

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

OFFICE OF PREVENTION. PESTICIDES AND TOXIC SUBSTANCES

Mr. Eric Maurer Registration & Regulatory Affairs Valent U.S.A Corp. 1101 14th Street, NW Suite 1050 Washington, DC 20005

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Dear Mr. Maurer,

Subject: New Use – add additional food uses bundled six or more

Knack Insect Growth Regulator

EPA Reg. No. 59639-95

Esteem Ant Bait

EPA Reg. No. 59639-114

Esteem 35WP

EPA Reg. No. 59639-115

Submissions dated February 6, 2006

Following review of the residue data submitted in support of the IR-4 petition (71 FR 67571, November 22, 2006), EPA made several revisions to the petitioners request for the establishment of pyriproxyfen tolerances. Due to the absence of confirmatory data, the Agency did not establish the tolerance proposed for: vegetables, leaves of root and tuber, group 2; vegetable leafy except Brassica, group 4; vegetable foliage of legume, group 7; artichoke, globe; asparagus; kiwifruit; and watercress (72 FR 46914-46919, August 22, 2007). A tolerance petition for vegetable, legume, group 6 was removed from the petitioners request because a tolerance of 0.20 ppm pyriproxyfen was already established for this group (40 CFR 180.510). Therefore, the labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, is acceptable provided you:

- 1. Remove the following crops from the labels of Knack Insect Growth Regulator EPA Reg. No. 59639-95; Esteem 35WP EPA Reg. No. 59639-115; and Esteem Ant Bait EPA Reg. No. 59639-114:
 - a. artichoke, globe
 - b. asparagus
 - c. kiwifruit
 - d. vegetable, leafy, except Brassica, (group 4)
 - e. watercress



GROUP 76 INSECTICIDE

KNACK®

INSECT GROWTH REGULATOR

Active Ingredient	By Wt.
*Pyriproxyfen	
Other Ingredients	88.77%
Total	

*(2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine)

Contains 0.86 pound ai per gallon.

Contains aromatic petroleum distillates.

ACCEPTED
with COMMENTS
In EPA Letter Dated
DEC 2 0 2000
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.

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 eve.
- 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, 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.

RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management purposes, KNACK is a Group 7D insecticide. Any insect population may contain individuals naturally resistant to KNACK and other Group 7D insecticides. The resistant individuals dominate the insect population if these insecticides are used repeatedly. These resistant insects may not be controlled by KNACK or other Group 7D insecticides, although local experts should be consulted for local resistance recommendations. The classification scheme is based on mode of action. It is recognized that resistance of insects and mites to insecticides and acaricides can also result from enhanced metabolism, reduced penetration or behavioral changes that are not linked to any site of action classification but are specific for individual chemicals or chemical groupings. Despite this, alternation of compounds from different chemical classes remains a viable management technique.

To delay insecticide resistance

- Avoid exclusive repeated use of insecticides from the same chemical subgroup.
- Integrate other control methods (chemical, cultural, biological) into insect control programs.

For further information contact your local distributor.

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.

ARTICHOKE, GLOBE

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 RATES PER ACRE	SPECIAL INSTRUCTIONS
Artichoke, Globe	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).
·	Choopeas Whiteh		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.
			nonly used insecticides to comply with t Resistance Management (IRM)
	 Do not exceed 20 fl. o Do not apply earlier th Regardless of formula Do not plant any crop 	in 2 KNACK applications z. of KNACK per acre pe an 14 days after last KN/ tion do not exceed 0.134	r season. ACK treatment. Ib. pyriproxyfen per acre per season. istered pyriproxyfen uses in treated

MANAGING INSECT 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 IRM recommendations. Read and follow all product labels before applying any insecticide.

ASPARAGUS

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	
Asparagus	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.	
	 Do not make more that Do not exceed 20 fl. of Do not apply earlier the Regardless of formula Do not plant any crop 	within 7 days of harvest. more than 2 KNACK applications per growing season. ed 20 fl. oz. of KNACK per acre per season. e earlier than 14 days after last KNACK treatment. of formulation do not exceed 0.134 lb. pyriproxyfen per acre per season. any crop other than those with registered pyriproxyfen uses in treated areas 30 days after the last application.		

MANAGING INSECT 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 Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

BANANA AND PLANTAIN

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
Banana Plantain	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	13 to 16 fl. oz.	Apply with air or ground equipment in adequate water for uniform coverage: By air: 3 to 10 gals./A By ground: 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).
•			Only whole fields should be treated.
			nmonly used insecticides to comply with ect Resistance Management (IRM)
· · · · · · · · · · · · · · · · · · ·	 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. Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application. 		

MANAGING INSECT 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 three 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 13 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 IRM recommendations. Read and follow all product labels before applying any insecticide.

BERRIES

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.

	1	PRODUCT	
CROPS	PESTS	RATE	SPECIAL INSTRUCTIONS
	1,2010	PER ACRE	SPECIAL INSTRUCTIONS
Berries:	Cherry Fruitworm	16 fl. oz	Apply with ground or air equipment as a
Bingleberry	Cranberry Fruitworm	70 III OL	full coverage spray (minimum of 5
Blackberry including	Lecanium Scale		gals./A by air or 50 gals./A by ground).
Bingleberry			Thorough coverage is critical for
Black Satin Berry			adequate control. It is essential to use
Boysenberry			adequate water volume to ensure
Cherokee Blackberry		•	thorough coverage.
Chesterberry			
Cheyenne Blackberry			Fruitworms: Apply when egg laying
Coryberry	·		begins and again at petal fall. Additional
Darrowberry			applications of another insecticide, at
Dewberry			10 - 14 day intervals, may be needed
Dirksen thornless berry			under high population pressure or
Himalayaberry			sustained moth flight.
Hullberry			_
Lavacaberry	·		Lecanium Scale: Apply at either
Lowberry			dormant, delayed dormant or an in-
Lucretiaberry			season cover spray. At dormant or
Mommoth Blackberry			delayed dormant use a spray oil at the
Marionberry			manufacturer's recommended oil rate.
Nectorberry			In a cover spray make applications
Olallieberry			when scale crawlers first emerge.
Oregon Evergreen Berry			Follow local recommendations
Phenomenalberry			regarding in-season use and rates of oil
Rangeberry			in your area.
Ravenberry			vith commonly used insecticides to comply
Rossberry Shawnee Blackberry		est Management (IF	PM) and Insect Resistance Management
Youngberry	(IRM) programs.		
Blueberry	D	. *9 .l	· ,
Currant		7 days of harvest.	
Elderberry			olications per growing season.
Gooseberry		fl. oz. of KNACK pe	
Huckleberry		•	r last KNACK treatment.
Juneberry	. •	nulation do not exce	eed 0.218 lb. pyriproxyfen per acre per
Lingonberry	season.		
Loganberry			•
Raspberry, (black and red)			
Salal			

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

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	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).
Cauliflower Cavalo Broccolo Chinese Broccoli (gai lon) Chinese Cabbage (bok choy and napa)	·		HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.
Chinese Mustard (gai choy) Collards Kale Kohlrabi Mizuna Mustard Greens Mustard Spinach Rape Greens	.1		Begin applications when whiteflies reach threshold levels per University/Extension recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of
Turnip Greens			immatures). Under severe pressure, use the higher recommended rates.
			Only whole fields should be treated.
	 Do not apply within 7 days of harvest. Do not make more than 2 KNACK applications per growing season. Do not exceed 20 fl. oz. KNACK per acre per season. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation do not exceed 0.134 lb. pyriproxyfen per acre per season. Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application. 		

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 Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

BULB 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.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Bulb Vegetables: Garlic Garlic, Great Headed Leek Onion, Dry Bulb Onion, Green Onion, Welsh Shallot	Onion Thrips	8 fl. oz.	FOR SUPPRESSION OF ONION THRIPS: Apply with ground equipment in adequate water for uniform coverage (20 to 50 gals./A). Begin applications when thrips reach threshold levels per University/Extension. Thorough coverage is critical for adequate water volume to ensure thorough coverage.
	 Do not apply within 3 days of harvest. Do not make more than 2 KNACK applications per growing season. Do not exceed 16 fl. oz. of KNACK per acre per season. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation do not exceed 0.134 lb. pyriproxyfen per acre per season. Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application. 		

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

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.

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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.
			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.
	 Do not apply within 28 days of harvest. Do not make more than 1 KNACK application per growing season. Do not exceed 10 fl. oz. KNACK per acre per season. Regardless of formulation do not exceed 0.067 lb. pyriproxyfen per acre per season. Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after last application. 		

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 Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

CITRUS (Including Ugli Fruit and White Sapote)

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CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Citrus Ugli Fruit White Sapote	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 nd or 3 rd 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.
·			nonly used insecticides to comply with t Resistance Management (IRM)
	 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. Do not apply earlier than 21 days after last KNACK treatment. Regardless of formulation do not exceed 0.134 lb. pyriproxyfen per acre per season. 		

continued

CITRUS (continued)

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state, and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

CRANBERRY

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	
Cranberry	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 at least 20 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 to 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 Integrated Pest Management (IPM) and Insect Resistance Management (IRM) 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. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation do not exceed 0.218 lb. pyriproxyfen per acre per season. 			

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

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	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl. oz. Do not apply less than 8 fl. oz./A	Apply with air or ground equipment in adequate water for uniform coverage: By air: 3 to 10 gals./A By Ground: 10 to 50 gals./A HIGHER WATER VOLUMES PROVIDE IMPROVED INSECT CONTROL. 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.
	 Do not exceed 20 fl. oz Do not apply earlier the Regardless of formular season. Do not plant any crop 	n 2 KNACK applications z. KNACK per acre per s an 14 days after last KN tion do not exceed 0.13	season. IACK treatment. 4 lb. pyriproxyfen per acre per gistered pyriproxyfen uses in treated

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 Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

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
Fruiting Vegetables: Eggplant Ground Cherry Okra Pepino Pepper Tomatillo Tomato	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl. oz. Do not apply less than 8 fl. oz./A. of KNACK when used as a stand alone application.	Apply with air or ground equipment in adequate water for uniform coverage: By Air:
			Only whole fields should be treated.
	Banded Wing Whitefly Cabbage Looper Green Peach Aphid Greenhouse Whitefly (immatures & adults) Silverleaf Whitefly Sweetpotato Whitefly Tobacco Hornworm	6 to 8 fl. oz. + ORTHENE® 75 S 0.66 to 1.33 lbs./A or ORTHENE 97 0.5 to 1.0 lb./A	Apply as a tank mix with ground equipment for uniform coverage (25 to 150 gals./A. by ground). Make application when eggs or insects first appear. If control is needed during this period use an alternate insecticide registered for the target pest. KNACK may also be mixed or alternated with commonly used insecticides to comply with local IPM programs. Comply with all applicable directions, restrictions and precautions on the registered labels for ORTHENE 75 S or ORTHENE 97.
 Do not apply within 1 day of harvest. Do not make more than 2 KNACK applications per growing season. Do not exceed 20 fl. oz. KNACK per acre per season. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation do not exceed 0.109 lb. pyriproxyfen per acre per season. Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application. 			

continued

FRUITING VEGETABLES (continued)

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Fruiting Vegetables: Tomato	Banded Wing Whitefly Beet Armyworm Fruitworm Greenhouse Whitefly (immatures & adults) Potato Aphid Silverleaf Whitefly Sweetpotato Whitefly Thrips Tomato Pinworm Yellowstriped Armyworm	6 to 8 fl. oz. + MONITOR ® 4 Spray 24 fl. oz. + DANITOL® 2.4 EC Spray 10-2/3 fl. oz.	EARLY SEASON WHITEFLY CONTROL PROGRAM FOR REDUCTION OF GEMINIVIRUS: Apply as a tank mix with ground equipment for uniform coverage (10 to 120 gals./A). Make application when scouting first indicates adult whiteflies are on young plants. NOTE: This may result in treatment immediately following transplanting. MID TO LATE SEASON WHITEFLY CONTROL PROGRAM FOR PREVENTION OF IRREGULAR FRUIT RIPENING: Apply as a tank mix with ground equipment for uniform coverage (20 to 120 gals./A. by ground). Make application when scouting indicates whiteflies are present. KNACK may also be mixed or alternated with commonly used insecticides to comply with local IPM programs. Comply with all applicable directions, restrictions and precautions on the registered labels for MONITOR 4 Spray and DANITOL 2.4 EC Spray.
	 Do not exceed 16 fl. oz. Do not apply earlier than Regardless of formulatio Do not plant any crop otl 	2 KNACK applications per KNACK per acre per seaso 114 days after last KNACK in do not exceed 0.134 lb.	on. treatment. pyriproxyfen per acre per season. red pyriproxyfen uses in treated

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

GRAPE

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 insects' development, evidence of activity will be slower than typical contact insecticides.

CROP	PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS	
Grape	Glassy-Winged Sharpshooter Grape Berry Moth Lecanium Scale	16 fl. oz.	Apply with ground equipment as a full coverage spray (50 to 200 gals./A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage. Lecanium Scale: Apply at either dormant, delayed dormant or an in-season cover spray. At dormant, delayed dormant you may use a spray oil at the manufacturer's recommended oil rate. Do not use oil in an in-season spray. 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.	
	 Do not apply within 21 days of harvest. Do not make more than 2 KNACK applications per growing season. Do not exceed 32 fl. oz. KNACK per acre per season. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation, do not apply more than 0.218 lb. active of pyriproxyfen per acre per season. 			

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

KIWI 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	PEST	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Kiwi Fruit	Scale	16 fl. oz.	Apply with ground equipment as a full coverage spray (minimum of 45 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. Do not use oil in an in-season spray.
			In a cover spray make applications when scale crawlers first emerge.
			ommonly used insecticides to comply with asect Resistance Management (IRM)
	Do not make moreDo not exceed 32Do not apply earl	nin 30 days of harvest. re than 2 KNACK application of KNACK per acrestier than 14 days after last immulation do not exceed 0.	per season.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

LEAFY VEGETABLES (Except Brassica 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
Leafy Vegetables (Except Brassica Vegetables): Amaranth (Chinese Spinach) Arugula (Roquette) Cardoon Celery Celery, Chinese Ceftuce Chervii Chrysanthemum, Edible-leaved Chrysanthemum, Garland Corn Salad Cress, Garden Cress, Upland Dandelion Dock (Sorrel) Endive (Escarole) Fennel, Florence Lettuce, Head Lettuce, Leaf Orach Parsley Purslane, Garden Purslane, Winter Radicchio (Red Chicory) Rhubarb Spinach Spinach, New Zealand Spinach, Vine	 comply with local Integrate Management (IRM) progra Do not apply within 14 Do not make more tha Do not exceed 20 fl. oz Do not apply earlier tha 	ed Pest Managent ms. days of harvest. n 2 KNACK appli z. of KNACK per an 14 days after l	
Swiss Chard			continued

continued

LEAFY VEGETABLES (continued)

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 IRM recommendations. Read and follow all product labels before applying any insecticide.

LEGUME VEGETABLES

(Succulent or Dried)

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.

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CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS	
Legume Vegetables :	Silverleaf Whitefly	8 to 10 fl. oz.	EARLY SEASON WHITEFLY PROGRAM:	
Beans (Lupinus):	Sweetpotato Whitefly		Apply with ground equipment in adequate	
Grain Lupin			water for uniform coverage (10 to 50	
Sweet Lupin	1	1	gals./A. Thorough coverage is critical for	
White Lupin	ļ ·		adequate control. It is essential to use	
White Sweet Lupin		·	adequate water volume to ensure thorough	
Beans (<i>Phaaseolus</i>):			coverage.	
Field Bean	J		Danie and Barton and an artifaction and b	
Kidney Bean			Begin applications when whiteflies reach threshold levels per University/Extension	
Lima Bean	1		recommendations (e.g. 3 to 5 adults per	
Navy Bean	ļ		leaf and/or equivalent levels of	
Pinto Bean	[.		immatures).	
Runner Bean			,	
Snap Bean			Under severe pressure, use the higher	
Tepary Bean			recommended rates.	
Wax Bean	}			
Bean (Vigna):		· ,	Only whole fields should be treated.	
Adzuki Bean			,	
Asparagus Bean		•].	
Blackeyed Pea				
Catjang	_			
Chinese Longbean	1.			
Cowpea	·			
Crowder Pea	1			
Moth Bean	j	·		
Mung Bean		·	1	
Rice Bean Southern Pea		•	· ·	
Urd Bean				
Yardlong Bean		-		
Broad Bean (fava)				
Chickpea (garbanzo)				
Guar		•	· ·	
Jackbean	,			
Lablab Bean				
Lentil			,	
Pea (Pisum):			<u> </u>	
Dwarf Pea	KNACK may be mixed ar	nd/or alternated with commonly	y used insecticides to comply with local	
Edible-podded Pea			nce Management (IRM) programs.	
English Pea]	•	· · · · · · · · · · · · · · · · · · ·	
Field Pea	Do not apply within 7	days of harvest.	•	
Garden Pea		nan 2 KNACK applications per	growing season.	
Green Pea	Do not exceed 20 fl. oz. of KNACK per acre per season.			
Snowpea	Do not apply earlier than 14 days after last KNACK treatment.			
Sugar Snap Pea	Regardless of formulation do not exceed 0.134 lb. pyriproxyfen per acre per season.			
Pigeon Pea	Do not plant any croi	o other than those with register	red pyriproxyfen uses in treated areas	
Soybean	Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application.			
Sword Bean	, Joseph Milan Go augu			

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LEGUME VEGETABLES (continued)

MANAGING INSECT 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 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 San Jose 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 inseason 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.			
	KNACK may be mixed and/or alternated with commonly used insecticides to comply with local Insect Pest Management (IPM) and Resistance Management (IRM) 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. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation do not exceed 0.218 lb. pyriproxyfen per acre per season. 					

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

PASTURE GRASS AND RANGELAND

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 insects' development, evidence of activity will be slower than typical contact insecticides.

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS	
Pasture Grass and Rangeland	Cricket Grasshopper Locust	8 to 10 fl. oz.	Apply with air or ground equipment in adequate water for uniform coverage: By air3 to 10 gals./A By Ground10 to 50 gals./A	
			HIGHER WATER VOLUMES PROVIDE IMPROVED INSECT CONTROL.	
			Begin application when pests reach threshold levels per University/Extension recommendations.	
·		·	Under severe pressure, use the higher recommended rates.	
	 Do not make more than 2 KNACK applications per growing season. Do not exceed 20 fl. oz. KNACK per acre per season. Regardless of formulation do not exceed 0.134 lb. pyriproxyfen per acre per season. Do not apply earlier than 14 days after last KNACK treatment. 			

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

PAWPAW

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 RATES PER ACRE	SPECIAL INSTRUCTIONS		
Pawpaw	Scale Whitefly	13 to 16 fl. oz.	Apply 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 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. Do not use oil in an in-season spray.		
			In a cover spray make applications when scale crawlers first emerge.		
			Under heavy scale pressure, use the higher rate of KNACK.		
	In-season sprays of h	 KNACK may not protect fru	it from blemishes by scale.		
	KNACK may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.				
	 Do not make mor Do not exceed 48 Do not apply earling 	in 14 days of harvest. The than 3 KNACK application The than 15 KNACK per acresive than 14 days after last that the mulation do not exceed 0.5	per season.		

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting KNACK Insect Growth Regulator to three 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

PINEAPPLE

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
Pineapple	Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale	16 fl. oz.	Apply with ground equipment in 20 to 50 gals./A. Apply in sufficient water volume for plant 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 nd or 3 rd 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 manaufacturer's directions and recommendations on timing and rates.
			nly used insecticides to comply with local ance Management (IRM) programs.
	 Do not apply within 1 day of harvest. Do not make more than 2 KNACK applications per calendar year. Do not exceed 32 fl. oz. of KNACK per acre per season. Do not apply earlier than 21 days after last KNACK treatment. Regardless of formulation do not exceed 0.134 lb. pyriproxyfen per acre per season. 		

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal IPM and 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.

		PRODUCT	
CROPS	DECTO	PRODUCT	CDECIAL INSTRUCTIONS
CROPS	PESTS	RATES	SPECIAL INSTRUCTIONS
		PER ACRE	
Pome Fruit:	Codling Moth	13 to 16 fl. oz.	Apply by ground with airblast equipment in a
Apple			minimum of 50 gals./A. Thorough coverage
Crabapple	. • .		is critical for control. It is essential to use
Loquat	Suppression of:		adequate water volume to ensure thorough
Mayhaw	Pandemis Leafroller	·	coverage
Quince	Obliquebanded Leafroller	ļ	
			1st Generation Codling Moth: Apply at
			Biofix plus 100 degree days (this is usually
		ĺ	close to petal fall). Make a second
			application 14 to 21 days later or timed to
			coincide with peak moth flights. For
].	j	subsequent applications, if needed, apply
,			other insecticides registered for Codling
			Moth control. The addition of oil has been
	is a second of the second of t		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.
٠ '			
	El-id- D-d O-d	40.4- 40.6	A - I. I
ĺ	Florida Red Scale	13 to 16 fl. oz.	Apply by ground with airblast equipment in a
	Lecanium Scale		minimum of 50 gals./A. Thorough coverage
	San Jose Scale	}	is critical for control. It is essential to use
	i ,		adequate water volume to ensure thorough
			coverage.
	!	· .	A mark and delegated decreases there are the state of
			Apply at delayed dormant through pink. For
,		İ	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.
		. ,	Carles Fancantal la sécus assets
,		•	Scale: For control in-season, make
		,	application in cover sprays when scale
			crawlers first emerge. The use of oil at the
		1	crawler emergence stage has been shown
		`	to improve control. Follow local
		!	recommendations regarding in-season use
}		,	and rates of oil in your area.

continued

POME FRUIT (continued)

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pome Fruit: Apple Crabapple Loquat Mayhaw	Green Apple Aphid Rosy Apple Aphid Spirea Aphid Spotted 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
Quince	Western Tentiform Leafminer		Leafminers : Apply at peak moth flight for control of 1 st or 2 nd generation. This usually occurs at pre-pink to pink apple stage for 1 st generation and 2 nd cover for 2 nd generation.
			Rosy Apple Aphid: Apply at 1/2" 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

POME FRUIT (continued)

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pome Fruit: Pear	Codling Moth	13 to 16 fl. oz.	Apply by ground with airblast equipment in 100 to 400 gals./A.
Oriental Pear	Suppression of: Obliquebanded Leafroller Pandemis Leafroller		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.
	 local Integrated Pest Manager programs. Do not apply within 45 days Do not make more than 2 k Do not exceed 32 fl. oz. of l Do not apply earlier than 14 	ment (IPM) and Insects of harvest. KNACK applications p KNACK per acre per s 4 days after last KNAC	nonly used insecticides to comply with at Resistance Management (IRM) per growing season. season.

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

POMEGRANATE

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 RATES PER ACRE	SPECIAL INSTRUCTIONS
Pomegranate	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	13 to 16 fl. oz.	Apply with air or ground equipment in adequate water for uniform coverage: By air: 3 to 10 gals./A By ground: 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).
			Only whole fields should be treated.
	 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. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation do not exceed 0.327 lb. pyriproxyfen per acre per season. Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application. 		

MANAGING INSECT 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 three 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 13 fl. oz. per acre for whitefly control because reduced rates can lead to a greater potential for resistance development. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

ROOT AND TUBER 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
Root & Tuber Vegetables: Arracacha	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly	8 fl. oz.	Apply with ground equipment in adequate water for uniform coverage (20 to 50 gals./A).
Arrowroot Artichoke, Chinese Artichoke, Jerusalem Beet, Garden	Sweetpotato Whitefly		HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.
Beet, Sugar Burdock, Edible Canna, Edible Carrot			Begin applications when whiteflies reach threshold levels per University/Extension
Cassava, (bitter and sweet) Celeriac Chaoyote (root) Chervil, Turnip-rooted			recommendations (e.g. 3 to 5 adults per leaf and/or equivalent levels of immatures).
Chicory Chufa Dasheen (taro) Ginger		·	Under severe pressure, use the higher recommended rates. Only whole fields should be treated.
Ginseng Horseradish Leren Parsley, Turnip-rooted	·		Only whole helds should be dedied.
Parsnip Potato Radish			
Radish, Oriental Rutabaga Salsify Salsify, Black			
Salsify, Spanish Skirret Sweet Potato Tanier Turmeric Turnip Yam Rean Do not apply within 3 days of harvest. Do not make more than 2 KNACK applications per growing season. Do not exceed 16 fl. oz. of KNACK per acre per season. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation do not exceed 0.109 lb. pyriproxyfen per acre per season. Do not plant any crop other than those with registered pyriproxyfen us			acre per season. last KNACK treatment. ed 0.109 lb. pyriproxyfen per acre per
Yam, Bean Yam, True • Do not plant any crop other than those with registered pyriproxyten use treated areas sooner than 30 days after the last application.			er the last application.

continued

ROOT AND TUBER VEGETABLES (continued)

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 Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

STONE 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.

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	CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
	Stone Fruit: Apricot Cherry Chickasaw Plum Damson Plum Fresh Prune	Lecanium Scale San Jose Scale Suppression of:	13 to 16 fl. 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.
	Japanese Plum Nectarine Peach Plum Plumcot Prune	Peach Twig Borer Oriental Fruit Moth		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 Integrated Pest Management IPM and Insect Resistance Management (IRM) 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. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation do not exceed 0.327 lb. pyriproxyfen per acre per season. 		

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices, Valent U.S.A. Corporation is restricting KNACK Insect Growth Regulator to three 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

STRAWBERRY

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 insects' development, evidence of activity will be slower than typical contact insecticides.

KNACK exhibits 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	
Strawberry	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	10 fl. oz.	Apply with ground equipment as a full coverage spray (100 to 400 gals./A). Thorough coverage is critical for adequate control. It is essential to use adequate water volume to ensure thorough coverage.	
			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.	
	 Do not exceed 20 fl. Do not apply earlier Regardless of formula 	e than 2 KNACK applications per growing season. fl. oz. KNACK per acre per season. er than 30 days after last KNACK treatment. nulation, do not apply more than 0.134 lb. of pyriproxyfen per acre per season. rop other than those with registered pyriproxyfen uses in treated areas sooner than 30		

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. Follow local, state and federal Integrated Pest Management (IPM) and Integrated Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

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.
	Almond: Do not apply within 21 days of harvest. Do not make more than 1 KNACK application per growing season. Do not exceed 16 fl. oz. of KNACK per acre per season. Regardless of formulation do not exceed 0.109 lb. pyriproxyfen per acre per season.		

continued

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect strains. To optimize resistance management practices. Valent U.S.A. Corporation is restricting KNACK Insect Growth Regulator to one application 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. Follow local, state and federal Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

TREE NUTS (continued)

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Tree Nuts: Beechnut Brazil Butternut Cashew Chestnut	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.
Chinquapin Filbert (Hazelnut) Hickory Macadamia Pecan Pistachio Walnut			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 coverage.
	KNACK may be mixed and/or Integrated Pest Management	alternated with commonly (IPM) and Insect Resista	vused insecticides to comply with local nce Management (IRM) programs.
	 Do not apply within 21 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. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation do not exceed 0.218 lb. pyriproxyfen per acre per season. 		

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal IPM and 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
Tropical & Subtropical Fruit: Acerola Atemoya Avocado Biriba Black Sapote Canistel Cherimoya Custard Apple Feijoa Guava Ilama Jaboticaba Longan Lychee Mamey Sapote Mango	Scale 16 fl. oz. Apply with ground or air equipment coverage spray (minimum of 5 ga air or 50 gals./A by ground). Thore coverage is critical for adequate or is essential to use adequate water to ensure thorough coverage. Apply at either dormant, delayed or an in-season cover spray. At declayed dormant use a spray oil a manufacturer's recommended oil cover spray make applications who crawlers first emerge. Follow loca		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
Passionfruit Papaya Pulasan Rambutan Sapodilla Soursop Spanish Lime Star Apple Starfruit Sugar Apple Wax Jambu	comply with log Management (Do not apple Do not maked Do not excelled to the policy of the	ocal Integrated Pest (IRM) programs. Ily within 14 days of hake we more than 2 KNAC eed 32 fl. oz. of KNAC Ily earlier than 14 days	ernated with commonly used insecticides to Management (IPM) and Insect Resistance arvest. K applications per growing season. CK per acre per season. s after last KNACK treatment. It exceed 0.218 lb. pyriproxyfen per acre per

MANAGING INSECT RESISTANCE: Repeated use of the same class of insecticides with similar modes of action can lead to the buildup of resistant insect 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

WATERCRESS

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.

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CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Watercress	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl. oz.	Apply with air or ground equipment in adequate water for uniform coverage (10 to 50 gals./A).
	Sweetpotato Writteny		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).
	·		Only whole fields should be treated.
	 Do not apply within 7 days of harvest. Do not make more than 2 KNACK applications per growing season. Do not exceed 20 fl. oz. of KNACK per acre per season. Do not apply earlier than 14 days after last KNACK treatment. Regardless of formulation do not exceed 0.134 lb. pyriproxyfen per acre per season. Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days after the last application. 		

MANAGING INSECT 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 Integrated Pest Management (IPM) and Insect Resistance Management (IRM) recommendations. Read and follow all product labels before applying any insecticide.

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.

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