



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

November 15, 2017

Patricia McFadden
Sipcam Agro USA, Inc.
2525 Meridian Parkway, Suite 350
Durham, NC 27713

Subject: Notification per PRN 98-10: Adds product name, registration number, and bracket symbol indicating optional wording at the top of all pages; Page 1: Deletes NPIC phone number and adds number for Poison Control Center; Page 2: Adds optional claims, use directions and revises PPE section; Replaces “Echo 825” globally with “This product ...”; Page 4: Deletes the word “Advisory” from “Aerial Drift Information”; Page 6: Under “Tank Mixing” moves referenced product names to last page; Pages 8 to 18: “Crops” Adds scientific names under “Diseases”, and reformats “Use Restrictions” sections; Page 23: Under “Storage and Disposal”, replaces “Container Disposal” wording for liquids with that for solids in a bag; Page 24: Adds State of California P65 Warnings/website; other minor additional revisions throughout label

Product Name: Echo 825
EPA Registration Number: 60063-3
Application Date: September 29, 2017
Decision Number: 534547

Dear Ms. McFadden:

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

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.

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If you have any questions, please contact Tony Kish by phone at 703 308-9443, or via email at kish.tony@epa.gov; or Craig Reeves by phone at 703 347-0486, or via email at reeves.craig@epa.gov.

Sincerely,

A handwritten signature in black ink that reads "Tony Kish". The signature is written in a cursive style with a large, stylized initial "T".

Tony Kish, Product Manager 22
Fungicide Branch
Registration Division (7505P)
Office of Pesticide Programs

NOTIFICATION

Group M5 Fungicide

60063-3

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

11/15/2017

ECHO® 825

Active Ingredient: Chlorothalonil (tetrachloroisophthalonitrile)..... 82.5%
Other Ingredients: 17.5%
Total: 100.0%

**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 the label, find someone to explain it to you in detail.)

FIRST AID	
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.
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> • 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.
IF IN EYES	<ul style="list-style-type: none"> • 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	<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 by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
Emergency phone numbers	(800) 858-7378 NPIC (human and animal health) (800) 222-1222 Poison Control Center (human health) (800) 424-9300 CHEMTREC (transportation and spills)
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Persons having a temporary allergic reaction respond to treatment with antihistamines or steroid creams and/or systemic steroids.	

EPA Reg. No. 60063-3
 Net Contents: _____ pounds
[Lot number / Label Date Code]

EPA Est. No. _____
[Lot no. begins with xx]

ECHO is a registered trademark of Sipcam Agro USA, Inc.

Manufactured for
Sipcam Agro USA, Inc.
~~2520~~ 2525 Meridian Parkway, Suite ~~350~~ 525
Durham, NC 27713

OPTIONAL LANGUAGE FOR LABEL

- [Pull open here]
- [Pull back [book] [label] here]
- [See additional Precautionary Statements and Directions For Use inside booklet.]
- [Application Type AG Agricultural]
- [Application Type T/O Turf & Ornamental]
- [Formulated in the United States of America, with U.S. and imported ingredients.]
- [Read the [entire] label carefully before opening the container]
- [Fungicide]

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Warning—~~Avise~~—May be fatal if inhaled. Causes substantial, but temporary eye injury. Harmful if absorbed through skin. Do not breathe dust. Remove and wash contaminated clothing before reuse. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, **or using the toilet.** Avoid contact with skin.

Personal Protective Equipment (PPE)

Mixers, loaders, applicators and all other handlers must wear:

- Long-sleeved shirt and long pants;
- Shoes plus socks;
- Protective eye wear such as goggles, face shield, or safety glasses;
- Chemical-resistant gloves made of waterproof material, such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyethylene, polyvinyl chloride, or Viton; ~~if you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart;~~
- A NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P, or HE prefilter.

Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions for washables **exist**, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product’s concentrate. DO NOT reuse them.

Engineering Controls

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 PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates and wildlife. DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. DO NOT contaminate water when disposing of equipment washwater or rinsate.

Chlorothalonil can contaminate surface water through spray drift. DO NOT apply when weather conditions favor drift from treated areas. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying 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 areas overlying tile drainage systems that drain to surface water.

Chlorothalonil degradates are known to leach through soil into ground water under certain conditions as a result of label use. Use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

DIRECTIONS FOR USE

~~General Precautions and Restrictions~~

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, or pets, either directly or through drift. Only protected handlers may be in the area during applications. 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), and restricted-entry interval (REI). 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 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: coveralls, waterproof gloves, shoes plus socks, and protective eyewear.

Special Eye Irritation Provisions: This product is a severe eye irritant. Although the restricted-entry interval expires after 12 hours, for the next 6½ days entry is permitted only when the following safety measures are provided:

At least one container designed specifically for flushing eyes must be available in operating condition at the WPS-required decontamination site intended for workers entering the treated area.

Workers must be informed, in a manner they can understand:

- that residues in the treated area may be highly irritating to their eyes;
- that they must take precautions, such as refraining from rubbing their eyes, to keep the residues out of their eyes;
- that if they do get residues in their eyes, they must immediately flush their eyes using the eyeflush container that is located at the decontamination site or using other readily available clean water; and
- how to operate the eyeflush container.

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):

Do not enter or allow others to enter into treated areas until spray deposits have dried.

This product must not be applied within 150 feet (for aerial and air-blast applications), or 25 feet (for ground applications) from marine/estuarine water bodies unless there is an untreated buffer area of that width between the area to be treated and the water body.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. 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 outer most nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

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

Aerial Drift Advisory Information

INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly, or under unfavorable conditions (see Wind section, Temperature and Humidity section).

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 airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from 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 potential.

BOOM LENGTH

For some use patterns, reducing the effective boom length to less than $\frac{3}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, small drops, etc.).

WIND

Drift potential is lowest between wind speeds of 2-10 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. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

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.

INTEGRATED PEST MANAGEMENT

ECHO This product is an excellent disease control agent when used according to label directions for control of a broad spectrum of plant diseases. **ECHO This product** is recommended for use in programs that are compatible with the principles of Integrated Pest Management (IPM), including the use of disease resistant crop varieties, cultural practices, pest scouting and disease forecasting systems which reduce unnecessary applications of pesticides.

FUNGICIDE RESISTANCE MANAGEMENT

ECHO This product is effective for strategic use in programs that attempt to minimize disease resistance to fungicides. Some other fungicides which are at risk from disease resistance exhibit a single-site mode of fungicidal action. **ECHO This product**, with a multi-site mode of action, may be used to delay or prevent the development of resistance to single-site fungicides. Consult with your federal or state Cooperative Extension Service representatives for guidance on the proper use of **ECHO this product** in programs which seek to minimize the occurrence of disease resistance to other fungicides.

MIXING, LOADING AND APPLYING

ECHO This product is intended to be diluted into water, then applied to crops by typical agricultural spraying techniques. **Always apply ECHO this product in sufficient water to obtain thorough, uniform coverage of foliage and crop surfaces intended to be protected from disease.** Spray volume to be used will vary with crop and amount of plant growth. For field and row crops, spray volume should normally range from 20 to 150 gallons per acre (200 to 1400 liters per hectare) for dilute sprays and 5 to 10 gallons per acre (50 to 100 liters per hectare) for concentrate ground sprays and aircraft applications. Both ground and aircraft methods of application are recommended unless specific directions are given for a crop.

Slowly invert container several times to assure uniform mixture. Measure the required amount of **ECHO this product** and pour into the spray tank during filling. Keep agitator running when filling spray tank and during spray operations.

Do not use on greenhouse-grown crops except as directed in the Ornamental Plants section of this label.

TANK MIXING

When tank mixing this product with other pesticides, observe the more restrictive label limitations and precautions. ~~No label dosage rates must be exceeded.~~ **DO NOT exceed label dosage rates.** This product cannot be mixed with any product containing a label prohibition against such mixing.

Do not combine **ECHO this product** in sprayer tank with pesticides, surfactants or fertilizers, unless your prior use has shown the combination physically compatible, effective and noninjurious under your conditions of use. Do not combine **ECHO this product** with Dipel 4L, Foil, Triton AG-98, Triton B-1956, or Latron B-1956, as phytotoxicity may result from the combination when applied to the crops on this label. DO NOT tank mix **ECHO this product** with oil, or with any adjuvants which contain oil as their principal ingredient. When an adjuvant is to be used with this product, Sipcam Advan USA recommends the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant. Do not use with Copper-Count N in concentrated spray suspensions.

~~Dipel is a registered trademark of Abbott Laboratories.~~

~~Foil is a registered trademark of Ecogen, Inc.~~

~~Latron and B-1956 are registered trademarks of Rohm and Haas Company~~

~~Copper-Count is a registered trademark of Mineral Research and Development Corporation.~~

APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS (CHEMIGATION)

Application through sprinkler irrigation systems is recommended only for those specific crops for which chemigation is listed in the application directions in the crop charts on this label. ~~the notation "chemigation-ok" is listed on this label.~~

Apply this product only through center pivot, motorized lateral move, traveling gun, solid set and portable (wheel move, side roll, end tow, or hand move) irrigation system(s). DO NOT apply this product through any other type of irrigation system.

Crop injury, lack of 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 apply this product through irrigation systems connected to a public water system. '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 per year.

Controls for both irrigation water and pesticide injection systems must be functionally interlocked, so as to automatically terminate pesticide injection when the irrigation water pump motor stops. A person knowledgeable of the irrigation system and responsible for its operation shall be present so as to discontinue pesticide injection and make necessary adjustments, should the need arise.

The irrigation water pipeline must be fitted with a functional, automatic, quick-closing check valve to prevent the flow of treated irrigation water back toward the water source. The pipeline must also be fitted with a vacuum relief valve and low pressure drain, located between the irrigation water pump and the check valve, to prevent back-siphoning of treated irrigation water into the water source.

Always inject ~~ECHO~~ this product into irrigation water after it discharges from the irrigation pump and after it passes through the check valve. Never inject pesticides into the intake line on the suction side of the pump.

Pesticide injection equipment must be fitted with a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump. Interlock this valve to the power system, so as to prevent fluid from being withdrawn from the chemical supply tank when the irrigation system is either automatically or manually turned off.

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 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.

Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur. DO NOT apply when wind speed favors drift beyond the area intended for treatment.

~~ECHO~~ This product may be used through two basic types of sprinkler irrigation systems as outlined in Sections A and B below. Determine which type of system is in place, then refer to the appropriate directions provided for each type.

A. Center Pivot, Motorized Lateral Move and Traveling Gun Irrigation Equipment

For injection of pesticides, these continuously moving systems must use a metering pump, such as a positive displacement injection pump of either diaphragm or piston type, constructed of materials that are compatible with pesticides, fitted with a system interlock, and capable of injection at pressures approximately 2 to 3 times those encountered within the irrigation water line. Venturi applicator units cannot be used on these systems.

Fill chemical supply tank of injection equipment with water. Operate system for one complete revolution or run across the field, measuring time required, amount of water injected, and acreage covered. Thoroughly mix recommended amount of ~~ECHO~~ this product for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run. Mixture in the chemical supply tank must be continuously agitated during the injection run. Shut off injection equipment after one revolution or run, but continue to operate irrigation system until ~~ECHO~~ this product has been cleared from last sprinkler head.

B. Solid Set and Portable (Wheel Move, Side Roll, End Tow, or Hand Move) Irrigation Equipment

With stationary systems, an effectively designed in-line venturi applicator unit is preferred which is constructed of materials that are compatible with pesticides; however, a positive-displacement pump can also be used.

Determine acreage covered by sprinkler. Fill tank of injection equipment with water and adjust flow to use contents over a thirty to forty-five minute period. Mix desired amount of ~~ECHO~~ this product for acreage to be covered with water so that the total mixture of ~~ECHO~~ this product plus water in the injection tank is equal to the quantity of water used during calibration and operate entire system at normal pressures recommended by the manufacturer of injection equipment used for amount of time established during calibration. No agitation should be required. ~~ECHO~~ This product can be injected at the beginning or end of the irrigation cycle or as a separate application. Stop injection equipment after treatment is completed and continue to operate irrigation system until ~~ECHO~~ this product has been cleared from last sprinkler head.

Application Rates

Dosage rates on this label indicate pints of ECHO 825 this product per acre, unless otherwise stated. Under conditions favoring disease development, the high rate specified and shortest application interval should be used.

For each listed crop, the maximum total amount of chlorothalonil active ingredient (lbs a.i./A) which may be applied per acre of that crop (or crop group) during each year is given in bold print within a box beneath the crop name is listed in the Use Restriction section for that crop. For each crop use situation listed below, the listed maximum individual and seasonal application rates must not be exceeded and the listed minimum retreatment intervals must not be decreased.

CROPS
FIELD AND ROW CROPS

ASPARAGUS

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Rust (<i>Puccinia asparagus</i>) Purple spot (<i>Puccinia asparagi</i>) Cercospora blight (<i>C. asparagi</i>)	1.82 to 3.64 pounds	Begin applications after harvest of spears, when conditions favor disease development on ferns, generally when leaf wetness occurs. Repeat applications at 2 to 4 week intervals until ferns are no longer productive. Use the high rate and shortest interval when conditions favor disease.
<p>USE RESTRICTIONS:</p> <ul style="list-style-type: none"> • PHI: 190 days (120 days in California) • Apply by air or ground. • DO NOT apply more than 9.0 lbs. a.i./A per year. 		

BEAN (SNAP)

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Rust (<i>Uromyces appendiculatus</i>)	1.25 to 2.73 pounds	Begin applications during early bloom stage or when disease first threatens and repeat at 7 day intervals or as necessary to maintain control.
Gray mold (<i>Botrytis cineraria</i>) Botrytis blight (gray mold)	2.73 pounds	
<p>USE RESTRICTIONS:</p> <ul style="list-style-type: none"> • PHI: 7 days • Apply by air, ground, or chemigation. • DO NOT apply more than 9.0 lbs. a.i./A per year. 		

BEAN (DRY)*

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Rust (<i>Uromyces pendiculatus</i>) Anthracnose (<i>Colletotrichum lindemuthianum</i>) Downy mildew (<i>Phytophthora nicotianae</i>) Cercospora leaf spot (blackeye only) (<i>C. cruenta</i>) Ascochyta blight (<i>A. phaseolorum</i>)	1.25 to 1.82 pounds	Begin applications during early bloom stage and repeat at 7 to 10 day intervals. For use only on beans to be harvested dry with pods removed.
USE RESTRICTIONS:		
<ul style="list-style-type: none"> • PHI: 14 days • Apply by air, ground or chemigation. • DO NOT apply more than 6.0 lbs. a.i./A per year. • For use only on beans to be harvested dry with pods removed. • * NOT FOR USE IN CALIFORNIA. *Not yet approved for use in California 		

CABBAGE, CHINESE CABBAGE (TIGHT HEADED VARIETIES ONLY), CAULIFLOWER, BROCCOLI, CHINESE BROCCOLI, BRUSSELS SPROUTS

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Alternaria leaf spot (<i>Alternaria spp</i>) Downy mildew (<i>Peronospora parasitica</i>)	1.36 pounds	Begin applications after transplants are set in field, or shortly after emergence of field-seeded crop, or when conditions favor disease development. Repeat at 7 to 10 day intervals or as necessary to maintain control.
Ring spot (<i>Mycosphaerella brassicicola</i>)	1.82 pounds	
USE RESTRICTIONS:		
<ul style="list-style-type: none"> • PHI: 7 days • Apply by air or ground. • DO NOT apply more than 12 lbs. a.i./A per year. 		

CARROT

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Early blight (<i>Cercospora carotae</i>) Late blight (<i>Alternaria dauci</i>)	1.36 to 1.82 pounds	Start applications when disease threatens and repeat at 7 to 10 day intervals or as necessary to maintain control.
USE RESTRICTIONS:		
<ul style="list-style-type: none"> • PHI: 0 days • Apply by air, ground or chemigation. • DO NOT apply more than 15.0 lbs. a.i./A per year. 		

CELERY

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Early blight (<i>Cercospora apii</i>) Late blight (<i>Septoria apicola</i>)	0.91 to 1.36 pounds	Start applications shortly after crop emergence or when transplants are set in the field. For the indicated rates, re-apply at 3 to 5 day intervals.
Basal stalk rot (<i>Rhizoctonia solani</i>)	1.82 to 2.73 pounds	Start applications shortly after crop emergence or when transplants are set in the field. For the indicated rates, re-apply at 7 day intervals.
USE RESTRICTIONS:		
<ul style="list-style-type: none"> • PHI: 7 days • Apply by air, ground or chemigation. • DO NOT apply more than 18.0 lbs. a.i./A per year. 		

CORN (SWEET), CORN GROWN FOR SEED

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Helminthosporium leaf blights (<i>Helminthosporium</i> spp.) Rust (<i>Puccinia</i> spp.)	1.36 to 1.82 pounds	Begin applications when conditions favor disease development and repeat at 7 day intervals.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 14 days • Apply by air or ground. • DO NOT apply more than 9.0 lbs. a.i./A per year. • DO NOT allow livestock to graze in treated fields. • DO NOT ensile treated corn or use as livestock forage. • DO NOT apply to sweet corn to be processed. 		

CRANBERRY

DISEASES	RATE	APPLICATION DIRECTIONS
Upright dieback (<i>Phomopsis vaccinii</i> syn. <i>Diaporthe vaccinii</i>) Fruit rots (<i>Monilinia oxycocci</i>) Leaf & twig blight (<i>Lophodermium spp</i>)	3.64 to 6.36 pounds	Apply at budbreak to early bloom and repeat at 10 to 14 day intervals. Under severe disease conditions, use the high rate on a 10 day schedule.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 50 days • Apply by air or ground. Chemigation is allowed for solid set systems only • DO NOT apply more than 15.0 lbs. a.i./A per year. • DO NOT apply to bogs when flooded or allow release of irrigation water from bogs for at least 3 days following application. 		

CUCURBITS: CUCUMBER; CANTALOUPE; MUSKMELON; HONEYDEW MELON; WATERMELON; SQUASH; AND PUMPKIN.

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Anthracnose (<i>Colletotrichum spp.</i>) Downy mildew (<i>Pseudoperonospora cubensis</i>) Target spot (<i>Corynespora cassiicola</i>)	1.36 to 1.82 pounds	Begin applications when plants are in first true leaf stage or when conditions are favorable for disease development. Repeat applications at 7 day intervals. Under severe disease conditions, shorten spray intervals
Cercospora leaf spot, (<i>Cercospora citrullina</i>) Gummy stem blight (black rot) (<i>Didymella bryoniae</i>) Alternaria leaf blight (<i>Alternaria cucumerina</i>) Scab (<i>Cladosporium cucumerinum</i>) Powdery mildew (<i>Sphaerotheca</i> only)	1.82 to 2.73 pounds	Note: Spraying mature watermelons may result in sunburn of the upper surface of the fruit. DO NOT apply ECHO this product to watermelons when any of the following conditions are present: <ol style="list-style-type: none"> 1. Intense heat and sunlight; 2. Drought conditions; 3. Poor vine canopy; 4. Other crop and environmental conditions which may be conducive to increased natural sunburn. DO NOT combine ECHO this product with anything except water for application to watermelons unless your prior use has shown the combination to be non-injurious to watermelons under your conditions of use.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 0 days • Apply by air, ground or chemigation. • DO NOT apply more than 15.75 lbs. a.i./A per year. 		

GRASSES GROWN FOR SEED

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Stem rust (<i>Puccinia spp.</i>) Leaf rust (<i>Puccinia spp.</i>) Stripe rust (<i>Puccinia spp.</i>) Septoria Leaf spot, Glume blotch (<i>Septoria spp.</i>) Bipolaris and Drechslera leaf spots (<i>Bipolaris spp.</i> & <i>Drechslera spp.</i>)	0.91 to 1.36 pounds	Begin applications during stem elongation when conditions favor disease development. Re-apply at flag (top) leaf emergence and repeat applications at 14 day intervals.
Eyespot (<i>Selenophoma spp.</i>)	0.91 to 1.82 pounds	
USE RESTRICTIONS:		
<ul style="list-style-type: none"> • PHI: 14 days • Apply by air or ground. • DO NOT apply more than 4.5 lbs. a.i./A per year. • DO NOT allow livestock to graze in treated areas. • DO NOT feed straw, seed, or seed screenings to livestock. 		

MINT

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Rust (<i>Puccinia menthae</i>) Septoria leaf spot (<i>Septoria menthae</i>)	1.25 pounds	Begin applications when emerging plants are 4 to 8 inches high. Repeat applications at 7 to 10 day intervals or as necessary to maintain control.
USE RESTRICTIONS:		
<ul style="list-style-type: none"> • PHI: 80 days • Apply by air or ground. • DO NOT apply more than 3.0 lbs. a.i./A per year. • Based on available residue data, use of this product on mint is restricted to Indiana, Michigan and Wisconsin. 		

MUSHROOM BEDS

DISEASES	RATE PER 1,000 SQ. FT. OF BED SURFACE	APPLICATION DIRECTIONS
Verticillium brown spot/dry bubble (<i>Verticillium fungicola</i>)	2.5 to 5 oz.	Apply as a drench to the mushroom bed surface in at least 12.5 gallons of water per 1,000 sq. ft. of bed surface. Make two applications. Apply the high rate in the first application and the low rate in the second application. The first application should be made within two days after top-dressing the spawn-colonized mushroom compost with a casing layer. The second application should be made at pinning. Make no more than two applications per cropping cycle.
USE RESTRICTIONS:		
<ul style="list-style-type: none"> • PHI: 5 days Do not apply after first break (harvest) • Apply by air or ground. • DO NOT apply more than 0.4 lbs. active ingredient chlorothalonil per 1000 sq.ft. per cropping cycle. 		

ONION (DRY BULB), GARLIC

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS												
Botrytis leaf blight or blast (<i>Botrytis</i> spp.) Purple blotch (<i>Alternaria porri</i>)	0.91 to 1.82 pounds	<p>ECHO This product is recommended for use with disease monitoring systems which adjust fungicide rates and frequency of application according to disease hazard. Apply as follows:</p> <table border="1"> <tr> <td></td> <td>Low Disease Hazard & Prior to Infection</td> <td>Low Disease Hazard & Some Disease Present</td> <td>High Disease Hazard</td> </tr> <tr> <td>Rate per Acre:</td> <td>0.91 pounds</td> <td>1.25 pounds</td> <td>1.82 pounds</td> </tr> <tr> <td>Frequency:</td> <td>10 days</td> <td>7 to 10 days</td> <td>7 days</td> </tr> </table>		Low Disease Hazard & Prior to Infection	Low Disease Hazard & Some Disease Present	High Disease Hazard	Rate per Acre:	0.91 pounds	1.25 pounds	1.82 pounds	Frequency:	10 days	7 to 10 days	7 days
	Low Disease Hazard & Prior to Infection	Low Disease Hazard & Some Disease Present	High Disease Hazard											
Rate per Acre:	0.91 pounds	1.25 pounds	1.82 pounds											
Frequency:	10 days	7 to 10 days	7 days											
Neck rot (<i>Botrytis allii</i>)	1.25 to 1.82 pounds	For suppression of neck rot (<i>Botrytis</i> spp.) during storage, make a minimum of three weekly applications prior to lifting.												
<p>USE RESTRICTIONS:</p> <ul style="list-style-type: none"> • PHI: 7 days • Apply by air, ground or chemigation. • DO NOT apply more than 15.0 lbs. a.i./A per year. 														

ONION (GREEN BUNCHING), LEEK, SHALLOT, ONION (GROWN FOR SEED)

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Botrytis leaf blight or blast (<i>Botrytis</i> spp.) Purple blotch (<i>Alternaria porri</i>) Downy mildew suppression (<i>Peronospora destructor</i>)	1.36 to 2.73 pounds	Begin applications prior to favorable infection periods, and repeat at 7 to 10 day intervals for as long as conditions favor disease. Use the high rate and a 7 day schedule of applications when heavy dew or rain persists. If additional disease control is needed before harvest, use another registered fungicide.
<p>USE RESTRICTIONS:</p> <ul style="list-style-type: none"> • PHI: 14 days (green onions, leek, shallot) • Apply by air or ground. • DO NOT apply more than 6.7 lbs. a.i./A per year. 		

PARSNIP

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Leaf spot (<i>Alternaria</i> spp.) Downy mildew (<i>Plasmopara crustosa</i>) Anthracnose (<i>Colletotrichum</i> spp.) Gray mold (<i>Botrytis cinerea</i>) Bottom rot (<i>Rhizoctonia solani</i>)	1.36 to 1.82 pounds	Make the first application at the first sign of disease or when conditions are favorable for infection. Continue applications on a 7 to 10 day schedule.
<p>USE RESTRICTIONS:</p> <ul style="list-style-type: none"> • PHI: 10 days • Apply by air or ground. • DO NOT apply more than 6.0 lbs. a.i./A per year. 		

PEANUT

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Early leaf spot (<i>Cercospora arachidicola</i>)	0.91 to 1.36 pounds	Apply in sufficient water for coverage when leaf wetness first occurs or 30 to 40 days after planting; repeat at 14 day intervals.
Late leaf spot (<i>Cercosporidium personatum</i>) Rust (<i>Puccinia arachidis</i>) Web blotch (<i>Phoma arachidicola</i>)	1.36 pounds	
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 14 days • Apply by air, ground or chemigation. • DO NOT apply more than 9.0 lbs. a.i./A per year. • DO NOT allow livestock to graze in treated areas. • DO NOT feed hay or threshings from treated fields to livestock. 		

POTATO

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Late blight (<i>Phytophthora infestans</i>) Early blight (<i>Alternaria solani</i>) Botrytis vine rot (<i>Botrytis cinerea</i>)	0.68 pound -- Then -- 0.91 to 1.36 pounds	Begin applications at the low rate when vines are first exposed and leaf wetness occurs. Repeat applications at 7 to 10 day intervals. Begin applying the higher label rates at 5 to 10 day intervals when any one of the following events occur: <ul style="list-style-type: none"> • Vines close within the rows; • Late blight forecasting measures 18 disease severity values (DSV); • The crop reaches 300 P-days Increase water spray volume as canopy density increases. Use the highest rate and shortest interval when plants are rapidly growing and disease conditions are severe.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 7 days • Apply by air, ground, or chemigation. • DO NOT apply more than 11.25 lbs. a.i./A per year. 		

SOYBEAN

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS		
Anthracnose (<i>Colletotrichum truncatum</i>) Diaporthe pod & stem blight (<i>Diaporthe phaseolorum</i>) Frogeye leaf spot (<i>Cercospora sojina</i>) Purple seed stain (<i>Cercospora kikuchii</i>) Cercospora leaf blight (<i>Cercospora kikuchii</i>) Septoria brown spot (<i>Septoria glycines</i>) Rust (<i>Phakopsora pachyrhizi</i>)	1.36 to 2.27 pounds	2-Application Program	Determinate southern varieties Early pod set (R3) Seed formation (R5)	Indeterminate northern varieties Pods 1 – 1.5 inches Then 14 days later
	0.91 to 1.82 pounds	3-Application Program	Early flowering (R1) Early pod set (R3) Seed formation (R5)	One week after first flowering, then at 14 day intervals
Stem canker (<i>Diaporthe phaseolorum</i> var. <i>caulivora</i>)	0.91 pounds	Apply in 10 to 20 gallons of water per acre, as a band treatment directing spray to provide coverage of entire plant. Make the application at time of emergence of the second trifoliolate leaves (V2). If conditions favor stem canker disease make a second and third application at 14 day intervals.		
USE RESTRICTIONS:				
<ul style="list-style-type: none"> • PHI: 42 days • Apply by air, ground, or chemigation • DO NOT apply more than 4.5 lbs. a.i./A per year. • DO NOT feed soybean hay or threshings from treated fields to livestock. 				

TOMATO

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
FOLIAGE (apply every 7-10 days): Early blight (<i>Alternariasolani</i>) Late blight (<i>Phytophthora infestans</i>) Gray leaf spot (<i>Stemphyllium botryosum</i>) Gray leaf mold (<i>Fluvia fluva; Cladosporium</i>) Septoria leaf spot (<i>Septoria lycopersici</i>) Target spot (<i>Corynespora cassiicola</i>)	1.25 to 1.82 Pounds	Begin applications when dew or rain occur and disease threatens. Use the highest rate and shortest interval specified when disease conditions are severe. ECHO This product may be combined in the spray tank with EPA-registered pesticide products that claim copper as the active ingredient and are labeled for control of bacterial diseases of tomatoes. Check the copper manufacturer's label for specific instructions, restrictions, precautions and limitations prior to mixing with ECHO this product.
FRUIT (apply every 7-14 days beginning at fruit set): Anthracnose (<i>Colletotrichum spp.</i>) Alternaria fruit rot (black mold) (<i>Alternaria alternata</i>) Botrytis gray mold (<i>Botrytis cinerea</i>) Late blight fruit rot (<i>Phytophthora infestans</i>) Rhizoctonia fruit rot (<i>Rhizoctonia solani</i>)	1.82 to 2.75 pounds	
USE RESTRICTIONS:		
<ul style="list-style-type: none"> • PHI: 0 days • Apply by air or ground. Chemigation is allowed for solid set or portable wheel move systems only. • DO NOT apply more than 15.1 lbs. a.i./A per year. 		

TREE AND ORCHARD CROPS

Apply this product in sufficient water and with proper calibration to obtain uniform coverage of tree canopy. Application with ground equipment is preferable to aerial application because ground applications generally give better coverage of the tree canopy. If application with ground equipment is not feasible, this product may be applied with aircraft using at least 20 gallons of spray per acre. When concentrate sprays are used or when treating non-bearing or immature trees, use the lower rate of this product listed for the crop being treated.

- DO NOT allow livestock to graze in treated areas.
- **DO NOT apply Echo this product within one week before or after application of oil or an oil-based pesticide.**

ALMONDS

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Shothole (<i>Wilsonomyces carpophilus</i>) Scab (<i>Venturia carpophila</i>) Anthracnose (<i>Colletotrichum cutatum</i>)	3.64 pounds	For best control of shot hole, apply at leaf fall in late autumn. Apply also at budbreak to protect newly emerging leaves, and at shuck (jacket) split to prevent nut infections and to control scab and anthracnose.
Brown rot blossom and twig blight (<i>Monilinia spp</i>)		Apply at popcorn (pink bud) and at full bloom. If weather conditions favor disease development, make an additional application at petal fall.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 150 days • Apply by air or ground. • Spray Volume (gallons/acre) = 20 (concentrate) to 300 (full dilute) • DO NOT apply more than 18.75 lbs. a.i./A per year. 		

BLUEBERRY

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Anthracnose (<i>Colletotrichum gloeosporioides</i>) Mummy Berry (<i>Monilinia vaccinicorymbosi</i>)	2.73 to 3.64 pounds	Begin applications at budbreak (green tip). Repeat applications until early bloom at 10 day intervals.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 42 days • Apply by air or ground. • Spray Volume (gallons/acre) = 20 (concentrate) to 100 (full dilute) • DO NOT apply more than 9.0 lbs. a.i./A per year. • DO NOT apply after early bloom, otherwise phytotoxicity may occur to the developing fruit. 		

FILBERTS (HAZELNUTS)

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Eastern filbert blight (<i>Anisogramma anomala</i>)	3.64 pounds	Begin applications at leaf bud break and repeat at 2 to 4 week intervals.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 120 days • Apply by air or ground. • Spray Volume (gallons/acre) = 20 (concentrate) to 400 (full dilute) • DO NOT apply more than 9.0 lbs. a.i./A per year. • Based on available residue data, use of this product on filberts is restricted to Oregon. 		

MANGO

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Anthrachnose (<i>Colletotrichum spp.</i>)	1.82 to 3.18 pounds	Begin applications at early bloom and repeat at 7 to 14 day intervals until early fruit development. Begin the season with the lower rate on a 14-day interval (the minimum re-treatment interval is 7 days). Use the high rate and apply weekly when conditions favor disease. Use during bloom and fruit set up until fruit reach one-inch diameter. May cause spotting on fruit larger than one inch in diameter.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 21 days • Apply by air or ground. • Spray Volume (gallons/acre) = 100 (full dilute) • DO NOT apply more than 24.0 lbs. a.i./A per year. 		

PAPAYA

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Alternaria fruit spot (<i>Alternari alternata</i>) Anthrachnose (<i>Colletotrichum spp.</i>) Stem end rot (<i>Alternaria alternate</i> , <i>Colletotrichum spp.</i>)	1.82 to 2.73 pounds	Apply with ground equipment only. Begin treatment when conditions favor development of disease and continue treatments at 14 day intervals until weather conditions no longer favor disease development.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 14 days • Apply by air or ground. • Spray Volume (gallons/acre) = 20 (concentrate) to 150 (full dilute) • DO NOT apply more than 6.75 lbs. a.i./A per year. 		

PASSION FRUIT (HAWAII ONLY)

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Alternaria fruit and leaf spot (brown spot) (<i>Alternaria spp.</i>)	1.82 pounds	Apply with ground equipment in sufficient water to obtain adequate coverage of fruit and leaves. Begin applications before fruit spots appear (April to July) and re-apply at 14 day intervals until weather conditions no longer favor disease development.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 7 days • Apply by air or ground. • Spray Volume (gallons/acre) = 20 (concentrate) to 100 (full dilute) • DO NOT apply more than 7.5 lbs. a.i./A per year. 		

PISTACHIO

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Shoot & panicle blight <i>(Botryosphaeria dothidea; conidial stage: Fusicoccum sp)</i> Blossom & shoot blight <i>(Botrytis cinerea)</i> Leaf blight & Late blight <i>(Alternaria spp. & Stemphyllium spp.)</i> <i>suppression</i>	5.45 pounds	Apply when trees begin to blossom then re-apply at full bloom for optimal protection against shoot and panicle blights. If conditions are favorable for late blight or leaf spot infections, repeat applications at 4 week intervals. Use the high rate when abnormally wet or cloudy weather conditions prevail. NOTE: Use of this product in the manner described may result in specking or reddening of the fruit hull (epicarp). This effect appears to be superficial and has not resulted in any change in nut quality.
USE RESTRICTIONS: <ul style="list-style-type: none"> • PHI: 14 days • Apply by air or ground. • Spray Volume (gallons/acre) = 50 (concentrate) to 200 (full dilute) • DO NOT apply more than 22.5 lbs. a.i./A per year. 		

STONE FRUITS: PEACH, NECTARINE, APRICOT, CHERRY, PLUM, PRUNE

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Leaf curl <i>(Taphrina deformans)</i>		For best control apply at leaf fall in late autumn, using sufficient water and proper sprayer calibration to obtain uniform coverage. When conditions favor high disease levels use the high rate and apply once or twice more in mid to late winter before budswell. If the leaf fall application is not practical, application of ECHO this product for control of leaf curl may be made at any time prior to budswell the following spring.
Shothole <i>(Wilsonomyces carpophilus)</i> Brown rot blossom blight <i>(Monilinia spp.)</i> Lacy (russet) scab on prune Cherry leaf spot <i>(Blumeriella jaapii)</i> Scab <i>(Cladosporium carpophilum)</i>	2.84 to 3.76 pounds	Make one application at budbreak or popcorn (pink, red or early white bud). If weather conditions favor disease, make a second application 10 days later (full bloom to petal fall). Apply at shuck split to prevent infections on young fruit. If additional disease control is needed after shuck split and before harvest, use another registered fungicide. For control of cherry leaf spot after harvest, make one application to foliage within 7 days after fruit is removed. In orchards with a history of high leaf spot incidence, make a second application 10-14 days later.
USE RESTRICTIONS: <ul style="list-style-type: none"> • Do not apply after shuck split • Apply by air or ground. • Spray Volume (gallons/acre) = 20 (concentrate) to 300 (full dilute) • DO NOT apply more than 15.5 lbs. a.i./A per year. 		

CONIFERS (INCLUDING CHRISTMAS TREES)

DISEASES	RATE PER ACRE	APPLICATION DIRECTIONS
Swiss needlecast (<i>Phaeocryptopus gaeumannii</i>)	2.5 to 5 pounds	Single application technique: In Christmas tree plantations make one application in the spring when new shoot growth is 1/2 to 2 inches in length.
Scleroderris canker (pines) (<i>Gremeniella abietina</i>) Swiss needlecast (<i>Phaeocryptopus gaeumannii</i>)	1.36 to 2.5 pounds	Make the first application in spring when new shoot growth is 1/2 to 2 inches in length. Make additional applications at 3 to 4 week intervals until conditions no longer favor disease development. For use in nursery beds, apply the highest rate specified on a 3 week schedule.
Sirococcus tip blight (<i>Sirococcus conigenus</i>)	1.82 to 3.18 pounds	
Rhizosphaera needlecast (spruces) (<i>Rhizosphaera spp.</i>) Scirrhia brown spot (pines) (<i>Mycosphaerella dearnessii</i>)	5 pounds	
Cyclaneusma and Lophodermium needlecasts (pines)	2.5 to 5 pounds	Apply in early spring prior to budbreak. Repeat applications at approximately 6 to 8 week intervals, until spore release ceases in late fall. Apply monthly during periods of frequent rainfall, and where Lophodermium infections occur during dormancy (Pacific Northwest). During drought periods, applications may be suspended, then resumed upon next occurrence of needle wetness.
Rhabdocline needlecast (Douglas-fir)	1.36 to 2.5 pounds	Apply at budbreak and repeat at 3 to 4 week intervals until needles are fully elongated and conditions no longer favor disease development. In plantations of mixed provenance, or when irregular budbreak occurs, apply weekly until all trees have broken bud, then every 3 to 4 weeks as specified above. In nursery beds, use the high rate on a 3 week schedule.
Botrytis seedling blight (<i>Botrytis spp.</i>) Phoma twig blight (<i>Phoma spp.</i>)	2.5 pounds	Begin applications in nursery beds when seedlings are 4 inches tall and when cool, moist conditions favor disease development. Make additional applications at 7 to 14 day intervals as long as disease favorable conditions persist.
Autoecious needle rust (Weir's cushion) (spruces) (<i>Chrysomyxa weirii</i>)	5 pounds	Begin applications when 10% of buds have broken and repeat twice thereafter at 7-10 day intervals.
<p>USE RESTRICTIONS:</p> <ul style="list-style-type: none"> • Apply by air or ground. • Spray Volume (gallons/acre) = 5 to 10 (concentrate ground or aircraft) to 100 (dilute) • DO NOT apply more than 16.5 lbs. a.i./A per year. • Apply only to conifers in: conifer nursery beds, Christmas tree and bough production plantations, tree seed orchards, and landscape situations. • Do not use on forests. 		

TURFGRASSES

- DO NOT use on home lawns and turf sites associated with apartment buildings, daycare centers, playgrounds, recreational park athletic fields, athletic fields located on or next to schools (ie., elementary, middle and high schools), campgrounds, churches, and theme parks.
- Sodfarm turf treated with chlorothalonil prior to harvest must be mechanically cut, rolled and harvested.
- DO NOT use for sodfarms at application rates greater than 13 pounds of active ingredient, per acre, per year.
- DO NOT apply more than the following totals of chlorothalonil active ingredient from all registered product sources to the indicated types of turfgrass:

TYPE OF TURFGRASS	TOTAL CHLOROTHALONIL AI / ACRE / YEAR
Golf Course Greens	73 lbs
Golf Course Tees	52 lbs
Golf Course Fairways	26 lbs
Sod Farms	13 lbs
Other Turf	26 lbs

Apply **ECHO this product** in 90 to 450 gallons of water per acre on golf course greens and tees, and 30 to 100 gallons of water per acre on fairways, lawns and other turfgrass. Apply with ground equipment only.

Begin applications when conditions favor disease development and repeat applications as long as these conditions persist. Under severe disease conditions use the highest rate and shortest interval corresponding with the application schedule selected from the table below. DO NOT mow or irrigate after treatment until spray deposit on turfgrass is thoroughly dry. **ECHO This product** should always be used in conjunction with good turf management practices.

DISEASES* CONTROLLED	INTERVAL OF APPLICATION	GOLF COURSE GREENS & TEES RATE PER 1,000 SQ.FT.	GOLF COURSE FAIRWAYS, LAWNS & OTHER TURFGRASS RATE PER ACRE
1. Dollar spot 2. Brown patch 3. Leaf spot, Melting-out, Brown blight 4. Gray leaf spot	7-14 days	1.82 to 3.25 ounces (4.1 to 7.3 lbs a.i./acre)	5 to 8.9 pounds (4.1 to 7.3 lbs a.i./acre)
5. Red thread 6. Anthracnose 7. Copper spot 8. Stem rust (bluegrass) 9. Dichondra leaf spot	7 days or 14 days	3.25 ounces or 5 ounces (7.3 or 11.3 lbs a.i./acre)	8.9 pounds or 13.7 pounds (7.3 or 11.3 lbs a.i./acre)

*Diseases listed are caused by fungi, some of which are named as follows:

1. Dollar spot: *Sclerotinia homeocarpa*; *Lanzia* or *Moellerodiscus* spp.
2. Brown patch: *Rhizoctonia solani*, *R. zeae*, *R. cerealis*
3. Leaf spots, Melting-out, Brown blight: *Drechslera* spp. (including *D. poae*, *D. siccans*), *Bipolaris sorokiniana*, *Curvularia* spp.
4. Gray leaf spot: *Pyricularia grisea*, *P. oryzae*
5. Red thread: *Laetisaria fuciformis*
6. Anthracnose: *Colletotrichum graminicola*
7. Copper spot: *Gloeocercospora sorghi*
8. Stem rust: *Puccinia graminis*
9. Dichondra leaf spot: *Alternaria* spp.

Gray Snow Mold caused by Typhula spp.: Apply in sufficient water to obtain adequate coverage (2 to 10 gallons per 1,000 square feet). Apply 5 ounces of ~~ECHO 825~~ this product per 1,000 square feet of turf area (13.7 pounds per acre). Application must be made before snow cover in autumn. If snow cover is intermittent or lacking during the winter, re-apply ~~ECHO~~ this product at monthly intervals until Gray Snow Mold conditions no longer prevail. In areas where Pink Snow Mold (Microdochium or Fusarium patch) is likely to occur, apply ~~ECHO 825~~ this product at 5 ounces in combination with products containing iprodione at 1.82 ounces active ingredient, per 1,000 square feet of turf area. Read and observe all label directions for products containing these active ingredients.

Fusarium (Microdochium) Patch: ~~ECHO~~ This product is effective against Fusarium patch only in areas where snow cover is intermittent or lacking during the winter. Apply 5 ounces of ~~ECHO 825~~ this product per 1,000 square feet of turf area. Begin applications in late autumn and re-apply at 21 to 28 day intervals until conditions favorable for Fusarium patch no longer prevail.

Algal scum: Apply ~~ECHO 825~~ this product at 1.82 to 3.25 ounces per 1,000 square feet on a 7 to 14 day schedule. When colonies of algae are well established, every attempt should be made to dry out the afflicted area. Once dry, spiking or verticutting should be done to enhance turfgrass recovery in conjunction with the use of ~~ECHO~~ this product. Several applications of ~~ECHO~~ this product at the high rate may be necessary for turfgrass recovery. When environmental conditions are favorable for algae growth, a preventive program with ~~ECHO~~ this product will suppress re-colonization of the turf.

ORNAMENTAL PLANTS

Apply ~~ECHO 825~~ this product at a rate of 1.25 pounds per 100 gallons of water unless other directions are given in the tables below. Apply enough diluted spray per acre to provide thorough coverage of all plant parts that are intended to be protected from disease, generally ranging from 20 to 150 gallons per acre. Repeat applications at 7 to 14 day intervals until conditions are no longer favorable for disease. During periods when conditions favor severe disease incidence, generally cloudy or wet weather, apply ~~ECHO~~ this product at 7 day intervals. **DO NOT apply more than a total of 36.4 lbs chlorothalonil active ingredient per acre per year on field-grown ornamentals.**

Fruits and other structures which may be borne on treated plants **MUST NOT BE EATEN.**

This product may be used in greenhouses. DO NOT use mistblowers or high pressure spray equipment when making applications of this product in greenhouses.

~~ECHO 825~~ This product is recommended for control of fungal diseases referred to by numbers in parentheses following each type of ornamental plant. The user should test for possible phytotoxic responses, using recommended rates on each type of ornamental plant on a small area prior to widespread use. Applications made during bloom may damage flowers and/or fruits.

ORNAMENTALS RECOMMENDED FOR TREATMENT WITH ECHO 825

Broadleaf Shrubs and Trees		
Andromeda (<i>Pieris</i>) (4)	Flowering almond (1,2)	Oregon-grape (<i>Mahonia</i>) (6)
Ash (<i>Fraxinus</i>) (1)	Flowering cherry (1,2)	Red-tip (<i>Photinia</i>) (1)
Aspen (1)	Flowering peach (1,2)	Poplar (1)
Azalea (1,2,4)	Flowering plum (1,2)	Privet (<i>Ligustrum</i>) (1)
Buckeye, Horsechestnut (1)	Flowering quince (1,2)	Rhododendron (1,2,4)
Camellia (2)	Hawthorn (1,6)	Sand cherry (1,2)
Cherry-laurel (1)	Holly (1)	Sequoia (1)
Crabapple (1,6)	Lilac (5)	Spirea (1)
Dogwood (1)	Magnolia (1)	Sycamore, Planetree (1)
Eucalyptus (3)	Maple (1)	Viburnum (5)
Euonymus (1)	Mountain laurel (1)	Walnut (<i>Juglans</i>) (1)
Firethorn (<i>Pyracantha</i>) (1)	Oak (red group only) (1,7)	

Flowering^a Plants and Bulbs		
Arabian violet (2)	Gladiolus (1,2)	Petunia (1,4)
Begonia (1)	Hollyhock (6)	Phlox (1)
Carnation (1,2)	Hydrangea (foliage only) (1,6)	Poinsettia ^b (1)
Chrysanthemum (1,2)	Iris (1,2)	Rose ^c (1)
Crocus (1)	Lily (1)	Statice (1)
Daffodil (1)	Marigold (1)	Tulip (1)
Daisy (1)	Narcissus (1)	Zinnia (1,5)
Geranium (1,6)	Pansy (1)	

a/ Avoid applications during bloom period on plants where flower injury is unacceptable.

b/ Discontinue applications prior to bract formation; phytotoxicity is possible on the bracts.

c/ Use 0.9 pound of ECHO 825 per 100 gallons of water.

Foliage Plants		
Aglaonema (1)	Ficus (1)	Parlor palm (<i>Chamaedorea</i>) (1)
Areca palm (1)	Florida ruffle fern (1)	Peperomia (1)
Artemesia (1)	Leatherleaf fern (1)	Philodendron (1,4)
Boston fern (<i>Nephrolepis</i>) (1)	Lipstick plant (1)	Prayer plant (<i>Maranta</i>) (1)
Dracaena (1)	Ming aralia (1)	Syngonium (1)
Dumbcane (<i>Dieffenbachia</i>) (1)	Oyster plant (<i>Rhoeo</i>) (1)	Zebra plant (<i>Aphelandra</i>) (1)
Fatsia (<i>Aralia</i>) (1)	Pachysandra ^d (1)	

d/ Use 2.5 pounds of ECHO 825 per 100 gallons of water.

Diseases controlled with ECHO 825:

1. Leafspots & Foliar Blights:		
Actinopelte leafspot	Curvularia leafspot	Mycosphaerella ray blight
Alternaria leafspot or leaf blight	Dactylaria leafspot	Myrothecium leafspot, brown rot
Anthracnose	Didymellina leafspot	Phyllosticta leafspot
(<i>Gnomonia, Glomerella, Colletotrichum, Discula</i>) blights	Drechslera (<i>Bipolaris</i>) leafspots, inkspot	Ramularia leafspot
Black spot (<i>Diplocarpon</i>)	Fabraea (Entomosporium) leafspot	Rhizoctonia web blight
Botrytis blights	Fusarium (<i>Gibberella</i>) leafspot	Scab (Venturia)
Cephalosporium leafspot	Gloeosporium black leafspot	Septoria leafspot
Cercospora leafspot	Marssonina leafspot	Sphaeropsis leafspot
Cercosporidium leafspot	Monilinia blossom blight, twig blight	Stagonospora leaf scorch
Shothole (<i>Stigmina</i>)		Tan leafspot (<i>Curvularia</i>)
Corynespora stem & leafspots		Volutella leaf blight

2. Flower Spots & Blights:		
Botrytis flower spot, flower blight Curvularia flower spot	Monilinia blossom blight Ovulinia flower blight	Rhizopus blossom blight Sclerotinia flower blight

3. Cylindrocladium stem canker

4. Phytophthora leaf blight, dieback

5. Powdery mildews:		
<i>Erysiphe cichoracearum</i>	<i>Sphaerotheca fuliginea</i>	<i>Microsphaera</i> spp.

6. Rusts:		
<i>Gymnosporangium</i> spp.	<i>Pucciniastrum hydrangeae</i>	<i>Puccinia</i> spp.

7. Taphrina blister

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal. ~~Open dumping is prohibited.~~

Pesticide Storage: Store in a cool place. Protect from excessive heat.

Pesticide Disposal: Pesticide wastes are toxic. ~~Open dumping is prohibited.~~ Improper disposal of excess pesticide, pesticide spray or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use 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:

Container Disposal: Non-refillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke

~~**Containers < 5 Gallons: Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. 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 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. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration.~~

~~**Minibulk Containers: [greater than 5 gal.] Nonrefillable container.** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follow: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.~~

~~**Bulk Containers: [greater than 5 gal.] Refillable container.** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. 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 percent 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 two more times. When the container is empty, replace the cap and seal all openings that have been opened during use; and return to the point of purchase, or to a designated location named at the time of purchase of this product. 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 transporting. Do not transport if this container is damaged or leaking. If the container is damaged or leaking, call Chem-Tree. If the container is damaged and leaking or material has been spilled, follow these procedures:~~

- ~~• Cover spill with absorbent material.~~
- ~~• Swoop into disposal container.~~
- ~~• Wash area with detergent and water and follow with clean water rinse.~~
- ~~• Do not allow to contaminate water supplies.~~
- ~~• Dispose of according to instructions.~~

~~If not returned to the point of purchase or to a designated location, clean empty container as instructed above and offer for recycling. Disposal of this container must be in compliance with state and local regulations.~~

WARRANTY AND LIMITATION OF DAMAGES

CONDITIONS OF SALE: To the extent consistent with applicable law, Sipcam Agro USA, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in accordance with the directions under normal conditions of use. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal use conditions, or under conditions not reasonably foreseeable to Sipcam Agro USA, Inc.

Sipcam Agro USA, Inc. disclaims all other warranties, express or implied. to the extent consistent with applicable law, Sipcam Agro USA, Inc. shall not be liable for consequential, special, or indirect damages resulting from the use or handling of this product, and Sipcam Agro USA, Inc.'s sole liability and buyer's and user's exclusive remedy shall be limited to the refund of the purchase price. buyer and user acknowledge and assume all risks and liability resulting from handling, storage and use of this product. Sipcam Agro USA, Inc. does not authorize any agent or representative to make any other warranty, guarantee or representation concerning this product.



WARNING: This product can expose you to chemicals including chlorothalonil, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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Foil is a registered trademark of Ecogen, Inc.;

Latron and Triton are registered trademarks of Dow Agrosiences LLC.

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