GROUP M01 BACTERICIDE

# **STERLING**

# Liquid Fungicide and Bacteriacide

### **COMMERCIAL**

<b>ACTIVE INGREDIENT: Copper</b>	, present as copper s	sulphate pentahydrate	1.7%
Iodine	, elemental		0.5%

## REGISTRATION NO. 32613 PEST CONTROL PRODUCTS ACT

### **CAUTION**





**CORROSIVE** 

**POISON** 

READ THE LABEL BEFORE USING

KEEP OUT OF REACH OF CHILDREN

Net Contents: 4 - 20 L

DO NOT APPLY TO WATERS CONTAINING FISH

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# **Application Rates for STERLING**

When applied as directed, STERLING will control/suppress the indicated diseases. Under conditions of moderate to high disease pressures, use the higher rate and shorter application interval indicated. Apply in sufficient water carrier volume to ensure good coverage.

**Ground Application Only** 

Crop	Disease	Rate (mL/hectare)	Application Instructions
		(mL/nectare)	
Asparagus	Botrytis blight (Botrytis cinerea)	500-600	Begin applications at the first sign of disease, or when conditions become conducive for disease development.  Repeat as necessary on a 7-10 day interval.
Crop Group 13 Crops (Bushberries and Caneberries):  Bayberry; bearberry;	Botrytis grey mould (Botrytis cinerea)	500-1200	Begin applications at the first sign of disease or when conditions become conducive for disease development.  Repeat as necessary on a 7-10 day interval.
blackberry; highbush and lowbush blueberry; chokecherry; currant; elderberry; gooseberry; huckleberry; lingonberry; loganberry, mulberry; pincherry; raspberry; salal; Saskatoon berry; sea buckthorn; wild raspberry.	Bacterial blight (Pseudomonas syringae)	500-1200	Apply before fall rains and again during dormancy before spring.
Crop Group 13-07: Berry and Small Fruit Crop Group).  Blackberry or raspberry, highbush blueberry, elderberry or mulberry, grape, strawberry, and fuzzy kiwifruit	Botrytis grey mould mould (Botrytis cinerea)	500-1200	Begin application prior to disease development and repeat on 7-10 day intervals.
Highbush blueberry, lowbush blueberry	Mummy berry (Monilinia vaccinii-corymbosi)	500-1000	Begin applications at the bud break stage of development. Repeat as necessary on a 7-14 day interval.
Crop Group 5 (Cole) Crops	Sclerotinia rot (Sclerotinia sclerotium)	500-600	Make the first application at emergence, or immediately following transplanting. Repeat applications on
Broccoli, Chinese broccoli, Broccoli raab, Brussels sprouts,	Downy mildew (Peronospora parasitica)	500-600	10-14 day intervals if conditions for disease development continues.

cabbage (all types), cauliflower, cavalo broccoli, collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens.	Pin rot (Alternaria / Xanthomonas Complex)		
Crop Group 6 Crops (Legume Vegetables):  Bean (Lupinus spp., Phaseolus spp., and Vigna spp.), chickpea, lentil, and pea (all types)	White mould (Sclerotinia sclerotiorum)	500-600	Make the first application at planting (or immediately following planting but prior to crop emergence). Make a second application as a directed spray with multiple nozzles per seed line in sufficient water to ensure thorough coverage of lower plant leaves and surrounding soil surface within 7 days of thinning. Repeat applications on 7-14 day intervals if conditions for disease development persist.
	Botrytis pod rot (Botrytis cinerea)	500-600	Begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval.
Soybean	White mould (Sclerotinia sclerotium)	500-600	Begin application soon after emergence and when conditions are conducive to disease development. Repeat as necessary on a 7-10 day interval.
	Brown spot (Septoria glycines) Frog eye (Cercospora sojina)	500-600	
Crop Group 3 Crops (Bulb Vegetables)  Onions (all types), garlic (all types), leeks, shallots and chives	Botrytis neck rot (Botrytis allii)  Botrytis leaf blight (Botrytis squamosa)	500-1000	Begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval.
	Downy mildew (Peronospora destructor)	500-1000	
Peanut	Leaf spot (Cercospora arachidicola, Cercosporidium personatum)	500-700	Begin application soon after emergence or transplant and when conditions are conducive to disease development. Repeat as necessary on a 7-10 day interval.

Crop Group 1: Root tuber vegetables: Garden beet, sugar beet, carrot, celeriac, chervil, chicory, ginseng, horseradish, turniprooted parsley, parsnip, potato, radish, Oriental radish, rutabaga, salsify, sweet potato, and turnip.  Potato	White mould (Sclerotinia sclerotiorum)  Early blight (Alternaria solani)	500-800	Begin application soon after emergence and when conditions are conducive to disease development. Repeat as necessary on a 7-10 day interval.
Sugar, Garden Beet	Cercospora Leaf Spot (Cercospora beticola)	500-600	Begin application soon after emergence and when conditions are conducive to disease development. Repeat as necessary on a 7-10 day interval.  Serenade MAX must be applied with a non-ionic surfactant at a rate of 0.25% v/v or at labeled rates.  Use foliar boom or overhead boom spray equipment.  Under conditions of moderate to high disease pressures, use the higher rate and shorter application interval indicated.
Crop Group 9 Crops (Cucurbits)  Canteloupe, Chinese waxgourd, cucumber, gherkin, edible gourd, melon, muskmelon,	Powdery mildew (Erysiphe cichoracearum, Sphaerotheca fuliginea)  Downy mildew	500-600	Begin application soon after emergence or transplant, when conditions are conducive for disease development. Repeat applications on an interval of 7-10 days.  Begin application soon after emergence
pumpkin, squash, and watermelon.	(Pseudoperonospora cubensis)	300-000	or transplant, when conditions are conducive to disease development. Repeat as necessary on a 7-10 day interval. When environmental conditions and plant stage are conducive to rapid disease development, use Serenade Max in a rotational program with other registered fungicides.

Crop Group 8: Fruiting vegetables:	Early blight (Alternaria solani)	500-700	Make the first application when plants are 6-10 cm high, or when conditions are conducive for disease development.	
Eggplant, ground cherry, okra, pepino, peppers (all varieties), tomatillo and tomatoes	Botrytis grey mould (Botrytis cinerea)	500-600	Repeat applications on an interval of 5-7 days.	
Tomato, Peppers	Powdery mildew (Erysiphe orontii, Leveillula taurica)	500-600	Begin application soon after emergence or transplant, and repeat on an interval of 7-10 days.	
	Bacterial spot (Xanthomonas campestris)	500-600	Begin application soon after emergence or transplant, when conditions are conducive to disease development.  Repeat as necessary on a 7-10 day interval. When environmental conditions and plant stage are conducive to rapid disease development, use Serenade Max in a rotational program with other registered bacteriacides.	
Grapes	Powdery mildew (Uncinula necator)	500-1200	Begin application when new shoots are 1-3 cm high. Make a repeat application when shoots are 6-10 cm high, and when shoots are 18-20 cm high, then at 7-10 day intervals thereafter.	
	Grey mold (Botrytis cinerea)  Sour rot*	500-1200	Make the first application at bloom, then repeat at bunch closure, at veraison and preharvest.	
	(a complex of various pathogens)		*Note that sour rot disease is caused by various yeast, fungal and bacterial pathogens, and that Serenade MAX has not been tested for control of all of these agents.	
Crop Group 4 Crops (Leafy vegetables):  Amaranth, arugula, Chinese celery, celtuce, chervil, corn salad, cress, dandelion, dock, endive, fennel, lettuce, orach, parsley, radicchio, and swiss chard.	Sclerotinia rot (Sclerotinia minor, Sclerotinia sclerotiorum)	500-600	Make the first application at planting (or immediately following planting but prior to crop emergence). Make a second application as a directed spray with multiple nozzles per seed line in sufficient water to ensure thorough coverage of lower plant leaves and surrounding soil surface within 7 days of thinning. Repeat applications on 10-14 day intervals if conditions for disease development persist.	

	Grey mould (Botrytis cinerea)		For suppression, begin applications soon after emergence or transplant and continue as necessary on a 7 to 10 day interval. When environmental conditions are conducive to rapid disease development, use Serenade MAX in a rotational program with other registered fungicides. Thorough coverage is essential.
	Powdery mildew (Erysiphe cichoracearum)	500-600	Begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval.
Lettuce	Downy mildew (Bremia lactucae)	500-600	Begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval.
Spinach	White rust (Albugo occidentalis)	500-600	Begin applications at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval.
Celery	Pink Rot (Sclerotinia sclerotiorum)	500-600	Make the first application approximately 8 weeks before harvest and repeat on a 14-day interval. Apply Serenade MAX as a directed spray in sufficient water to ensure thorough coverage of the base of the plants and the surrounding soil surface.
Crop Group 11 Crops (Pome Fruits):  Apple, Crabapple, Loquat, Mayhaw, Pear, Oriental			
pear, Quince, and non- bearing pome fruit trees			

Apples	Powdery Mildew (Podosphaera leucotricha)	500-1200	Begin application at tight cluster, or sooner, if conditions are conducive to disease development. Repeat applications on a 7-10 day interval. Additional sprays beyond second cover may be needed on susceptible varieties or under heavy disease pressure.
Crop Group 12 Crops (Stone Fruits):  Apricot, cherry, nectarine, peach, plum, plumcot, and prune	Brown Rot (Monilinia spp.)	500-1200	Begin application at early bloom and repeat as necessary through petal fall on a 7-day interval.
Radish, turnip and rutabaga	Downy mildew (Personospora parasitica)	500-600	Downy mildew: Begin application when environmental conditions are conducive to disease development and repeat on 7-10 day intervals.
Strawberry	Botrytis gray mould (Botrytis cinerea)	500-600	Begin application at the first sign of disease, or when conditions become conducive for disease development. Repeat as necessary on a 7-10 day interval.
Crop Group 19: Herbs and Spices  Anise, balm, basil, borage, chamomile, caraway, catnip, celery seed, chervil, chive, coriander, costmary, dill, fennel, fenugreek, horehound, juniper berry, lavender, lemongrass, lovage, marigold, mustard (seed), nasturtium, parsley, rosemary, sage, savory, sweet bay, thyme, wintergreen, woodruff, and wormwood including transplants	Botrytis gray mould (Botrytis cinerea); White mould (Sclerotinia sclerotiorum)	400-500	Begin application when environmental conditions are conducive to disease development. Repeat as necessary on a 7- to 10-day interval.