PM 03	59639 - 104	04/20/99	
AN IN TED STATES	U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (H7505C) 401 "M" St., S.W. Washington, D.C. 20460	EPA Reg. Number: 59639- 104	Date of Issuance: APR 2.0 1995
NOT _x Regist:	TICE OF PESTICIDE: ration Reregistration	Term of Issuand Condition	
under FIFRA, as amended	0	Name of Pestici ESTEEM In Regulator	isect Growth
Valent U.S.A. ( 1333 N. Califo: Walnut Creek, (	rnia Blvd., Ste. 600	·	
correspondence on this p On the basis of informat registered/reregistered Registration is in no wa In order to protect heal cancel the registration of with the registration of	pted by the Registration Division prior to un roduct always refer to the above EPA registra- ion furnished by the registrant, the above na under the Federal Insecticide, Fungicide and y to be construed as an endorsement or recomm th and the environment, the Administrator, of of a pesticide in accordance with the Act. ' a product under this Act is not to be const: se or to its use if it has been covered by oth	ation number. amed pesticide is her Rodenticide Act. mendation of this pro- his motion, may at the acceptance of any rued as giving the re	eby duct by the Agency. any time suspend or name in connection
FIFRA sec. 3(c)	uct is conditionally regist )(7)(B) provided that you:		
a) Ae: b) Ad: c) Add re d) My: e) My: f) Oy:	t the following data by Dec robic Soil Metabolism sorption and Desoption ditional Terrestrial Field presentitive soils sid Shrimp Acute Test sid Shrimp Life Cycle Test ster Embryolarvae Test o 59639-95 for details.		
Signature of Approving C	Seepage 2	Date: April.	20,1999

## page 2 EPA Reg. No.59639-104

- 2. Make the following label changes:
  - a) Revise the EPA Registration Number to read, "EPA Registration No. 59639-104."

b) Add the statement, "Avoid direct application and/or spray drift to bee hives.", to the Environmental Hazards section of the label.

3. Submit two (2) copies of the revised final printed label for the record.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these bonditions.

A stamped copy of the label is enclosed for your records.

Sincerely,

Joseph Mi Caramo

Marion J. Johnson, Jr. Product Manager 10 Insecticide Branch Registration Division (7505C)



# **ESTEEM®** Insect Growth Regulator

Active Ingredient	By Wt.
*Pyriproxyfen (2-[1-methyl-2-(4-phenoxyphenoxy) ethoxy]pyridine)	33%
Other Ingredients	67%
Contains 2.9 pound a.i. per gallon.	
Contains aromatic petroleum distillates.	

ACCEPTED with CONTENTS In ESA Lation Dated:

KEEP OUT OF REACH OF CHILDREN

APR 20 1999 Under the Federal Insecticide, Fundicide, and Redenticide Act, as anounded, for the posticide registered under EPA Reg. No. 596 29 - 104

# WARNING

# SEE BELOW FOR ADDITIONAL PRECAUTIONARY STATEMENTS

**NET CONTENTS 1 GALLON** 

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS WARNING

Causes substantial but temporary eye irritation. Causes skin irritation. Do not get in eyes or on clothing. Avoid contact with skin. Harmful if absorbed through skin, if swallowed or inhaled. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

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- If in eyes: Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.
- If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.
- If swallowed: Call a doctor or get medical attention. Do not induce vomiting or give anything by mouth to an unconscious person. Drink promptly a large quantity of milk, eggwhites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.
- If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

**Note to Physician:** Probable mucosal damage may contraindicate the use of gastic lavage. This product contains a light petroleum solvent and an aspiration hazard may exist. Emergency information - call 1-800-892-0099.

## PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate or viton > 14 mils, shoes plus socks, protective eyewear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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.

## **USER SAFETY RECOMMENDATIONS:**

Users should:

- 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

This pesticide is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment washwaters or rinsate.

# DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. READ ENTIRE LABEL. USE STRICTLY IN ACCORDANCE WITH PRECAUTIONARY STATEMENTS AND DIRECTIONS, AND WITH APPLICABLE STATE AND FEDERAL REGULATIONS.

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 (REI) of 12 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, chemical-resistant gloves, such as barrier laminate or viton > 14 mils, shoes plus socks, protective eyewear.

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#### DISCLAIMER, CONDITIONS OF SALE, LIMITED WARRANTY AND LIMITATION OF LIABILITY

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IMPORTANT: Read the entire Label including this Disclaimer, Limited Warranty and Limitation of Liability before using this product. If the terms are not acceptable, return the unopened product within 15 days of purchase.

#### **RISKS OF USING THIS PRODUCT**

It is impossible to eliminate all risks associated with the use of this product. Such risks include, but are not limited to, injury to plants and crops to which this product is applied, lack of control of the target pests or weeds, resistance, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, moisture conditions, irrigation practices, presence of other materials, cultural practices or the manner of use or application, all of which are factors beyond the control of Valent. All such risks shall be assumed by the Buyer. Valent shall not be responsible for losses or damages resulting from use of this product in any manner not set forth on the label. User assumes all risks associated with the use of this product in any manner or under conditions not specifically directed or approved on the label.

#### LIMITED WARRANTY

Valent warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the label, under average use conditions, when used strictly in accordance with the label and subject to the **Risks** of Using This Product described above.

#### DISCLAIMER OF ALL OTHER WARRANTIES

VALENT MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. No agent or representative of Valent or Seller is authorized to make or create any other express or implied warranty.

#### LIMITATION OF LIABILITY

In no event shall Valent or Seller be liable for any incidental, consequential, indirect or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE MAXIMUM LIABILITY OF VALENT OR SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT SHALL BE THE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT OR, AT THE ELECTION OF VALENT OR SELLER, THE REPLACEMENT OF THIS PRODUCT.

#### NO AMENDMENTS

Valent and Seller offer this product, and Buyer and User accept it, subject to the foregoing **Disclaimer**, **Conditions of Sale**, Limited Warranty and Limitation of Liability, which may not be modified by any oral or written agreement. **PROMPT NOTICE OF CLAIM** 

Valent must have prompt notice as soon as Buyer or User has reason to believe they may have a claim (not to exceed twenty-one days from date of application) so that an immediate inspection of the affected property and growing crops can be made. Unless Buyer and Users shall promptly notify Valent of any claims, they shall be barred from obtaining any remedy.

#### TANK MIXES

NOTICE: Tank mixing or use of this product with any other product which is not specifically and expressly authorized by the label shall be the exclusive risk of user, applicator and/or application advisor.

Read and follow the entire label of each product to be used in the tank mix with this product.

#### **GENERAL INFORMATION**

Do not apply this product through any type of irrigation system.

ESTEEM Insect Growth Regulator is intended for use in Integrated Pest Management (IPM) or Integrated Resistance Management (IRM) programs. ESTEEM Insect Growth Regulator will not control insect adults, and it is recommended to be used in combination and/or rotation with other IPM or IRM materials. Contact your local state extension service for details.

ESTEEM Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. ESTEEM Insect Growth Regulator has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since ESTEEM Insect Growth Regulator is an Insect Growth Regulator (IGR) and activity depends on the insects' development, evidence of activity will be slower that typical contact insecticides.

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CROP	ROP PESTS DOSAGE PER ACRE SPECIAL INSTRUCTIONS				
CHOP	resis	DUSAGE PER ACRE	SPECIAL INSTRUCTIONS		
Cotton	Silverleaf Whitefly Sweetpotato Whitefly	2.5 to 3.0 fl. oz.	Apply with air or ground equipment in adequate water for		
		(25 to 30 gms ai)	uniform coverage:		
		Do not apply less than 2.5 fl. oz. per acre	By Air: 3 to 10 gals./acre By Ground: 10 to 50 gals./acre		
			HIGHER WATER VOLUMES PROVIDE IMPROVED INSECT CONTROL.		
			Make only one application per growing season.		
			Begin applications when whiteflies reach threshold levels (3 to 5 adults per leaf and/or equivalent levels of immatures).		
			Under severe pressure, use the higher recommended rates.		
			To support resistance managment only whole fields should be treated.		
	ESTEEM Insect Growth Regulator exhibits translaminar movement in leaves, which means that ESTEEM Insect Growth Regulator applied to the upper surface of the leaves will move to the lower surface of the leaf where whitefly are present.				
	Do not apply within 28 days of harvest. Do not apply more than 3.0 fl. oz. ( 30 gms ai) ESTEEM Insect Growth Regulator per acre per season.				
	Do not make more than 1 application of ESTEEM Insect Growth Regulator per growing season.				

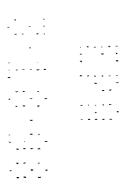
COTTON

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of insecticides or insecticides with similar modes of action can lead to the buildup of resistant whitefly strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting ESTEEM Insect Growth Regulator Insect Growth Regulator applications to a single application per growing season. ESTEEM Insect Growth Regulator however, may be used in alternation with other IGR materials possessing dissimilar modes of action and/or with other chemical classes of insecticides. Valent also does not recommend using rates below 2.5 fl. oz. per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state, and federal IPM and Integrated Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

# APPLE

CROP	PESTS	DOSAGE PER ACRE	SPECIAL INSTRUCTIONS
Apple	Codling Moth	4.0 to 5.0 fl. oz. (40 to 50 gms. ai)	<ul> <li>1st Generation Codling Moth: APPLY JUST PRIOR TO EGG HATCH. Make a second application 14 to 21 days later. Apply in 100 to 400 gals. per acre.</li> <li>For additional generations apply other insecticides registered for Codling Moth control.</li> </ul>
	San Jose Scale	3.0 to 5.0 fl. oz. (30 to 50 gms. ai)	Apply at delayed dormant with oil or in cover sprays without oil. Use the manufacturers recommended rate of oil. Under heavy scale pressure, use the higher rate. Make application in cover sprays when scale crawlers first emerge.
	Spotted Tentiform Leafminer APHID SUPPRESSION: Green Apple Aphid Rosy Apple Aphid Spirea Aphid	3.0 to 4.0 fl. oz. (30 to 40 gms. ai)	Apply when insects first appear. Usually this occurs in Prepink apple stage for the first generation. Make a separate application for the second generation if necessary. Application made for Spotted Tentiform Leafmner will aid in the suppression of aphids. Apply in 100 to 400 gals./acre.
	ESTEEM Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local IPM programs and resistance management programs. Do not apply within 45 days of harvest.		
	Do not exceed 10.0 fl. oz. (100 gms. ai) between petal fall and harvest or 15 fl. oz (150 gms. ai) of ESTEEM Insect Growth Regulator per acre per season.		

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PI	EAR

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PEAR			
CROP	PESTS	DOSAGE PER ACRE	SPECIAL INSTRUCTIONS
Pear	Pear Psylla San Jose Scale	4.0 to 5.0 fl. oz. (40 to 50 gms. ai)	Apply at delayed dormant with a Supreme oil at manufactures recommended rates in 100 to 250 gals./acre. For Pear Psylla a second application may be made at petal fall in addition to the delayed dormant application. For control of scale in season make application in cover sprays when scale crawlers first emerge.
	Codling Moth San Jose Scale (crawler stage)	4.0 to 5.0 fl. oz. (40 to 50 gms. aí)	First Generation Codling Moth: APPLY JUST PRIOR TO EGG HATCH. Make a second application 14 to 21 days later. Apply in 100 to 400 gals. per acre. For additional generations apply other insecticides registered for Codling Moth control.
	ESTEEM Insect Growth Regulator may be mixed and/or alternated with cor used insecticides to comply with local IPM and resistance management pro Do not apply within 45 days of harvest. Do not exceed 10.0 fl. oz. (100 gms. ai) between petal fall and harvest o oz. (150 gms. ai) of ESTEEM Insect Growth Regulator per acre per season		

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# WALNUT

CROP	PESTS	DOSAGE PER ACRE	SPECIAL INSTRUCTIONS
Wainut	Codling Moth	4.0 to 5.0 fl. oz. (40 to 50 gms. ai)	1st Generation Codling Moth: APPLY JUST PRIOR TO EGG HATCH. Make a second application 14 to 21 days later. Apply in 100 to 400 gals. per acre.
	Codling Moth Suppression of Navel Orangeworm	4.0 to 5.0 fl. oz. (40 to 50 gms. ai)	Late Season Codling Moth: Apply at egg deposition. Make a second application if needed 14 to 21 days later.
	ESTEEM Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local IPM programs and resistance management programs.		
	Do not apply within 21 days of harvest. Do not exceed 10.0 fl. oz. (100 gms. ai) between petal fall and harvest or 15 oz. (150 gms. ai) of ESTEEM Insect Growth Regulator per acre per season.		

# STORAGE AND DISPOSAL

## PROHIBITIONS

Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. **STORAGE** 

Store in a cool dry place.

Keep pesticide in original container.

Keep container closed when not in use.

Do not put concentrate or dilute into food or drink containers.

Not for use or storage in or around the home.

For help with any spill, leak, fire or exposure involving this material, call day or night 1-800-892-0099. **PESTICIDE DISPOSAL** 

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

## **CONTAINER DISPOSAL**

Triple rinse (or equivalent). Do not reuse container. 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.

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Manufactured for: Valent U.S.A. Corporation Walnut Creek, CA 94596-8025 Made in U.S.A. Form 980317 EPA Reg. No. 59639-xx RAV EPA Est.

