



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

March 2, 2022

Sue-Chi Shen  
Sr. Regulatory Project Manager  
Valent U.S.A. LLC  
1600 Riviera Ave., Suite 200  
Walnut Creek, CA 94596-8025

Subject: Registration Review Label Mitigation for Pyriproxyfen  
Product Name: KNACK INSECT GROWTH REGULATOR  
EPA Registration Number: 59639-95  
Application Date: April 18, 2020  
Decision Number: 561890

Dear Sue-Chi Shen:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Pyriproxyfen Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Page 2 of 2  
EPA Reg. No. 59639-95  
Decision No. 561890

If you have any questions about this letter, please contact Marisa Wright by phone at 202-566-2335, or via email at [wright.marisa@epa.gov](mailto:wright.marisa@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington".

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure



PYRIPROXYFEN    GROUP    7C    INSECTICIDE

[Bracketed information is optional text].

# KNACK® INSECT GROWTH REGULATOR

Active Ingredient	By Wt
*Pyriproxyfen .....	11.23%
Other Ingredients .....	88.77%
Total	100.00%

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

Contains 0.86 pound Pyriproxyfen per gallon.

Contains aromatic petroleum distillates.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

**SEE NEXT PAGE FOR ADDITIONAL PRECAUTIONARY STATEMENTS**

EPA Reg. No. 59639-95  
**NET CONTENTS**

<b>ACCEPTED</b>
03/02/2022
Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 59639-95

<b>FIRST AID</b>	
<b>If on skin:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>HOTLINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 800-892-0099 for emergency medical treatment information.	
<b>NOTE TO PHYSICIANS</b>	
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.	

## 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 hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE):

**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  $\geq$  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 exist, 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 beehives.

***Note to EPA reviewer: if this product is shipped in containers greater than 50 lbs, the following environmental hazard statement will be added to the label:***

[Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.]

### **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 (WPS), 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 (REI). The requirements in this box only apply to uses of this product that are covered by the WPS.

Do not enter or allow worker entry into treated areas during the REI of 12 hours.

PPE required for early entry to treated areas that is permitted under the WPS 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  $\geq$  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 TO THE FULLEST EXTENT ALLOWED BY LAW, 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. To the extent consistent with applicable law AND 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**

**To the fullest extent allowed by law, Valent or Seller is not 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. TO THE FULLEST EXTENT ALLOWED BY LAW, 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**

To the extent consistent with applicable law allowing such requirements, 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.

To the extent consistent with applicable law, 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, to the extent allowed by applicable law.

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

[Optional Warranty/Disclaimer statement to be used when the product is sub-registered by Makhteshim Agan of North America, Inc.]

**LIMITATION OF WARRANTY AND LIABILITY**

Read the entire directions for use, conditions of warranties and limitations of liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following **CONDITIONS, DISCLAIMER OF WARRANTIES** and **LIMITATIONS OF LIABILITY**.

**CONDITIONS:** The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Makhteshim Agan of North America, Inc. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond the statements made on this label. No agent of Makhteshim Agan of North America, Inc. is authorized to make any warranties beyond those contained herein or to modify the warranties contained herein. To the extent consistent with applicable law, Makhteshim Agan of North America, Inc. disclaims any liability whatsoever for special, incidental or consequential damages resulting from the use or handling of this product.

**LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use or handling of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid or at Makhteshim Agan of North America, Inc.'s election, the replacement of product.

## RESISTANCE MANAGEMENT RECOMMENDATIONS

For resistance management, *Knack* Insect Growth Regulator contains a Group 7C insecticide. Any insect population may contain individuals naturally resistant to *Knack* Insect Growth Regulator and other Group 7C insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of *Knack* Insect Growth Regulator or other Group 7C insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of the mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisor for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Valent U.S.A. LLC at 800-6-VALENT (682-5368).



## PRODUCT INFORMATION

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

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

*Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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.

### SPRAY DRIFT MANAGEMENT

#### SPRAY DRIFT

##### Aerial Applications

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to use a fine or coarser droplet size (ASABE S572.1), except for when applying ultra-low volume applications.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- If the windspeed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- Do not apply during temperature inversions.

##### Airblast Applications

- All sprays must be directed into the canopy.
- Nozzles directed out of the orchard must be turned off when treating the outer row, or when making turns between rows.
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

##### Ground Boom Applications

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a fine or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

##### Boom-less Ground Applications

- Do not apply when wind speeds exceed 15 miles per hour at the application site.
- Do not apply during temperature inversions.

### SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT. BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

## **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### **Controlling Droplet Size – Ground Boom**

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### **Controlling Droplet Size – Aircraft**

- Adjust Nozzles - Follow nozzle manufacturer's recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### **BOOM HEIGHT – Ground Boom**

For ground equipment, the boom should remain level with the crop and have minimal bounce.

### **RELEASE HEIGHT - Aircraft**

Higher release heights increase the potential for spray drift.

## **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

## **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

### **Boom-less Ground Applications**

- Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

### **Handheld Technology Applications**

- Take precautions to minimize spray drift.

## 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* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Artichoke Plum Moth Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly  [*Not for use in California.]	8 to 10 fl oz	Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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.
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</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 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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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 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* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Whitefly	8 to 10 fl oz	<p>Apply with ground equipment in adequate water for uniform coverage (10 to 50 gals/A).</p> <p><b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b></p> <p>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).</p> <p>Under severe pressure, use the higher recommended rates.</p> <p>Only whole fields should be treated.</p>
<p>[*Not for use in California.]</p> <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</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 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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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.

## 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* Insect Growth Regulator has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
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  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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.
[*Not for use in California.]		
<ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 3 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 48 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Regardless of formulation do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator 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 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. LLC is restricting *Knack* Insect Growth Regulator to no more than three applications 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 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.

**BERRY[\*]  
Low Growing, Except Strawberry (Subgroup 13-07H)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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
Bearberry Bilberry Blueberry, Lowbush Cloudberry Cranberry Lingonberry Muntries Partridgeberry Cultivars, varieties, and/or hybrids of these  [*Not for use in California.]	Cherry Fruitworm Cranberry Fruitworm Lecanium Scale  <i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.	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.  <b>Fruitworms:</b> 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.  <b>Lecanium Scale:</b> 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.  <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 32 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

**BRASSICA HEAD AND STEM VEGETABLE GROUP  
(Crop Group 5-16)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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
Broccoli Brussels Sprouts Cabbage Cabbage, Chinese (napa) Cauliflower Cultivars, varieties, and hybrids of these	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).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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 style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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/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  
(Crop Group 3-07)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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
Garlic[*] Garlic, Great Headed Leek[*] Onion, Dry Bulb Onion, Green[*] Onion, Welsh[*] Shallot[*]  [*Not for use in California.]	Onion Thrip Western Flower Thrip	8 fl oz	<b>FOR SUPPRESSION OF THRIPS:</b> 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.
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 3 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 16 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.</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 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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.



**BUSHBERRY[\*]  
(Subgroup 13-07B)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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
Aronia Berry Blueberry, Highbush Blueberry, Lowbush Buffalo Currant Chilean Guava Cranberry, Highbush Currant, Black Currant, Red Elderberry European Barberry Gooseberry Honeysuckle, Edible Huckleberry Jostaberry Juneberry (Saskatoon Berry) Lingonberry Native Currant Salal Sea Buckthorn Cultivars, varieties, and/or hybrids of these	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.  <b>Fruitworms:</b> 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.  <b>Lecanium Scale:</b> 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.
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 32 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul> <p>[*Not for use in California.]</p>			

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

**CANEBERRY[\*]  
(Subgroup 13-07A)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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
Blackberry including: Bingleberry Black Satin Berry Boysenberry Cherokee Blackberry Chesterberry Cheyenne Blackberry Coryberry Darrowberry Dewberry Dirksen Thornless Berry Himalayaberry Hullberry Lavacaberry Lowberry Lucretiaberry Mammoth Blackberry Marionberry Necterberry Olallieberry Oregon Evergreen berry Phenomenalberry Rangerberry Ravenberry Rosberry Shawnee Blackberry Loganberry Raspberry, including: Bababerry Black raspberry Blackcap Caneberry Framboise Frambueso Himbeere Keriberry Mayberry Red raspberry Thimbleberry Tulameen Yellow raspberry Wild raspberry Youngberry Cultivars, varieties, and/or hybrids of these [*Not for use in California.]	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.  <b>Fruitworms:</b> 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.  <b>Lecanium Scale:</b> 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.
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 32 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>			

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## CELTUCE

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
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 gallons/A).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.
<ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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/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.

**CITRUS FRUIT**  
**(Crop Group 10-10)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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
Australian Desert Lime Australian Finger-lime Australian Round Lime Brown River Finger Lime Calamondin Citron Citrus hybrids Grapefruit Japanese Summer Grapefruit Kumquat Lemon Lime Mediterranean Mandarin Mount White Lime New Guinea Wild Lime Orange, Sour Orange, Sweet Pummelo Russell River Lime Satsuma Mandarin Sweet Lime Tachibana Orange Tahiti Lime Tangelo Tangerine (mandarin) Tangor Trifoliolate Orange Uniq Fruit Cultivars, varieties, and/or hybrids of these	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.  <i>Knack</i> Insect Growth Regulator 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 during emergence of scale crawlers, do not apply more than 16 fl oz of <i>Knack</i> Insect Growth Regulator per acre per 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.  NOTE: Do not make more than 2 applications of <i>Knack</i> Insect Growth Regulator per acre per year.
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 1 day of harvest.</li> <li>• Do not exceed 26 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 21 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.175 lb pyriproxyfen per acre per calendar year.</li> </ul>			

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. Follow local, state, and federal IPM and 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* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
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  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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.
<ul style="list-style-type: none"> <li>• Do not apply within 28 days of harvest.</li> <li>• Do not make more than 1 <i>Knack</i> Insect Growth Regulator application per growing season.</li> <li>• Do not exceed 10 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Regardless of formulation do not apply more than 0.067 lb pyriproxyfen per acre per calendar year.</li> <li>• Do not plant any crop other than those with registered pyriproxyfen uses in treated areas sooner than 30 days 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. LLC 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.

**CUCURBITS  
(Crop Group 9)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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
Balsam Apple Balsam Pear Bitter Melon Cantaloupe Chayote Chinese Cucumber Chinese Waxgourd Citron Melon Cucumber Edible Gourd Gherkin <i>Momordica</i> 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  <b>HIGHER WATER VOLUMES PROVIDE IMPROVED INSECT CONTROL.</b>  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 style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</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 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. LLC is restricting *Knack* Insect Growth Regulator to no more than 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.



## FLORENCE FENNEL (Fresh Leaves and Stalk)

[Not for use in] [California][New York]

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
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 gallons/A).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.
<ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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/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.

**FRUITING VEGETABLES  
(Crop Group 8-10)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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
African Eggplant Bush Tomato Bell Pepper Cocona Currant Tomato Eggplant Garden Huckleberry Goji Berry Ground Cherry Martynia Naranjilla Okra Pea Eggplant Pepino Pepper, Bell Pepper, Nonbell Roselle Scarlet Eggplant Sunberry 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 <i>Knack</i> Insect Growth Regulator when used as a stand alone application.	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  <b>HIGHER WATER VOLUMES PROVIDE IMPROVED INSECT CONTROL.</b>  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.
Tree Tomato Cultivars, varieties, and/or hybrids of these	Banded Wing Whitefly Cabbage Looper Green Peach Aphid Greenhouse Whitefly (immatures & adults) Silverleaf Whitefly Sweetpotato Whitefly Tobacco Hornworm	6 to 8 fl oz	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.  <i>Knack</i> Insect Growth Regulator 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 tank mix partner label.
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 1 day of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 16 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.</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>			

continued



**FRUITING VEGETABLES (Crop Group 8-10) - continued**

CROP	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
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  +  Danitol® 2.4 EC Spray 10-2/3 fl oz	<p>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. <b>NOTE:</b> This may result in treatment immediately following transplanting.</p> <p>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.</p> <p><i>Knack</i> Insect Growth Regulator may also be mixed or alternated with commonly used insecticides to comply with local IPM programs.</p> <p>Comply with all applicable directions, restrictions and precautions on the registered label for <i>Danitol 2.4 EC Spray</i>.</p>
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 16 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.</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 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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. Follow local, state and federal IPM and 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* Insect Growth Regulator 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.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Glassy-Winged Sharpshooter Grape Berry Moth Lecanium Scale	16 fl oz	<p>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.</p> <p><b>Lecanium Scale:</b> 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.</p> <p>Follow local recommendations regarding in-season use and rates of oil in your area.</p>
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 21 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 32 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation, do not apply more than 0.215 lb active of pyriproxyfen per acre per calendar year.</li> </ul>		

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

**HERB[\*]  
(Subgroup 19A)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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
Angelica Balm Basil Borage Burnet Chamomile Catnip Chervil (dried) Chive Chive, Chinese Clary Coriander (leaf) Costmary Cilantro (leaf) Curry (leaf) Dillweed Horehound Hyssop Lavender Lemongrass Lovage (leaf) Marigold Marjoram Nasturtium Parsley (dried) Pennyroyal Rosemary Rue Sage Savory, Summer and Winter Sweet Bay Tansy Tarragon Thyme Wintergreen Woodruff Wormwood [*Not for use in California.]	Whiteflies, including: Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl oz	Apply with ground equipment in adequate water for uniform coverage. A minimum of 20 gallons per acre for ground applications  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  Begin applications when whiteflies reach threshold levels. Under severe pressure, use the higher recommended rates.  Treat only whole fields.
	<ul style="list-style-type: none"> <li>• Do not apply within 1 (one) day of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not exceed 0.134 lb pyriproxyfen per acre per calendar year.</li> <li>• Do not plant any crop other than those with registered <i>Knack</i> Insect Growth Regulator 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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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/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.

## KOHLRABI

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl oz	<p>Apply with ground equipment in adequate water for uniform coverage (10 to 50 gallons/A).</p> <p><b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b></p> <p>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).</p> <p>Under severe pressure, use the higher recommended rates.</p> <p>Only whole fields should be treated.</p>
<ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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/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.

**LEAF PETIOLE VEGETABLE SUBGROUP  
(Subgroup 22B)**

[Not for use in] [California][New York]

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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
Cardoon Celery Celery, Chinese Fuki Rhubarb Udo Zuiki Cultivars, varieties, and hybrids of these commodities	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).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.
<ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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/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.

**LEAFY VEGETABLE GROUP[\*]  
(Crop Group 4-16)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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
Amaranth (Chinese) Amaranth, Leafy Arugula Aster, Indian Blackjack Broccoli, Chinese Broccoli Raab Cabbage, Abyssinian Cabbage, Chinese (bok choy) Cabbage, Seakale Cat's Whiskers Cham-chwi Cham-na-mul Chervil (fresh leaves) Chipilin Chrysanthemum, Garland Cilantro (fresh leaves) Collards Corn Salad Cosmos Cress, Garden Cress, Upland Dandelion (leaves) Dan-gwi (leaves) Dillweed Dock Dol-nam-mul Ebolo Endive Escarole Flameflower Feather Cockscomb Good King Henry Hanover Salad Huauzontle	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).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.

continued

**LEAFY VEGETABLES GROUP[\*] (Crop Group 4-16)** continued

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Jute (leaves) Kale Lettuce, Bitter Lettuce, Head Lettuce, Leaf Maca (leaves) Mizuna Mustard Greens Orach Parsley (fresh leaves) Plantain, Buckhorn Primrose, English Purslane, Garden Purslane, Winter Radicchio Radish (leaves) Rape Greens Rocket, Wild Sheperd's Purse Spinach Spinach, Malabar New Zealand Spinach Spinach, Tanier Swiss Chard Turnip Greens Violet, Chinese (leaves) Watercress Cultivars, varieties and hybrids of these [*Not for use in California.]	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).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  Begin applications when whiteflies reach threshold levels per University/Extension recommendations  Under severe pressure, use the higher recommended rates.  Only whole fields should be treated.
	<ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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/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.



**LEAVES OF ROOT & TUBER VEGETABLES[\*]  
Human Food or Animal Feed (Crop Group 2)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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
Beet, Garden Burdock, Edible Carrot Cassava, Bitter Cassava, Sweet Celeriac Chervil, Turnip-Rooted Chicory Dasheen (Taro) Parsnip Radish Radish, Oriental (daikon) Rutabaga Salsify, Black Sugar Beet Sweet Potato Tanier Turnip Yam, True  [*Not for use in California.]	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).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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 style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 16 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.107 lb pyriproxyfen per acre per calendar year.</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> <li>• Do not allow livestock to graze on treated areas.</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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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/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.



## LEGUME VEGETABLES Succulent or Dried (Crop Group 6)

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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
Beans ( <i>Lupinus</i> ): Grain Lupin Sweet Lupin White Lupin White Sweet Lupin Beans ( <i>Phaseolus</i> ): Field Bean Kidney Bean Lima Bean Navy Bean Pinto Bean Runner Bean Snap Bean Tepary Bean Wax Bean Bean ( <i>Vigna</i> ): Adzuki Bean Asparagus Bean Blackeyed Pea Catjang Chinese Longbean Cowpea Crowder Pea Moth Bean Mung Bean Rice Bean Southern Pea Urd Bean Yardlong Bean Broad Bean (fava) Chickpea (garbanzo) Guar Jackbean Lablab Bean Lentil Pea ( <i>Pisum</i> ): Dwarf Pea Edible-podded Pea English Pea Field Pea Garden Pea Green Pea Snowpea Sugar Snap Pea Pigeon Pea Soybean <sup>[1]</sup> Sword Bean	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 to 10 fl oz	EARLY SEASON WHITEFLY PROGRAM: Apply with ground equipment in adequate water for uniform coverage (10 to 50 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.
	<sup>[1]California only</sup> <sup>[1]New York only</sup> [Not for use on soybeans] <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</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> <li>• Do not allow livestock to graze treated areas.</li> <li>• Do not use on legume vegetables varieties grown for livestock feed.</li> </ul>		

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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.

## 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* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Black Scale San Jose Scale  [*Not for use in California.]	13 to 16 fl oz	<p>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.</p> <p>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.</p> <p>Under heavy scale pressure, use the higher rate of <i>Knack</i> Insect Growth Regulator.</p>
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 32 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>		

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. 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* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Cricket Grasshopper Locust	8 to 10 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  <b>HIGHER WATER VOLUMES PROVIDE IMPROVED INSECT CONTROL.</b>  Begin application when pests reach threshold levels per University/Extension recommendations.  Under severe pressure, use the higher recommended rates.
[*Not for use in California.]		
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Regardless of formulation do not apply more than 0.134 lb pyriproxyfen per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> </ul>		

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. Follow local, state and federal IPM and 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* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Scale Whitefly  [*Not for use in California.]	13 to 16 fl oz	<p>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.</p> <p><b>Scale:</b> 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.</p> <p>In a cover spray make applications when scale crawlers first emerge.</p> <p>Under heavy scale pressure, use the higher rate of <i>Knack</i> Insect Growth Regulator.</p>
<p>In-season sprays of <i>Knack</i> Insect Growth Regulator may not protect fruit from blemishes by scale.</p> <p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 3 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 48 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.</li> </ul>		

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than three applications 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. 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* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale  [*Not for use in California.]	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 <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.  <i>Knack</i> Insect Growth Regulator may be applied with superior spray oils at 1/2 to 1%. Follow the manufacturer's directions and recommendations on timing and rates.
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 1 day of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per calendar year.</li> <li>• Do not exceed 32 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 21 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>		

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications per calendar year. *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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

**POME FRUIT  
(Crop Group 11-10)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since *Knack* Insect Growth Regulator 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
Apple Azarole Crabapple Loquat Mayhaw Medlar Quince Quince, Chinese Quince, Japanese Tejocote Cultivars, varieties, and/or hybrids of these	Codling Moth  Suppression of: Obliquebanded Leafroller Pandemis Leafroller	13 to 16 fl oz	<p>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</p> <p><b>1st Generation Codling Moth:</b> 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 <i>Knack</i> Insect Growth Regulator. Follow local recommendations regarding in season use and rates of oil in your area.</p> <p><b>Obliquebanded and Pandemis Leafroller:</b> Apply to the overwintering larvae at the pink to petal fall tree growth stage. <i>Knack</i> Insect Growth Regulator does not directly control the larvae but inhibits normal pupation and adult emergence.</p>
	Florida Red Scale Lecanium Scale San Jose Scale	13 to 16 fl oz	<p>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.</p> <p>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 <i>Knack</i> Insect Growth Regulator.</p> <p><b>Scale:</b> 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.</p>

continued

**POME FRUIT (Crop Group 11-10) - continued**

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
<p>Apple Azarole Crabapple Loquat Mayhaw Medlar Quince Quince, Chinese Quince, Japanese Tejocote Cultivars, varieties, and/or hybrids of these</p>	<p>Green Apple Aphid Rosy Apple Aphid Spirea Aphid Spotted Tentiform Leafminer Western Tentiform Leafminer</p>	<p>10 to 16 fl oz</p>	<p>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</p> <p><b>Leafminers:</b> Apply at peak moth flight for control of 1<sup>st</sup> or 2<sup>nd</sup> generation. This usually occurs at pre-pink to pink apple stage for 1<sup>st</sup> generation and 2<sup>nd</sup> cover for 2<sup>nd</sup> generation.</p> <p><b>Rosy Apple Aphid:</b> Apply at 1/2" green apple growth stage.</p> <p><b>Green Apple &amp; Spirea Aphid:</b> Apply when aphids first appear, but before aphids are colonized.</p> <p><b>TIMING IS CRITICAL FOR ACCEPTABLE APHID CONTROL.</b></p>
<p>Pear Pear, Asian</p>	<p>Pear Psylla</p>	<p>13 to 16 fl oz</p>	<p>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.</p> <p>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.</p> <p><b>DO NOT SKIP ROWS DURING APPLICATION.</b></p> <p>For in-season control of pear psylla, use an insecticide recommended for this use.</p>
	<p>Lecanium Scale San Jose Scale</p>	<p>13 to 16 fl oz</p>	<p>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.</p> <p>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.</p> <p>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.</p>

continued

**POME FRUIT (Crop Group 11-10) - continued**

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Pear Pear, Asian	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.  <b>1st Generation Codling Moth:</b> 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 <i>Knack</i> Insect Growth Regulator. 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.
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 45 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 32 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>			

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. 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* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
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  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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.
<p>[*Not for use in California.]</p> <ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 3 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 48 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.</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 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. LLC is restricting *Knack* Insect Growth Regulator to no more than three applications 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 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[\*]  
(Crop Group 1)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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* Insect Growth Regulator does exhibit translaminar movement which means that *Knack* Insect Growth Regulator 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
Arracacha Arrowroot Artichoke, Chinese Artichoke, Jerusalem Beet, Garden Beet, Sugar Burdock, Edible Canna, Edible Carrot Cassava, (bitter and sweet) Celeriac Chaoyote (root) Chervil, Turnip-rooted Chicory Chufa Dasheen (taro) Ginger Ginseng Horseradish Leren Parsley, Turnip-rooted Parsnip Potato Radish Radish, Oriental (dai kon) Rutabaga Salsify Salsify, Black Salsify, Spanish Skirret Sweet Potato Tanier Turmeric Turnip Yam, Bean Yam, True [*Not for use in California.]	Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	8 fl oz	Apply with ground equipment in adequate water for uniform coverage (20 to 50 gals/A).  <b>HIGHER WATER VOLUMES MAY PROVIDE IMPROVED INSECT CONTROL.</b>  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 style="list-style-type: none"> <li>• Do not apply within 7 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 16 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.</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> <li>• Do not allow livestock to graze treated areas.</li> </ul>			

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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.

**SMALL FRUIT VINE CLIMBING CROPS (EXCEPT GRAPE)  
(Subgroup 13-07E)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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
Berry, Schisandra Gooseberry Grape, Amur River Kiwifruit, Fuzzy Kiwifruit, Hardy Maypop Cultivars, varieties and/or hybrids of these.	Scale	16 fl oz	<p>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.</p> <p>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.</p>
	<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 30 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 32 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>		

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

**STONE FRUIT GROUP  
(Crop Group 12)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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 Apricot, Japanese Capulin Cherry, Black Cherry, Nanking Cherry, Sweet Cherry, Tart Jujube, Chinese Nectarine Peach Plum Plum, American Plum, Beach Plum, Canada Plum, Cherry Plum, Chickasaw Plum, Damson Plum, Japanese Plum, Klamath Plum, Prune Plumcot  Sloe Cultivars, varieties, and/or hybrids of these	Lecanium Scale San Jose Scale  Suppression of: Peach Twig Borer Oriental Fruit Moth	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.  <b>Scale:</b> 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 <i>Knack</i> Insect Growth Regulator.  <b>Peach Twig Borer:</b> <i>Knack</i> Insect Growth Regulator 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.
<p>In-season sprays of <i>Knack</i> Insect Growth Regulator may not protect fruit from blemishes by scale.</p> <p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management IPM and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 3 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 48 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.323 lb pyriproxyfen per acre per calendar year.</li> </ul>			

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than three applications 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. 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.

## 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* Insect Growth Regulator has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since *Knack* Insect Growth Regulator is an insect growth regulator (IGR) and activity depends on the insects' development, evidence of activity will be slower than typical contact insecticides.

*Knack* Insect Growth Regulator exhibits translaminar movement which means that *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATE PER ACRE	SPECIAL INSTRUCTIONS
Banded Wing Whitefly Greenhouse Whitefly Silverleaf Whitefly Sweetpotato Whitefly	10 fl oz	<p>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.</p> <p>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).</p> <p>Under severe pressure, use the higher recommended rates.</p> <p>Only whole fields should be treated.</p>
<ul style="list-style-type: none"> <li>• Do not apply within 2 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 20 fl oz <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 30 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation, do not apply more than 0.134 lb of pyriproxyfen per acre per calendar year.</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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. 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 GROUP  
(Crop Group 14-12)**

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator has no activity on adult insects, but hatching of eggs laid by treated adults will be suppressed. Since *Knack* Insect Growth Regulator 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
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.  <i>Knack</i> Insect Growth Regulator has provided good suppression of Peach Twig Borer when applied delayed dormant through bloom sprays.
Almond: <ul style="list-style-type: none"> <li>• Do not apply within 21 days of harvest.</li> <li>• Do not make more than 1 <i>Knack</i> Insect Growth Regulator application per growing season.</li> <li>• Do not exceed 16 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Regardless of formulation do not apply more than 0.108 lb pyriproxyfen per acre per calendar year.</li> </ul>			

**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. LLC 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. 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.

continued

**TREE NUTS GROUP (Crop Group 14-12) - continued**

CROPS	PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
African Nut-tree Beechnut Brazil Nut Brazilian Pine Bunya Bur Oak Butternut Cajou Nut Candlenut Cashew Chestnut Chinquapin Coconut Coquito Nut Dika Nut Ginkgo Guiana 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.  <b>1st Generation Codling Moth:</b> 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 <i>Knack</i> Insect Growth Regulator. Follow local recommendations regarding in-season use and rates of oil in your area.
Hazelnut (filbert) Heartnut Hickory Nut Japanese Horse-chestnut Macadamia Nut Mongono Nut Monkey-pot Monkey Puzzle Nut Okari Nut Pachira Nut Peach Palm Nut Pecan Pequi Pili Nut Pine Nut Pistachio Sapucaia Nut Tropical Almond Walnut, Black Walnut, English Yellowhorn	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.
Cultivars, varieties, and/or hybrids of these.	<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 21 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 32 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>		

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. 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* Insect Growth Regulator 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 Ilima Jaboticaba Longan Lychee Mamey Sapote Mango Passionfruit Papaya Pulasan Rambutan Sapodilla Soursop Spanish Lime Star Apple Starfruit Sugar Apple Wax Jambu [*Not for use in California.]	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 in-season use and rates of oil in your area.
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 14 days of harvest.</li> <li>• Do not make more than 2 <i>Knack</i> Insect Growth Regulator applications per growing season.</li> <li>• Do not exceed 32 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 14 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.215 lb pyriproxyfen per acre per calendar year.</li> </ul>			

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. Follow local, state and federal IPM and IRM recommendations. Read and follow all product labels before applying any insecticide.

## WHITE SAPOTE[\*]

**GENERAL:** *Knack* Insect Growth Regulator acts by suppressing embryogenesis within the insect egg and by inhibiting metamorphosis and adult emergence of target insects. *Knack* Insect Growth Regulator 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.

PESTS	PRODUCT RATES PER ACRE	SPECIAL INSTRUCTIONS
Black Scale Brown Soft Scale California Red Scale Florida Red Scale Snow Scale  [*Not for use in California.]	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.  <i>Knack</i> Insect Growth Regulator 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 during emergence of scale crawlers, do not apply more than 16 fl oz of <i>Knack</i> Insect Growth Regulator per acre per year.
Citrus Black Fly Citrus Leafminer Citrus Whitefly  [*Not for use in California.]	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.  NOTE: Do not make more than 2 application of <i>Knack</i> Insect Growth Regulator per acre per year.
<p><i>Knack</i> Insect Growth Regulator may be mixed and/or alternated with commonly used insecticides to comply with local Integrated Pest Management (IPM) and Insect Resistance Management (IRM) programs.</p> <ul style="list-style-type: none"> <li>• Do not apply within 1 day of harvest.</li> <li>• Do not exceed 26 fl oz of <i>Knack</i> Insect Growth Regulator per acre per calendar year.</li> <li>• Do not apply earlier than 21 days after last <i>Knack</i> Insect Growth Regulator treatment.</li> <li>• Regardless of formulation do not apply more than 0.175 lb pyriproxyfen per acre per calendar year.</li> </ul>		

**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. LLC is restricting *Knack* Insect Growth Regulator to no more than two applications 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. 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

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

### PESTICIDE STORAGE

Keep this product in its tightly closed original container. Store in a cool, dry (preferably locked) area that is inaccessible to children and animals.

For help with any spill, leak, fire or exposure involving this material, call day or night 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 HANDLING

[Use the following statement for containers smaller than 50 lb]

[Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal.

Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.]

[Use the following statements for containers greater than 50 lb]

[Nonrefillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank.

Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.]

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Manufactured for:

**Valent U.S.A. LLC**

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