

24-Jan-2011  
Datapak

group M fungicide

# LIME SULPHUR

INSECTICIDE MITICIDE FUNGICIDE

SOLUTION

COMMERCIAL

DANGER



POISON



CORROSIVE TO EYES AND SKIN

READ THE LABEL AND ATTACHED BOOKLET BEFORE USING

REGISTRATION NO. 16465  
PEST CONTROL PRODUCTS ACT

GUARANTEE: Calcium polysulphide 30%

IN CASE OF EMERGENCY DUE TO A MAJOR SPILL, FIRE OR POISONING  
INVOLVING THIS PRODUCT CALL DAY OR NIGHT, 1-800-561-8273

NET CONTENTS: 10 L, 20 L, 205 L, Bulk (1000 - 30000 L)

LOVELAND PRODUCTS CANADA INC.  
789 Donnybrook Drive  
Dorchester, Ontario  
N0L 1G5  
1-800-328-4678

12/11

## DIRECTIONS FOR USE

Lime Sulphur solution for fungus and mite problems on fruit trees and small fruit: when used in combination with dormant oil spray it is an excellent clean up spray for dormant fruit trees. Do not spray when foliage is wet, spray to point of run-off: cover completely. Lime Sulphur may cause leaf yellowing and defoliation; particularly if applied in the calyx or early summer without previous application in the pink stage.

Field sprayer application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT apply with spray droplets smaller than the American Society of Agricultural Engineers (ASAE) fine classification. Boom height must be 60 cm or less above the crop or ground.

Air blast application: DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. DO NOT direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. DO NOT apply when wind speed is greater than 16 km/hr at the application site as measured outside of the treatment area on the upwind side.

DO NOT apply by air.

## BUFFER ZONES

Use of the following spray methods or equipment DO NOT require a buffer zone: hand-help or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop		Buffer Zones (metres) Required for the Protection of:			
			Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:	
			Less than 1m	Greater than 1m	Less than 1m	Greater than 1m
Field sprayer*	Strawberries		3	1	1	1
	Gooseberries					
	Raspberries		5	1	1	1
	Loganberries					
	Blueberries (highbush)					
	Blackberries		10	1	3	1
Air blast	Raspberries	Early Growth stage	30	5	15	5
	Loganberries	Late Growth Stage	25	3	5	3
	Plums, Prunes, Cherries	Early Growth stage	35	10	20	10
		Late Growth Stage	25	4	10	4
	Blueberries (highbush)	Early Growth stage				
		Late Growth Stage				
	Blackberries	Early Growth stage	40	15	25	15
	Late Growth Stage	30	5	15	5	
	Apples, Pears, Peaches,	Early Growth stage	40	15	25	15

	Grapes					
	Gooseberries	Early Growth stage	25	2	5	2
		Late Growth Stage	15	1	3	1

\* For field sprayer application, buffer zones can be reduced with the use of drift reducing spray shields. When using a spray boom fitted with a full shield (shroud, curtain) that extends to the crop canopy, the labelled buffer zone can be reduced by 70%. When using a spray boom where individual nozzles are fitted with cone-shaped shields that are no more than 30 cm above the crop canopy, the labelled buffer zone can be reduced by 30%.

When a tank mixture is used, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture.

### HOW TO USE THE CHART BELOW

1. Locate FRUIT and PEST to be controlled on left.
2. Select the quantity of DILUTED SPRAY that you wish to make.
3. Amount of LIME SULPHUR needed to mix that quantity of spray is shown in column opposite PEST to be controlled.

FRUIT	PEST	WHEN TO SPRAY	Amount of LIME SULPHUR required to mix with enough water to make the desired quantity of diluted spray of:		
			20 L	100 L	200 L
<b>APPLES and PEARS</b>	Blister mites, Rust mites	Dormant	1.47 L	7.3 L	14.7 L
	San Jose scale, European scale	Dormant Season	733 mL PLUS 250 mL of Dormant Oil Spray	3.7 L PLUS 1.25 L of Dormant Oil Spray	7.3 L PLUS 2.5 L of Dormant Oil Spray
	General clean up spray				
	Apple scab, Pear scab, Powdery mildew	Pre-pink, Pink calyx, 1 <sup>st</sup> & 2 <sup>nd</sup> cover spray	183 mL	916 mL	1.8 L
<b>PRUNES and PLUMS</b>	San Jose scale, European scale, Mites, Aphids-eggs, General clean-up	Dormant Season	733 mL PLUS 250 mL of Dormant Oil Spray	3.67 L PLUS 1.25 L of Dormant Oil Spray	7.3 L PLUS 2.5 L of Dormant Oil Spray
<b>PEACHES</b>	Peach leaf curl, San Jose scale, European scale	Dormant Season	1.47 L	7.3 L	14.7 L
	Twig Borer	Pink	1.47 L	7.3 L	14.7 L
	Powdery Mildew	Petal Fall	183 mL	916 mL Repeat at two week intervals	1.8 L
<b>CHERRIES</b>	San Jose scale, European scale, Mites, General clean-up	Dormant Season	730 mL PLUS 250 mL of Dormant Oil Spray	3.67 L PLUS 1.25 L of Dormant Oil Spray	7.3 L PLUS 2.5 L of Dormant Oil Spray

<b>STRAW-BERRIES</b>	Powdery Mildew, Fruit Rots	Spring (when growth starts)	220 mL	1.1 L	2.2 L
	Powdery Mildew	3 weeks after harvest	220 mL	1.1 L	2.2 L
<b>RASP-BERRIES</b>	Scales, Spur blight, Cane blight, Rust	Delayed Dormant	513 mL	2.6 L	5.1 L
<b>BLACK-BERRIES</b>	Redberry mite	Delayed Dormant	730 mL -1.10 L	3.7-5.5 L	7.3-11 L
		When fruit arms are 7-15 cm	367-513 mL	1.8-2.6 L	3.7-5.1 L
<b>LOGAN-BERRIES</b>	Leaf spot, Cane spot	Delayed Dormant	513 mL	2.6 L	5.1 L
<b>GOOSE-BERRIES</b>	Powdery Mildew	Before earliest blossoms open	220 mL	1.1 L	2.2 L
	Powdery Mildew	Calyx	220 mL	1.1 L	2.2 L

## **GRAPES**

### **NOTE TO USER:**

#### **READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATION:**

The Directions for Use for grapes were developed by persons other than Loveland Products Canada Inc. and accepted for registration by the Pest Management Regulatory Agency under the User Requested Minor Use Label Expansion Program. Loveland Products Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on grapes. Accordingly, the Buyer and User assume all risk related to performance and crop tolerance arising and agree to hold Loveland Products Canada Inc. harmless from any claims based on efficacy and/or phytotoxicity in connection with the use described for grapes.

For use on grapes for powdery mildew management.

Use 7.3 L of LIME SULPHUR Insecticide Miticide Fungicide to make 100 L of spray mixture.

Apply once per season during dormant stage prior to bud swell (early March to early April).

Spray to point of runoff, cover completely.

Do NOT apply within 120 days of harvest.

Apply with ground equipment.

## **HIGHBUSH BLUEBERRIES**

### **NOTE TO USER:**

**READ THE FOLLOWING BEFORE USING THIS PRODUCT FOR THE INDICATED SPECIAL USE APPLICATION:**

The Directions for Use for Highbush Blueberries were developed by persons other than Loveland Products Canada Inc. and accepted for registration by the Pest Management Regulatory Agency under the User Requested Minor Use Label Expansion Program. Loveland Products Canada Inc. itself makes no representation or warranty with respect to performance (efficacy) and/or crop tolerance (phytotoxicity) claims for this product when used on Highbush Blueberries. Accordingly, the Buyer and User assume all risks related to performance and crop tolerance arising, and agree to hold Loveland Products Canada Inc. harmless from any claims based on efficacy and/or phytotoxicity in connection with the use described for Highbush Blueberries.

For use on Highbush Blueberries for the control of scale insects (such as lecanium scale), and for general clean-up.

Apply 36.7 L of LIME SULPHUR Insecticide Miticide Fungicide PLUS 12.5 L Dormant Oil Spray in 1000 L of spray.

OR

Apply 18.3 L of LIME SULPHUR Insecticide Miticide Fungicide PLUS 6.25 L Dormant Oil Spray in 500 L of spray.

OR

Apply 3.7 L of LIME SULPHUR Insecticide Miticide Fungicide PLUS 1.25 L Dormant Oil Spray in 100 L of spray.

Apply once per season when the plants are dormant (January- March).

Spray to point of run-off, cover completely.

Apply with ground equipment only.

**RESISTANCE MANAGEMENT RECOMMENDATIONS**

For resistance management, please note that LIME SULPHUR Insecticide Miticide Fungicide contains a Group M fungicide. Any fungal population may contain individuals naturally resistant to LIME SULPHUR Insecticide Miticide Fungicide and other Group M fungicides. A gradual or total loss of pest control may occur over time if these fungicides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay fungicide resistance:

1. Where possible, rotate the use of LIME SULPHUR Insecticide Miticide Fungicide or other Group M fungicides with different groups that control the same pathogens.
2. Use tank mixtures with fungicides from a different group when such use is permitted.
3. Fungicide use should be based on an IPM program that includes scouting, historical information related to pesticide use and crop rotation and considers cultural, biological and other chemical control practices.

4. Monitor treated fungal populations for resistance development.
5. If disease continues to progress after treatment with this product, do not increase the use rate. Discontinue use of this product, and switch to another fungicide with a different target site of action, if available.
6. Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for specific crops and pathogens.
7. For further information and to report suspected resistance, contact Loveland Products Canada Inc. at 1-800-328-4678 or at [www.uap.ca](http://www.uap.ca).

### **WARNING**

LIME SULPHUR Insecticide Miticide Fungicide may injure “sulphur shy” varieties. Do not use unless local experience has proved that Sulphur is safe to use. Consult local Agricultural Authorities. Do not spray on painted surfaces as staining or discoloration may occur.

### **ENVIRONMENTAL HAZARDS**

TOXIC to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE.

### **PRECAUTIONS**

#### **KEEP OUT OF REACH OF CHILDREN.**

Corrosive to eyes and skin. Concentrate may cause eye damage and skin burns. Harmful or fatal if swallowed or absorbed through skin. Avoid breathing spray mist. Do not get in eyes, on skin or on clothing. All workers involved in handling lime sulphur products must wear personal protective equipment consisting of: coveralls over long-sleeved shirt and long pants, waterproof gloves, chemical-resistant footwear, protective eyewear, chemical-resistant headgear for overhead exposure. In addition, a chemical-resistant apron and NIOSH-approved respirator are required when cleaning equipment, mixing and loading.

Do not re-enter or allow the re-entry into treated areas until 48 hours after application.

If this pest control product is to be used on a commodity that may be exported to the U.S. and you require information on acceptable residue levels in the U.S., visit CropLife Canada's website at: [www.croplife.ca](http://www.croplife.ca).

### **FIRST AID**

**IF SWALLOWED:** Call a poison control centre 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 centre or doctor. Do not give anything by mouth to an unconscious person.

**IF ON SKIN OR CLOTHING:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 - 20 minutes. Call a poison control centre or doctor for treatment advice.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

**IF IN EYES:** 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 centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

### **TOXICOLOGICAL INFORMATION**

May yield hydrogen sulphide by decomposition before or after ingestion. Treat symptomatically.

### **DISPOSAL**

1. Triple- or pressure-rinse the emptied container. Add the rinsings to the spray mixture in the tank.
2. Follow provincial instructions for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on the disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the PEST CONTROL PRODUCTS ACT to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.