



**Stoller Enterprises, Inc.**

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## **TOP COP™ With Sulfur**

8.4% Tri Basic Copper Sulfate, 50% Sulfur (S)

The sulfur in **TOP COP** oxidizes on the crop leaf and solubilizes the copper very quickly. Most of the vital pathogen-killing copper is solubilized in 14 days.

The fast action of **TOP COP** means less copper is needed to control the fungus-causing pathogens. There is no build-up of copper on the older leaves of the plant, and there is less money spent per acre for fungicide treatments.

**TOP COP** with Sulfur is approved by the **EPA** for use on more than 40 field and vegetable crops, as well as fruit, nut and vine crops.

**TOP COP** has been effectively used for more than 20 years.

### **General Recommendation**

Foliar spray 2 to 4 liter per hectare or add through drip irrigation system when plants have 3 to 4 true leaves. Repeat application every 7 to 14 days as needed.

Or Foliar spray 250cc to 500cc per 100 liter of water. Repeat application every 7 to 14 days as needed.



## 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.

### FIELD AND VEGETABLE CROPS

Crop	
Alfalfa	<p><b>Disease controlled:</b> Common Leaf Spot <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Apply as foliar spray 10 to 14 days before each harvest or earlier if disease threatens.</p>
Asparagus	<p><b>Disease controlled:</b> Rust <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Start foliar application when rust first appears and repeat at 10 day intervals. Four applications are usually sufficient.</p>
Barley	<p><b>Diseases controlled:</b> Helminthosporium Spot Blotch, Septoria Leaf Blotch <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Apply in foliar spray at early heading and again 10 days later.</p>
Beans	<p><b>Diseases controlled:</b> Downy and Powdery Mildew, Rust, Halo Blight <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Begin during early bloom or when disease first threatens.</p>
Beets	<p><b>Diseases controlled:</b> Downy and Powdery Mildew <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Begin applications when disease first appears and then every 7-14 days.</p>
Carrots	<p><b>Diseases controlled:</b> Downy Mildew, Alternaria Leaf Blight, Cercospora Blight <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Begin applications when disease is reported and continue at 7 to 10 day intervals.</p>
Celery	<p><b>Diseases controlled:</b> Bacterial Blight, Early Blight, Late Blight, Leaf Spots <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application Guide:</b> 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.</p>
Corn	<p><b>Disease controlled:</b> Helminthosporium Leaf Blight <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application Guide:</b> Start foliar spray when disease first appears and repeat at 4 to 7 day intervals.</p>
Cotton	<p><b>Diseases controlled:</b> Rust, Boll Rot <b>Amounts:</b> 1-3 qts/ac or 2.3-6.9 ltr/he <b>Application Guide:</b> Begin application at early bloom or when disease first threatens; continue at 7 to 14 day intervals until defoliation.</p>
Eggplant	<p><b>Diseases controlled:</b> Alternaria Blight, Anthracnose, Phomopsis <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application Guide:</b> Begin application with appearance of the disease. Maintain 7 to 10 day schedule until harvest begins.</p>
Lettuce	<p><b>Diseases controlled:</b> Anthracnose, Leaf Spot, Downy &amp; Powdery Mildew <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application Guide:</b> Apply in foliar spray when disease is expected and repeat at 7 to 10 day intervals.</p>
Onions	<p><b>Diseases controlled:</b> Purple Blotch, Downy Mildew <b>Amounts:</b> 2-3 qts/ac or 4.6-6.9 ltr/he <b>Application Guide:</b> Begin when plants are 4 to 6 inches and repeat at 7 to 10 day intervals.</p>
Peas	<p><b>Disease controlled:</b> Powdery Mildew <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Apply at first sign of disease. Repeat at 7 day intervals.</p>
Peanuts	<p><b>Diseases controlled:</b> Early and Late Cercospora Leaf Spot, Rust <b>Amounts:</b> 3 qts/ac or 6.9 ltr/he <b>Application guide:</b> Begin application 40 to 60 days after planting; maintain a spray schedule of every 10 to 14 days.</p>
Peppers Anthracnose	<p><b>Diseases controlled:</b> Cercospora Leaf Spot (Frog Eye), Bacterial Spot, <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Begin application with appearance of the disease. Maintain 7 to 10 day schedule until harvest begins.</p>
Potatoes	<p><b>Diseases controlled:</b> Early and Late Blight <b>Amounts:</b> 2-3 qts/ac or 4.6-6.9 ltr/ac <b>Application guide:</b> Apply every 7 to 10 days throughout the season. Use higher rate as vines increase in size.</p>
Rice	<p><b>Diseases controlled:</b> Blast, Brown Leaf Spot, Narrow Brown Leaf Spot, Stem Rot, Leaf Smut, Brown Bordered Leaf &amp; Sheath Spot, Sheath Blight, Panicle Blight <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Applications beginning at panicle initiation and repeated at 14 day intervals may reduce disease severity.</p>
Soybeans	<p><b>Diseases controlled:</b> Pod and Stem Blight, Cercospora Leaf Spot, Anthracnose, Brown Spot <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Make first application when pods are 1/8" to 1/2" long (early pod set). Additional applications at 10 to 14 day intervals throughout the growing season may reduce the severity of disease.</p>
Spinach	<p><b>Diseases controlled:</b> Downy Mildew (Blue Mold), White Rust, Cercospora Leaf Spot <b>Amounts:</b> 2-4 qts/ac or 4.6-9.2 ltr/ac <b>Application guide:</b> Apply at first sign of disease and repeat at 7 to 10 day intervals or as required for adequate control.</p>
Sugar Beets	<p><b>Diseases controlled:</b> Cercospora Leaf Spot, Downy &amp; Powdery Mildew <b>Amounts:</b> 2-4 qts/ac or 4.6-9.2 ltr/ac <b>Application guide:</b> Begin application before or at first appearance of disease. Repeat at 10 to 14 day intervals for 3 to 6 treatments.</p>
Tomatoes	<p><b>Diseases controlled:</b> Early and Late Blight, Downy &amp; Powdery Mildew, Septoria Blight, Anthracnose, Bacterial Speck, Bacterial Spot. <b>Amounts:</b> 2-3 qts/ac or 4.6-6.9 ltr/he <b>Application guide:</b> Begin when disease first threatens and repeat at 5 to 10 day intervals.</p>

Wheat

**Diseases controlled:** Powdery Mildew, Leaf Rust  
**Amounts:** 2 qts/ac or 4.6 ltr/he  
**Application guide:** Make application at first appearance of disease. Repeat at 2 week intervals if disease conditions persist. CAUTION: Some varieties of wheat may be sensitive to copper. Do not make applications at excessively high temperatures.

### COLE CROPS

Crop	
Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Chinese Cabbage, Collards, Kale, Kohlrabi, Mustards, Radishes, Turnips	<p><b>Diseases controlled:</b> Downy Mildew, Leaf Spot, Black Rot <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Begin application as soon as disease threatens and repeat at 7 to 10 day intervals. Use at 3 day intervals in plant beds.</p>

### CUCURBITS

Crop	
Cantaloupe, Cucumbers, Muskmelon, Pumpkin, Squash, Watermelon	<p><b>Diseases controlled:</b> Downy &amp; Powdery Mildew <b>Amounts:</b> 0.5-1 qt./ac or 1.1-2.3 ltr/he <b>Application guide:</b> Begin application when plants start to run or disease first appears. Repeat sprays at 7 to 10 day intervals through season. CAUTION: 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.</p>

### FRUIT, WINE AND NUT CROPS

Crop	
Almonds	<p><b>Diseases controlled:</b> Shot Hole, Brown Rot <b>Amounts:</b> 2 to 4 qts/100 gals. of water or 5 to 10 ltr/kiloliter <b>Application guide:</b> 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.</p>
Apricots	<p><b>Diseases controlled:</b> Shot Hole, Brown Rot <b>Amounts:</b> 4 to 6 qts/100 gals. of water or 10 to 15 ltr/kiloliter <b>Application guide:</b> Apply at delayed dormant or swelling bud to popcorn stage. Avoid spraying when in leaf, as injury may occur.</p>
Avocados	<p><b>Diseases controlled:</b> Anthracnose, Cercospora Fruit Spot, Scab <b>Amounts:</b> 2 qts/100 gals. of water or 5 ltr/kiloliter <b>Application guide:</b> Apply with foliar spray when blossom buds open. Repeat at 4 week intervals for a total of 5 applications.</p>
Bananas	<p><b>Disease controlled:</b> Sigatoka Disease (Cercospora Leaf Spot) <b>Amounts:</b> 3 qts/ac or 6.9 ltr/he <b>Application guide:</b> 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.</p>
Cherries	<p><b>Disease controlled:</b> Brown Rot <b>Amounts:</b> 3/4 to 7/8 qts/100 gals. of water or 1.9 to 2.2 ltr/kiloliter <b>Application guide:</b> Pink and bloom spray. <b>Disease controlled:</b> Leaf Spot <b>Amounts:</b> 1/2 to 7/8 qts/100 gals. of water or 1.2 to 2.2 ltr/kiloliter <b>Application guide:</b> Petal fall, shuck and cover sprays.</p>
Citrus	<p><b>Disease controlled:</b> Brown Rot <b>Amounts:</b> 4 qts/100 gals. of water or 10 ltr/kiloliter <b>Application guide:</b> Begin application in fall, just before or just after first heavy rains. <b>Disease controlled:</b> Melanose <b>Amounts:</b> 6 qts/100 gals. of water or 15 ltr/kiloliter <b>Application guide:</b> 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. <b>Disease controlled:</b> Scab <b>Amounts:</b> 6 qts/100 gals. of water or 15 ltr/kiloliter <b>Application guide:</b> Apply two sprays. Use before trees begin to flush and at 2/3 petal fall.</p>
Cranberries	<p><b>Disease controlled:</b> Fruit Rot <b>Amounts:</b> 2 qts/ac or 4.6 ltr/he <b>Application guide:</b> Start foliar sprays at mid-bloom and repeat at 7 to 10 day intervals as required.</p>
Grapes	<p><b>Diseases controlled:</b> Downy &amp; Powdery Mildew, Bunch Rot <b>Amounts:</b> 2 qts/ac or 5 ltr/he <b>Application guide:</b> Start as foliar spray when new growth is 1/2" long and repeat at 10 to 14 day intervals.</p>
Hops	<p><b>Diseases controlled:</b> Downy Mildew, Powdery Mildew <b>Amounts:</b> 4 qts/100 gals. of water or 10 ltr/kiloliter <b>Application guide:</b> 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.</p>
Mango	<p><b>Disease controlled:</b> Anthracnose <b>Amounts:</b> 2 qts/100 gals. of water or 5 ltr/kiloliter <b>Application guide:</b> 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.</p>
Olive	<p><b>Disease controlled:</b> Peacock Spot <b>Amounts:</b> 2 to 3 qts/100 gals. of water or 5 to 7.5 ltr/kiloliters <b>Application guide:</b> Apply as a foliar spray in fall as disease is expected.</p>
Papaya	<p><b>Disease controlled:</b> Anthracnose <b>Amounts:</b> 2 qts/100 gals. of water or 5 ltr/kiloliters <b>Application guide:</b> Apply as a foliar spray as disease is expected.</p>
Peach & Nectarines	<p><b>Disease controlled:</b> Powdery Mildew <b>Amounts:</b> Amounts: 3/4-1 1/4 qts/100 gals. of water or 1.9 to 3.8 ltr/kilo- liters <b>Application guide:</b> Pink and bloom spray <b>Diseases controlled:</b> Brown Rot, Leaf Spot <b>Amounts:</b> 1-1 1/4 qts/100 gals. of water or 1.2 to 4.7 ltr/kiloliters <b>Application guide:</b> Petal fall, shuck &amp; cover sprays. <b>Disease controlled:</b> Scab <b>Amounts:</b> 1 1/4 qts/100 gals. of water or 4.7 ltr/kiloliters <b>Application guide:</b> Shuck split thru pre-harvest.</p>

Pears	<p><u>Disease controlled:</u> Fire Blight  <u>Amounts:</u> 2 qts/100 gals. of water or 5 ltr/kiloliters  <u>Application guide:</u> Apply at 10% bloom and continue every 5 to 7 days throughout bloom. Use only where prior use shows safety to varieties in area.  <u>Disease controlled:</u> Bulls Eye Rot  <u>Amounts:</u> 2 qts/100 gals. of water or 5 ltr/kiloliters  <u>Application guide:</u> Apply as a foliar application before harvest. Add an approved spray adjuvant as spreader-sticker such as Natur'l Oil.</p>
Pecans	<p><u>Disease controlled:</u> Scab  <u>Amounts:</u> 2 to 3 qts/100 gals. of water or 5 to 7.5 ltr/kiloliters  <u>Application guide:</u> Apply as foliar spray when catkins show. Repeat 3 to 4 times at 3 week intervals.</p>
Plums & Prunes	<p><u>Disease controlled:</u> Brown Rot  <u>Amounts:</u> 3/4 to 7/8 qts/100 gals. of water or 1.9 to 2.2 ltr/kiloliters  <u>Application guide:</u> Pink and bloom spray.  <u>Disease controlled:</u> Leaf Spot  <u>Amounts:</u> 1/2 to 7/8 qts/100 gals. of water or 1.2 to 2.2 ltr/kiloliters  <u>Application guide:</u> Petal fall, shuck and cover sprays.</p>
Raspberry, Boysenberry, Dewberry, Loganberry	<p><u>Diseases controlled:</u> Anthracnose, Leaf &amp; Cane Rot  <u>Amounts:</u> 2 qts/ac or 4.6 ltr/ha  <u>Application guide:</u> 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.</p>
Strawberries	<p><u>Disease controlled:</u> Downy Mildew  <u>Amounts:</u> 2 qts/ac or 4.6 ltr/ha  <u>Application guide:</u> Apply delayed dormant and after leaves form at 10 to 14 day intervals.</p>
Walnuts	<p><u>Disease controlled:</u> Blight (Xanthomonas)  <u>Amounts:</u> 1 to 3 qts/100 gals. of water or 2.5 to 7.5 ltr/kiloliters  <u>Application guide:</u> Begin application at pre-bloom and continue at 7 to 10 day intervals until fruit set.</p>

#### SEED TREATMENT

Crop	
Soybeans, Cotton	<p><u>Diseases controlled:</u> Damping-off, Seedling Diseases  <u>Amounts:</u> 8-12 fl oz/cwt or 5-7.5 grms/Kg  <u>Application guide:</u> For planter boxes place 1/2 the seed in box and pour recommended amounts of TOP COP™ over the surface and mix by stirring with a stick or paddle until seed is covered. Add remaining 1/2 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.</p>

#### NUTRIENT USE

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