

264-705

10/14/2004

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264-705



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OCT 14 2004

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Gregory C. Mattern  
Bayer CropScience LP  
2 T.W. Alexander Drive  
Research Triangle Park, NC 27709

Subject: Scala Brand SC Fungicide, EPA Reg. No. 264-788  
Scala Brand 400 SC Pyrimethanil Fungicide, EPA Reg. No. 264-705  
Your amendment dated October 14, 2004

Dear Dr. Mattern:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended is acceptable provided the following changes are made:

On page 3, delete the reference to the chemical "mepanipyrim" as it is not registered for use in the U.S.

Add the following two sentences to the paragraph below the heading "Compatibility" on page 3: "This product cannot be mixed with any product containing a label prohibition against such mixing. Follow the most restrictive label limitations and precautions."

One copy of the label stamped "Accepted with comments" is enclosed for your records. Please submit one copy of the final printed label before releasing the product for shipment. If you have any questions, you may reach me at (703) 308-9354.

Sincerely,

A handwritten signature in cursive script that reads "Mary L. Waller".

Mary L. Waller  
Product Manager 21  
Fungicide Branch  
Registration Division (7505C)

Enclosure

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**GROUP 9 FUNGICIDE**

# SCALA™ brand 400 SC Pyrimethanil Fungicide

ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
OCT 14 2004

For Use On: Almonds, Pistachios, Bulb Vegetables, Grapes, Stone Fruits (Except Cherries), Pome Fruits, Potatoes and Other Tuberous and Corm Vegetable Strawberries and Tomatoes

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 264-705

<b>ACTIVE INGREDIENT:</b>	
Pyrimethanil: 4,6-dimethyl-N-phenyl-2-pyrimidinamine.....	37.4 %
<b>INERT INGREDIENTS:</b> ..... 62.6 %	
Equivalent to 400 g/L or 3.34 lbs. of active ingredient per gallon.	<b>TOTAL: 100.0 %</b>

EPA Reg. No. 264-705 EPA Est. No.:

## KEEP OUT OF REACH OF CHILDREN CAUTION

For **MEDICAL** And **TRANSPORTATION** Emergencies **ONLY** Call 24 Hours A Day 1-800-334-7577  
For **PRODUCT USE** Information Call 1-866-99BAYER (1-866-992-2937)

### FIRST AID

<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>

**For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577.**  
Have the product container or label with you when calling a poison control center or doctor or going for treatment.

### PRECAUTIONARY STATEMENTS

#### CAUTION

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if inhaled or absorbed through the skin. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixer/Loaders, applicators and other handlers of this product must wear long-sleeved shirt and long pants, waterproof gloves and shoes plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Follow manufacturer's instructions for cleaning/maintaining personal protective equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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.

**IMPORTANT:** When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

### User Safety Recommendations

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

### ENVIRONMENTAL HAZARDS

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 washwater. Drift or run-off from treated areas is hazardous to fish and aquatic invertebrates in neighboring areas.

### DIRECTIONS FOR USE

**It is a violation of Federal law to use this product in any manner inconsistent with its labeling.  
Read entire label before using this product.**

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 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 of 12 hours (all crops except grapes), and 24 hours for grapes.

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: long-sleeved shirt and long pants, waterproof gloves and shoes plus socks.

### STORAGE AND DISPOSAL

#### STORAGE

Do not contaminate water, food, or feed by storage or disposal.

#### PESTICIDE DISPOSAL

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

#### CONTAINER DISPOSAL

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

### GENERAL INFORMATION

SCALA™ brand 400 SC Pyrimethanil Fungicide is a sprayable, foliar fungicide for control of certain plant diseases on: almonds, pistachios, bulb vegetables, grapes, stone fruits (except cherries), pome fruits, potatoes and other tuberous and corm vegetables, strawberries and tomatoes. See HOW TO USE directions for a complete list of all crops approved for use. Use of SCALA™ 400 SC

should be integrated into an overall disease, pest management, or IPM program. SCALA™ 400 SC may be used with disease forecasting or Extension advisory programs that recommend application timings based on environmental factors favorable to disease development. Consult with your local agricultural authorities for IPM strategies established for your area.

The higher rates in the rate range or shorter spray intervals may be required under conditions of heavy infection pressure, highly susceptible varieties, or when disease conducive environmental conditions exist. **FAILURE TO FOLLOW THE DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN ILLEGAL RESIDUES, POOR DISEASE CONTROL, AND/OR CROP INJURY.** Applications may be made at the longer spray intervals under low to moderate disease pressure.

### **FUNGICIDE RESISTANCE STATEMENT**

SCALA™ brand 400 SC Pyrimethanil Fungicide is an anilinopyrimidine fungicide that exhibits no known cross-resistance to fungicide chemistry such as sterol-inhibitors, dicarboximides, benzimidazoles, quinone outside inhibitors, or phenylamides. SCALA™ 400 SC inhibits or interferes with the secretion of enzymes necessary for infection in several plant pathogenic fungi species. It may exhibit cross-resistance in certain plant-pathogenic fungi to fungicides of Group 9, which include anilinopyrimidine (AP) compounds such as cyprodinil and mepanipyrim. Fungal pathogens can develop resistance to products with the same mode of action when used repeatedly. Because resistance development cannot be predicted, use of this product should conform to resistance management strategies established for the crop and use area. Consult your local or State agricultural authorities for resistance management strategies that are complementary to those in this label. Resistance management strategies may include rotating and/or tank mixing with products having different modes of action or limiting the total number of applications per season. Bayer CropScience encourages responsible resistance management to ensure effective long-term control of the fungal diseases on this label.

**Do not use a fungicide from the AP group for more than 4 sprays in any one season as a solo product or 5 treatments in a mixture against *Venturia spp.* In pome fruits, use as a curative treatment only in conjunction with a reliable scab warning system. For disease control on bulb vegetables, strawberries, and grapes, do not use a fungicide from the AP group for more than 2 of 6 applications or 3 of 7 applications in any one season. On any crop when applying SCALA™ 400 SC alone, do not make more than two consecutive applications of SCALA™ 400 SC without alternating to an equal number of applications of a fungicide from a different resistance management group. SCALA™ 400 SC should not be alternated or tank mixed with any fungicide to which resistance has already developed.**

### **HOW TO USE SCALA™ 400 SC FUNGICIDE**

#### **Ground Application**

Apply in a minimum of 50 gallons of water per acre for tree and vine crops and 15 gallons of water per acre for field and vegetable crops. Thorough and uniform coverage is essential for effective disease control.

#### **Aerial Application**

Apply SCALA™ 400 SC using fixed wing or rotary aircraft equipment in a minimum of 15 gallons of water per acre for tree and vine crops and 5 gallons of water per acre for field and vegetable crops. Thorough and uniform coverage is essential for effective disease control.

#### **Greenhouse Applications (tomato only)**

In unventilated glass or plastic houses, the vapor activity of SCALA™ 400 SC can produce brown or necrotic spots on the crop. Intensity and frequency of these effects depend on the relative humidity (e.g., above 80%), duration of vapor exposure and concentration of the spray solution. Thus ventilation after spraying is necessary in such systems.

#### **Mixing Instructions**

Prepare no more spray mixture than is needed for immediate operation. Add 1/2 of the required amount of water to the mix tank. Start the agitator running before adding the required amount of SCALA™ 400 SC. Continue agitation while filling the tank to ensure thorough mixing. Maintain agitation during application and apply with properly calibrated application equipment. Do not allow spray mixture to stand overnight or for prolonged periods. A high quality spreader/sticker, approved for use on growing crops, may be used with SCALA™ 400 SC. SCALA™ 400 SC should be added to the tank before the addition of any adjuvant. Consult the adjuvant label or manufacturer for crop tolerance and safety information when used with SCALA™ 400 SC.

#### **Compatibility**

SCALA™ brand 400 SC Pyrimethanil Fungicide is compatible with most commonly used fungicide (except captan 50 WP at <10 gallons spray volume per acre), herbicide, insecticide, and foliar nutrient products. However, the physical compatibility of SCALA™ 400 SC with all potential tank mix partners has not been fully investigated. If tank mixing with other pesticides is desirable, conduct a jar test with the volumes and rates typically used in agricultural application. Using a small container of water, add the proportionate amounts of the products: wettable powders and water-dispersible granular products first, then liquid flowables and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 15 minutes. Look for signs of separation, globules, sludge, flakes, or other precipitates. Physical compatibility is indicated if the combination remains mixed or can be remixed readily. **THE CROP SAFETY OF ALL POTENTIAL TANK MIXES WITH SCALA™ 400 SC, INCLUDING ADDITIVES AND OTHER PESTICIDES HAS NOT BEEN TESTED ON ALL CROPS. BEFORE APPLYING ANY TANK MIXTURE NOT SPECIFICALLY RECOMMENDED ON THIS LABEL, SAFETY TO THE TARGET CROP(S) SHOULD BE CONFIRMED.**

### Rotational Crop Restriction

Crops on this label may be rotated anytime following the last application of SCALA™ brand 400 SC Pyrimethanil Fungicide. Do not rotate to cereal grains or root crops for 30 days following the last application of SCALA™ 400 SC. Do not rotate to other crops for 4 months following the last application of SCALA™ 400 SC.

### ALMONDS, PISTACHIOS

CROP	DISEASE	USE RATE		USE INFORMATION
		FL. OZ. PER ACRE	LBS. A.I. PER ACRE	
Almond Pistachio	<b>Brown rot/ blossom blight</b> ( <i>Monilinia laxa</i> , <i>M. fructicola</i> ) <b>Green fruit rot</b> ( <i>Botrytis cinerea</i> )	<b>SCALA™ 400 SC Alone</b>		For optimum results, begin applications as soon as crop and/or environmental conditions become favorable for disease development. Applications should be made on a minimum 7 day interval depending upon disease conditions.  Do not apply more than 82 fl. oz./A (2.14 lbs. a.i./A) of SCALA™ 400 SC per crop. Do not apply within 30 days of harvest.  For shot hole, Alternaria, Botryosphaeria, anthracnose, and scab use the lower rate only in a tank mix with a fungicide registered for use against these diseases.
		14 - 27	0.37 - 0.70	
	<b>SCALA™ 400 SC Alone</b>			
	27	0.70		
Shot hole ( <i>Wilsonomyces carpophilus</i> ) <b>Alternaria leaf spot</b> ( <i>A. alternata</i> ) <b>Botryosphaeria blight</b> ( <i>Botryosphaeria dothidia</i> ) <b>Anthracnose</b> ( <i>Colletotrichum acutatum</i> ) <b>Scab</b> (Suppression only) ( <i>Cladosporium spp.</i> )	<b>SCALA™ 400 SC In tank mixes</b>			
	14	0.37		

### BULB VEGETABLES

CROP	DISEASE	USE RATE		USE INFORMATION
		FL. OZ. PER ACRE	LBS. A.I. PER ACRE	
Onion Green Dry Bulb Welsh	<b>Botrytis leaf blight, Neck rot</b> ( <i>B. squamosa</i> <i>B. allii</i> )	<b>SCALA™ 400 SC Alone</b>		Use lower rate only in a tank mix with a broad spectrum fungicide for bulb vegetables. For optimum results, begin applications as soon as crop and/or environmental conditions become favorable for disease development. Applications should be made on a 7-14 day interval depending upon disease conditions.  Do not apply more than 82 fl. oz./A (2.14 lbs. a.i./A) of SCALA™ 400 SC per crop. Do not apply within 7 days of harvest.
		27	0.70	
<b>SCALA™ 400 SC In tank mixes</b>				
14	0.37			
Garlic Great-Headed Leek Shallot	<b>Purple blotch</b> ( <i>Alternaria porri</i> )			

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### GRAPES

CROP	DISEASE	USE RATE		USE INFORMATION
		FL. OZ. PER ACRE	LBS. A.I. PER ACRE	
Grape	Gray mold ( <i>Botrytis cinerea</i> )	SCALA™ 400 SC Alone		Use lower rate only in a tank mix with another fungicide active against <i>Botrytis</i> . Applications should be made at the critical timings for <i>Botrytis</i> control. Typically, first applications are made at early bloom, and/or berry touch to bunch closure, veraison, and pre-harvest. Use sufficient water to ensure penetration of the canopy and coverage of the flowers or bunches.  Note that the worker restricted entry interval after application to grapes is 24 hours.  Do not apply more than 55 fl. oz./A (1.43 lbs. a.i./A) of SCALA™ 400 SC per crop. Do not apply within 7 days of harvest.
		27	0.70	
		SCALA™ 400 SC In tank mixes		
		14	0.37	

### STONE FRUITS (Except Cherries)

CROP	DISEASE	USE RATE		USE INFORMATION
		FL. OZ. PER ACRE	LBS. A.I. PER ACRE	
Apricot Nectarine Peach Plum Chickasaw Damson Japanese Plumcot Prune	Brown rot, Blossom blight ( <i>Monilinia fructicola</i> , <i>M. laxa</i> )	SCALA™ 400 SC Alone		Use lower rate only in a tank mix with another fungicide active against brown rot. For optimum results, begin applications as soon as crop and/or environmental conditions become favorable for disease development. Apply when bud tissue is susceptible to infection (i.e., pink, white or red bud). If conditions favorable for disease development persist or recur, apply at full bloom or at petal fall. Pre-harvest applications should be made on 7 day intervals or longer.  Do not apply more than three applications of SCALA™ 400 SC alone or more than 82 fl. oz./A (2.14 lbs. a.i./A) of SCALA™ 400 SC per crop. Do not apply within 2 days of fruit harvest or make more than 2 applications of a Group 9 fungicide within 30 days of harvest. <b>Do not use on cherries.</b>  For shot hole, Scab and gray mold control, use the lower rate only in a tank mix with a fungicide registered for use against these diseases.
		14 - 27	0.37 - 0.70	
	Shot hole ( <i>Stigmina carpophila</i> )	SCALA™ 400 SC In tank mixes		
		14	0.37	
	Scab ( <i>Ventura</i> spp.)			
	Gray mold ( <i>Botrytis cinerea</i> )	SCALA™ 400 SC Alone		
27		0.70		

### POME FRUITS

CROP	DISEASE	USE RATE		USE INFORMATION
		FL. OZ. PER ACRE	LBS. A.I. PER ACRE	
Apple Pear Oriental Crabapple Loquat Mayhaw Quince	<b>Scab</b> ( <i>Ventura spp.</i> )	<b>SCALA™ 400 SC Alone</b>		Under conditions favorable for disease development, shorten the spray intervals and/or use the high rate.  Use lowest rate only in a tank mix with another fungicide active against scab.  For optimum results, begin applications at green tip or as soon as crop and/or environmental conditions become favorable for disease development. Applications should be made on 7 day or longer intervals depending upon disease conditions.  Do not apply more than 62 fl. oz./A (1.62 lbs. a.i./A) of SCALA™ 400 SC per crop. Do not apply within 72 days of harvest.
		10 - 15	0.26 - 0.39	
		<b>SCALA™ 400 SC In tank mixes</b>		
		7	0.18	

### POTATOES AND OTHER TUBEROUS AND CORM VEGETABLES

CROP	DISEASE	USE RATE		USE INFORMATION
		FL. OZ. PER ACRE	LBS. A.I. PER ACRE	
Potato Sweet Potato Arracacha Arrowroot Artichoke Chinese Jerusalem Edible canna Cassava Bitter Sweet Chayote (root) Chufa Dasheen Ginger Leren Tanier Tumeric Yam bean True Yam	<b>Early blight</b> ( <i>Alternaria solani</i> )	10	0.26	Under conditions favorable for disease development, shorten the spray intervals and/or increase the rate of the tank-mix partner.  For successful early blight control, use only in a tank mix with the recommended dose rate of another effective early blight fungicide. For optimum results, begin applications as soon as crop and/or environmental conditions become favorable for disease development. Applications should be made on a 7 -14 day interval depending upon disease conditions.  Do not apply more than 52 fl. oz./A (1.36 lbs. a.i./A) of SCALA™ 400 SC per crop. Do not apply within 7 days of harvest.

## STRAWBERRIES

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CROP	DISEASE	USE RATE		USE INFORMATION
		FL. OZ. PER ACRE	LBS. A.I. PER ACRE	
Strawberry	Gray mold ( <i>Botrytis cinerea</i> )	SCALA™ 400 SC Alone		Use lower rate only in a tank mix with another fungicide active against gray mold.  For optimum results use as a preventative treatment. Begin applications as soon as crop and/or environmental conditions become favorable for disease development. Make applications from pre-bloom to harvest on a 7 -14 day interval depending upon disease conditions.  Do not apply more than 82 fl. oz./A (2.14 lbs. a.i./A) of SCALA™ 400 SC per crop. Always follow resistance management directions listed on this label and the recommendations for your area. Do not apply within 1 day of harvest.
		27	0.70	
		SCALA™ 400 SC In tank mixes		
		14	0.37	

## TOMATOES

CROP	DISEASE	USE RATE		USE INFORMATION
		FL. OZ. PER ACRE	LBS. A.I. PER ACRE	
Tomato	Early blight ( <i>Alternaria solani</i> )	10	0.26	Under conditions favorable for disease development, shorten the spray intervals and/or increase the rate of the tank-mix partner.  For successful early blight and/or <i>Botrytis</i> control, use <u>only</u> in a tank mix with another effective early blight fungicide recommended for these diseases. For optimum results, begin applications as soon as crop and/or environmental conditions become favorable for disease development. Applications should be made on a 7 -14 day interval depending upon disease conditions.  Do not apply more than 52 fl. oz./A (1.36 lbs. a.i./A) of SCALA™ 400 SC per crop. Do not apply within 1 day of harvest.  <b>Greenhouse Use:</b> Apply SCALA™ 400 SC only in well-ventilated plastic tunnel houses or glass houses. Ventilate for at least 2 hours after application.
	Gray mold ( <i>Botrytis cinerea</i> )			

### SPRAY DRIFT

**SENSITIVE AREAS:** This pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitats for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulation.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed. The applicator should be familiar with and take into account the information covered in the *Aerial Drift Reduction Advisory Information*.



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### Threatened or Endangered Species Protection (Strawberries and Bulb Vegetables only)

In order to protect threatened or endangered species (Oregon Chub, Lost River Sucker, and Shortnose Sucker) in one or more of the following counties:

Strawberries: Benton, Clackamas, Lane, Lin, Marion, and Polk counties in Oregon

Bulb Vegetables: Clackamas, Marion, and Klamath counties in Oregon.

When the air is calm or moving away from habitat, commence applications on the side nearest the habitat and proceed away from the habitat. When air currents are moving toward habitat, do not make applications within 200 yards by air or 40 yards by ground upwind from occupied habitat.

Lost River Sucker and Shortnose Sucker: Endangered Lost River suckers can occur in the following areas of the Oregon portion of the Klamath Basin: from the mouth of the Williamson River upstream to its confluence with the Sprague River and upstream to the confluence with the North and South Forks; Wood River upstream to Fort Klamath; all of Agency and Upper Klamath lakes; Link River and Klamath River downstream to the OR/CA border; all of Lost River; Miller Creek; Gerber Reservoir and tributaries upstream for 5 miles; The Oregon portion of Willow Creek, a tributary of Clear Lake, upstream from the border for 2 miles; The Klamath Project's irrigation canals, laterals, and drains.

Oregon Chub: Endangered Oregon Chubs can occur in the following areas of the Willamette River drainage basin of western Oregon: North Santiam River; South Santiam River; Upper Willamette River; Middle Fork Willamette River from the base of Dexter Dam upstream to its confluence with the North Fork; Lower Willamette River; Coast Fork Willamette River; tributaries to the Mainstem Willamette River downstream of the Coast Fork/Middle Fork Confluence; Molalla-Pudding watershed, and Clackamas watershed.

For protection of endangered fish species (Modoc Sucker, Lost River Sucker, and Shortnose Sucker) in Modoc and Siskiyou counties in California, please refer to the specific bulletins in these counties.

**INFORMATION ON DROPLET SIZE:** (This section is advisory in nature and does not supersede the mandatory label requirements).

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions below).

**CONTROLLING DROPLET SIZE:** (This section is advisory in nature and does not supersede the mandatory label requirements).

- Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of nozzles - Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**BOOM LENGTH:** (This section is advisory in nature and does not supersede the mandatory label requirements).

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

**APPLICATION HEIGHT:** (This section is advisory in nature and does not supersede the mandatory label requirements).

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**SWATH ADJUSTMENT:** (This section is advisory in nature and does not supersede the mandatory label requirements).

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.)

**WIND:** (This section is advisory in nature and does not supersede the mandatory label requirements).

Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

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**TEMPERATURE AND HUMIDITY:** (This section is advisory in nature and does not supersede the mandatory label requirements).

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**TEMPERATURE INVERSIONS:** (This section is advisory in nature and does not supersede the mandatory label requirements).

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

## **DIRECTIONS FOR USE THROUGH SPRINKLER IRRIGATION SYSTEMS**

Apply this product only through sprinkler irrigation systems including microjet, solid set, wheel lines and center pivot. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

For specific information about calibration, contact State Extension Service Specialists, equipment manufacturers or other irrigation experts.

**SPRAY PREPARATION:** Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

**APPLICATION INSTRUCTIONS:** First prepare a suspension of SCALA™ 400 SC in a mix tank. Fill tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of SCALA™ 400 SC and then the remaining volume of water. Then set sprinkler to deliver no more than 0.4 inch of water per acre. Start sprinkler and uniformly inject the suspension of SCALA™ 400 SC into the irrigation water line so as to deliver the desired rate per acre. The suspension of SCALA™ 400 SC should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. If you should have any other questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

**NOTE:** When treatment with SCALA™ 400 SC has been completed, further field irrigation over the treated area should be avoided for 24 hours to prevent washing the chemical off the crop.

## **GENERAL PRECAUTIONS FOR APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS**

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute solution per unit time. 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 backflow. 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 shutdown. 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. If you are unsure of wind conditions, contact your local extension agent.

Do not apply when wind speed favors drift, when system connection or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from non-uniform distribution of treated water.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation shall shut the system down and make necessary adjustments should the need arise.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.

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## IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

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## NET CONTENTS: 2.5 GALLONS

SCALA is a trademark of Bayer.



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