Apply in the fall after turf grass enters dormancy and/or in the spring prior to the initiation of growth.	
Necrotic ring spot	1.2 - 2.4	Spring: 28	Make applications on a preventative basis in early to mid-spring.	
		Fall: 28	Make 2 applications beginning in August before the turf goes dormant. Apply 2.4 fl oz/1000 sq ft followed by a second application one month later.	
Powdery mildew Rusts	1.2	14 - 28	Apply when conditions are favorable for disease development.	
Spring dead spot	2.4	Fall: 28	Make 1 to 2 applications in the fall before turf dormancy. Make 2 <sup>nd</sup> application one month later.	
Summer patch	1.2 - 2.4	14 - 28	Begin applications in the spring when conditions are favorable for disease development. Make 2 to 4 applications depending on recommendations from local turfgrass extension experts. Use at least 2 to 3 gallons of water per 1000 sq ft to increase spray penetration to crown and roots.	



NON-RESIDENTIAL TURGRASS <sup>1</sup>				
DISEASE	MYCLOBUTANIL 20EW (fl oz/1000 sq ft)	APPLICATION INTERVAL (Days)	SPECIFIC INSTRUCTIONS	RESTRICTIONS
Take-All Patch	2.4	Spring/Fall: 28	Apply MYCLOBUTANIL 20EW to reduce the severity. Make 1 to 2 fall applications in September and October or when night temperatures drop to 55°F, and 1 to 2 spring applications in April and May depending on local recommendations.	Do not apply more than 13.8 fl oz of MYCLOBUTANIL 20EW per 1000 sq ft per year. For Nassau and Suffolk Counties in New York State, do not apply more than 3.43 fl oz of MYCLOBUTANIL 20EW per 1000 sq ft per year (1.95 lb myclobutanil per acre).
Zoysia large patch		Fall: 28	Make applications in fall before turf dormancy.	

<sup>1</sup>Including, but not limited to commercial lawns, ornamental turf, grounds or lawns around business and office complexes, and golf course fairways, rough, tee boxes, and greens.



RESIDENTIAL TURGRASS				
DISEASE	MYCLOBUTANIL 20EW (fl oz/1000 sq ft)	APPLICATION INTERVAL (Days)	SPECIFIC INSTRUCTIONS	RESTRICTIONS
Anthracnose Red thread Septoria leaf spot	1.2	14 - 21	Apply when conditions are favorable for disease development.	Do not apply more than 13.8 fl oz MYCLOBUTANIL 20EW per 1000 sq ft per year.
Brown patch		14	Begin applications when conditions are favorable for disease development, and before disease symptoms are apparent. If disease is present, mix MYCLOBUTANIL 20EW with an EPA registered contact fungicide. Under conditions of high temperature and humidity, use the shorter spray interval.	
Copper spot Zonate leaf spot			Apply when conditions are favorable for disease development.	
Crown rot Leaf spot Melting-out				
Dollar spot			Apply when conditions are favorable for disease development.  Make no more than 3 consecutive applications for control of dollar spot before rotating to a registered fungicide with a different mode of action.	
Fusarium blight			Apply when conditions are favorable for disease development.	
Fusarium patch (pink snow mold)		Fall or Winter	Apply prior to snow cover.	
Gray leaf spot		14	Apply when conditions are favorable for disease development.	

RESIDENTIAL TURFGRASS				
DISEASE	MYCLOBUTANIL 20EW (fl oz/1000 sq ft)	APPLICATION INTERVAL (Days)	SPECIFIC INSTRUCTIONS	RESTRICTIONS
Leaf smuts	1.2	14	Apply in the fall after turfgrass enters dormancy and/or in the spring prior to the initiation of growth.	Do not apply more than 13.8 fl oz of MYCLOBUTANIL 20EW per 1000 sq ft per year.  For Nassau and Suffolk Counties in New York State, do not apply more than 3.43 fl oz of MYCLOBUTANIL 20EW per 1000 sq ft per year (1.95 lb myclobutanil per acre).
Necrotic ring spot		Spring: 28	Make applications on a preventative basis in early to mid-spring.	
		Fall: 28	Make 2 applications beginning in August before the turf goes dormant. Apply 2.4 fl oz/1000 sq ft followed by a second application one month later.	
Powdery mildew Rusts		14 - 28	Apply when conditions are favorable for disease development.	
Summer patch			Begin applications in the spring when conditions are favorable for disease development. Make 2 to 4 applications depending on recommendations from local turfgrass extension experts.  Use at least two to three gallons of water per 1000 sq ft to increase spray penetration to crown and roots.	

**USE DIRECTIONS FOR LANDSCAPE, GREENHOUSE AND NURSERY ORNAMENTALS**

MYCLOBUTANIL 20EW is a locally systemic fungicide having protectant and curative properties that will translocate to new growth. For best control of labeled diseases, achieve thorough coverage of all plant parts on a protective application schedule. For dilute application sprays ( $\geq 100$  gallons of spray volume per acre) applied to ornamental plants in greenhouses, field-grown plantings or in commercial and residential landscapes, apply MYCLOBUTANIL 20EW at the rate of 6 to 12 fluid ounces per 100 gallons of spray volume on a 10 to 14 day application schedule, unless otherwise directed. Use the higher rate under conditions of high disease pressure and/or optimum conditions for infection.

For concentrate sprays (<100 gallons of spray volume per acre) apply 8.0 fluid ounces per acre on a 10- to 14-day application schedule.

The addition of a non-phytotoxic spray adjuvant will improve spray coverage and fungicidal performance. Treated plants should be maintained in a vigorous growing condition. Plants under nutritional or water

stress will not respond as well to treatment as well-maintained plants. Overdosage of MYCLOBUTANIL 20EW can result in observable foliar greening, thickened leaves, and/or shortened internodes. If this condition is observed, reduce the fungicide use rate but do not extend the specified application schedule.

#### Crop Tolerance

Plant tolerances are acceptable in the specific plants listed on this label. It is not possible to evaluate all ornamental plant species or varieties for tolerance to MYCLOBUTANIL 20EW. The user should test for possible phytotoxic responses by treating a limited number of plants, at specified use rates, prior to initiating large-scale use. The effects of spraying MYCLOBUTANIL 20EW in combination with plant growth regulators are not fully understood at this time. If the use of a plant growth regulator is planned in an area being treated, the user should test for possible enhanced growth regulatory effects by treating a small number of plants, at the specified use rates of all products, prior to initiating large-scale use. Since the effectiveness of such products depends not just on plant species or cultivar but also weather and seasonal differences (e.g., daylight hours), it is recommended that tests be repeated on previously tested varieties as environmental factors change and that observations for growth regulatory responses be made at regular intervals.

#### **SPECIFIC USE DIRECTIONS FOR CHRYSANTHEMUM**

**Foliar Sprays:** Best control is achieved by thorough coverage sprays, applied to point of runoff on a protectant application schedule. Use MYCLOBUTANIL 20EW at a rate of 8 fluid ounces per 100 gallons of spray mixture. (Do not apply more than 19 fluid ounces of MYCLOBUTANIL 20EW (0.25 pounds myclobutanil) per acre per application.) Application should be made on a 10- to 14-day schedule (not to exceed 21 days).

**Prestick Dip Treatment:** Chrysanthemum cuttings may be treated by a dip procedure prior to planting as follows: Prepare a dip suspension at a concentration equivalent to 8 fluid ounces of MYCLOBUTANIL 20EW per 100 gallons of water. Cuttings must be fully submerged in the dip suspension until wet throughout (cuttings should not remain submerged longer than 2 minutes). If cuttings are dipped, this procedure will represent the first spray under the quarantine program. Used dip suspension should be disposed of if it becomes contaminated with soil, plant debris or other foreign matter. Dispose of used dip suspension by spraying it onto registered crops (but not onto previously dipped cuttings) after filtering, or in a manner consistent with local, state, and federal guidelines.

NOTE: All infected plant material must be destroyed if your state is under quarantine directive.

NOTE: Not approved for use in Nassau and Suffolk Counties, New York

#### **RESTRICTIONS ON USE ON ORNAMENTALS**

- Do not apply more than 20 fl oz of MYCLOBUTANIL 20EW (0.25 lb myclobutanil) per acre per application. On a total volume per acre basis, do not apply more than 333 gallons of spray per acre at the 6 fl oz per 100 gallons rate or 167 gallons per acre at the 12 fl oz per 100 gallons rate per application.
- Do not apply more than 153 fl oz of MYCLOBUTANIL 20EW (2 pounds myclobutanil) per acre per year.
- Do not use treated plant materials for food or feed.
- Not approved for use in Nassau and Suffolk Counties of New York.

**USE DIRECTIONS FOR ORNAMENTALS**

CROP	DISEASE	CROP - SPECIFIC INSTRUCTIONS	CROP - SPECIFIC RESTRICTIONS	
Abelia	Cercospora leaf spot Powdery mildew	None	None	
Acalypha (Copper-leaf).				
Achillea (Yarrow)	Powdery mildew Rust			
African violet	Powdery mildew			
Ageratum	Rust Powdery Mildew			
Alder				
Almond, flowering	Blossom blight ( <i>monilinia spp.</i> )	Apply prebloom, 50% bloom and at petal fall.		
Amelanchier (Juneberry, Shadbush)	Fabraea leaf spot Powdery mildew Rust	None		
Amorpha (False indigo)	Cercospora leaf spot Powdery mildew Rust			
Anemone	Rust			
Angelica	Cercospora leaf spot Rust			
Ash	Anthraco nose Rust			
Aster	Powdery Mildew Rust			
Australian pine	Diplodia tip blight			
Azalea	Petal Blight ( <i>Ovulinia spp.</i> ) Powdery Mildew		Begin applications when flowers start to exhibit color.	
Barberry	Powdery Mildew Rust		None	May cause temporary damage to "crimson pigmy" and other "atropurposis" varieties.
Begonia	Powdery Mildew			
Bellflower	Cercospora leaf spot Powdery Mildew Rust	None	None	
Birch	Rust			



CROP	DISEASE	CROP - SPECIFIC INSTRUCTIONS	CROP - SPECIFIC RESTRICTIONS
Douglas fir	Needle rust	Apply 12 to 18 fl oz per acre starting early spring. Continue applications at 2- to 3-week intervals until the threat of infection has passed. Spray adjuvants must be added to spray solutions to obtain good spray coverage and disease control.	
Dianthus	Rust	None	None
Elm	Powdery mildew		
Euonymus	Powdery mildew		
Fern	Rhizoctonia aerial blight		
Fleabane	Cercospora leaf spot Powdery mildew Rust		
Four O'clock	Rust		
Fuchsia			
Gaillardia	Powdery mildew Rust		
Gardenia			
Geranium			
Gerbera daisy	Powdery mildew		
Gourd, ornamental			
Grape leaf ivy			
Hackberry	Cercospora leaf spot Powdery mildew		
Hawthorn	Fabraea leaf spot Powdery mildew Rust Scab		
Hibiscus	Powdery mildew		
Holly			
Hollyhock	Powdery mildew Rust		
Honeysuckle	Cercospora leaf spot Powdery mildew		
Hydrangea	Cercospora leaf spot		
Iris	Didymellina leaf spot Rust	Apply 12 fl oz per 100 gallons of spray solution.	
Juniper	Rust	None	
Leucothoe	Cercospora leaf spot		

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CROP	DISEASE	CROP - SPECIFIC INSTRUCTIONS	CROP - SPECIFIC RESTRICTIONS
Leyland Cyprus	Cercospora leaf spot	None	None
Lilac	Powdery mildew		
Loblolly pine	Fusiform rust		
Locust	Powdery mildew	Refer to Douglas fir	None
Maple			
Marigold	Cercospora leaf spot Rust	None	Treated trees may not be used for syrup production. Do not apply to Abutilon (Flowering Maple).
Mock-orange	Powdery mildew Rust		
Moonflower	Rust		
Mountain laurel	Cercospora leaf spot Ovulinia petal blight Powdery mildew		
Nephthytis	Cephalosporium leaf spot	Refer to Azalea	None
Ninebark	Rust		
Oak	Anthracoise Powdery mildew		
Pansy	Powdery mildew Rust		
Pear, flowering	Powdery mildew Rust Scab		
Petunia	Powdery mildew Rust		
Phlox	Cercospora leaf spot Powdery mildew Rust		
Photinia	Entomosporium leaf Spot Powdery mildew Rust		
Poinsettia	Poinsettia scab Powdery mildew		
Poplar	Rust		
Potentilla			
Privet	Cercospora leaf spot Powdery mildew		



CROP	DISEASE	CROP - SPECIFIC INSTRUCTIONS	CROP - SPECIFIC RESTRICTIONS
Pyracantha (Firethorn)	Fusicladium scab	None	None
Quince, flowering	Blossom and Twig Blight Cercospora Leaf Spot Fabraea Leaf Spot Rust		
Rhododendron	Cercospora leaf spot Ovulinia petal blight Powdery mildew	Refer to Azalea	
Rose	Black spot Powdery mildew Rust	Apply on a 7- to 10-day protectant schedule. In areas where black spot is not a problem, spray intervals may be increased to a maximum of 14 days. Greenhouse rose varieties vary in their sensitivity to MYCLOBUTANIL 20EW. User should evaluate for possible abnormal response by treating a limited number of plants, at specified rates, prior to initiating large-scale use.	None
Russian olive	Cercospora leaf spot Rust	None	
Salvia	Powdery mildew Rust		
Sedum	Powdery mildew		
Slash pine	Fusiform rust	Refer to Douglas fir.	
Smoke-tree (Cotinus)	Cercospora leaf spot Rust	None	
Snapdragon	Powdery mildew Rust		
Spirea	Powdery mildew		
Sunflower	Cercospora leaf spot Powdery mildew Rust		
Sycamore	Anthrachnose Powdery mildew		
Trumpet creeper	Cercospora leaf blight Powdery mildew		Seeds from treated plants may not be used for food or feed.
Viburnum	Powdery mildew Rust		None
Walnut	Powdery mildew		Nuts from treated trees may not be used for food purposes.
Willow			None
Zinnia	Cercospora leaf spot Powdery mildew		

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USE DIRECTIONS FOR HOME ORCHARDS, VINEYARDS, OR FRUIT TREES

Best control of labeled diseases is achieved when MYCLOBUTANIL 20EW is applied on a 7- to 10-day protectant schedule. MYCLOBUTANIL 20EW is a systemic fungicide and does not redistribute after application. Application equipment spray nozzles should be adjusted to apply a uniform spray throughout the entire tree canopy.

Dilute (thorough coverage) applications are recommended and are based on the amount of spray solution required to thoroughly wet plants to the point of run-off. Refer to use directions for specific tree fruits and vines to determine actual use rate per 100 gallons of spray for control of labeled diseases. The following specific use directions are based on a dilute spray volume of 300 gallons per acre.

**USE DIRECTIONS FOR APPLE**

DISEASE	MYCLOBUTANIL 20EW (fl oz/100 gal)	SPECIFIC INSTRUCTIONS	RESTRICTIONS
Powdery Mildew ( <i>Podosphaera spp.</i> )	4 - 6	Begin application at tight cluster and continue through the second cover spray. Additional sprays beyond second cover may be needed on susceptible varieties or under heavy disease pressure. Use high rate in rate range if powdery mildew was present in previous years.	Do not apply within 14 days of harvest.  Do not apply more than 153 fl oz of MYCLOBUTANIL 20EW (2 lb myclobutanil) per acre per season.
Rusts ( <i>Gymnosporangium spp.</i> )		Begin applications at pink stage and continue through the second cover spray.	
Scab ( <i>Venturis spp.</i> ) Prebloom		Begin application at green tip or when environmental conditions become favorable for primary scab development. Apply MYCLOBUTANIL 20EW alone or tank mixed with a protectant fungicide on a 7- to 10-day schedule.	
Scab ( <i>Venturis spp.</i> ) Bloom, Postbloom		Use MYCLOBUTANIL 20EW in a tank mixture with the specified rate of a protectant fungicide, registered for use on apples, for improved fruit scab and summer disease control.	
Scab ( <i>Venturis spp.</i> ) Post-infection	6	MYCLOBUTANIL 20EW provides 96-hour post-infection control or curative activity. Apply as soon as possible after infection period. Follow with a standard preventative spray schedule.	



**USE DIRECTIONS FOR STONE FRUIT**

APRICOT			
DISEASE	MYCLOBUTANIL 20EW (fl oz/100 gal)	SPECIFIC INSTRUCTIONS	RESTRICTIONS
Brown rot Blossom blight ( <i>Monilinia spp.</i> )	2 - 3	Begin application at early red bud stage before infection occurs. If conditions are favorable for disease development, reapply at full bloom and petal fall.	Do not apply more than 84 fl oz of MYCLOBUTANIL 20EW (1.1 lb myclobutanil) per acre per season. Applications may be made up to the day of harvest.
Brown Rot ( <i>Monilinia spp.</i> )		Apply 12 fl oz (0.16 lb myclobutanil) per acre on a 7- to 14-day protectant schedule. Apply whenever environmental conditions favor disease development during the month prior to harvest.	
Powdery mildew ( <i>Podosphaera spp.</i> )		Follow brown rot blossom blight schedule. Reapply at 10- to 14-day intervals until terminal growth ceases.	
Shothole ( <i>Stigmina spp.</i> )		Follow brown rot blossom blight schedule. Reapply at 7- to 10-day intervals as long as needed.	

CHERRY			
DISEASE	MYCLOBUTANIL 20EW (fl oz/100 gal)	SPECIFIC INSTRUCTIONS	RESTRICTIONS
Brown rot Blossom blight ( <i>Monilinia spp.</i> )	2 - 3	Begin application at early popcorn stage, before infection occurs. If conditions are favorable for disease development, reapply at full bloom and petal fall.	Do not apply more than 100 fl oz of MYCLOBUTANIL 20EW (1.3 lb myclobutanil) per acre per season. Applications may be made up to the day of harvest.
Brown rot ( <i>Monilinia spp.</i> )		Refer to Apricots	
Powdery mildew ( <i>Podosphaera and Sphaerotheca spp.</i> )			
Leaf spot ( <i>Blumeriella spp.</i> )		Follow the brown rot blossom blight schedule. Reapply at 7- to 10-day intervals. Make additional applications after harvest.	

NECTARINE			
DISEASE	MYCLOBUTANIL 20EW (fl oz/100 gal)	SPECIFIC INSTRUCTIONS	RESTRICTIONS
Brown rot Blossom Blight ( <i>Monilinia spp.</i> )	2 - 3	Begin application at early pink bud stage before infection occurs. If conditions are favorable for disease development, reapply at full bloom and petal fall.	Do not apply more than 100 fl oz of MYCLOBUTANIL 20EW (1.3 lb myclobutanil) per acre per season.  Applications may be made up to the day of harvest.
Brown rot ( <i>Monilinia spp.</i> )		Refer to Apricots	
Powdery mildew ( <i>Podosphaera and Sphaerotheca spp.</i> )			
Shothole ( <i>Stigmina spp.</i> )		Follow brown rot blossom blight schedule. Reapply at 7- to 10-day intervals as long as needed.	

PEACH			
DISEASE	MYCLOBUTANIL 20EW (fl oz/100 gal)	SPECIFIC INSTRUCTIONS	RESTRICTIONS
Brown rot Blossom blight ( <i>Monilinia spp.</i> )	2 - 3	Begin application at early pink bud stage before infection occurs. If conditions are favorable for disease development, reapply at full bloom and petal fall.	Do not apply more than 100 fl oz of MYCLOBUTANIL 20EW (1.3 lb myclobutanil) per acre per season.  Applications may be made up to the day of harvest.
Brown rot ( <i>Monilinia spp.</i> )		Refer to Apricots	
Powdery mildew ( <i>Podosphaera spp.</i> )			
Rust ( <i>Tranzschelia spp.</i> )		Apply 12 fl oz (0.16 lb myclobutanil) per acre. Begin application approximately 8 weeks after flowering if environmental conditions are favorable for disease development. For optimum disease control, do not apply on protectant schedule exceeding 21 days.	

