



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs
Registration Division (7504P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington, D.C. 20460

EPA Reg. Number:

57538-6

Date of Issuance:

JUN 29 2010

NOTICE OF PESTICIDE:

Registration
 Reregistration
(under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

Stoller Top Cop With Sulfur
Flowable Fungicide/Bactericide

Name and Address of Registrant (include ZIP Code):

Stoller Enterprises, Inc.
4001 W. Sam Houston Pkwy. N.
Suite 100
Houston, Texas 77043

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is reregistered in accordance with FIFRA provided that you:

- 1) Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data.

Signature of Approving Official:

Tony Kish
Product Manager 22
Fungicide Branch
Registration Division (7504P)

Date:

JUN 29 2010

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2) NOTE: 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.

3) Under the PPE section, revise the heading to include the text "(PPE)" immediately following the Personal Protective Equipment heading. In addition, revise the statement "Applicators and other handlers must wear:" to read "Mixers, loaders, applicators and other handlers must wear:"

4) User Safety Requirements statement must be revised to include the underlined text below:

"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."

5) Change "inert ingredients" to "other ingredients".

6) No Hazards to Humans and Domestic Animals statements are needed and should be deleted from the label.

7) Place the Agricultural Use Requirements section in a box.

8) Change the Metallic copper equivalent from "4.4%" to "4.7%". Revise "Contains 1 lb. basic copper sulfate per gall..." to "Contains 0.142 lbs. of copper as metallic per quart of product and 0.15 lbs. of copper as metallic per liter of product".

9) To the Notice section, add "to the extent consistent with applicable law" in front of "Stroller makes no other express".

10) You must revise the application table on pages 7-9. You must list the correct maximum rate in quarts per application (all of these are incorrect). You must list the correct maximum amount of copper (some of these are incorrect). You must list the correct annual maximum rate in quarts

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per application (all of these are incorrect). You must revise the minimum retreatment intervals (many of these are incorrect). See the attached table for the correct rates and mris.

11) Remove the cotton use from the label. Remove the rice use from the label.

12) You must revise the application table on pages 9-13.. You must list the correct maximum rate in quarts per application (all of these are incorrect). You must list the correct maximum amount of copper (some of these are incorrect). You must list the correct annual maximum rate in quarts per application (all of these are incorrect). You must revise the minimum retreatment intervals (many of these are incorrect). See the attached table for the correct rates and mris.

A stamped copy of the label is enclosed for your records. You must submit one copy of the final printed label before you release the product for shipment. Products shipped after 12 months from the date of this letter or the next round of printing must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of the product constitutes acceptance of these conditions. This label supersedes all other previously accepted labels. If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

Enclosure: Rate Table
 Product Chemistry Review
 Acute Toxicology Review

Highlighted ⁴/₁₆

Stoller

TOP COP WITH SULFUR

Flowable Fungicide/Bactericide

For Organic Production

ACTIVE INGREDIENTS:

Sulfur, as elemental 50.0%
Basic copper sulfate* 8.4%

~~CAS No. 1344736~~

INERT INGREDIENTS: 41.6%
Total 100.0%

4.7%
*Metallic copper equivalent 4.4%. Contains 6.25 lbs. sulfur and 1 lb. basic copper sulfate per gal.
(0.75 kgs. sulfur and 0.12 kgs basic copper sulfate per liter).

ACCEPTED
with COMMENTS
In EPA Letter Dated:
JUN 29 2010

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

GUARANTEED ANALYSIS

Sulfur (S)..... 50.0%
Copper (Cu)..... 4.4%

Derived from elemental sulfur and copper sulfate.

Information regarding the contents and levels of metals in this product is available
on the internet at <http://www.aapfco.org/metals.htm>.

5 75 38-6

KEEP OUT OF REACH OF CHILDREN
CAUTION

FIRST AID

If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

See left side panel for additional precautionary statements.

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EPA Est. No. 49668-TX-1

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NET CONTENTS
2.5 gallons or 10 liters

Manufactured For
STOLLER ENTERPRISES, INC.
4001 W Sam Houston Pkwy N, Suite 100
Houston, Texas 77043 U. S. A.
Toll Free 1-800-539-5283

Phone (713) 461-1493 • Fax (713) 461-4467

Web: www.stollerusa.com E-mail: info@stollerusa.com

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS & DOMESTIC ANIMALS

CAUTION: Harmful if swallowed. Avoid breathing spray mist. May cause irritation of eyes, nose, throat or skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with skin and eyes.

PERSONAL PROTECTIVE EQUIPMENT: Some materials that are chemical-resistant to this product are any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart. Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, and shoes plus socks. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. ~~Discard clothing and absorbent material that have been drenched or heavily~~
~~contaminated with this product. Do not reuse them.~~

ENGINEERING CONTROLS STATEMENT: When handlers use closed systems, enclosed cabs or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4.6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS: Users should: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. ~~Remove clothing PPE immediately after use. Do not~~
~~wash thoroughly and put on clean clothing. 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. For forest uses, do not apply directly to water in areas where surface water is present or in riparian areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

Certain water conditions including low pH (< 6.5), low dissolved organic carbon (DOC) (< 0.1 mg/l or lower), and soft waters (i.e., alkalinity less than 50 mg/l) increase the potential acute toxicity to non-target aquatic organisms.

DIRECTIONS FOR USE: It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the 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 the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow

worker entry into treated areas during the restricted entry interval (REI) of 24-48 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 over long-sleeved shirt and long pants, chemical-resistant gloves made of any waterproof material, chemical-resistant footwear, rubber boots, chemical-resistant headgear to avoid exposure, protective eyewear, and chemical-resistant apron when mixing, loading, cleaning equipment or spills, or otherwise exposed to the concentrate. Notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

USE PRECAUTIONS: Some fruits and other plants are susceptible to injury from sulfur under certain climactic conditions. The user is advised not to use sulfur on any crop unless local use has proved that sulfur is safe in that locality. When crops are intended for processing, consult with processor before applying sulfur. During periods of high temperature sulfur may burn foliage and fruit. Do not make sulfur applications at excessively high temperatures. Do not use sulfur with oil or within 4 weeks of an oil application unless in a dormant, delayed dormant or post-harvest application. When sulfur is used with arsenicals, lime should be added to prevent plant injury.

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL

PESTICIDE STORAGE: Store in a dry location away from children, animals, foods, feeds, seeds or other agricultural chemicals. Store above 30°F. Stack pails or cases three high on the pallet. Do not stack pallets. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. In the event of spillage or leakage, soak up material with absorbent clay, sand, sawdust or other absorbent material. Scrape up and dispose of in accordance with information given under DISPOSAL. Repackage and relabel usable product in a sound container. Avoid prolonged storage or exposure to mild steel.

~~Call Chemtrec at 1-800-424-9300~~

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

CONTAINER DISPOSAL: Use label language appropriate for container size and type.

Nonrefillable containers. Do not reuse or refill this container. Clean container promptly after emptying.

Nonrefillable container 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 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. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable container greater than 5 gallons. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. 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 or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure or accident, call CHEMTREC 1-800-424-9300.

NOTICE-Read carefully.

Conditions of Sale: Stoller (and Seller) offer(s) this product for sale subject to (and buyer and all users are deemed to have accepted) the following conditions of sale and warranty which may only be varied by written agreement of a duly authorized representative of Stoller.

Warranty Limitations: Stoller warrants this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to below. Stoller makes no other express warranties. There is no implied warranty of merchantability and there are no warranties which extend beyond the description on this label. **Inherent Risks:** The directions for use of this product are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks associated with use. To the extent consistent with applicable law, buyer assumes all risks associated with use or application of this product contrary to label instructions or resulting from extraordinary weather conditions. **Limitation of Liability:** To the extent consistent with applicable law, Stoller shall not be liable for special, indirect or consequential damages resulting from the use or handling of this product and no claim of any kind shall be greater in amount than the purchase price of the product in respect of which such damages are claimed.

MIXING AND SPRAYING INSTRUCTIONS

Pour recommended amount in partially filled spray tank. Keep agitator running during filling and spraying operation. **DO NOT ALLOW MIXTURE TO STAND.** Failure to maintain agitation will cause TOP COP™ with SULFUR to settle and may necessitate manual stirring to re-disperse. The strong adhesive properties of TOP COP™ with SULFUR act as a sticker on the plant, and the sticking characteristic necessitates the flushing of equipment with water after each day's use. Sulfur in any form is corrosive material. **TO REDUCE THE EFFECT, EQUIPMENT SHOULD BE FLUSHED DAILY. DO NOT USE IN ALUMINUM TANKS.** Unless otherwise specified for specific crops, dosage rates are given as quarts of TOP COP™ with SULFUR per acre on field and vegetable crops and in quarts per 100 gallons for fruit and nut crops. Spray applications can be made by ground or aerial spray equipment. Aerial sprays should be applied with a minimum spray volume of 5 gallons per acre. Unless stated otherwise, use the high dosage rate if conditions for disease pressure are great; use the low rate if disease is light or moderate. Applications on sulfur-sensitive crops should be made when lower temperatures are expected.

APPLICATION AND CALIBRATION TECHNIQUES FOR SPRINKLER IRRIGATION

Apply this product only through the following types of irrigation systems. Do not apply through any other types of irrigation systems. 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 Experiment Station 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.

A. Center Pivot, Traveler, Big Gun, Motorized Lateral Move, End Tow, and Side (Wheel) Roll Irrigation Equipment: Operate system and injection equipment at normal pressures recommended by the manufacturer of injection equipment used. Fill tank of injection equipment with water. Operate system for one complete circle for center pivot or one complete run for the other recommended equipment, measuring time required, amount of water injected, and acreage contained in circle or run. Mix recommended amount of TOP COP™ with SULFUR for acreage to be covered into same amount of water used during calibration and inject into system continuously for one revolution or run, but continue to operate irrigation system until TOP COP™ with SULFUR has been cleared from last sprinkler head. Spray mixture in the chemical supply tank must be agitated at all times, otherwise settling and uneven application may occur.

B. Solid Set and Hand Move Irrigation Equipment: 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 TOP COP™ with SULFUR for acreage to be covered into 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. Provide constant mechanical agitation in the mix tank to insure that TOP COP™ with SULFUR will remain in suspension during the injection cycle. TOP COP™ with SULFUR 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 TOP COP™ with SULFUR is cleared from last sprinkler head.

SAFETY DEVICES

(1) The systems designated above must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. (2) All pesticide injection pipelines must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. (3) 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. (4) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. (5) 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. (6) Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock. (7) Do not apply when wind speed favors drift beyond the area intended for treatment.

SYSTEMS CONNECTED TO PUBLIC WATER SOURCES

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, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. 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. For additional instructions on safety precautions, refer to statements (2), (3), (4) (6) and (7) in the section SAFETY DEVICES.

DIRECTIONS FOR USE

Unless otherwise specified, use the high dosage rate if conditions for disease pressure are great; use the low rate if disease is light or moderate. Applications on sulfur-sensitive crops should be made when lower temperatures are expected.

CROP	DISEASE CONTROLLED	AMOUNT		APPLICATION GUIDE
		Quarts / Acre	Liters / Hectare	
FIELD AND VEGETABLE CROPS				<i>this must all be in qts.</i>
Alfalfa	Common Leaf Spot	2	4.6	Apply as foliar spray 10 to 14 days before each harvest or earlier if disease threatens. Maximum of 2.12 gal (0.53 lb metallic copper) per acre per application. Maximum annual rate 4.2 gal (4.2 lb metallic copper) per acre. Minimum retreatment interval of 10 days. <i>30 days</i>
Asparagus	Rust	2	4.6	Start foliar application when rust first appears and repeat at 10 day intervals. Four applications are usually sufficient. Maximum of 3.16 gal (0.79 lb metallic copper) per acre per application. Maximum annual rate 6.32 gal (6.32 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
Barley	<i>Helminthosporium</i> Spot Blotch, <i>Septoria</i> Leaf Blotch	2	4.6	Apply in foliar spray at early heading and again 10 days later. Maximum of 2.12 gal (0.53 lb metallic copper) per acre per application. Maximum annual rate 4.2 gal (4.2 lb metallic copper) per acre. Minimum retreatment interval of 10 days.
Beans	Downy and Powdery Mildew, Rust, Halo Blight	2	4.6	Begin during early bloom or when disease first threatens. Maximum of 3.16 gal (0.79 lb metallic copper) per acre per application. Maximum annual rate 6.32 gal (6.32 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
Beets	Downy and Powdery Mildew	2	4.6	Begin applications when disease first appears and then every 7 to 14 days. Maximum of 2.12 gal (0.53 lb metallic copper) per acre per application. Maximum annual rate 4.2 gal (4.2 lb metallic copper) per acre. Minimum retreatment interval of 10 days.
Carrots	Downy Mildew, <i>Alternaria</i> leaf Blight, <i>Cercospora</i> Blight	2	4.6	Begin applications when disease is reported and continue at 7 to 10 day intervals. Maximum of 2.12 gal (0.53 lb metallic copper) per acre per application. Maximum annual rate 4.2 gal (4.2 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
Celery	Bacterial Blight, Early Blight, Late Blight, Leaf Spots	2	4.6	Apply as a foliar spray at weekly intervals beginning in plant bed and at 7 to 10 day intervals in the field beginning when plants are established. Maximum of 2.12 gal (0.53 lb metallic copper) per acre per application. Maximum annual rate 4.2 gal (4.2 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
Corn	<i>Helminthosporium</i> Leaf Blight	2	4.6	Start foliar spray when disease first appears and repeat at 4 to 7 day intervals. Maximum of 2.12 gal (0.53 lb metallic copper) per acre per application. Maximum annual rate 4.2 gal (4.2 lb metallic copper) per acre. Minimum retreatment interval of 7 days. <i>Not for use in California</i>
Cotton	Rust, Boll Rot	1 - 3	2.3 - 6.9	Begin application at early bloom or when disease first threatens, continue at 7 to 14 day intervals until defoliation. Maximum of 3.16 gal (0.79 lb metallic copper) per acre per application. Maximum annual rate 6.32 gal (6.32 lb metallic copper) per acre. Minimum retreatment interval of 7 days.

				Days
Eggplant	<i>Alternaria</i> Blight, <i>Anthracnose</i> , <i>Phomopsis</i>	2	4.6	Begin application with appearance of the disease. Maintain 7 to 10 day schedule until harvest begins. Maximum of 3 1/6 gal. (0.79 lb. metallic copper) per acre per application. Maximum annual rate 4 1/8 gal. (1.05 lb. metallic copper) per acre. Minimum retreatment interval of 7 days.
Lettuce	<i>Anthracnose</i> , Leaf Spot, Downy and Powdery Mildew	2	4.6	Apply in foliar spray when disease is expected and repeat at 7 to 10 day intervals. Maximum of 4 gal. (1.0 lb. metallic copper) per acre per application. Maximum annual rate 8 gal. (2 lb. metallic copper) per acre. Minimum retreatment interval of 5 days.
Onions	Purple Blotch, Downy Mildew	2 - 3	4.6 - 6.9	Begin when plants are 4 to 6 inches and repeat at 7 to 10 day intervals. Maximum of 4 gal. (1 lb. metallic copper) per acre per application. Maximum annual rate 6 gal. (1.5 lb. metallic copper) per acre. Minimum retreatment interval of 7 days.
Peas	Powdery Mildew	2	4.6	Apply at first sign of disease. Repeat at 7 day intervals. Maximum of 2 1/2 gal. (0.75 lb. metallic copper) per acre per application. Maximum annual rate 9 gal. (2.25 lb. metallic copper) per acre. Minimum retreatment interval of 5 days.
Peanuts	Early and Late <i>Cercospora</i> Leaf Spot, Rust	3	6.9	Begin application 40 to 60 days after planting; maintain a spray schedule of every 10 to 14 days. Maximum of 3 1/6 gal. (0.79 lb. metallic copper) per acre per application. Maximum annual rate 7 1/4 gal. (1.82 lb. metallic copper) per acre. Minimum retreatment interval of 7 days.
Peppers	<i>Cercospora</i> Leaf Spot (Frog Eye), Bacterial Spot, <i>Anthracnose</i>	2	4.6	Begin application with appearance of the disease. Maintain 7 to 10 day schedule until harvest begins. Maximum of 3 1/6 gal. (0.79 lb. metallic copper) per acre per application. Maximum annual rate 4 1/8 gal. (1.05 lb. metallic copper) per acre. Minimum retreatment interval of 5 days.
Potatoes	Early and Late Blight	2 - 3	4.6 - 6.9	Apply every 7 to 10 days throughout the season. Use higher rate as vines increase in size. Maximum of 10 gal. (2.5 lb. metallic copper) per acre per application. Maximum annual rate 3 gal. (0.75 lb. metallic copper) per acre. Minimum retreatment interval of 5 days.
Rice	Blast, Brown Leaf Spot, Narrow Brown Leaf Spot, Stem Rot, Leaf Smut, Brown Bordered Leaf and Sheath Spot, Sheath Blight, Panicle Blight	2	4.6	Applications beginning at panicle initiation and repeated at 14 day intervals may reduce disease severity. (Not for use on panicle blight in California) Maximum of 2 1/6 gal. (0.53 lb. metallic copper) per acre per application. Maximum annual rate 6 gal. (1.5 lb. metallic copper) per acre. Minimum retreatment interval of 10 days.
Soybeans	Pod and Stem Blight, <i>Cercospora</i> Leaf Spot, <i>Anthracnose</i> , Brown Spot	2	4.6	Make first application when pods are 1/8" to 1/2" long (early pod set). Additional applications at 10-14 day intervals throughout the growing season may reduce the severity of disease. Maximum of 3 1/6 gal. (0.79 lb. metallic copper) per acre per application. Maximum annual rate 4 1/8 gal. (1.05 lb. metallic copper) per acre. Minimum retreatment interval of 7 days.
Spinach	Downy Mildew (Blue Mold), White Rust, <i>Cercospora</i> Leaf Spot	2-3	4.6-6.9	Apply at first sign of disease and repeat at 7 to 10 day intervals or as required for adequate control. Maximum of 3 1/6 gal. (0.79 lb. metallic copper) per

				acre per application. Maximum annual rate 3.95 gal (3.95 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
Sugar Beets	<i>Cercospora</i> Leaf Spot, Downy and Powdery Mildew	2 - 4	4.6 - 9.2	Begin application before or at first appearance of disease. Repeat at 10 to 14 day intervals for 3 to 6 treatments. Maximum of 5.24 gal (5.24 lb metallic copper) per acre per application. Maximum annual rate 20.96 gal (20.96 lb metallic copper) per acre. Minimum retreatment interval of 10 days.
Tomatoes	Early and Late Blight, Downy and Powdery Mildew, <i>Septoria</i> Blight, <i>Anthracnose</i> , Bacterial Speck, Bacterial Spot	2 - 3	4.6 - 6.9	Begin when disease first threatens and repeat at 5 to 10 day intervals. Maximum of 7.46 gal (7.46 lb metallic copper) per acre per application. Maximum annual rate 29.84 gal (29.84 lb metallic copper) per acre. Minimum retreatment interval of 5 days.
Wheat	Powdery Mildew, Leaf Rust	2	4.6	Make application at first appearance of disease. Repeat at 2 week intervals if disease conditions persist. PRECAUTION: Some varieties of wheat may be sensitive to copper. Do not make applications at excessively high temperatures. Maximum of 2.12 gal (2.12 lb metallic copper) per acre per application. Maximum annual rate 8.48 gal (8.48 lb metallic copper) per acre. Minimum retreatment interval of 10 days.
COLE CROPS Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Chinese Cabbage, Collards, Kale, Kohlrabi, Mustards, Radishes, Turnips.	Downy Mildew, Leaf Spot, Black Rot	2	4.6	Begin application as soon as disease threatens and repeat at 7 to 10 day intervals. Use at 3 day intervals in plant beds. Maximum of 2.12 gal (2.12 lb metallic copper) per acre per application. Maximum annual rate 8.48 gal (8.48 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
CUCURBITS Cantaloupe, Cucumbers, Muskmelon, Pumpkin, Squash, Watermelon	Downy and Powdery Mildew	0.5 - 1	1.1 - 2.3	Begin application when plants start to run or disease first appears. Repeat sprays at 7 to 10 day intervals through season. Maximum of 1.2 gal (1.2 lb metallic copper) per acre per application. Maximum annual rate 5.25 gal (5.25 lb metallic copper) per acre. Minimum retreatment interval of 5 days.

*PRECAUTION: Cucurbits are sensitive to sulfur and some plant injury may occur. Applications should be made during times that lower temperatures are expected (evening). Use the lower rates if air temperatures are over 75°F and do not apply if air temperatures are expected to be over 90°F.

CROP	DISEASE CONTROLLED	AMOUNT		APPLICATION GUIDE
		Qt/100 Gal Water	Lt/1000 Lt Water	
FRUIT, VINE AND NUT CROPS				
Almonds	Shot Hole, Brown Rot	2 to 4	5 to 10	Apply as a dormant spray or during swelling bud stage to early bloom stage (popcorn). To avoid injury, apply prior to 50% bloom or after petal fall. Dormant/late season: Maximum of 2.24 gal (2.24 lb metallic copper) per acre per application. Maximum annual rate 8.96 gal (8.96 lb metallic copper) per acre. Minimum retreatment interval of 7 days. Bloom/growing season: Maximum of 1.12 gal (1.12 lb metallic copper) per acre per application.

				Maximum annual rate 18 gal (18 lb metallic copper) per acre. Minimum retreatment interval of 5 days.
Apricots	Shot Hole, Brown Rot	4 to 6	10 to 15	Apply as delayed dormant or swelling bud to popcorn stage. Avoid spraying when in leaf, as injury may occur. Dormant late season: Maximum of 2 gal (2 lb metallic copper) per application. Maximum annual rate 18 gal (18 lb metallic copper) per acre. Minimum retreatment interval of 7 days. Bloom/growing season: Maximum of 4 gal (4 lb metallic copper) per application. Maximum annual rate 18 gal (18 lb metallic copper) per acre. Minimum retreatment interval of 5 days.
Avocados	Anthraxnose, Cercospora Fruit Spot, Scab	2	5	Apply with foliar spray when blossom buds open. Repeat at 4 week intervals for a total of 5 applications. Maximum of 2 gal (2 lb metallic copper) per application. Maximum annual rate 18 gal (18 lb metallic copper) per acre. Minimum retreatment interval of 14 days.
		Qt / Acre	Lt / Ha	
Bananas	Sigatoka Disease (Cercospora Leaf Spot)	3	6.9	Apply foliar applications on a 14 day schedule during the wet season and a 21 day schedule during dry season. Add an approved spray adjuvant as spreader-sticker such as Natur'l Oil. Maximum of 2 gal (2 lb metallic copper) per application. Maximum annual rate 18 gal (18 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
		Qt/100 Gal Water	Lt/1000 Lt Water	
Cherries	Brown Rot Leaf Spot	3/4 to 7/8 1/2 to 7/8	1.9 to 2.2 1.2 to 2.2	Pink and bloom spray. Petal fall shuck and cover sprays. Dormant late season: Maximum of 2 gal (2 lb metallic copper) per application. Maximum annual rate 18 gal (18 lb metallic copper) per acre. Minimum retreatment interval of 7 days. Bloom/growing season: Maximum of 4 gal (4 lb metallic copper) per application. Maximum annual rate 18 gal (18 lb metallic copper) per acre. Minimum retreatment interval of 5 days.
Citrus	Brown Rot	4	10	Begin application in fall, just before or just after first heavy rains.
	Melanose	6	15	Apply 1 to 3 weeks after petal fall. Repeat in 4 weeks if there has been a history of the disease, a wet spring or late or scattered bloom.
	Scab	6	15	Apply two sprays, use before trees begin to flush and at 2/3 petal fall. Maximum of 2 gal (2 lb metallic copper) per application. Maximum annual rate 18 gal (18 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
		Qt / Acre	Lt / Ha	
Cranberries	Fruit Rot	2	4.6	Start foliar sprays at midbloom and repeat at 7-10

				day intervals as required. Maximum of 12 gal (2.1 lb metallic copper) per acre per application. Maximum annual rate 63 gal (11.3 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
Grapes	Downy and Powdery Mildew, Bunch Rot	2	5	Start as foliar spray when new growth is 1/2" long and repeat at 10 to 14 day intervals. Maximum of 12 gal (2.1 lb metallic copper) per acre per application. Maximum annual rate 20 gal (3.6 lb metallic copper) per acre. Minimum retreatment interval of 3 days.
		Qt/100 Gal Water	Lt/1000 Lt Water	
Hops	Downy Mildew, Powdery Mildew	4	10	Apply as a wetting spray, as a crown treatment (after pruning but before training). After training, treat at 10 day intervals. Discontinue use 2 weeks before harvest. Maximum of 2.12 gal (0.35 lb metallic copper) per acre per application. Maximum annual rate 21.3 gal (3.65 lb metallic copper) per acre. Minimum retreatment interval of 10 days.
Mango	<i>Anthracnose</i>	2	5	Apply in foliar sprays when first bloom clusters appear. Repeat weekly until fruit set and then spray monthly for a total of 5-12 applications, depending on area. Maximum of 10.4 gal (1.9 lb metallic copper) per acre per application. Maximum annual rate 104 gal (19.2 lb metallic copper) per acre. Minimum retreatment interval of 30 days. Not for use in California.
Olive	Peacock Spot	2 to 3	5 to 7.5	Apply as a foliar spray in fall as disease is expected. Maximum of 2.6 gal (0.5 lb metallic copper) per acre per application. Maximum annual rate 26 gal (4.6 lb metallic copper) per acre. Minimum retreatment interval of 30 days.
Papaya	<i>Anthracnose</i>	2	5	Apply as a foliar spray as disease is expected. Maximum of 11.5 gal (2.1 lb metallic copper) per acre per application. Maximum annual rate 115 gal (21.2 lb metallic copper) per acre. Minimum retreatment interval of 14 days. Not for use in California.
Peach and Nectarines	Powdery Mildew Brown Rot, Leaf Spot Scab	3/4 to 1 1/2 1 to 1 7/8 1 7/8	1.9 to 3.8 1.2 to 4.7 4.7	Pink and bloom spray. Petal fall, shuck and cover sprays. Shuck split through pre-harvest. Dormant late season: Maximum of 32 gal (6 lb metallic copper) per acre per application. Maximum annual rate 16 gal (3 lb metallic copper) per acre. Minimum retreatment interval of 7 days. Dormant growing season: Maximum of 32 gal (6 lb metallic copper) per acre per application. Maximum annual rate 16 gal (3 lb metallic copper) per acre. Minimum retreatment interval of 5 days.
Pears	Fire Blight Bulls Eye Rot	2 2	5 5	Apply at 10% bloom and continue every 5 to 7 days throughout bloom. Use only where prior use shows safety to varieties in area. Apply as a foliar application before harvest. Add an approved spray adjuvant as spreader-sticker

				such as Natur'I Oil. Fall-late dormant: Maximum of 32 gal (8 lb metallic copper) per acre per application. Maximum annual rate 16 gal (4 lb metallic copper) per acre. Make only one application per season. Bloom-growing season: Maximum of 2 gal (0.5 lb metallic copper) per acre per application. Maximum annual rate 6 gal (1.5 lb metallic copper) per acre. Minimum retreatment interval of 5 days.
Pecans	Scab	2 to 3	5 to 7.5	Apply as foliar spray when catkins show. Repeat 3 to 4 times at 3 week intervals. Maximum of 8 gal (2 lb metallic copper) per acre per application. Maximum annual rate 3 gal (0.75 lb metallic copper) per acre. Minimum retreatment interval of 14 days.
Plums and Prunes	Brown Rot Leaf Spot	3/4 to 7/8 1/2 to 7/8	1.9 to 2.2 1.2 to 2.2	Pink and bloom spray. Petal fall shuck and cover sprays. Dormant-late season: Maximum of 32 gal (8 lb metallic copper) per acre per application. Maximum annual rate 8 gal (2 lb metallic copper) per acre. Minimum retreatment interval of 7 days. Bloom-growing season: Maximum of 2 gal (0.5 lb metallic copper) per acre per application. Maximum annual rate 6 gal (1.5 lb metallic copper) per acre. Minimum retreatment interval of 5 days.
		Qt / Acre	Lt / Ha	
Raspberry, Boysenberry, Dewberry, Loganberry	<i>Anthracnose,</i> Leaf and Cane Rot	2	4.6	Apply as a foliar spray when leaf buds begin to open. Repeat when flower buds show white and continue at 10 to 14 day intervals. Maximum of 20 gal (5 lb metallic copper) per acre per application. Maximum annual rate 10 gal (2.5 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
Strawberries	Downy Mildew	2	4.6	Apply delayed dormant and after leaves form at 10 to 14 day intervals. Severe: Maximum of 25 gal (6.25 lb metallic copper) per acre per application. Moderate: Maximum of 12.5 gal (3.125 lb metallic copper) per acre per application. Maximum annual rate 25 gal (6.25 lb metallic copper) per acre. Minimum retreatment interval of 7 days.
		Qt/100 Gal Water	Lt/1000 Lt Water	
Walnuts	Blight (<i>Xanthomonas</i>)	1 to 3	2.5 to 7.5	Begin application at pre-bloom and continue at 7 to 10 day intervals until fruit set. Maximum of 12.5 gal (3.125 lb metallic copper) per acre per application. Maximum annual rate 25 gal (6.25 lb metallic copper) per acre. Minimum retreatment interval of 7 days.

CROP	DISEASE CONTROLLED	AMOUNT		APPLICATION GUIDE
		fluid ounces per cwt	grams per Kg	
Soybeans and Cotton	Damping-off Seedling Diseases	8 to 12	5 to 7.5	For planter boxes place ½ the seed in box and pour the recommended amounts of TOP COP over the surface and mix by stirring with a stick or paddle until seed is covered. Add remaining ½ of seed and TOP COP and stir as above. Treated seed should not be used for food, feed or oil purposes. Metal treaters and planting equipment should be thoroughly rinsed with water after use as sulfur can be corrosive.
Rice (except California)	Panicle Blight			

NUTRIENT USE

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Foliage applications as recommended will provide sulfur and copper for the plant nutrient requirements and should be considered in the total fertilizer applications.