12-20-204

1 / 2 4 • **2-28-9** Form Approved. OMB No. 2070-0060, Approval expires **OPP Identifier Number** 

United States

1	Registration Amendment
	Amendment
1	Othor

<b>SEPA</b>	Environmenta Washi	l <b>Protecti</b> ngton, DC 20	• •		✓ Amen	dment	300902
		Applicati	on for Pestic	ide - Sec	tion I		<del></del>
1. Company/Product Numbe 59639-95	ır			Product Mar ichard Geb	=	3. P	roposed Classification
Company/Product (Name)     KNACK Insect Growth Regulator			PM#	0			
5. Name and Address of Ap Valent U.S.A. Corpor 1600 Riviera Ave., So Walnut Creek, CA 9	ation uite 200	de)	(b)(i), to:	my product		entical in co	n FIFRA Section 3(c)(3) omposition and labeling
Check if this	is a new address		Prode	uct Name			
			Section -	11			
Amendment - Explain Resubmission in resp  Notification - Explain	onse to Agency letter	dated		Agency let	Applitudations V Z	<b>ON</b> . 004	NOTIFICATION DEC 20 2004
		<del></del>	Section - I				
1. Material This Product Will	Be Packaged In:	<del> </del>			<del></del>		<del></del>
Child-Resistant Packaging Yes No * Certification must	Unit Packaging Yes  No  If "Yes"	No. per	Water Soluble F Yes No If "Yes"	No. per		Glass Paper	
be submitted	Unit Packaging wgt,	container	Package wgt	containe		Other (:	Specify)
3. Location of Net Contents  Label C	nformation ontainer	4. Size(s) Re	tail Container 1 Gallon		5. Location of L		ons
6. Manner in Which Label is	Affixed to Product	Lithog Paper Stenc	raph glued iled	Other			
			Section - I	V			
1. Contact Point (Complete	items directly below fo	or identification	n of individual to b	e contacted,	if necessary, to p	orocess this	application.)
Name Linda Obrestad			Title Labeling Special	ist		Telephon (925) 256	e No. (Include Area Code) 5-2791
I certify that the stater I acknowledge that an both under applicable I	y knowlinglly false or r		all attachments the				6. Date Application resolved (Stamped)
nature	Verestad		3, Title Labeling Special	ist			
	westad						
I. Typed Name Linda Obrestad			5. Date Der	ember 9.	2004		

1600 Riviera Avenue Suite 200 PO. Box 8025 Walnut Creek, CA 94596-8025 (925) 256-2700



December 9, 2004

KNACK Insect Growth Regulator EPA Reg No. 59639-95 Notification OPP. Identifier .No. 300902

# **CERTIFICATION STATEMENT**

This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Linda Obrestad

Labeling Specialist

Registration and Regulatory Affairs

Inda Glirestad

Valent U.S.A. Corporation



# **KNACK®**

# **INSECT GROWTH REGULATOR**

Active Ingredient  *Pyriproxyfen  Other Ingredients	<u>88.77%</u>
*(2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine)	100.00%
Contains 0.86 pound ai per gallon.	
Contains aromatic petroleum distillates.	

# **KEEP OUT OF REACH OF CHILDREN**

# **CAUTION**

SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS

**NET CONTENTS 1 GALLON** 

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

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

#### **FIRST AID**

If on skin or clothing:

Take off contaminated clothing.

• Rinse skin immediately with plenty of water for 15-20 minutes.

Call a poison control center 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 center or doctor for treatment advice.

if swallowed:

Immediately call a poison control center or doctor.

Do not induce vomiting unless told to do so by a poison control center or doctor.

Do not give any liquid to the person.

Do not give anything by mouth to an unconscious person.

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 center or doctor for further treatment advice.

#### **HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **1-800-892-0099** for emergency medical treatment information.

#### **NOTE TO PHYSICIANS**

If ingested, probable mucosal damage may contraindicate the use of gastric lavage. This product contains a light hydrocarbon liquid; ingestion or subsequent vomiting can result in aspiration of this product, which can cause pneumonitis.

# 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:** coveralls over short-sleeved shirt and short pants or long-sleeved shirt and long pants, chemical-resistant gloves, such as Barrier Laminate or Viton ≥ 14 mils, chemical-resistant footwear plus socks, chemical-resistant headgear for overhead exposure, chemical-resistant apron when cleaning equipment, mixing, or loading.

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 disposing of equipment washwaters or rinsate. Avoid direct application and/or spray drift to bee hives.

### **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 over short-sleeved shirt and short pants, chemical-resistant gloves, such as Barrier Laminate or Viton ≥ 14 mils, chemical-resistant footwear plus socks, chemical-resistant headgear for overhead exposure.

#### DISCLAIMER, RISKS OF USING THIS PRODUCT, LIMITED WARRANTY AND LIMITATION OF LIABILITY

IMPORTANT: Read the entire Label including this Disclaimer, Risks of Using this Product, Limited Warranty, and Limitation of Liability before using this product. If the terms are not acceptable THEN DO NOT USE THE PRODUCT; rather, return the unopened product within 15 days of purchase for a refund of the purchase price.

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

The Buyer and User (referred to collectively herein as "Buyer") of this product should be aware that there are inherent unintended risks associated with the use of this product which are impossible to eliminate. These 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 of the target pest or weeds to this product, injury caused by drift, and injury to rotational crops caused by carryover in the soil. Such risks of crop injury, non-performance, resistance or other unintended consequences are unavoidable and may result because of such factors as weather, soil conditions, disease, moisture conditions, irrigation practices, condition of the crop at the time of application, presence of other materials either applied in the tank mix with this product or prior to application of this product, cultural practices or the manner of use or application, (or a combination of such factors) all of which are factors beyond the control of Valent. The Buyer should be aware that these inherent unintended risks may reduce the harvested yield of the crop in all or a portion of the treated acreage, or otherwise affect the crop such that additional care, treatment and expense are required to take the crop to harvest. If the Buyer chooses not to accept these risks, THEN THIS PRODUCT SHOULD NOT BE APPLIED. By applying this product Buyer acknowledges and accepts these inherent unintended risks AND AGREES THAT ALL SUCH RISKS ASSOCIATED WITH THE APPLICATION AND USE ARE ASSUMED BY THE BUYER.

Valent shall not be responsible for losses or damages (including, but not limited to, loss of yield, increased expenses of farming the crop or such incidental, consequential or special damages that may be claimed) resulting from use of this product in any manner not set forth on the label. Buyer 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 only 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 as described above. EXCEPT AS SET FORTH ABOVE, VALENT MAKES NO OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. 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 limitation includes, but is not limited to, loss of yield on all or any portion of the treated acreage, increased care, treatment or other expenses required to take the crop to harvest, increased finance charges or altered finance ratings, emotional or mental distress and/or exemplary damages. THE EXCLUSIVE REMEDY OF THE 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 THE PRODUCT.

#### PROMPT NOTICE OF CLAIM

Valent must be provided notice as soon as Buyer has reason to believe it may have a claim, but in no event later than twenty-one days from date of planting, or twenty-one days from the date of application, whichever is latter, so that an immediate inspection of the affected property and growing crops can be made.

If Buyer does not notify Valent of any claims, in such period, it shall be barred from obtaining any remedy.

# NO AMENDMENTS

Valent and Seller offer this product, and Buyer accepts it, subject to the foregoing **Disclaimer**, **Risks of Using This Product**, **Limited Warranty** and **Limitation of Liability**, which may not be modified by any oral or written agreement.

#### **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.

KNACK is intended for use in Insect Pest Management (IPM) or Insect Resistance Management (IRM) programs. KNACK 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.

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

#### COTTON

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

KNACK does exhibit translaminar movement which means that KNACK applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROP	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Cotton	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly	8 to 10 fl. oz.	Apply with air or ground equipment in adequate water for uniform coverage:
	Sweetpotato Whitefly	Do not apply less than 8 fl. oz./A	By Air: 3 to 10 gals./A By Ground:10 to 50 gals./A
			HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.
			Make only one application per growing season.
<u>'</u>			Begin application when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures).
			Under severe pressure, use the higher recommended rates.
			Only whole fields should be treated.
	<ul> <li>Do not apply within 28 days of harvest.</li> <li>Do not make more than 1 KNACK application per growing season.</li> <li>Do not exceed 10 fl. oz. KNACK per acre per season.</li> <li>Regardless of formulation do not exceed 0.067 lb. pyriproxyfen per acre per season.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than after last application.</li> </ul>		

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of 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 KNACK Insect Growth Regulator to one application per growing season. KNACK Insect Growth Regulator 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 8 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 Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

# **POME FRUIT**

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

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pome Fruit:  Apple Crabapple Loquat Mayhaw Quince	Codling Moth  Suppression of: Pandemis Leafroller Obliquebanded Leafroller	13 to 16 fl. oz.	Apply by ground with airblast equipment in a minimum of 50 gals./A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage  1st Generation Codling Moth: Apply at Biofix plus 100 degree days (this is usually close to petal fall). Make a second application 14 to 21 days later or timed to coincide with peak moth flights. For subsequent applications, if needed, apply other insecticides registered for Codling Moth control. The addition of oil has been shown to increase Codling Moth activity of KNACK. Follow local recommendations regarding in season use and rates of oil in your area.  Obliquebanded and Pandemis Leafroller: Apply to the overwintering larvae at the pink to petal fall tree growth stage. KNACK does not directly control the larvae but inhibits normal pupation and adult emergence
	Florida Red Scale Lecanium Scale San Jose Scale	13 to 16 fl. oz.	Apply by ground with airblast equipment in a minimum of 50 gals./A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  Apply at delayed dormant through pink. For delayed dormant use a superior spray oil at the manufacturer's recommended rate of oil. Under heavy scale pressure, use the higher rate of KNACK.  Scale: For control in-season, make application in cover sprays when scale crawlers first emerge. The use of oil at the crawler emergence stage has been shown to improve control. Follow local recommendations regarding in-season use and rates of oil in your area.

continued

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pome Fruit (continued): Apple Crabapple Loquat Mayhaw Quince	Green Apple Aphid Rosy Apple Aphid Spirea Aphid Spotted Tentiform Leafminer Western Tentiform Leafminer	10 to 16 fl. oz.	Apply by ground with airblast equipment in a minimum of 50 gals./A. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage  Leafminers: Apply at peak moth flight for control of 1st or 2nd generation. This usually occurs at pre-pink to pink apple stage for 1st generation and 2nd cover for 2nd generation.  Rosy Apple Aphid: Apply at 1/2nd green apple growth stage.  Green Apple & Spirea Aphid: Apply when aphids first appear, but before aphids are colonized.  TIMING IS CRITICAL FOR ACCEPTABLE APHID CONTROL.
Pear Oriental Pear	Pear Psylla	13 to 16 fl. oz.	Apply by ground with airblast equipment in 75 to 400 gals./A with a superior spray oil at manufacturer's recommended rates for the stage of growth. It is essential to use adequate water volume to ensure thorough coverage.  Apply a single application during the delayed dormant to pink stage of growth at 16 fl. oz./A or make two applications from delayed dormant through petal fall stage of growth at 13 to 16 fl. oz./A. Make application just before sustained egg lay is anticipated.  DO NOT USE SKIP ROWS DURING APPLICATION.  For in-season control of pear psylla, use an insecticide recommended for this use.
	Lecanium Scale San Jose Scale	13 to 16 fl. oz.	Apply by ground with airblast equipment in 100 to 400 gals./A at delayed dormant with a superior spray oil at the manufacturer's recommended rates. Under heavy scale pressure, use the higher rate.  Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  For control of scale in-season make application in cover sprays when scale crawlers first emerge. The use of oil at the crawler emergence stage has been shown to improve performance. Follow local recommendations regarding in-season use and rates of oil in your area.

continued

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS	
Pome Fruit (continued): Pear Oriental Pear	Codling Moth Suppression of: Obliquebanded Leafroller Pandemis Leafroller	13 to 16 fl. oz.	Apply by ground with airblast equipment in 100 to 400 gals./A.  1st Generation Codling Moth: Apply at Biofix plus 100 degree days. Make a second application 14 to 21 days later or timed to coincide with peak moth flights. For subsequent applications, if needed, apply other insecticides registered for Codling Moth control. The addition of oil has been shown to increase Codling Moth activity of KNACK. Follow local recommendations regarding in-season use and rates of oil in your area.  For additional generations apply other insecticides registered for Codling Moth Control.	
	<ul> <li>and Resistance Management</li> <li>Do not apply within 45 day</li> <li>Do not make more than 2</li> <li>Do not exceed 32 fl. oz. of</li> <li>Regardless of formulation</li> </ul>			

#### **CITRUS**

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

СКОР	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Citrus	Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	16 fl. oz.	Apply with ground equipment in 200 to 1500 gals./A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  Apply anytime prior to fruit becoming infested when scale is in the crawler stage. Application at the 2 <sup>nd</sup> or 3 <sup>rd</sup> generation of scale may result in excessive dead scale remaining on the fruit at harvest. Thorough coverage is essential for good control.  KNACK may be applied with superior spray oils at 1/2 to 1%. Follow the manufacturer's directions and recommendations on timing and rates.  NOTE: For scale apply only one application during emergence of scale crawlers per calendar year.
	Citrus Black Fly Citrus Leafminer Citrus Whitefly	10 fl. oz.	Apply with ground application in 200 to 1500 gals./A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  Apply when pests are just beginning to build and before infestation has occurred. Thorough coverage is essential for good control.
KNACK may be mixed and/or alternated with commonly used insecticides to comply with Resistance Management programs.  Do not apply within 1 day of harvest. Do not make more than 2 KNACK applications per growing season. Do not exceed 26 fl. oz. of KNACK per acre per season. Regardless of formulation do not exceed 0.134 lb. pyriproxyfen per acre per seasor. Do not apply earlier than 21 days after last KNACK treatment.			season. fen per acre per season.

### TREE NUTS

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

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS	
Tree Nuts: Almond	Black Scale San Jose Scale Suppression of: Peach Twig Borer	13 to 16 fl. oz.	Apply with ground equipment in 100 to 400 gals./A. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.  Apply at either dormant, delayed dormant or an in-season cover spray. At dormant, delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.  KNACK has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays.	
	Do not exceed 16 fl. oz. o	21 days of harvest. nan 1 KNACK application per growing season. oz. of KNACK per acre per season. lation do not exceed 0.109 lb. pyriproxyfen per acre per season.		

continued

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Tree Nuts (continued):  Beechnut Brazil Butternut Cashew Chestnut Chinquapin Filbert (Hazelnut) Hickory Macadamia Pecan Pistachio Walnut	Codling Moth Dusky Veined Aphid Walnut Aphid	16 fl. oz.	Apply with ground equipment in 100 to 400 gals./A. Apply in sufficient water volume for tree size. Thorough coverage is critical for control. It is essential to use adequate water volume to ensure thorough coverage.  1st Generation Codling Moth: Apply at Biofix plus 100 degree days. Make a second application 14 to 21 days later or timed to coincide with peak moth flights. For subsequent applications, if needed, apply other insecticides registered for Codling Moth control. The addition of oil has been shown to increase Codling Moth activity of KNACK. Follow local recommendations regarding in-season use and rates of oil in your area.
	Black Scale Brown Soft Scale Italian Scale Lecanium Scale San Jose Scale Walnut Scale Suppression of: Peach Twig Borer	13 to 16 fl. oz.	Apply with ground equipment in 100 to 400 gals./A at either dormant, delayed dormant or an in-season cover spray. The addition of a superior spray oil at dormant or delayed dormant may improve scale control. However, do not use a spray oil in oil sensitive crops such as Walnut. Follow manufacturer's recommendations regarding use and rates of oil for your area.  In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.  Under heavy scale pressure, use the higher rate.  Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better
	Do not apply within 21 da     Do not make more than 2     Do not exceed 32 fl. oz. oz.	nagement programs.  ys of harvest.  KNACK applications per  of KNACK per acre per se a do not exceed 0.218 lb.	ason. pyriproxyfen per acre per season.

#### FRUITING VEGETABLES

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

KNACK does exhibit translaminar movement which means that KNACK applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Eggplant Ground Cherry Okra Pepino Pepper Tomatillo Tomato	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly Cabbage Looper Green Peach Aphid Greenhouse Whitefly (immatures & adults) Silverleaf Whitefly Sweetpotato Whitefly Tobacco Hornworm	8 to 10 fl. oz.  Do not apply less than 8 fl. oz./A. of KNACK when used as a stand alone application.  6 to 8 fl. oz.  +  ORTHENE® 75 S 0.66 to 1.33 lbs./A  or  ORTHENE 97	Apply with air or ground equipment in adequate water for uniform coverage: By Air:
	<ul> <li>Do not exceed 20 fl. oz.</li> <li>Regardless of formulati</li> <li>Do not apply earlier tha</li> </ul>	12 KNACK applications per grow KNACK per acre per season. on do not exceed 0.109 lb. pyripin n 14 days after last KNACK treat ther than those with registered pyripin than those with registered pyripin and the season.	roxyfen per acre per season.

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Fruiting Vegetables (continued): Tomato	Do not exceed 16 fl. oz. KNA     Regardless of formulation do     Do not apply earlier than 14 c	IACK applications per growing sea CK per acre per season. not exceed 0.134 lb. pyriproxyfen days after last KNACK treatment. nan those with registered pyriproxy	

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

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Apricot Cherry Chickasaw Plum Damson Plum Fresh Prune Japanese Plum Nectarine Peach Plum Plumcot Prune	Lecanium Scale San Jose Scale  Suppression of: Peach Twig Borer Oriental Fruit Moth	13 to 16 ff. oz.	Apply in 100 to 400 gals /A. with ground equipment. Coverage is essential for good control. Apply in sufficient water volume for tree size. Use of higher water volume will assure better coverage.  Scale: Apply at dormant, delayed dormant or as an in-season cover spray: At dormant, delayed dormant, use a spray oil at the manufacturer's recommended oil rate.  Under heavy scale pressure, use the higher rate of KNACK.  Peach Twig Borer: KNACK has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays. Use a spray oil at the manufacturer's recommended rate for the stage of crop growth.
	In-season sprays of KNACK may not protect fruit from blemishes by scale.  KNACK may be mixed and/or alternated with commonly used insecticides to comply with local IPM programs and Resistance Management programs.  Do not apply within 14 days of harvest. Do not make more than 3 KNACK applications per growing season. Do not exceed 48 fl. oz. of KNACK per acre per season. Regardless of formulation do not exceed 0.327 lb. pyriproxyfen per acre per season. Do not apply earlier than 14 days after last KNACK treatment.		

# **BRASSICA LEAFY VEGETABLES**

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

KNACK does exhibit translaminar movement which means that KNACK applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS	
Brassica Leafy Vegetables:  Broccoli Broccoli Raab (rapini) Brussels Sprouts Cabbage Cauliflower Cavalo Broccolo Chinese Broccoli (gailon) Chinese Cabbage (bok choy and napa) Chinese Mustard (gai choy) Collards Kale Kohlrabi Mizuna Mustard Greens Mustard Spinach Rape Greens	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl. oz.	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals./A).  HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.  Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures).  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.	
	<ul> <li>Do not apply within 7 days of harvest.</li> <li>Do not make more than 2 KNACK applications per growing season.</li> <li>Do not exceed 20 fl. oz. KNACK per acre per season.</li> <li>Regardless of formulation do not exceed 0.134 lb. pyriproxyfen per acre per season.</li> <li>Do not apply earlier than 14 days after last KNACK treatment.</li> <li>Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.</li> </ul>			

MANAGING WHITEFLY RESISTANCE: Repeated use of the same class of 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 KNACK Insect Growth Regulator to two applications per growing season. KNACK 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 8 fl. oz./A 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.

# **OLIVE**

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

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Olive	Black Scale 13 to 16 fl. oz.		Apply with ground equipment in 100 to 400 gals./A. Apply in sufficient water volume for tree size. Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.  Apply at either dormant, delayed dormant or an in-season cover spray. At dormant, delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first
			emerge. Follow local recommendations regarding inseason use and rates of oil in your area.  Under heavy scale pressure, use the higher rate of KNACK.
	Do not apply within 7 days o     Do not make more than 2 K     Do not exceed 32 fl. oz. of l	ams. of harvest. NACK applications per ( KNACK per acre per sea do not exceed 0.218 lb. p	son. byriproxyfen per acre per season.

#### **CUCURBITS**

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

KNACK does exhibit translaminar movement which means that KNACK applied to the upper surfaces of the leaves will move to the lower surface of the leaf. This translaminar movement is very important to chemical control of whitefly since one of the major obstacles is getting the product to the underside of the leaves where whitefly are present.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Cucurbits:  Balsam Apple Balsam Pear Bitter Melon Cantaloupe Chayote Chinese Cucumber Chinese Waxgourd Citron Melon Cucumber Edible Gourd Gherkin Momordica spp. Muskmelon Pumpkin Summer Squash Watermelon Winter Squash	<ul> <li>Do not apply earlier than 14</li> </ul>	KNACK applications per gro IACK per acre per season. To not exceed 0.134 lb. pyr I days after last KNACK tre	iproxyfen per acre per season. atment.
<ul> <li>Do not plant any crop other than those with registered pyriproxyfen uses in tre sooner than 30 days after the last application.</li> </ul>			pyriproxyteri uses iii iteateu areas

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 KNACK Insect Growth Regulator to two applications per growing season. KNACK 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 8 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.

#### **TROPICAL & SUBTROPICAL FRUIT**

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

CROPS	PEST	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Acerola Atemoya Avocado Biriba Black Sapote Canistel Cherimoya Custard Apple Feijoa Guava Ilama Jaboticaba Longan Lychee Mamey Sapote Mango Passionfruit Papaya Pulasan Rambutan Sapodilla Soursop	Scale	16 fl. oz.	Apply with ground or air equipment as a full coverage spray (minimum of 5 gals./A by air or 50 gals./A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.  Apply at either dormant, delayed dormant or an in-season cover spray. At dormant or delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding inseason use and rates of oil in your area.
Spanish Lime Star Apple Starfruit Sugar Apple Wax Jambu	KNACK may be mixed and/or alternated with commonly used insecticides to comply with local IPM programs and resistance management programs.  Do not apply within 14 days of harvest. Do not make more than 2 KNACK applications per growing season. Do not exceed 32 fl. oz. of KNACK per acre per season. Regardless of formulation do not exceed 0.218 lb. pyriproxyfen per acre per season. Do not apply earlier than 14 days after last KNACK treatment.		

#### **BUSHBERRIES**

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

CROPS	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS	
Bushberries:  Blueberry Currant Elderberry Gooseberry Huckleberry Juneberry Lingonberry Salal	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale	16 fl. oz	Apply with ground or air equipment as a full coverage spray (minimum of 5 gals./A by air or 50 gals./A by ground). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.  Fruitworms: Apply when egg laying begins and again at petal fall. Additional applications of another insecticide, at 10 – 14 day intervals, may be needed under high population pressure or sustained moth flight.  Lecanium Scale: Apply at either dormant, delayed dormant or an in-season cover spray. At dormant or delayed dormant use a spray oil at the manufacturer's recommended oil rate. In a cover spray make applications when scale crawlers first emerge. Follow local recommendations regarding in-season use and rates of oil in your area.	
	KNACK may be mixed and/or alternated with commonly used insecticides to comply with local IPM programs and Resistance Management programs.  Do not apply within 7 days of harvest. Do not make more than 2 KNACK applications per growing season. Do not exceed 32 fl. oz. of KNACK per acre per season. Regardless of formulation do not exceed 0.218 lb. pyriproxyfen per acre per season. Do not apply earlier than 14 days after last KNACK treatment.			

# STORAGE AND DISPOSAL

# **PROHIBITIONS**

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

#### PESTICIDE 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**

Wastes 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.

Copyright© 2004 by Valent U.S.A. Corporation

DANITOL® - Reg. TM of Sumitomo Chemical Company, Ltd. KNACK® - Reg. TM of Valent U.S.A. Corporation MONITOR® - Reg. TM of Valent U.S.A. Corporation ORTHENE® - Reg. TM of OMS Investments, Inc.

Manufactured for: **Valent U.S.A. Corporation** P.O. Box 8025 Walnut Creek, CA 94596-8025 www.valent.com

Made in U.S.A.

EPA Reg. No. 59639-95 EPA Est.

 $059639\hbox{-}000095\hbox{.}20041209.KNK.Not if.doc.\\$ 

December 9, 2004



Knack® Insect Growth Regulator
EPA Reg. No. 59639-95
Esteem® Ant Bait (Insect Growth Regulator)
EPA Reg. No. 59639-114
Esteem® 35 WP (Insect Growth Regulator)
EPA Reg. No. 59639-115

Mr. Richard Gebken
Product Manager, Team 10
Insecticide Branch
Document Processing Desk (Notif) Office of Pesticide Programs (7504C)
US Environmental Protection Agency
Room 266A, Crystal City Mail 2
1801 South Bell St.
Arlington, VA 22202-4501

Dear Mr. Gebken:

Valent U.S.A. is submitting notifications for revised labeling for our products Knack Insect Growth Regulator (EPA Reg. No. 59639-95, OPP ID. No. 300902) and Esteem 35 WP (EPA Reg. No. 59639-115, OPP ID. No. 300904). The current labels for these products are being amended to include a statement to not exceed the maximum use fate of pyriproxyfen regardless of the product utilized.

Esteem Ant Bait (EPA Reg. No. 59639-114, OPP ID. No. 300903) label was amended to correct the current maximum use fate of pyriproxyfen regardless of the product utilized for Citrus only on page 18.

We have enclosed a label clearly marked in red and a clean copy, applications for all 3 products (OPP ID. No's. 300902, 300903 & 300904), a Certification Statement, a CD that includes both a word document and pdf document of each label and a Certification with Respect to Label Integrity.

If you should have any questions, please contact me at (925) 256-2791 or Eric Maurer in our Washington DC office at (202) 872-4682.

Sincerely,

Linda Obrestad Labeling Specialist

Registration and Regulatory Affairs

Inda (Glerestad

**Enclosures**