80289-3 9/25/2014 1/33

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

September 25, 2014

Ms. Crystal Layton, Regulatory Agent for Isagro USA, Inc.
Landis International
PO Box 5126
Valdosta, GA 31603-5126

Subject: Label Notification per PRN 98-10 – Distributor Names/Addresses, Minor Changes
Product Name: Badge SC
EPA Registration Number: 80289-3
Application Date: August 25, 2014
Decision Number: 495541

Dear Ms. Layton:

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 Notification referred to above, to add distributor address; Isagro Italian address and website, and "(attached)" to the front panel is acceptable.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, you may contact Tony Kish at 703 308-9443, or via email at kish.tony@epa.gov.

Sincerely,

Tony Kish

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

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EPA

United States
Environmental Protection Agency
Washington, DC 20460

☐ Registration
☐ Amendment
☒ Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number	2. EPA Product Manager	3. Proposed Classification
80289-3	Tony Kish	☒ None ☐ Restricted
4. Company/Product (Name)	PM #	
Isagro USA, Inc./Badge SC	22	

5. Name and Address of Applicant *(Include Zip Code)*

Isagro USA, Inc.430 Davis Drive, Suite 240, Morrisville, NC 27560
c/o Landis International, Inc. PO Box 5126 Valdosta, GA 31601

☐ *Check if this is a new address*

6. **Expedited Review.** In accordance with FIFRA Section 3(c)(3)(b)(i), my product is similar or identical in composition and labeling to:

EPA. Reg. No. _____

Product Name _____

Section - II

☐ Amendment - Explain Below
☐ Resubmission in Response to Agency Letter Dated _____
☒ Notification - Explain Below
☐ Final Printed Labels in Response to Agency Letter Dated _____
☐ "Me Too" Application
☐ Other - Explain Below

Explanation: Use additional pages(s) if necessary. (For Section I and Section II.)

Notification to add the distributor address, Isagro Italian address and add "attached" to the front panel of Badge SC, EPA Reg. No. 80289-3 per PR Notice 98-10.

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will be Packaged In:

Child-Resistant Packaging	Unit Packaging		Water Soluble Packaging		2. Type of Container
☐ Yes ☐ No ***Certification Must be Submitted**	☐ Yes If "Yes" Unit Packaging Weight.	☐ No Number per Container	☐ Yes If "Yes" Package Weight.	☐ No Number per Container	☐ Metal ☐ Plastic ☐ Glass ☐ Paper ☐ Other (Specify) _____

3. Location of Net Contents Information	4. Size(s) Retail Container	5. Location of Label Directions
☐ Label ☐ Container		☐ On Label ☐ On Leaflet Accompanying Label

6. Manner in Which Label is Affixed to Product
☐ Lithographed
☐ Paper Glued
☐ Stenciled
☐ Other _____

Section - IV

1. Contact Point *(Complete items directly below for identification of individual to be contacted, if necessary, to process this application)*

Name	Title	Telephone Number (Include Area Code)
Crystal Layton	Regulatory Agent	229-247-6472

Certification

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

6. Date Application Recieved (Stamped)

2. Signature	3. Title
C Layton	Regulatory Agent
4. Typed Name	**5. Date**
Crystal Layton	August 25, 2014

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LANDIS INTERNATIONAL
R & D MANAGEMENT

August 25, 2014

REF. ☎ 1-703-308-9443

VIA COURIER SERVICE

Mr. Tony Kish (PM 22)
Fungicide Branch
Registration Division
U.S. EPA Office of Pesticide Programs – 7505P
Document Processing Desk (NOTIF)
One Potomac Yard
2777 S. Crystal Drive
Arlington, VA 22202

Subject: Notification to add the distributor address, Isagro Italian address and add "attached" to the front panel of Badge SC, EPA Reg. No. 80289-3

Dear Mr. Kish,

This notification is being submitted to add the Gowan Company distributor name and address, the Isagro Italian address, and add "attached" to front panel of Badge SC, EPA Reg. No. 80289-3. On behalf of Isagro USA, Inc., please find the following enclosed in support of this notification:

- Application for Pesticide Registration (EPA form 8570-1)
- Agent letter
- 1 copy of the "clean" label
- 1 copy of the "mark-up" label highlighted noting changes

Please contact me via email at clayton@landisintl.com or phone at 229-247-6472 should you have any questions or concerns.

Sincerely,

C Dayton

Crystal Layton
Regulatory Agent for Isagro USA, Inc.

3185 Madison Highway ▪ P. O. Box 5126 ▪ Valdosta, Georgia 31603-5126 USA ▪ (229) 247-6472 ▪ Fax (229) 242-1562 ▪ landis@landisintl.com

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NOTIFICATION

SEP 25 2014

Badge® SC

SUSPENSION CONCENTRATE

Fungicide/Bactericide For Agricultural Use

ACTIVE INGREDIENTS:

Copper Oxychloride (CAS No. 1332-40-7)*	16.81%
Copper Hydroxide (CAS No. 20427-59-2)*	15.36%
OTHER INGREDIENTS:	67.83%
TOTAL:	100.00%

*Metallic Copper (Cu) Equivalent is 20% by weight or 2.27 Pounds Metallic Copper per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

See (attached) Label for Additional Precautions and Directions for Use

FIRST AID	
IF SWALLOWED	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything to an unconscious person.
IF ON SKIN OR CLOTHING	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES	• Hold eye open and rinse slowly and gently with water for 15 to 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.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. **You may also contact 1-800-222-1222 for emergency medical treatment information** **For Chemical Emergency Spill Leak Fire Exposure or Accident Call CHEMTREC Day or Night** **Domestic North America 800-424-9300 International 703-527-3883 (collect calls accepted)**	

EPA Registration No.: 80289-3

EPA Establishment No.: 79558-ITA-1

Manufactured by:
Isagro S.p.A
Centro Uffici San Siro-Via Caldera 21
20153 Milano / Italy -Tel: +39 02 40901.276
www.isagro.com
For:

ISAGRO USA
Isagro USA, Inc.
430 Davis Drive, Suite 240
Morrisville, NC 27560

Distributed by:
Gowan Company
P.O. Box 5569
Yuma, AZ 85366-5569

Gowan
The Go To Company

NET CONTENTS: 2.5 gallon, 2 X2.5 gallon, 158 gallon

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

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

Mixers, loaders, applicators, and other handlers must wear the following:

- long-sleeved shirt and long pants
- shoes plus socks
- chemical-resistant gloves such as Natural Rubber

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 material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

USER SAFETY RECOMMENDATIONS

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

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers, adults, children or pets, 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 State or Tribal 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 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 intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Notify workers of the application by warning them orally.

GREENHOUSE USE: For at least seven days following the application of copper-containing products in

greenhouses:

- At least one container or station designed specifically for flushing eyes is available in operating condition with the WPS-required decontamination supplies for workers entering the area treated with copper-containing products,
- Workers are informed orally, in a manner they can understand:
  - that residues in the treated area may be highly irritating to their eyes,
  - that they should 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 should immediately flush their eyes with the eye flush container that is located with the decontamination supplies and
  - how to operate the eye flush container or eye flush station.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **24** hours for greenhouse uses and **48** hours for all other applications without required PPE.

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 over long-sleeved shirt and long pants
– Chemical-resistant gloves made of any waterproof material
– Chemical-resistant footwear plus socks
– Chemical-resistant headgear if overhead exposure
– Protective eyewear

NONAGRICULTURAL 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.

Do not allow others to enter until sprays have dried.

INSTRUCTIONS

BADGE SC may be applied as an aerial, ground dilute or ground concentrate spray unless specifically directed otherwise in the specific crop use directions.

The per acre use rate of BADGE SC is applicable for both dilute and concentrate spraying. Depending upon the equipment used and the specific crop, the spray volume applied per acre will differ. Refer to Minimum Recommended Spray Volume Table. Complete spray coverage is essential to assure optimum performance from BADGE SC. When treating by aerial application or with low volume application equipment, unless you have had specific previous experience, it is advisable to test for compatibility and tolerance to crop injury prior to full scale commercial utilization.

Consult the BADGE SC label for specific rates and timing of application by crop. **Where application rates and intervals are provided in a range (e.g. 8 to 24 pints and 7 to 10 days), the higher rates and shorter spray intervals are recommended when rainfall is heavy and/or disease pressure high. Use the higher rates for large mature tree crops.**

The pre harvest interval (PHI) for Badge SC is 0 days for all crops. Reentry into treated areas and harvest of treated crops can be performed when wearing required PPE during the 24 hour REI for greenhouse and 48 hour REI for field applications.

SPECIAL PRECAUTIONS

- BADGE SC **must not be applied** in a spray solution having a pH of less than 6.5 as phytotoxicity may occur.
- Do not tank mix BADGE SC with Aliette® fungicide for use on any registered crops or ornamentals unless appropriate precautions have been taken to buffer the spray solution because severe phytotoxicity may result. Use in accordance with the most restrictive of label limitations and precautions. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.
- This product may be reactive on masonry and metal surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, or other metallic surfaces.
- Environmental conditions such as extended periods of wet weather, acid rain, etc. which alter the pH of the leaf surface may affect the performance of BADGE SC resulting in possible phytotoxicity or loss of effectiveness.
- Agricultural chemicals may perform in an unpredictable manner when tank mixed, especially where several products are involved. Reduced effect on pests or crop injury may occur. Unless recommended on this label or by a state/local expert, it is advisable to test for compatibility and potential crop injury prior to commercial use of a new tank mix; otherwise tank mixing should not be undertaken.
- It must be determined if proper application equipment is available and if waste associated with its use can be properly handled. Agricultural chemicals are often reactive with the materials used in the construction of application equipment such as aluminum, rubber and some synthetic materials. This factor should be taken into consideration when selecting proper application equipment. It is necessary that all application equipment be thoroughly flushed with clean water after each day's use.
- Do not apply this product through any irrigation (chemigation) system using aluminum parts or components as damage to the system may occur. Such application is prohibited regardless of whether the irrigation system is flushed with water after use of this product.
- Apply this product only through one or more of the following types of systems: sprinkler, including center pivot, lateral move, traveler, big gun, or plastic pipe solid set system(s) which contain no aluminum parts or components. Do not apply this product through any other type of irrigation system.
- While volume is important in obtaining full spray coverage, often factors such as foliage density, environmental conditions and sprayer calibration have a greater impact. Always be sure that sprayers are calibrated to spray equipment manufacturer's specifications and environmental conditions are within those recommended by State and local regulatory authorities.
- When mixing, fill the spray tank one-half full with water. Add BADGE SC slowly to tank while hydraulic or mechanical agitation is operating and continue filling with water. **DO NOT PREMIX or SLURRY** BADGE SC. Spreaders, stickers, insecticides, nutrients, etc. should be added last. If compatibility is in question, use the Compatibility Jar Test before mixing a whole tank or contact your chemical supplier. Observe all precautions and limitations on the labels of all products used in mixtures.

FROST INJURY PROTECTION (Bacterial Ice Nucleation Inhibitor)

Application of BADGE SC made to all crops listed on this label at the rates and stages of growth indicated, at least 24 hours prior to anticipated frost conditions, will afford control of ice nucleating bacteria (*Pseudomonas syringae, Erwinia herbicola and Pseudomonas fluorescens*) and may therefore provide some protection against light frost. Not recommended for those geographical areas where weather conditions favor severe frost.

CROP USES

CITRUS: Grapefruit, Kumquat, Lemon, Lime, Orange, Pummelo, Tangelo and Tangerine.

FIELD CROPS: Alfalfa, Barley, Clover*, Corn*, Oats, Peanut, Potato, Soybean, Sugar Beet, Sugarcane* and Wheat.

SMALL FRUITS: Blackberry, Blueberry*, Cranberry, Currant, Gooseberry, Raspberry and Strawberry.

TREE CROPS: Almond, Apple, Apricot, Avocado, Banana, Cacao, Cherimoya*, Cherry, Chestnut*, Coffee, Filbert, Mango*, Nectarine, Nutmeg*, Olive, Peach, Pear, Pecan, Pistachio, Plantain*, Plum, Prune, Quince* and Walnut.

VEGETABLES: Artichoke*, Asparagus*, Bean, Beet, Beet Greens, Broccoli, Brussels Sprout, Cabbage, Cantaloupe, Carrot, Cauliflower, Celeriac*, Celery, Chard, Cucumber, Eggplant, Endive*, Escarole*, Garlic*, Greens (Collard, Mustard and Turnip), Honeydew, Kale*, Kohlrabi*, Leek*, Lettuce, Muskmelon, Okra*, Onion, Pea, Pepper, Pumpkin, Radish*, Rhubarb*, Rutabaga*, Shallot*, Spinach, Squash, Tomato, Turnip*, Watercress* and Watermelon.

VINES: Grape, Hops and Kiwi.

MISCELLANEOUS: Atemoya*, Carambola*, Chives*, Cilantro*, Coriander*, Dill*, Ginseng, Guava, Litchi*, Live Oak*, Macadamia, Mamey

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Sapote*, Mint*, Papaya*, Parsley*, Passion Fruit*, Persimmon*, Rosemary*, Sugar Apple* and Sycamore, and Turfgrass*.

GREENHOUSE AND SHADEHOUSE CROPS: BADGE SC may be used in greenhouses and shadehouses to control diseases on any crop on this label where physiology allows greenhouse or shadehouse culture. While specific directions are presented for Citrus, Cucumber, Eggplant, Pepper, and Tomato; general use may occur for any crop on this label where physiology allows greenhouse or shadehouse culture.

ORNAMENTALS: Specified as listed.

* Except California

MINIMUM RECOMMENDED SPRAY VOLUME (GALLONS PER ACRE) WHEN APPLYING BADGE SC			
USE	AERIAL	DILUTE	CONCENTRATE*
Vegetables	3	20	–
Field Crops	3	20	–
Small Fruits	5	150	50
Vines	5	150	50
Tree Crops	10	400	50
Miscellaneous crops	10	150	50
Citrus	10	800	100
Ornamentals	10	100	50

*When using pesticide application equipment such as Curtec® or other similar sprayers which are capable of obtaining thorough coverage at low volumes, application rates as low as 20 gallons per acre of spray volume may be used.

CROP USE DIRECTIONS

The following specific instructions are based on general application procedures. The recommendations of your local State Agricultural Extension Service should be closely followed as to timing, frequency and number of sprays per season.

CITRUS

BADGE SC may be mixed with dry foliar nutritionals (micronutrients) to create "Shot Bag" mixes to meet the various nutritional requirements of citrus and provide disease protection as described on this label. BADGE SC per acre rates in these mixes must not exceed the maximum recommended label rates for disease control. Adding foliar nutritionals or other products to spray mixtures containing BADGE SC and applying to citrus during the post-bloom period when young fruit are present may result in spray burn.

DISEASE	APP. RATE (PINTS PRODUCT/A)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MIN. RETREATMENT INTERVAL (DAYS	COMMENTS
Algal Spot, Melanose, Scab	1.75 – 11	44.4	12.6[1]	7	Apply as pre-bloom and post-bloom sprays. Use the higher rates when conditions favor disease development.
Greasy Spot, Pink Pitting	0.75 – 5	44.4	12.6[1]	7	Apply in summer on expanded new flush. Repeat on subsequent flushes where disease pressure is severe. Use the higher rates when conditions favor disease development.
Alternaria Brown Spot	1.75 – 7	44.4	12.6[1]	21	On susceptible varieties apply when the first spring flush appears and each flush thereafter. Application to fruit should start after two thirds of the petals have fallen and be repeated on a 21 day schedule. Use the higher rates when conditions favor disease development.

DISEASE	APP. RATE (PINTS PRODUCT/A)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MIN. RETREATMENT INTERVAL (DAYS	COMMENTS
Phytophthora Brown Rot, Septoria Spot	1.75 – 7	44.4	12.6[1]	7	Begin application in fall before or just after the first rain and continue as needed. For brown rot only, apply to skirts of trees to a height of at least 4 feet. For control of septoria spot or where fruit have already been infected with brown rot, apply to entire tree. Apply also to bare ground 1 foot beyond skirt. Use the higher rates when conditions favor disease development. **NOTE:** In California, in areas subject to copper injury, add 1/3 to 1 pound of high quality lime per 2 pints of BADGE SC.
Phytophthora Foot Rot	1	44.4	12.6[1]	7	Mix with 1 quart of water, Tre-Hold® or latex paint. Paint trunks of trees from the soil surface to the lowest scaffold limbs. Apply in May prior to summer rains and/or in the fall prior to wrapping trees for freeze protection. Treatment serves as protection for up to 1 year, but does not cure existing infections. **NOTE:** Areas where microjet or low volume irrigation hit the tree trunk may require retreatment due to wash off.
Citrus Canker (Suppression)	2 – 11	44.4	12.6[1]	7	Spray flushes 7 to 14 days after shoots begin to grow. Young fruit may require an additional application. Number and timing of applications will be dependent upon disease pressure. Under heavy pressure, each flush of new growth should be sprayed.
Black spot*	1 – 3	44.4	12.6[1]	7	Initiate treatment prior to or at the first appearance of disease and repeat on a 7 to 21 day interval as needed. Use higher rates and short application intervals when conditions favor disease development

NOTE: Phytotoxicity may occur on young tender flush when BADGE SC is applied to citrus seedlings grown in greenhouses or shadehouses.
* Except California
[1]maximum annual amount allowed for all disease applications combined

CITRUS (FIELD NURSERY GROWN)

To control Melanose, Scab, Pink Pitting, Greasy Spot and Brown Rot and for suppression of Citrus Canker, apply 6 to 11 PINTS PER ACRE. Apply BADGE SC at 7 to 28 day intervals depending on disease severity and rainfall. The maximum single application rate is 3.15 pounds of Cu per acre. The maximum annual application rate is 12.6 pounds of Cu per acre. The minimum retreatment interval is 7 days.

FIELD CROPS

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Alfalfa	Cercospora Leaf Spot, Leptosphaerulina Leaf Spot	0.75 – 1.5	3.94	1.12	30	Apply 10 to 14 days before each harvest or earlier if disease threatens. **NOTE:** Spray injury may occur with sensitive varieties such as Lahontan.

FIELD CROPS

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Cereal Grains (Barley, Millet, Oat, Rye, Sorghum, Wheat)	Fusarium Head Blight Suppression, Helminthosporium, Powdery Mildew suppression, Septoria Leaf Blotch, Spot Blotch, Stagonospora Leaf and Glume Blotch, Stem Rust	0.5 – 1.8	3.73	1.06	10	BADGE SC can be applied as a foliar application for early season disease control and again at early heading then followed with another application 10 days later. Use the higher rates when conditions favor disease development.
Clover*	Anthracnose, Bacterial Blight, Bacterial Leaf Spot, Cercospora Leaf Spot, Powdery Mildew	0.5 – 1. 8	16.7	4.74	7	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals. Use the higher rates when conditions favor disease development.
Corn* (Field Corn, Popcorn, Seed Corn, Sweet Corn)	Bacterial Stalk Rot	0.5 – 2.5	14.8	4.2	7	Begin treatment when disease first appears and repeat every 7 to10 days. Use the higher rates and shorter spray intervals when conditions favor disease development.
Peanut	Leaf Spot, Rust	1 – 2.5	16.6	4.74	7	Begin spraying at 35 to 40 days after planting or when disease symptoms first appear and repeat at 7 to 14 day intervals. Keep sprays to 7 day intervals during humid weather. Use the higher rates when conditions favor disease development.
Potato	Early Blight, Late Blight, Powdery Mildew	1 – 4	88.1	25	5	Apply 1 to 2.5 pints at 5 to 10 day intervals starting when plants are 2 to 6 inches high in locations where disease is light. Apply up to 3 pints per acre when disease is more severe. Under conditions of severe disease, control with BADGE SC will be improved by tank mixing with other compatible fungicides registered for use on potatoes. Read and follow all label instructions of tank mix partners. Use the higher rates when conditions favor disease development.
Soybean	Bacterial Blight, Downy mildew, Powdery Mildew	0.75 – 2.5	16.7	4.74	7	For preventive applications, begin first application when plant height reaches 6 inches and repeat on a 7 to 14 day interval as needed. Use higher rates when conditions favor high disease pressure.

FIELD CROPS

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Sugar Beet	Cercospora Leaf Spot, Powdery mildew	1 – 4	27.7	7.86	10	Recommended for tank mixture with other products registered for control of listed diseases. For suppression, begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals. Use the higher rates when conditions favor disease development. Addition of a spreader/sticker is recommended.
Sugarcane*	Rusts (brown and orange)	1.75	3.7	1.06	10	Recommended for tank mixture with other products registered for rust control. For suppression of rust, begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals. Use the higher rates when conditions favor disease development. Addition of a spreader/sticker is recommended.

* Except California

SMALL FRUIT

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Brambles - Blackberry Raspberry (Aurora, Boysen, Cascade, Chehalem, dewberry, Logan, Marion, Santiam, Thornless Evergreen)	Anthracnose, Cane Spot, Leaf Spot, Pseudomonas Blight, Purple Blotch, Yellow Rust	1.75 – 3.5	35.2	10[1]	7	Make fall application after harvest. Apply delayed dormant spray after pruning/training in the spring. If needed, agricultural-type spray oil may be added.
	Anthracnose, Cane Spot, Leaf Spot, Purple Blotch, Yellow Rust	1 – 2.25	35.2	10[1]	7	Apply when leaf buds begin to open and repeat when flower buds show white. If needed, agricultural-type spray oil may be added. **NOTE:** Crop injury may occur if applied to foliage under certain environmental conditions such as hot or prolonged moist periods. Discontinue application if signs of crop injury appear.
Blueberry*	Bacterial Canker	1.5 – 7	29.6	8.4[1]	28	Make first application before rain falls and a second application 4 weeks later. Use the higher rates when conditions favor disease development.
	Fruit Rot, Phomopsis Twig Blight	1 – 4	29.6	8.4[1]	7	Dormant Application: Begin applications when bloom buds begin to swell. Make additional applications at 7 to 14 day intervals before blooms open. Use the higher rates when conditions favor disease development
Cranberry	Fruit Rot	3.5 – 7	44.4	12.6[1]	7	Make first application in late bloom. Apply one or two additional applications at 7 to 14 day intervals depending on disease severity.
	Rose Bloom	3.5 – 7	44.4	12.6[1]	7	Apply three sprays on 7 to 14 day schedule or longer as needed as soon as symptoms are observed.
	Bacterial Stem Canker	3.5 – 7	44.4	12.6[1]	7	Apply postharvest and again in spring at bud swell. Apply one or two additional applications at 7 to 14 day intervals or longer as needed depending on disease severity.
	Leaf Blight, Red Leaf Spot, Stem Blight, Tip Blight *(Monilinia)*	3.5 – 7	44.4	12.6[1]	7	Apply delayed dormant spray in the spring. Repeat at 7 to 14 day intervals or longer as needed through pre-bloom.
Currant, Gooseberry	Anthracnose, Leaf Spot	4.25 – 9	56.3	16	10	Make initial application after first leaves have expanded. Continue on a 10 to 14 day schedule during wet conditions in the spring. Make an additional application after harvest.

SMALL FRUIT

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Strawberry	Angular Leaf Spot *(Xanthomonas)*, Downy Mildew, Leaf Blight, Leaf Scorch, Leaf Spot, Powdery Mildew	1 – 2.5	28.9	8.19	7	Begin application when plants are established and continue on a weekly schedule throughout the season. Apply in at least 20 gallons of water. Use the higher rates when conditions favor disease development. **NOTE:** Discontinue applications if signs of crop injury appear.

[1]maximum annual amount allowed for all disease applications combined
* Except California

TREE FRUIT

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Apple	Anthracnose, Blossom Blast, European Canker *(Nectria)*, Shoot Blast *(Pseudomonas)*	5 – 14	56.3	16[1]	n/a	Apply before fall rains. Use the higher rate when conditions favor disease development. Only 1 application per season is permitted. **NOTE:** Use on yellow varieties may cause discoloration. To avoid discoloration, pick before spraying.
	Apple Scab, Fire Blight	3.5 – 7	56.3	16[1]	n/a	Make application between silver-tip and green-tip. Apply as a full-cover spray for early season disease suppression. Only 1 application per season is permitted. **NOTE:** Moderate to severe crop injury may occur from late application; discontinue use when green-tip reaches ½ inch.
	Apple Scab	0.75 – 1.75	56.3	16[1]	5	Extended spray schedule where fruit finish is not a concern: Continued application may be made at 5 to 7 day intervals or longer as needed between ½ inch green-tip and first cover spray. **NOTE:** Moderate to severe crop injury may result from this extended spray schedule. It is not intended for fresh market apples or fresh apples where fruit finish is a concern as it is likely to cause fruit russetting. The addition of 1 to 3 pounds of hydrated lime per 2 pints of BADGE SC may reduce crop injury.
	Fire Blight	0.5 – 1.5	56.3	16[1]	5	
Apple	Bitter Rot, Black Spot, Blotch, Powdery mildew	1 – 2.8	56.3	16[1]	5	Begin applications at petal fall and repeat through fourth cover spray. The addition of 3 to 5 lbs hydrated lime per 100 gallons may reduce crop injury.

TREE FRUIT

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
	Brooks spot	1 – 2	56.3	16[1]	5	Apply Badge SC plus 2 lbs hydrated lime per 100 gallons. Make applications during late cover sprays.
	Bullseye rot	2 – 7.5	56.3	16[1]	n/a	Use Badge SC plus sprayable oil per 100 gallons water. Make applications after harvest.
	Sooty blotch	1 – 2	56.3	16[1]	5	Use Badge SC plus 2½ lbs hydrated lime per 100 gallons. Apply during late cover sprays. When conditions indicate the potential for increased copper injury, add additional lime.
	Collar Rot, Crown Rot	1 – 2	56.3	16[1]	n/a	Mix in 100 gallons of water. Apply 4 gallons of suspension as a drench on the lower trunk area of each tree. Apply in early spring or in fall after harvest for best results. Do not apply to foliage or fruit. **NOTE:** Do not use if soil pH is below 5.5 since copper toxicity may result.
Apricot, Cherry, Plum, Prune	Bacterial Blast *(Pseudomonas)*, Bacterial Canker, Coryneum Blight (Shot Hole)	3.5 – 14	63.4	18[1]	7	Fall Applications: Make first application before fall rains and a second at late dormant. Use the higher rates when conditions favor disease development. If needed, agricultural-type spray oil may be added. For cherries: Where disease is severe, an additional application shortly after harvest may be required. Use the higher rates when conditions favor disease development.
Apricot, Cherry, Plum, Prune	Blossom Brown Rot, Coryneum Blight (Shot Hole)	3.5 – 5	63.4	18[1]	5	Apply during early bloom. Do not apply after full bloom or injury may occur.
	Black Knot (Plum)	1.5 – 5	63.4	18[1]	5	Make an application at bud swell up to early bloom for early season disease suppression. Apply before full bloom. Use the higher rates when rainfall is heavy and disease pressure is high. **NOTE:** To avoid plant injury, do not use after full bloom. Use the higher rates when conditions favor disease development.

TREE FRUIT

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Cherry	Cherry Leaf Spot (Sour Cherries Only)	1 – 5	63.4	18[1]	5	Apply at petal fall as well as 1 to 2 times after petal fall. Use the lower rates where disease infection is light and use the higher rates for dormant application or where disease is moderate to severe. Do not apply to sweet cherry or the English Morello variety as severe injury may result. The addition of 1 to 3 pounds of hydrated lime per 2 pints of BADGE SC may reduce crop injury. NOTE: Moderate to severe injury such as leaf spotting and defoliation may occur form post-bloom applications.
Apricot, Nectarine, Peach	Bacterial Blast (*Pseudomonas*), Bacterial Canker, Bacterial Spot, (*Xanthomonas*), Coryneum Blight (Shot Hole), Leaf Curl	3.5 – 14	63.4	18[1]	7	Make first application before fall rains and a second at late dormant. For peach leaf curl, late dormant application must be made before leaf buds swell. Use the higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil may be added.
	Blossom Brown Rot, Coryneum Blight (Shot Hole), Leaf Curl	3.5 – 5.25	63.4	18[1]	5	Full cover spray at pink bud.
	Bacterial Spot	0.5 – 2	63.4	18[1]	5	Post-bloom application applied at first and second cover sprays. NOTE: Do not spray 3 weeks prior to harvest. Use only listed rates. Spotting of leaves and defoliation may occur from use in cover sprays. The addition of 1 to 3 pounds of hydrated lime per 2 pints of BADGE SC may reduce crop injury.
Atemoya, Sugar Apple (Annona)*	Anthracnose	1.5 – 8	44.4	12.6	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Avocado	Anthracnose, Blotch, Scab	3.5 – 11	66.6	18.9	14	Apply when bloom buds begin to swell and continue application at monthly intervals for five to six applications. Use the higher rates when conditions favor disease development.
Banana, Plantain*	Sigatoka (Black and Yellow)	0.75 - 2	66.6	18.9	7	Apply by air in 3 gallons of water. If needed, agricultural-type spray oil may be added. Apply on a 14 day schedule throughout the wet season. Apply at 21 day intervals during dry periods.

TREE FRUIT

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
	Black Pitting	1.75 – 3.5	66.6	18.9	7	Mix in 100 gallons of water. Apply to the fruit stem and the basal portion of the leaf crown. Apply during the first and second weeks after fruit emergence.
Carambola*	Anthracnose	2.5 – 7	37	10.5	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease.
Cherimoya (custard apple)*	Anthracnose	1 – 4	29.6	8.4	14	Begin applications when conditions first favor disease development and repeat using a 14-day interval. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease. Make first application to a small area to test for crop sensitivity. The addition of 1 to 3 pounds of hydrated lime per 2 pints of BADGE SC may reduce crop injury.
Guava	Anthracnose, Red Algae	1.25 – 4	17.3	4.92	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease pressure.
Mamey Sapote*	Algal Leaf Spot, Anthracnose	2.5 – 7	29.6	8.4	14	Apply when conditions favor disease development. Repeat on 14 to 30 day schedule as disease severity and environmental conditions dictate. Use the higher rates when conditions favor disease development.
Mango*	Anthracnose	2 – 9	168.8	48	30	Apply monthly after fruit set until harvest. Use the higher rates when rainfall is heavy and disease pressure is high.
Olive	Anthracnose, Olive Knot, Olive Leaf Spot, Peacock Spot	3.5 – 11	63.4	18	30	Make first application before winter rains begin. A second application in early spring should be made if disease is severe. Apply the higher rates for heavy disease pressure or when conditions favor disease development.
Papaya*	Anthracnose	2 – 9	74.7	21.2	14	Apply before disease appears. Apply at 14 day intervals. The addition of an approved spreader is desirable. Use the higher rates when conditions favor disease development.

TREE FRUIT

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Pear	Fire Blight	0.5 – 1	56.3	16[1]	5	Apply at 5 day intervals throughout the bloom period. **NOTE**: Russetting may occur in copper sensitive varieties. Excessive dosages may cause fruit russet on any variety.
	Blossom Blast *(Pseudomonas)*	5.25 – 14	56.3	16[1]	n/a	Apply before fall rains and again during dormancy before spring growth starts. Use the higher rates when disease pressure is high or when conditions favor disease development. Only 1 application per season is permitted.
Persimmon*	Cercospora Leaf Spot	0.75 – 1.5	21.1	6	14	Begin applications in May/June at leaf flush and repeat applications on a 14 day interval depending on disease severity and environmental conditions.
Quince*	Fire Blight, Blossom Blast	0.5 – 1	56.3	16	5	Apply at 5 day intervals throughout the bloom period. Apply in adequate water for thorough coverage.

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* Except California

TREE NUTS

CROP	DISEASE	APP. RATE (LBS PINTS/A)	MAX. APP. RATE/YEAR (LBS PINTS/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Almond	Bacterial Blast (Pseudomonas), Bacterial Canker, Coryneum Blight (Shot Hole)	3.5 – 14	63.4	18[1]	7	Fall Applications: Make first application before fall rains and a second at late dormant. Use the higher rates when conditions favor disease development. If needed, agricultural-type spray oil may be added.
	Blossom Brown Rot, Coryneum Blight (Shot Hole)	2.5 – 3.5	63.4	18[1]	5	Apply during early bloom. Do not apply after full bloom or injury may occur.
	Bacterial Blast (Pseudomonas)	0.5	63.4	18[1]	5	Post Bloom: To control bacterial blast in sprinkler irrigated orchards or where disease is severe, apply post-bloom at 5 to 14 day intervals or just before sprinkling. NOTE: Foliar injury may occur from post-bloom sprays on almonds, especially on NePlus varieties.
Cacao	Black Pod	1 – 7.5	55.5	15.75	14	Begin applications at the start of the rainy season and continue while infection conditions persist. Apply 1 to 4 pints at 14 to 21 day intervals depending on disease severity. For drier areas, make two to four applications using 4 to 7 pints per acre according to disease incidence and planting density. Use the higher rates when conditions favor disease development.
Chestnut*	Leaf Spot	1 – 4	29.6	8.4	14	Begin applications when conditions first favor disease development. Make applications to protect shoot growth throughout the season. Use the lower rates where disease infection is light and use the higher rates for a dormant application or where disease infection is moderate to heavy.
Coffee	Coffee Berry Disease *(Colletotrichum coffeanum)*	2.5 – 7	44.4	12.6[1]	14	Apply first spray after flowering and before onset of long rains and then at 21 to 28 day intervals until picking. Use the higher rates when conditions favor disease development.
Coffee	Bacterial Blight (Pseudomonas syringae)	2.5 – 7	44.4	12.6[1]	14	Begin spray program before the onset of long rainy periods and continue throughout the rainy season at 14 to 21 day intervals. The critical time of spraying to control this disease is just before, during and after flowering(s) especially when coinciding with wet weather. Use the higher rates when rainfall is heavy and disease pressure is high.

	Leaf Rust (Hemileia vastatrix)	1 – 3	44.4	12.6[1]	14	Apply before the onset of rain and then at 14 to 21 day intervals while the rains continue. Use the higher rates when rainfall is heavy and disease pressure is high.
	Iron Spot (Cercospora coffeicola), Pink Disease (Corticium salmonicolor)	0.75 – 1.5	44.4	12.6[1]	28	Use concentrate or dilute spray. Begin treatment at the start of wet season and continue at monthly intervals for three applications.
Filbert	Bacterial Blight	7 – 12	84.6	24	14	Apply as a postharvest spray. In seasons of heavy rainfall apply a second spray when three-fourths of the leaves have dropped. Use the higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil may be added. Use only in the states of Oregon and Washington.
	Eastern Filbert Blight	7 – 12	84.6	24	14	Apply as a dilute spray in adequate water for thorough coverage. Make applications starting at bud swell to bud break and continue at 2 week intervals until early May. Thorough coverage is essential. Use the higher rates when rainfall is heavy and disease pressure is high. If needed, agricultural-type spray oil may be added. Use only in the states of Oregon and Washington.
Litchi*	Anthracnose	1.25 – 4	17.3	4.92	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease pressure.
Macadamia	Anthracnose	2.5 – 8	33.2	9.44[1]	7	Initiate sprays at first sign of flowering and repeat on weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates for severe disease pressure.
Macadamia	Phytophthora Blight (P. capsici), Raceme Blight (Botrytis cinerea)	1.25 – 5.5	33.2	9.44[1]	7	Apply during raceme development and bloom periods. Apply in sufficient water for thorough coverage. Use the higher rates when conditions favor disease development.

Nutmeg*	Leaf Spot, Shot Hole	1 – 4	29.6	8.4	14	Make applications to protect leaves during the rainy season. Use the lower rates where disease infection is light and use the higher rates where disease infection is moderate to heavy. Make first application to a small area to test for crop sensitivity. The addition of 1 to 3 pounds of hydrated lime per 2 pints of BADGE SC may reduce crop injury.
Pecan	Kernel Rot, Shuck Rot (Phytophthora cactorum), Zonate Leaf Spot (Cristulariella pyramidalis)	1 – 4	29.6	8.4	14	For disease suppression, apply in sufficient water to ensure complete spray coverage at 2 to 4 week intervals starting at kernel growth and continue until shucks open. Use the higher rates and shorter spray intervals if frequent rainfall occurs.
	Ball Moss*, Spanish Moss*	2.5 – 7	29.6	8.4	365	Apply in 100 gallons of water in the spring when ball moss is actively growing, using 1½ gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. The addition of a nonionic surfactant will improve control. A second application may be required after 12 months.
Pistachio	Botryosphaeria Panicle and Shoot Blight, Botrytis Blight, Late Blight (Alternaria alternata), Septoria Leaf Blight	1.75 – 7	29.6	8.4	14	Make initial application at bud swell and repeat on a 14 to 28 day schedule. If disease conditions are severe, use the higher rates and shorter spray intervals.
Walnut	Walnut Blight	3.5 – 11	112.8	32	7	Apply first spray at early pre-bloom prior to or when catkins are partially expanded. Make additional applications during bloom and early nutlet stage when frequent rainfall or extended periods of moisture occur. Thorough coverage of catkins, leaves and nutlets is essential for effective control. Use the higher rates when conditions favor disease development. NOTE: Adequate control may not be obtained when copper tolerant species of Xanthomonas bacteria are present.

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* Except California

VEGETABLES

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Artichoke*	Ramularia Leaf Spot, Powdery mildew	0.5 – 1.8	9.3	2.65	7	Recommended for tank mixture with other products registered for control of listed diseases. For suppression, begin applications when conditions first favor disease development and repeat using a 7-day interval. Use the higher rates when conditions favor disease development. Addition of a spreader/sticker is recommended.
Asparagus*	Rust	1 – 2.5	17.6	5	10	Recommended for tank mixture with other products registered for control of rust. For suppression, begin applications when conditions first favor disease development and repeat using a 10-day interval. Use the higher rates when conditions favor disease development. Addition of a spreader/sticker is recommended.
Bean (Dry, Green)	Anthracnose, Bacterial Blight, Brown Spot, Common Blight, Cercospora Leaf Spot, Downy Mildew, Halo Blight	0.5 – 2	16.6	4.74	7	For protective sprays, make first application when plants are 6 inches high; repeat on a 7 to 14 day schedule depending on environmental conditions. Use the higher rates for more severe disease pressure.
Beet (Table Beet, Beet Greens)	Cercospora Leaf Spot, Downy Mildew	0.75 – 4	27.7	7.86	10	Begin applications when conditions first favor disease development and repeat at 10 to 14 day intervals. Use the higher rates when conditions favor disease development.
Carrot	Alternaria Leaf Spot, Cercospora Leaf Spot, Downy Mildew	1 – 4	17.6	5	7	Begin applications when disease first threatens and repeat at 7 to 14 day intervals depending on disease severity. Use the higher rates when conditions favor disease development.
Celery, Celeriac*	Bacterial Blight, Cercospora Early Blight, Downy Mildew, Septoria Late Blight	1 – 4	18.6	5.3	7	Begin applications as soon as plants are first established in the field, repeating at 7 day intervals depending on disease severity and environmental conditions. Use the higher rates when conditions favor disease development.
Chard*	Cercospora Leaf Spot, Ramularia Leaf Spot	0.5 – 2.5	13.9	3.95	7	Begin applications when conditions first favor disease development and repeat at 7 to 14 day intervals. Use the higher rates when conditions favor disease development.

VEGETABLES

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Crucifers (broccoli, brussels sprout, cabbage, cauliflower, Chinese cabbage, collard greens, kale, kohlrabi mustard greens, turnip greens)	Black Leaf Spot (*Alternaria*), Black Rot (*Xanthomonas*), Downy Mildew	0.5 – 1.8	9.33	2.65	7	Apply at 7 to 10 day intervals. Begin application after transplants are set in the field or shortly after emergence of field seeded crops or when conditions favor disease development. Use the higher rates when conditions favor disease development. The addition of a spreader/sticker may enhance retention of spray deposition on cruciferous crops. **NOTE:** Reddening of older leaves may occur on broccoli and a flecking of wrapper leaves may occur on cabbage.
Cucurbits (cantaloupe, casaba, chayote, citron melon, cucumber, gourd honeydew, muskmelon, pumpkin, squash (summer and winter), watermelon, waxgourd	Alternaria Leaf Spot, Angular Leaf Spot, Anthracnose, Downy Mildew, Gummy Stem Blight, Powdery Mildew, Watermelon Bacterial Fruit Blotch (Suppression)	0.5 – 2.5	18.4	5.25	5	Begin applications prior to disease development and continue while conditions are favorable for disease development. Repeat sprays at 5 to 7 day intervals. Use the higher rates when conditions favor disease development. **NOTE:** Crop injury may occur from application at higher rates and shorter intervals. Discontinue use if injury occurs.
Eggplant	Alternaria Blight, Anthracnose, Downy Mildew, Phomopsis, Phytopthora	0.75 – 1.5	27.8	7.9	7	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals depending on disease severity.
Lettuce (Head and Leaf) Endive* Escarole*	Anthracnose, Downy Mildew, Leaf Spot Powdery Mildew	0.75 – 1.5	28.1	8	5	Begin treatment at the first sign of disease. Repeat on a 5 to 10 day interval to suppress disease. Slight injury may occur under adverse conditions.
Okra*	Anthracnose, Bacterial Leaf Spot, Leaf Spots, Pod Spot, Powdery Mildew	0.75 – 1.8	18.8	5.25	5	Begin treatment when conditions are favorable for disease development and repeat using a 5 to 10 day interval as needed. User higher rates and shorter intervals when conditions favor disease.
Onion, Garlic, Leek, Shallot*	Alternaria, Bacterial Blight, Downy Mildew, Purple Blotch, Rust	0.75 – 1.5	21.1	6	7	Begin when plants are 4 to 6 inches high and repeat at 7 to 10 day intervals depending on disease severity. Can cause phytotoxicity to leaves.
Pea	Powdery Mildew	0.5 – 2.5	13.9	3.95	7	Begin applications when disease symptoms first appear and repeat at weekly intervals. Use the higher rates when conditions favor disease development.

VEGETABLES

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Pepper (bell, chili)	Alternaria, Anthracnose, Bacterial Spot, Cercospora Leaf Spot, Downy Mildew, Early and Late Blight, Phytopthora Blight	0.75 – 2.25	41.7	11.85	3	Begin applications when conditions first favor disease development and repeat at 3 to 10 day intervals depending on disease severity. Use the higher rates when conditions favor disease development.
Radish, Rutabaga, Turnip*	Alternaria, Anthracnose, Bacterial Leaf Spot, Black Rot, Cercospora Leaf Spot, Downy Mildew, White Rust	1 – 2.25	27.7	7.86	10	Begin application when disease first appears or when conditions favor disease development. Repeat using a 10 day interval. Use the higher rates when conditions favor disease development.
Rhubarb*	Leaf Spot	1 – 2.25	13.9	3.95	7	Begin application when disease first appears or when conditions favor disease development. Repeat at 7 to 10 day intervals. Use the higher rates when conditions favor disease development.
Spinach	Anthracnose, Blue Mold, Cercospora Leaf Spot, Downy Mildew, White Rust	1 – 2.25	13.9	3.95	7	Begin application when disease first appears or when conditions favor disease development. Repeat at 7 to 10 day intervals. Use the higher rates when conditions favor disease development. **NOTE:** Flecking may occur on spinach leaves.
Tomato						
Fresh market	Anthracnose, Bacterial Canker, Bacterial Speck, Bacterial Spot, Early Blight, Gray Leaf Mold, Late Blight, Septoria Leaf Spot	0.75 – 1.8	61.3	17.4	3	Begin application when disease first threatens and repeat at 3 to 10 day intervals depending on disease severity.
Processing		0.75 – 1.8	28.1	8	3	
Watercress*	Cercospora Leaf Spot	0.75 – 1.8	7.46	2.12	7	Begin applications when plants are first established in the field, repeating at 7 to 14 day intervals depending on disease severity. Do not exceed four applications per crop. Apply using ground spray equipment at no less than 50 gallons of spray solution per acre.

* Except California

VINES

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Grape	Black Rot, Downy Mildew Phomopsis Powdery Mildew	0.75 – 3.5	70.4	20	3	Begin applications at bud break with subsequent applications throughout the season depending on disease severity. Use the higher rates when conditions favor disease development. **NOTE:** Foliage injury may occur on copper sensitive varieties such as Concord, Delaware, Niagara and Rosette. Either test for sensitivity or add 1 to 3 pounds of hydrated lime per 2 pints of BADGE SC.
Hops	Downy Mildew	0.75 – 1.8	9.33	2.65	10	Make crown treatment after pruning, but before training. After training, additional treatments are needed at about 10 day intervals. **NOTE:** Discontinue use 2 weeks before harvest.
Kiwi	*Erwinia herbicola, Pseudomonas fluorescens, Pseudomonas syringae*	2.5 – 7	22.1	6.3	30	Apply in 200 gallons of water per acre. Make applications on a monthly basis. A maximum of three applications may be made.
Passion Fruit*	Anthracnose	2.5 – 8	33.2	9.44	7	Make initial application just before flowering and repeat on a weekly schedule until just before harvest. Apply in sufficient water for thorough coverage. Use the higher rates when conditions favor disease development.

* Except California

MISCELLANEOUS CROPS

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Chives*	Downy Mildew	0.75 - 1.8	9.34	2.65	7	Begin applications when plants are established in the field. Repeat applications every 7 to 10 days depending on disease conditions.
Cilantro, Coriander, Rosemary*	Leaf Spot, Powdery Mildew	0.75 – 1.5	9.34	2.65	10	Begin applications when plants are established in the field and prior to disease development. Repeat every 10 days depending on disease conditions.
Dill*	Phoma Leaf Spot, Rhizoctonia Foliage Blight	0.75 – 2.5	13.9	3.95	7	Begin applications when plants are first established in the field and repeat at 7 to 10 day intervals depending upon disease severity and environmental conditions. Use the higher rates when conditions favor disease development.

MISCELLANEOUS CROPS

CROP	DISEASE	APP. RATE (PINTS PER ACRE)	MAX. APP. RATE/YEAR (PINTS PRODUCT/A)	MAX. ANNUAL RATE (LBS Cu/A)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Ginseng	Alternaria Leaf Blight, Stem Blight	1 – 3.5	18.4	5.25	7	Use as a tank mix with 2 pounds Rovral® 50W in 100 gallons of water. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates should be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing. Begin BADGE SC-Rovral applications as soon as plants have emerged in spring. Application should be repeated every 7 days until plants become dormant in fall. Apply fungicides at least 8 hours before rain. Use of a spreader-sticker or sticker is advised. **NOTE:** Alternaria Leaf and Stem Blight is most severe in humid conditions such as those found in the dense canopies of 2 to 4 year old Ginseng. It is very important that the stems be thoroughly covered with fungicide; therefore, use a spray apparatus which distributes the fungicide throughout the canopy.
Live Oak*	Ball Moss Spanish Moss	2.5 – 7	70.4	20	365	Apply in 100 gallons of water in the spring when ball moss is actively growing using 1.5 gallons of spray per foot of tree height. Make sure to wet ball moss tufts thoroughly. A second application may be required after 12 months. **NOTE:** BADGE SC may be injurious to ornamentals grown under Live Oaks or Pecans. **This product may be reactive on metal and masonry surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, etc.**
Mint*	Downy Mildew, Leaf Spot, Powdery Mildew, Rust	0.75 – 1.5	9.34	2.65	10	Begin applications prior to disease development and repeat every 10 days depending on disease conditions.
Parsley*	Bacterial Blight (Pseudomonas *sp.)*	1.25 – 2.8	7.04	2	10	Begin applications when plants are first established in the field and repeat at 10 day intervals depending on disease severity and environmental conditions.
Sycamore	Anthracnose	0.75 – 2.5	70.4	20	7	Apply as a full cover spray in 100 gallons of water or sufficient volume for thorough coverage. Make first application at bud crack and second application 7 to 10 days later at 10% leaf expansion. Use the higher rates when conditions favor disease development.
Turfgrass*	Algae	4 – 6	74	21	10	May be used as a maintenance spray as needed. May be used in combination with other fungicides. Use a minimum application volume of 100 gallons of water per acre. Apply to a small area prior to large area applications to check for phytotoxicity. If phytotoxicity is present, discontinue use.

* Except California

SEED DRESSING

CROP	DISEASE	APP. RATE (fluid ounces)	COMMENTS
Rice*	Water Mold (*Achlya* spp>) Seed Rot (*Pythium* spp.)	2 – 5	Use at the labeled rate per 100 pounds rice seed. Dilute with an equal amount of water for ease of handling and when using a seed treating machine. Maintain continuous agitation throughout the seed treating process. Consult your State Extension Service/Specialist regarding specific recommendations for your area.
Wheat* Barley*	Bacterial Leaf Blight (*Pseudomonas syringae*) Bacterial Leaf Streak (*Xanthomonas translucens*) Common bunt (*Tilletia caries*)	2 – 3	Use at the labeled rate per 100 pounds rice seed. Dilute with an equal amount of water for ease of handling and when using a seed treating machine. Maintain continuous agitation throughout the seed treating process.

DO NOT use treated seed for food, feed, or oil purposes. Use care when handling treated seed. DO NOT use machinery (augers, etc.) used for handling treated seed to move seed for feed, food or oil processing. DO NOT re-use bags used for treated seed to handle food or feed products.

Seeds treated with this product that are then packaged or bagged for future use must be suitably colored with an EPA approved dye, such as one of the dyes listed in 40 CFR Section 180.910 or Section 180.920 to prevent their subsequent inadvertent use as a food for man or feed for animals. Treated seed must contain the following labeling on the outside of the seed package or bag" "This package or bag contains seed that has been treated with copper hydroxide and copper oxychloride. DO NOT use for food, feed, or oil purposes. Store away from feeds and foodstuffs. Persons opening this bag or package or loading/pouring the treated seed must wear a long-sleeved shirt, long pants, shoes and socks, chemical resistant gloves made of any waterproof material, and eye protection such as goggles or face shield."* Except California

GREENHOUSE AND SHADEHOUSE CROPS

Notice to User: BADGE SC may be used in greenhouses and shadehouses to control disease on crops which appear on this label and specific instructions have been developed for the crops listed. The grower should bear in mind that the sensitivity of crops grown in greenhouses and shadehouses differs greatly from crops grown under field conditions. Neither the manufacturer nor seller has determined whether or not BADGE SC can be used safely on all greenhouse and shadehouse grown crops. The user should determine if BADGE SC can be used safely prior to commercial use. In a small area, apply the recommended rates to the plants in question, i.e., foliage, fruit, etc., and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use.

Apply BADGE SC according to specific rates given for those crops in pounds per acre. **One tablespoon of BADGE SC contains 0.00886 pounds of metallic copper.** BADGE SC should be applied in adequate water for thorough coverage of plant parts. Begin application at first sign of disease and repeat at 3 to 30 day intervals as indicated below; use shorter spray intervals during periods when severe disease conditions persist.

CROP	DISEASE	APP. RATE (TBSP PRODUCT/1000 SQ. FT.)	MAX. APP. RATE (TBSP PRODUCT/1000 SQ. FT.)	MAX. ANNUAL RATE (pounds Cu/1000 SQ. FT.)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Citrus (Non-Bearing Nursery)	Brown Rot, Citrus Canker, Greasy Spot, Melanose, Pink Pitting, Scab	3	8.1	0.28	7	Begin applications when conditions favor disease development. Repeat sprays at 7 to 30 day intervals depending on disease severity.

CROP	DISEASE	APP. RATE (TBSP PRODUCT/1000 SQ. FT.)	MAX. APP. RATE (TBSP PRODUCT/1000 SQ. FT.)	MAX. ANNUAL RATE (pounds Cu/1000 SQ. FT.)	MINIMUM RETREATMENT INTERVAL (DAYS)	COMMENTS
Cucumber	Angular Leaf Spot, Downy Mildew	0.5 – 2.5	2.7	0.12	5	Apply at 5 to 7 day intervals when plants begin to vine. Use the higher rates when conditions favor disease.
Eggplant	Alternaria Blight, Anthracnose, Phomopsis	1.5	2.04	0.18	7	Begin applications prior to development of disease symptoms. Repeat sprays at 7 to 10 day intervals depending on disease severity.
Pepper	Bacterial Spot	0.5 – 2	2.04	0.27	3	Begin applications when conditions first favor disease development and repeat at 3 to 10 day intervals depending on disease severity.
Tomato Processing	Anthracnose, Bacterial Speck, Bacterial Spot, Early Blight, Gray Leaf Mold, Late Blight, Septoria Leaf Spot	0.5-1.36	1.36	0.39	3	Begin applications when disease first threatens and repeat at 3 to 10 day intervals depending on disease severity.
Tomato Fresh Market	Anthracnose, Bacterial Speck, Bacterial Spot, Early Blight, Gray Leaf Mold, Late Blight, Septoria Leaf Spot	0.5-1.5	4.13	0.18	3	Begin applications when disease first threatens and repeat at 3 to 10 day intervals depending on disease severity.

CONIFERS

For use on conifers, including Douglas Fir, Fir*, Juniper, Leyland Cypress*, Pine* and Spruce*, in Christmas tree plantings, forest stands and silviculture nurseries. For control of foliar diseases, apply BADGE SC as a thorough cover spray at rates ranging from 3 to 6 pints per acre. Begin applications in the spring at the initiation of new growth and repeat at 1 to 4 week intervals. Use the higher rates when disease pressure is severe or when environmental conditions favor disease development. **There is a maximum application rate of 2.0 lbs Cu/A with a maximum annual rate of 20 lbs Cu/A with a minimum retreatment interval of 7 days.**

BADGE SC may be used on the listed conifers for control of the following diseases:

CROP	LATIN NAME	DISEASE
Douglas Fir	*Pseudotsuga menziesii*	Rhabdocline Needlecast
Fir*	*Abies* spp.	Needlecasts
Juniper	*Juniperus* spp.	Anthracnose, Phomopsis Twig Dieback*
Leyland Cypress*	*X Cupressocyparis leylandii*	Cercospora Needle Blight
Pine*	*Pinus* spp.	Needlecasts
Spruce*	*Picea* spp.	Needlecasts

Lichens*: To control lichens on any of the conifers above, apply 7 pints of BADGE SC per acre as a dormant application before new growth emerges in the spring. The addition of a non-ionic surfactant (NIS) will improve control. A second

application may be required after 12 months. **NOTE:** Do not buffer or combine with emulsifiable concentrate insecticides.
* Except California

ORNAMENTALS

Use BADGE SC for control of bacterial and fungal diseases of foliage, flowers and stems on ornamentals in greenhouses, shadehouses, outdoor nurseries, and outdoor landscape plantings.
For ornamental crops in dormancy, apply as a thorough cover spray at rates ranging from 1.5 to 6 pints per acre of BADGE SC. When new growth is present, apply as a thorough cover spray at rates ranging from 1.5 to 2 pints per acre of BADGE SC. **One tablespoon of BADGE SC contains 0.00886 pounds of metallic copper.** Begin application at first sign of disease and repeat at 7 to 14 day intervals; use the higher rates and shorter spray intervals during periods of frequent rains or when severe disease conditions persist.

Unless otherwise noted, the maximum single application rate is 2 pounds of Cu per acre and the maximum annual rate is 20 pounds of Cu per acre. The minimum retreatment interval is 7 days.

BADGE SC may be used alone or in combination with other fungicides registered for use on ornamentals as a maintenance spray. Use in accordance with the most restrictive of label limitations and precautions. No label dosage rates must be exceeded. This product cannot be mixed with any product containing a label prohibition against such mixing.

Notice to User: Plant sensitivities to BADGE SC have been found to be acceptable for the specific genera and species listed on this label under the conditions tested. However, phytotoxicity may occur. Due to the large number of species and varieties of ornamental and nursery plants and the wide range of growing conditions, it is impossible to test every one for sensitivity to BADGE SC. Neither the manufacturer nor the seller has determined whether or not BADGE SC can be safely used on ornamental or nursery plants not listed on this label. The user should determine if BADGE SC can be used safely prior to commercial use. In a small area, apply the labeled rates to the plants in question, (bedding plants, foliage, etc.), and observe for 7 to 10 days for symptoms of phytotoxicity prior to commercial use. **NOTE:** This product may be reactive on masonry and metal surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, or other metallic surfaces.

CROP	SCIENTIFIC NAME	DISEASE
Aglaonema*	*Aglaonema* spp.	Bacterial Leaf Spot
Althea (Rose of Sharon)	*Hibiscus syriacus*	Bacterial Leaf Spot
Andromeda, Japanese*	*Pieris japonica*	Leaf Spots, Twig Blight
Aralia	*Dizygotheca elegantissima*	Alternaria, Cercospora Leaf Spot, Xanthomonas Leaf Spot
Arborvitae	*Thuja* spp.	Alternaria Twig Blight, Cercospora Leaf Blight
Aster*	*Aster* spp.	Downy Mildew, Leaf Spots
Azalea 1/	*Rhododendron* spp.	Botrytis Blight, Bud Blight, Cercospora Leaf Spot, Phytophthora Dieback, Powdery Mildew, Twig Blight
Beech*	*Fagus* spp.	Leaf Spots
Begonia	*Begonia semperflorens*	Bacterial Leaf Spot (*Erwinia* spp., *Pseudomonas* spp., *Xanthomonas* spp.)
Bougainvillea	*Bougainvillea spectabilis*	Anthracnose, Bacterial Leaf Spot
Boxwood*	*Buxus* spp.	Leaf Spots
Camellia	*Camellia japonica, C. sasanqua*	Anthracnose, Bacterial Leaf Spot
Camphor Tree	*Cinnamomum camphora*	Pseudomonas Leaf Spot
Canna	*Canna* spp.	Pseudomonas Leaf Spot
Carnation 1/	*Dianthus* spp.	Alternaria Blight, Botrytis Blight, Pseudomonas Leaf Spot
Cedar*	*Cedrus* spp.	Tip Blight
Cherry, Nanking*	*Prumas tomentosa*	Bacterial Leaf Spot
Chinese Tallow Tree	*Sapium sebiferum*	Bacterial Leaf Spot (*Pseudomonas* spp., *Xanthomonas* spp.)
Chrysanthemum 1/	*Chrysanthemum morifolium*	Botrytis Blight, Pseudomonas Leaf Spot, Septoria Leaf Spot
Cotoneaster	*Cotoneaster spp.*	Botrytis Blight
Crabapple*	*Malus* spp.	Fire Blight
Cypress*	*Cupressus* spp.	Twig Blight
Dahlia	*Dahlia pinnata*	Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot
Delphinium*	*Delphinium* spp.	Leaf Spots
Dianthus	*Dianthus* spp.	Bacterial Soft Rot, Bacterial Spot
Dogwood, Flowering	*Cornus florida*	Anthracnose
Dogwood, Kousa*	*Cornus kousa*	Fungal Leaf Spot
Douglas Fir	*Pseudotsuga menziesii*	Rhabdocline Needlecast
Dracaena*	*Dracaena marginata*	Bacterial Leaf Spot
Dumb Cane*	*Dieffenbachia* spp.	Bacterial Leaf Spot
Dusty Miller	*Senecio cineraria*	Bacterial Leaf Spot (*Pseudomonas cichorii*)
Echinacea	*Echinacea* spp.	Bacterial Leaf Spot (*Pseudomonas cichorii*)
Elm, Chinese	*Ulmus parvifolia*	Xanthomonas Leaf Spot

Euonymus	*Euonymus* spp.	Anthracnose, Botrytis Blight
Fern, Boston*	*Nephrolepis exaltata*	Bacterial Leaf Spot
Fern, Holly	*Crytomium falcatum*	Pseudomonas Leaf Spot
Fig, Weeping*	*Ficus benjamina*	Bacterial Leaf Spot
Filbert (Ornamental)*	*Corylus* spp.	Filbert Blight
Fir*	*Abies* spp.	Needlecasts
Gardenia	*Gardenia jasminoides*	Alternaria Leaf Spot, Botrytis Bud Rot, Cercospora Leaf Spot
Geranium	*Pelargonium* spp.	Alternaria Leaf Spot, Botrytis Gray Mold, Cercospora Leaf Spot
Gladiola	*Gladiolus* spp.	Alternaria Leaf Spot, Anthracnose, Bacterial Leaf Blight, Botrytis Gray Mold
Golden Rain Tree	*Koelreuteria paniculata*	Bacterial Leaf Spot
Grape Ivy*	*Cissus* spp.	Bacterial Leaf Spot
Hawthorn*	*Crataegus* spp.	Fire Blight
Hibiscus 4/	*Hibiscus* spp.	Bacterial Leaf Spot
Holly*	*Ilex* spp.	Bacterial Blight, Leaf Spots
Honeylocust*	*Gleditsia triacanthos*	Bacterial Leaf Spot
Honeysuckle, Tatarian*	*Lonicera tatarica*	Bacterial Leaf Spot
Impatiens	*Impatiens sallerana*	Bacterial Leaf Spot
Indian Hawthorn 5/	*Raphiolepis indica*	Anthracnose, Entomosporium Leaf Spot
Iris 6/*	*Iris* spp.	Bacterial Leaf Spot
Ivy (English, Algerian) 1/	*Hedera helix, H. canariensis*	Xanthomonas Leaf Spot
Ixora	*Ixora coccinea*	Xanthomonas Leaf Spot
Juniper	*Juniperus* spp.	Anthracnose, Phomopsis Twig Dieback*
Lantana	*Lantana camera*	Bacterial Leaf Spot
Leyland Cypress*	*X Cupressocyparis leylandii*	Cercospora Needle Blight
Lilac	*Syringa* spp.	Cercospora Leaf Spot, Pseudomonas Blight*
Lily, Easter 2/	*Lilium longiflorum*	Botrytis Blight
Linden*	*Tilia* spp.	Anthracnose, Leaf Blight
Loblolly Bay	*Gordonia lasianthus*	Anthracnose
Loquat	*Eriobotrya japonica*	*Colletotrichum* spp., *Entomosporium maculata*
Magnolia (Southern)	*Magnolia grandiflora*	Algal Leaf Spot, Anthracnose, Bacterial Leaf Spot
Magnolia (Sweet Bay)	*Magnolia virginiana*	Anthracnose
Magnolia (Oriental)	*Magnolia soulangiana*	Bacterial Leaf Spot
Mandevilla	*Mandevilla* spp.	Anthracnose
Maple*	Acer spp.	Pseudomonas Leaf Blight, Tar Leaf Spot
Marigold	*Tagetes* spp.	Alternaria Leaf Spot, Botrytis Leaf Rot, Cercospora Leaf Spot, Flower Rot
Mountain-Ash*	*Sorbus* spp.	Fire Blight
Mulberry, Contorted*	*Morus bombycis*	Bacterial Leaf Spot
Mulberry, Weeping	*Morus alba*	Bacterial Leaf Spot
Narcissus*	*Narcissus* spp.	Leaf Blight
Nephthytis*	*Syngonium podophyllum*	Bacterial Leaf Spot
Oak*	*Quercus* spp.	Leaf Spots
Oak, Laurel	*Quercus laurifolia*	Algal Leaf Spot (*Cephaleuros virescens*)
Oleander	*Nerium oleander*	Bacterial Leaf Spot, Fungal Leaf Spot
Oregon Grapeholly*	*Mahonia acquifolium*	Leaf Spots
Pachysandra	*Pachysandra procumbens*	Canker, Leaf Spots, Twig Blight, Volutella Leaf Blight
Palm, Date	*Phoenix canaries*	Pestalotia Leaf Spot
Palm, European Fan	*Chamaerops humilis*	Pestalotia Leaf Spot
Palm, Parlor*	*Chamaedorea elegans*	Bacterial Leaf Spot
Palm, Queen	*Arecastrum romanzoffianum*	Exosporium Leaf Spot, Phytophthora Bud Rot
Palm, Washingtonia	*Washingtonia robusta*	Pestalotia Leaf Spot
Peach (Flowering) 3/*	*Prunus* spp.	Bacterial Blast, Brown Rot, Fire Blight
Pear (Flowering)	*Pyrus calleryana*	Fire Blight, Leaf Spot
Pentas (Egyptian Star)	*Pentas* spp.	Bacterial Leaf Spot (*Pseudomonas* spp.*, *Xanthomonas* spp.)
Peony	*Paeonia* spp.	Botrytis Blight
Periwinkle	*Catharanthus roseus, Vinca* spp.	Phomopsis Stem Blight
Philodendron	*Philodendron selloum*	Bacterial Leaf Spot
Phlox	*Phlox* spp.	Alternaria Leaf Spot
Photinia (Red Tip)	*Photinia x fraseri, P. glabra*	Anthracnose, Entomosporium Leaf Spot
Pine*	*Pinus* spp.	Needlecasts
Pistachio	*Pistacia chinensis*	Anthracnose

Plantain Lily 6/	*Hosta* spp.	Bacterial Leaf Spot
Plum (Flowering) 3/*	*Prunus* spp.	Bacterial Blast, Bacterial Leaf Spot, Brown Rot, Fire Blight
Pothos*	*Scindapsus* spp.	Bacterial Leaf Spot
Powder Puff Plant	*Calliandra* spp.	Bacterial Leaf Spot
Pyracantha	*Pyracantha* spp.	Fire Blight, Scab
Rhododendron	Rhododendron spp.	Alternaria Flower Spot
Rose 1/	*Rosa* spp.	Black Spot, Powdery Mildew
Snapdragon	*Antirrhinum majus*	Anthracnose, Dieback, Downy Mildew
Spathe Flower*	*Spathiphyllum* spp.	Bacterial Leaf Spot
Spirea*	*Spiraea* spp.	Fire Blight
Spruce*	*Picea* spp	Needlecasts
Sycamore	*Platanus* spp.	Anthracnose, Leaf Spots*
Tulip	*Tulipa* spp.	Anthracnose, Botrytis Blight
Umbrella Tree*	*Schefflera* spp.	Bacterial Leaf Spot
Verbena	*Verbena* spp.	Xanthomonas Leaf Spot
Viburnum	*Viburnum odoratissimum, V. suspensum, V. plicatum*	Anthracnose
Viola (Pansy, Violet)	*Viola* spp.	Downy Mildew
Willow	*Salix* spp.	Anthracnose
Yew*	*Taxus* spp.	Needle Blight
Yucca (Adam's Needle)	*Yucca* spp.	Cercospora Leaf Spot, Septoria Leaf Spot
Zinnia*	*Zinnia* spp.	Leaf Spots

* Except California

1/ Can cause discoloration of foliage and/or blooms on some varieties. To prevent residues on commercial plants, do not spray immediately before selling season.

2/ Apply at 4.5 to 7 pints per acre. The maximum single application rate is 2.0 pounds of Cu per acre. The maximum amount of metallic copper which may be applied in a 12 month period is 20 pounds of Cu per acre. Do not apply any additional copper pesticide to this land for 36 months.

3/ Apply dormant through bloom only.

4/ Hibiscus - Do not apply to plants in flower.

5/ For Indian Hawthorne use 3 to 6 pints per acre.

6/ Some cultivars may be sensitive to BADGE SC.

NOTE: Phytotoxicity may depend on varietal differences. If unfamiliar with the use of BADGE SC, apply the recommended rate to a few plants and observe after 7 to 10 days for symptoms of phytotoxicity.

Control of Ball Moss*, Spanish Moss* and Lichens* on Ornamentals and Shade Trees: Apply BADGE SC in early spring when trees are dormant. Apply 7 pints of BADGE SC in 100 gallons of water, using 1½ gallons of spray per foot of tree height. Be sure to thoroughly wet ball moss tufts, Spanish moss or lichens. The addition of a non-ionic surfactant will improve control. A second application may be required after 12 months. Do not exceed 7 pints of product per application.

NOTE: BADGE SC may be injurious to some ornamental plants growing beneath the trees. This product may be reactive on masonry and metal surfaces such as galvanized roofing. Avoid contact with metal surfaces. Do not spray on cars, houses, lawn furniture, etc.

Cold Storage Protection for Dormant Rootstock*: To protect bare-root nursery trees from Phytophthora Crown Rot and Botrytis, use 4 to 6 pints of BADGE SC per 100 gallons of water. Apply as a dip or spray to the roots and lower stems of dormant rootstock prior to placing in cold storage. Do not apply to rootstock less than 2 years old.
*Except California

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditns (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Droplet Size
Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed
Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph), and there are no sensitive areas within 250 feet downwind.

Temperature Inversions
If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Other State and Local Requirements
Applicators must follow al state and local pesticide drift requirements regarding application of copper compounds. Where states have more stringent regulations, they must be observed.

Equipment
All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

~~Additioanl~~ Additional Requirements for Aerial Applications

- The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter
- The release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
- When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

Additional Requirements for Ground Boom Application

- Do not apply with a nozzle height greater than 4 feet above the crop canopy.

General Chemigation Requirements

- Apply this product only through one or more of the following types of systems: sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set or hand move irrigation systems. Do not apply this product through any other type of irrigation system.
- Crop injury or lack of effectiveness 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.
- 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.

Requirements for Chemigation Systems Connected to Public Water Systems

- Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.
- Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventor (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.
- 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 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.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- Do not apply when wind speed favor drift beyond the area intended for treatment.

Requirements for Sprinkler Chemigation

- 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.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch 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.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed through storage and disposal.

Pesticide Storage: Store under well-vented, cool and dry storage conditions.

Pesticide Disposal: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Handling: This is a nonrefillable container. Do not reuse or refill this container. Empty the package completely and triple rinse container (or equivalent pressure rinse) promptly emptying with water to be used for application. Then dispose of the empty container according to state and local regulations. Place in trash or offer for recycling if available or return it to the Seller, or, if allowed by state and local authorities, by burning. If burned stay out of smoke.

TRIPLE RINSING INSTRUCTIONS:
For rigid, nonrefillable containers small enough to shake (with capacities equal to or less than 5 gallons):
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 one-fourth 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.
For rigid, nonrefillable containers that are too large to shake (with capacities greater than 5 gallons):
Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container one-fourth full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

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

LIMITATION OF WARRANTY AND LIABILITY

Read the entire label before using this product, including this Limitation of Warranty and Liability.

If the terms are not acceptable, return the product at once unopened for a refund of the purchase price.

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Directions for Use, subject to the inherent risks described below, when used in accordance with the Directions for Use under normal conditions.
TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ISAGRO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Buyers and Users of this product must be aware that there are inherent unintended risks associated to the use of this product, independent from the control of Isagro. These risks include, but are not limited to, weather conditions, soil factors, moisture conditions, diseases, irrigation practices, condition of the crop at the time of application, materials which are present in the tank mix with this product or prior to the application of it, cultural practices or the manner of use or application, all risks which are impossible to eliminate. The Buyers and Users should be aware that these factors may cause: ineffectiveness of the product, reduction of harvested yield of the crop (entirely or partially), crop injury or injury to

non-target crops or plants or to rotational crops caused by carryover in the soil, resistance of the target diseases to this product. Therefore additional care, treatment and expense are required to take the crop to harvest.

If the Buyer does not agree with the acceptance of these risks, then THE PRODUCT SHOULD NOT BE APPLIED. To the extent consistent with applicable law, by applying this product the Buyer acknowledges and accepts these inherent unintended risks and AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

To the extent consistent with applicable law, in no event shall ISAGRO or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product (including claims based in contract, negligence, strict liability, other tort or otherwise). To the extent consistent with applicable law, the exclusive remedy of the User or Buyer and the exclusive Liability of Isagro or Seller shall be the return of the purchase price of the product, or at the election of Isagro or Seller, the replacement of the product.

To the extent consistent with applicable law, this Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

Isagro or its Seller must have prompt notice (within 7 days of observation) of any claim so that an immediate inspection of Buyer's or User's growing crops can be made. To the extent consistent with applicable law, if Buyer and User do not notify Isagro or Seller of any claims, in proper time, it shall be barred from obtaining any remedy.

To the extent consistent with applicable law, by applying this product the Buyers and Users are deemed to have accepted the terms of this Limitation of Warranty and Liability, which may not be modified by any verbal or written agreement.

Notification CLL/JCS 20140825