923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 1

Department of Agriculture
STATE OF HAWAII

LICENSED

PERIOD 2012-2014 LIC. NO.

Department of Agriculture
STATE OF HAWAII

LICENSED

PERIOD 2015-2017 LIC. NO.

8378.126

Loveland PRODUCTS

RESTRICTED USE PESTICIDE

Toxic to fish, mammals, and aquatic organisms.

For retail sale to and use only by certified applicators or persons under their direct supervision, and only for those uses covered by the certified applicator's certification.

REAPER® ADVANCE

GROUP 6 INSECTICIDE

MITICIDE/INSECTICIDE

ACTIVE INGREDIENT:

Abamectin (CAS No. 65195-56-4 and No. 65195-55-3) 2.0%*

OTHER INGREDIENTS: 98.0%

TOTAL 100.0%

*1.0 gallon contains 0.15 lb abamectin

KEEP OUT OF REACH OF CHILDREN

WARNING—AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional Precautionary Statements and Directions For Use in booklet.

EPA REG. NO. 34704-923

EPA EST. NO. 34704-MS-002

NET CONTENTS 1 GAL. (3.78 L)

112911 V2D 02G12

FORMULATED FOR

LOVELAND PRODUCTS, INC., P.O. BOX 1286, GREELEY, COLORADO 80632-1286

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 2

FIRST AID	
If swallowed:	• Call poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Note to Physician: Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Toxicity following accidental ingestion of this product can be minimized by early administration of chemical absorbants (e.g., activated charcoal).
If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parenteral fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms, and measurements.
In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.
FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1 866-944-8565.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 3

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING—AVISO

May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Harmful if inhaled or absorbed through the skin. Avoid breathing spray mist. Avoid contact with skin. Prolonged or frequently repeated exposure may cause allergic skin reactions in some individuals.

Personal Protective Equipment (PPE)
Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category B on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear:
- Coveralls worn over short-sleeved shirt and short pants,
- Chemical-resistant gloves - EPA chemical-resistance category B (e.g., barrier laminate or butyl rubber $\geq$ 14 mils),
- Chemical-resistant footwear plus socks,
- Protective eyewear,
- Chemical-resistant headgear for overhead exposure,
- Chemical-resistant apron when cleaning equipment, mixing, or loading.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

USER SAFETY RECOMMENDATIONS

Users should:
- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 4

equipment wash water or rinsate. This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

Use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including fresh water shrimp), and insects. All use of this product in the state of California should comply with the recommendations of the California Endangered Species Project. Before using this product in California, consult with your county agriculture commissioner to determine use limitations that apply to your area. This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a medium potential for reaching both surface water and aquatic sediment via runoff for several weeks to months after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of abamectin from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours.

PHYSICAL OR CHEMICAL HAZARDS

Combustible. Do not use or store near heat or open flame.

ATTENTION
This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

DIRECTIONS FOR USE
RESTRICTED USE PESTICIDE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 5

Agricultural Use Requirements cont'd.:
Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours.
Exception: For grape girdling, cane turning, and tying in grapes, do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4 days.
PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:
• Coveralls over short-sleeved shirt and short pants,
• Chemical-resistant gloves - EPA chemical-resistance category B (e.g., barrier laminate or butyl rubber $\geq$ 14 mils),
• Chemical-resistant footwear plus socks,
• Protective eyewear,
• Chemical-resistant headgear for overhead exposure.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR PEST CONTROL, AND/OR ILLEGAL RESIDUES.

APPLICATION INFORMATION

Reaper® Advance is an emulsifiable concentrate that will control certain pests on the crops listed on this label when the product is applied according to the **Directions for Use**. Thorough coverage of foliage is essential for good mite and insect control.

NOTE:
- **Phytotoxicity:** Reaper Advance has been tested for phytotoxicity and has a wide margin of safety on a variety of crops. Reaper Advance has also been shown to be compatible with many commonly used pesticides, crop oils, and nutritional sprays. However, since it is not possible to test a large number of possible mixtures, the user should pre-test any proposed mixtures with Reaper Advance to ensure the physical compatibility and lack of phytotoxic effects.
- **New York State Restrictions:** Do not apply Reaper Advance with aircraft in New York State.

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

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

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 6

NOTE: When states have more stringent regulations, they must be observed.

Spray Drift Precautions for Application with Aircraft or Ground Application Equipment

- Apply Reaper Advance only when wind velocity favors on target product deposition (approximately 3 to 10 mph).
- Do not apply with ground application equipment within 25 feet of or with aircraft within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes, pot holes, natural ponds, estuaries, or commercial fish farm ponds.
- Do not cultivate within 25 feet of the aquatic area to allow growth of a vegetative filter strip.
- Do not allow this product to drift onto non-target areas. Drift may result in illegal residues or injury to nontarget species. Risk of exposure to sensitive areas can be reduced by applying this product when the wind direction is away from the sensitive area.
- Do not apply when the weather conditions may cause drift.
- Avoid application when the temperature is high and/or the humidity is low. These conditions increase the evaporation of spray droplets and the likelihood of drift to aquatic areas.
- Do not apply when wind speed or wind gusts are greater than 15 mph.
- Do not apply when wind speed is below 2 mph because wind direction will vary and there is a high potential for inversion.
- Observe the following precautions when using ground application to spray tree crops or hops in the vicinity of aquatic areas such as lakes, reservoirs, permanent streams, marshes, potholes, natural ponds, estuaries, or commercial fish ponds:
  - Do not apply Reaper Advance when weather conditions favor drift to aquatic areas.
  - Do not apply within 110 feet upwind of aquatic areas or when wind speed is above 8 mph.
  - Spray last 3 rows windward of aquatic areas using nozzles on one side only, with spray directed away from the aquatic areas.
  - Avoid spray going over tops of trees by adjusting or turning off top nozzles. Shut off nozzles on the side away from the grove/orchard when spraying the outside row. Shut off nozzles when turning at ends of row and passing tree gaps in rows.

Spray Drift Precautions for Aerial Application

Drift Management Requirements

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops.

Outermost Nozzle Distance

The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

Nozzle Direction

Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Maximum Wind Speed

Do not apply when wind speed is greater than 15 mph.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 7

Droplet Size

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

Controlling Droplet Size

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

Pressure - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation - Orienting nozzles so that the spray is released parallel to the air stream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length

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

Application Height

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

Swath Adjustment

When applications are made with a cross wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind.

Wind

Drift potential is lowest between wind speeds of 2 to10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind direction and high inversion potential.

NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity

To compensate for evaporation when applying Reaper Advance in low relative humidity, set up equipment to produce larger droplets. Evaporation of droplets is most severe when conditions are both hot and dry.

Temperature Inversions

Reaper Advance must not be applied during a temperature inversion because the potential for drift is high. Temperature inversions restrict vertical air mixing, and this causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds that are common during inversions. Temperature inversions are characterized by temperatures that increase with

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 8

altitude and are common on nights with limited cloud cover and light to no wind. Inversions begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. 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.

Resistance Management

Reaper Advance is a Group 6 insecticide (contains the active ingredient abamectin). Because of the inherent risks of pests developing resistance to any product, it is strongly advised that Reaper Advance be used in a sound resistance management program. Treatment may not be effective against labeled pests if insect or mite-tolerant strains develop. When applying Reaper Advance to plants that are hosts of labeled pests with multiple generations per crop per year, use resistance management practices.

Resistance management practices may include, but are not limited to:

- rotating Reaper Advance with other products with different modes of action,
- avoiding treatment of successive generations with Reaper Advance,
- using labeled rates of the specified spray intervals,
- using non-chemical alternatives such as beneficial anthropods,
- rotating susceptible to non-susceptible plants, and
- using various cultural practices.

For additional information regarding the implementation of these or other resistance management practices, consult your local agricultural advisor or company representative.

CROP USE DIRECTIONS

APPLES

For control of European red mite, McDaniel spider mite, Tentiform leafminer, Twospotted spider mite, and White apple leafhopper

Reaper Advance may be applied using conventional dilute or concentrate ground application sprayers calibrated to deliver sufficient water for thorough coverage. Gallons of spray will vary with size and number of trees per acre and density of foliage. In any case, thorough coverage is essential for good spider mite and insect control.

Note:

- For best results, apply in combination with horticultural spray oil (not a dormant oil) as directed. Applications without horticultural spray oil may result in reduced efficacy and/or residual control.
- When used alone or when other products are applied sequentially, Reaper Advance in combination with horticultural spray oil may injure the fruit of certain apple varieties (e.g. russeting on light-skinned varieties such as Golden Delicious).

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 9

Apples cont'd.:

- When using Reaper Advance plus horticultural spray oil, carefully follow the **Directions for Use** and **Precautions** on the horticultural spray oil label as well as the precautions in official spray guides or on product labels. For example, applying Reaper Advance plus horticultural spray oil in less than 14 days before or after applying Captan® can result in phytotoxicity and crop loss.

Pest	Dilute Sprays[a] Fl Ozs/100 Gals	Concentrate Sprays[b] Fl Ozs/A	Instructions
European red mite McDaniel spider mite Tentiform leafminer Twospotted spider mite White apple leafhopper	2.5 to 5.0	10.0 to 20.0	• Apply Reaper Advance when spider mite or insect thresholds are reached. • A second application may be made if needed to maintain control. (See Use Restrictions). • **Spider mites:** For best results, apply before a threshold of 5 spider mites per leaf is reached. Residual spider mite control with Reaper Advance in combination with horticultural spray oil (not a dormant oil) is greater from spray deposits on newer leaves compared to older. Applications of Reaper Advance for spider mite control should be limited to a period extending from petal fall through 6 weeks following petal fall. • **Tentiform leafminer:** For best results, apply against egg (to control new hatch) and early sap feeder stages of first and second generation tentiform leafminers when locally established thresholds have been reached. Do not apply during bloom. • **White apple leafhopper (Not for use west of the Rocky Mountains):** Application of Reaper Advance is limited only to first generation white apple leafhoppers. Apply soon after petal fall in combination with horticultural spray oil (not a dormant oil).
Horticultural Spray Oil (not a dormant oil)	0.25% or 1.0 gal/A	Minimum of 1.0 gal/A	

[a] The rate of Reaper Advance/100 gals is based on a volume of 400 gals/A dilute spray.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 10

Apples cont'd.:

[b] To determine the amount of product/A for concentrate sprays, first determine the amount that would be required in a full cover dilute spray. Use the same amount of product/A in concentrate sprays as would be required for the dilute sprays to the same orchard/grove. This may result in use of less than 10.0 fl ozs/A on small trees.

Use Restrictions:
PHI: Do not apply within **28** days of harvest.
Application Method: Ground application only. Do not apply with aircraft.
Amount of Water: Do not apply in less than 40.0 gals of water/A.
Maximum Amount/Application: Do not apply more than 20.0 fl ozs/A (or 0.023 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.
Application Interval: If a second application is necessary, wait at least 21 days before repeating application.
Number of Applications: Do not make more than 2 applications of Reaper Advance or any other foliarly applied abamectin containing product/growing season.
Maximum Amount/Season: Do not apply more than 40.0 fl ozs/A (or 0.047 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product in a growing season.
Grazing: Do not allow livestock to graze in treated orchards.

AVOCADOS
For control of Avocado thrips
Note: Reaper Advance may be applied using ground application equipment or aircraft. Aerial application is permitted because of its importance to the avocado growing industry. However, aerial application is not the preferred method of application for the best control of thrips. With aerial application, spray coverage and the resulting control of thrips is less than with ground application. For this reason, the user accepts all liability for the level and duration of control of thrips when Reaper Advance is aerially applied.
Gallons of spray will vary with size and number of trees per acre and density of foliage. In any case, thorough coverage is essential for good mite and insect control.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 11

Avocados cont'd.:

Pest	Fl Ozs/A	Instructions
Avocado Thrips (*Scirtothrips perseae*)	10.0 to 20.0 Do not use less than 10.0 fl ozs of product/A	• For best results, apply when immature thrips are first observed but before numbers exceed 5 immature thrips per leaf/fruit. • Use 10.0 to 15.0 fl ozs of product/A for low* to moderate* infestations and 15.0 to 20.0 fl ozs of product/A for severe* infestations. Add 1.0 to 4.0% of a horticultural spray oil (not a dormant oil) approved for use on avocados. • Make a second application, if needed, to maintain control, but wait at least 30 days after the first application to retreat. (**See Use Restrictions**) • **For Ground Application:** If spray volume is greater than 400 gals/A apply Reaper Advance at a rate of 2.5 fl ozs/100 gals of water plus 1.0 to 4.0% of a horticultural spray oil (not a dormant oil) approved for use on avocados. • **Note:** To prevent crop injury, observe all precautions and restrictions on the oil label. When using oil concentrations above 2.0% treat a small test area before making a large-scale application.
Horticultural Oil (not a dormant oil)	Minimum 1.0 to 4.0% v/v	

*Thrips Infestation Level	Number of immature thrips per leaf/fruit
Low	1 to 2
Moderate	3 to 4
Severe	More than 5

Use Restrictions:
PHI: Do not apply within **14** days of harvest.
Application Method: Ground and aerial application permitted.
Amount of Water: Do not apply in less than 100 gals of water with ground equipment or 50.0 gals of water with aircraft.
Application Interval: Wait at least 30 days before repeating application.
Number of Applications: Do not make more than 2 applications of Reaper Advance or any other foliarly applied abamectin containing product/season.
Maximum Amount/Season: Do not apply more than 40.0 fl ozs/A (or 0.047 lb. AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/season.
Maximum Amount/Application: Do not apply more than 20.0 fl ozs/A (or 0.023 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.
Grazing: Do not allow livestock to graze in treated orchards.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 12

CELERIAC (*Apium graveollens*)
For control of Twospotted spider mite
Reaper Advance may be applied using conventional dilute or concentrate sprayers. Thorough coverage of the crop canopy is essential for optimum results. Inadequate crop coverage may result in reduced control. Calibrate sprayer to deliver sufficient water for thorough coverage of the foliage.

Pest	Fl Ozs/A	Instructions
Twospotted spider mite	16.0	• For best results, use in combination with a non-ionic surfactant. • Apply when mites first appear and repeat as necessary to maintain control. (**See Use Restrictions**)

Use Restrictions:
PHI: Do not apply within **7** days of harvest.
Application Method: Apply with ground application equipment only.
Amount of Water: Do not apply in less than 20.0 gals of water/A.
Application Interval: Wait at least 7 days before repeating application.
Number of Applications: Do not make more than 2 sequential applications of Reaper Advance or any other foliarly applied abamectin containing product.
Maximum Amount/Season: After transplanting the celeriac, do not apply more than 48.0 fl ozs/A (or 0.056 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/season.

CITRUS FRUIT CROP GROUP 10
Crops in this group are: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Sour orange, Sweet orange, Pummelo, and Satsuma mandarin.
For control of Asian citrus psyllid, Broad mite, Citrus bud mite, Citrus leafminer, Citrus rust mite, Citrus thrips, and Twospotted spider mite.
Thorough spray coverage is essential for good mite and insect control. Spray gallonage may vary depending on size and number of trees per acre as well as density of foliage.
Ground Application
Apply using conventional dilute or concentrate ground application sprayers calibrated to deliver sufficient water for thorough coverage (or outside coverage for Asian citrus psyllid, citrus leafminer, or citrus thrips).
Aerial Application
Aerial application is permitted only for control of citrus leafminer. Aerial application to citrus is not approved in California.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 13

Citrus Fruit Crop Group 10 cont'd.:

Pest	Dilute Sprays[a] Fl Ozs/100 Gals	Concentrate Sprays[b] Fl Ozs/A	Instructions
Asian citrus psylla	--	10.0 to 20.0[c]	• Applications should be made with a minimum of 0.20% horticultural spray oil (not a dormant oil) in the spray mixture or not less than 1.0 gal of oil/A (except when specified differently below). • **Asian citrus psylla:** Apply to protect newly expanding foliage flush during the spring, summer or fall. Reaper Advance will only control adults and nymphs present at the time of application. • **Mites:** Apply when mites first appear during spring, summer, and/or fall. • **Citrus bud mite:** For best results, time the spray at "bud swell". • **Citrus leafminer:** Apply to protect new growth during spring, summer, or fall. (**See Use Restrictions**) • **Citrus thrips:** Application targeted for citrus thrips will only control the current generation and must be correctly timed. Apply when economic thresholds have been reached (after egg hatch has begun - preferably early to mid-hatch). (**See Use Restrictions**)
Broad mite	1.0 to 2.0	10.0 to 20.0[c]	
Citrus bud mite	1.0 to 2.0	10.0 to 20.0[d]	
Citrus leafminer	--	5.0 to 20.0[c]	
Citrus rust mite	0.5 to 2.0	5.0 to 20.0[c]	
Citrus thrips	--	10.0 to 20.0[e]	
Twospotted spider mite	1.0 to 2.0	10.0 to 20.0	

[a] The rate of Reaper Advance/100 gals is based on a volume of 1,000 gals/A dilute spray.
[b] For concentrate sprays, adjust the dosage to apply an amount/A equal to that used in full cover dilute spray.
[c] Ground application: For best results, use 150 to 300 gals/A of spray mix with a minimum of 3.0 gals/A of horticultural oil (not a dormant oil) and apply at a ground speed of 1.0 to 1.5 mph.
[d] For best results, use a minimum of 500 gals/A of spray mix with a minimum of 0.5% horticultural spray oil (not a dormant oil).
[e] For best results, use 100 to 250 gals/A of spray mix applied to achieve outside coverage.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 14

Citrus Fruit Crop Group 10 cont'd.:

Use Restrictions:
PHI: Do not apply within **7** days of harvest.
Application Method:
To control Citrus leafminer - Ground or aerial application is permitted; however, do not apply with aircraft to citrus in California. For aerial application use a minimum of 10.0 gals of finished spray volume/A. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures) use a greater volume of water to insure adequate coverage.
All other pests - Ground application only. Do not apply with aircraft.
Prohibited Use: To manage resistance, do not use in citrus nurseries.
Application Interval: Do not apply Reaper Advance, or any other abamectin containing product, within 30 days of the last treatment. To manage insect resistance, see the **"Resistance Management"** heading under the **"GENERAL INFORMATION"** section of this label.
Maximum Amount/Season: Do not apply more than 40.0 fl oz/A (0.047 lb AI/A) of Reaper Advance, or any other foliarly applied abamectin containing product, in any growing season. Do not make more than 3 applications of Reaper Advance, or any other abamectin containing product, in any growing season.
Grazing: Do not allow livestock to graze in treated grove/orchards.

COTTON
For the control of Spider mites
Mix with water as indicated below. Thorough coverage of the crop is essential for optimum results. Inadequate coverage may result in reduced control. For best coverage and control apply Reaper Advance with ground application equipment.

Pest	Fl Ozs/A	Instructions
Spider mites (Twospotted, Carmine, Pacific and Strawberry)	**Lower rate:** 4.0 to 6.0 (For early season cotton **See Instructions**) **Higher rate:** 8.0 to 16.0	Apply when mites first appear. The use rate depends on the size of the plant and density of the foliage. Repeat application if needed to maintain control. (**See Use Restrictions**) The lower use rates of 4.0 to 6.0 fl ozs/A are only recommended if cotton is early season and under 10 inches in height. Do not use less than 4.0 fl ozs/A. **West of the Rocky Mountains** – the lower use rates may only be used on cotton less than 10 inches in height and applied only with ground equipment. **Note:** Reaper Advance may be used without a wetting agent. Spreading and penetrating surfactants can improve mite control. When necessary to improve the wetting of foliage and to smooth out spray deposits, a nonionic surfactant is recommended. Do not use binder or sticker-type surfactants.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 15

Cotton cont'd.:

Use Restrictions:
PHI: Do not apply within **20 days** of harvest.
Application Method: Ground or aerial application is permitted.
Minimum Amount of Water: Do not apply in fewer than 5.0 gals of water/A. Use sufficient volume to insure thorough coverage.
Maximum Amount/Application: Do not apply more than 16.0 fl ozs/A (or 0.019 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.
Application interval: Wait at least 21 days before repeating application.
Maximum Amount/Season: Do not apply more than 32.0 fl ozs/A (or 0.038 AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/season.
Grazing Restriction: Do not feed or allow livestock to graze treated cotton.

CUCURBITS CROP GROUP 9
Crops in this group are: Chayote, Chinese waxgourd, Citron melon, Cucumbers, Gherkin, Edible gourds (includes hyotan, cucuzza, hechima, Chinese okra), *Momordica* spp. (includes balsam apple, balsam pear, bittermelon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melo* includes true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon and snake melon), Pumpkin, Summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Winter squash, (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); Watermelon (includes hybrids and/or varieties of *Citrullus lanatus*).
For control of Spider mites and Leafminers
Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage may result in reduced control.
NOTE: Reaper Advance may be applied with ground application equipment or aircraft. For best control of mites, apply Reaper Advance with ground equipment. With aerial application, spray coverage and the resulting control of mites is less than with ground application. For this reason, the user accepts all liability for the level and duration of control of mites when Reaper Advance is aerially applied.

Pest	Fl Ozs/A	Instructions
Leafminers Spider mites	8.0 to 16.0	• Use 8.0 to 12.0 fl ozs/A for low to moderate infestations and 16.0 fl ozs/A for severe infestations. • Apply when adult leafminer flies or spider mites are first observed and repeat application, as needed, to maintain control within constraints of a sound resistance management program. (**See Use Restrictions**)

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 16

Cucurbits Crop Group 9 cont'd.:

Use Restrictions:
PHI: Do not apply within **7** days of harvest.
Application Method: Ground or aerial application is permitted; however do not apply with aircraft in New York State.
Amount of Water: Do not apply in less than 20.0 gals of water/A with ground application equipment. Do not apply in less than 5.0 gals of water/A with aircraft. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures) use a greater volume of water to insure adequate coverage.
Maximum Amount/Application: Do not apply more than 16.0 fl ozs/A (or 0.019 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.
Application Interval: Wait at least 7 days before repeating application.
Number of Applications: Do not make more than 2 sequential applications of Reaper Advance or any other foliarly applied abamectin containing product.
Maximum Amount/Season: Do not apply more than 48.0 fl ozs/A (or 0.056 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product in a growing season.

FRUITING VEGETABLE CROP GROUP 8
Crops in this group are: Eggplant, Groundcherry, Pepino, Peppers (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato
For control of Broad mite, Colorado potato beetle, *Liriomyza* leafminers, Potato psyllid, Spider mites, *Thrips palmi*, Tomato pinworm, and Tomato russet mite
Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage may result in reduced control.
NOTE: Reaper Advance may be applied with ground application equipment or aircraft. For best control of mites, apply Reaper Advance with ground application equipment. With aerial application, spray coverage and the resulting control of mites is less than with ground application. For this reason, the user accepts all liability for the level and duration of control of mites when Reaper Advance is aerially applied.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 17

Fruiting Vegetable Crop Group 8 cont'd.:

Pest	Fl Ozs/A	Instructions
Broad mite	8.0 to 16.0	• **Broad, russet, and Spider mite:** Apply when mites first appear.
Colorado potato beetle		• ***Thrips palmi:*** Apply when thrips are first observed.
Liriomyza leafminers		• **Tomato pinworm:** Application may be made from the time moth activity is detected up to, but no later than, the time when newly emerged larvae are present.
Potato psyllid		• **Mites, Leafminers, *Thrips palmi,* and Colorado potato beetle:** Use 8.0 fl ozs/A for low to moderate infestations and 16.0 fl ozs/A for severe infestations.
Spider mites		• Repeat application as necessary to maintain control. (**See Use Restrictions**)
Thrips palmi		• **Note**: Reaper Advance may be used without a wetting agent. Spreading and penetrating surfactants can improve insect control when necessary to improve the wetting of foliage and to smooth out spray deposits, a non-ionic surfactant is recommended. Do not use binder or sticker-type surfactants.
Tomato russet mite		
Tomato pinworm	16.0	

Use Restrictions:
PHI: Do not apply within **7** days of harvest.
Application Method: Ground or aerial application permitted; however do not apply with aircraft in New York State.
Prohibited Use: For resistance management, do not use on fruiting vegetables grown for transplanting.
Amount of Water: Do not apply in less than 20.0 gals of water/A with ground application equipment. Do not apply in less than 5.0 gals of water/A with aircraft. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures) use a greater volume of water to insure adequate coverage.
Application Interval: Wait at least 7 days before repeating application, but do not make more than 2 sequential applications of Reaper Advance or any other foliarly applied abamectin containing product.
Number of Applications: Do not make more than 2 sequential applications of Reaper Advance or any other foliarly applied abamectin containing product.
Maximum Amount/Season: Do not apply more than 48.0 fl ozs/A in a growing season (or 0.056 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product in a growing season.
Maximum Amount/Application: Do not apply more than 16.0 fl ozs/A (or 0.019 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 18

GRAPES

For control of Pacific spider mite, Twospotted spider mite, Variegated leafhopper, Western grape leafhopper, Western grapeleaf skeletonizer, and Willamette spider mite

Reaper Advance may be applied using conventional ground sprayers calibrated to deliver sufficient water for thorough coverage. Thorough coverage is essential for good spider mite and insect control. Do not spray alternate rows. Reaper Advance must be applied to both sides of each row for maximum coverage.

Pest	Fl Ozs/A	Instructions
Pacific spider mite Twospotted spider mite Variegated leafhopper Western grape leafhopper Western grapeleaf skeletonizer Willamette spider mite	8.0 to 16.0 plus a nonionic surfactant	• Use 8.0 to 12.0 fl ozs/A for low to moderate infestations and 16.0 fl ozs for severe infestations. • Repeat application, if needed. (**See Use Restrictions**) • **Note:** Reaper Advance must be applied in combination with a nonionic surfactant to improve wetting of foliage and to smooth out spray deposits. Spreading and penetrating surfactants can improve insect control. Do not use binder or sticker-type surfactants. Although Reaper Advance has been tested in combination with a nonionic surfactant for safety to grapes, it is impossible to test on all grape varieties under the variety of conditions that may cause crop injury. Therefore, when using Reaper Advance in combination with a non-ionic surfactant, carefully follow the **Directions for Use** and **Precautions** on the nonionic surfactant label and in official spray guides. • **Spider mites:** Apply when mites first appear but before motiles exceed 5 per leaf. • **Western grapeleaf skeletonizer:** Apply Reaper Advance plus a nonionic surfactant when larvae are first observed. For optimum control, apply shortly after egg hatch. • **Leafhoppers:** Apply Reaper Advance plus a nonionic surfactant using thorough spray coverage for contact knockdown only.

Use Restrictions:
PHI: Do not apply within **28** days of harvest.
Application Method: Ground application only.
Amount of Water: Do not apply in less than 50.0 gals of water/A with conventional ground application equipment. When using an electro-static sprayer, less than 50.0 gals of water/A may be used, however do not use less than 5.0 gals of water/A.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 19

Grapes cont'd.:

Maximum Amount/Application: Do not apply more than 16.0 fl ozs/A (or 0.019 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.
Application Interval: If a second application is necessary, wait at least 21 days before repeating application.
Number of Applications: Do not make more than 2 applications of Reaper Advance or any other foliarly applied abamectin containing product/growing season.
Maximum Amount per Season: Do not apply more than 32.0 fl ozs/A (or 0.038 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product in a growing season.
Grazing: Do not allow livestock to graze in treated vineyards.

HERB CROP SUBGROUP 19A (Except Chives)
Crops in this subgroup are: Angelica, Balm, Basil, Borage, Burnet, Catnip, Chamomile, Chervil (dried), Cilantro (leaf), Clary, Coriander (leaf), Costmary, Culantro (leaf), Curry (leaf), Dill weed, Horehound, Hyssop, Lavender, Lemongrass, Lovage (leaf), Marigold, Marjoram (*Origanum* species), Nasturtium, Parsley (dried), Penneyroyal, Rosemary, Rue, Sage, Summer and Winter Savory, Sweet bay, Tansy, Tarragon, Thyme, Wintergreen, Woodruff, and Wormwood.
For control of *Liriomyza* leafminers
Mix with water as indicated below. Apply thoroughly with ground application equipment as a foliar spray and insure good upper and lower leaf coverage.

Pest	Fl Ozs/A	Instructions
Liriomyza leafminers	8.0 to 16.0	• Use 8.0 fl ozs/A for low to moderate infestations and 16.0 fl ozs/A for severe infestations. • Apply when adult flies are first observed and repeat application, as necessary to maintain control. (**See Use Restrictions**) • Reaper Advance may be used without a wetting agent. When necessary to improve the wetting of foliage and to smooth out spray deposits, a nonionic surfactant is recommended. **Note:** Although Reaper Advance has been tested in combination with a nonionic surfactant for safety to herbs, it is impossible to test on all herb types and varieties under the variety of conditions that may cause crop injury. Therefore, when using Reaper Advance in combination with a nonionic surfactant, carefully follow the **Directions for Use** and **Precautions** on the nonionic surfactant label and in official spray guides.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 20

Herb Crop Subgroup 19a (Except Chives)

Use Restrictions:
PHI: Do not apply within **14** days of harvest.
Application Method: Apply with ground application equipment.
Amount of Water: Use a minimum of 20.0 gals of water/A.
Application Interval: Wait at least 7 days before repeating application.
Maximum Amount/Application: Do not apply more than 16.0 fl ozs/A (or 0.019 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.
Number of Applications: Do not make more than 2 applications of Reaper Advance or any other foliarly applied abamectin containing product/single cutting (harvest).
Maximum Amount/Season: Do not apply more than 48.0 fl ozs/A (or 0.056 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/cropping season.

HOPS (Not approved for use in California)
For control of Twospotted spider mite

Mix with water as indicated below. Apply with ground application equipment as a foliar spray and ensure good upper and lower leaf coverage. Gallons of spray may vary with the size of plants and density of foliage. In any case, thorough coverage is essential for good control of Twospotted spider mite. When using concentrate sprays, the amount of water is reduced, but the amount of Reaper Advance/A should remain the same as for dilute sprays.

Pest	Fl Ozs/A	Instructions
Twospotted spider mite	8.0 to 16.0	• Apply Reaper Advance when Twospotted spider mites reach treatment thresholds. • For applications at 1/2 trellis growth (6.0 to 8.0 ft height) apply 8.0 to 16.0 fl ozs/A in a minimum of 40.0 gals of water/A. • For applications beyond 1/2 trellis growth, do not use less than 16.0 fl ozs/A in a minimum of 100 gals of water/A. • **Note:** Reaper Advance may be used without a wetting agent. When necessary to improve the wetting of foliage and to smooth out spray deposits, a nonionic surfactant is recommended.

Use Restrictions:
PHI: Do not apply within **28** days of harvest.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 21

Hops (Not approved for use in California) cont'd.:

Application Method: Ground application only. Do not apply with aircraft.
Application Interval: If a second application is necessary to maintain control, wait at least 21 days before repeating application and repeat application only after alternative miticide with a different mode of action has been used.
Maximum Amount/Application: Do not apply more than 16.0 fl ozs/A (or 0.019 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.
Maximum Number of Applications: Do not make more than 2 applications (32.0 fl ozs/A) of Reaper Advance or any other foliarly applied abamectin containing product/growing season.
Grazing: Do not allow livestock to graze in treated hops yards.

LEAFY VEGETABLE (Except Brassica Vegetables) CROP GROUP 4
Crops in this group are: Amaranth (leafy Amaranth, Chinese spinach, tampala), Arugula (Roquette), Cardoon, Celery, Celtuce, Chervil, Chinese celery, Chrysanthemum edible leaved and garland, Corn salad, Cress garden and upland (yellow rocket and winter cress), Dandelion, Dock (Sorrel), Endive (escarole), Fennel, Florence fennel, Garden cress, Lettuce head and leaf, New Zealand Spinach, Orach, Parsley, Purslane garden and winter, Radicchio (red chicory), Rhubarb, Spinach, Vine Spinach, and Swiss chard and Upland cress.
For Control of Carmine spider mite, *Liriomyza* leafminers, and Twospotted spider mite.
Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage may result in reduced control.
Note: Reaper Advance may be applied with ground application equipment or aircraft. For best control of mites, apply Reaper Advance with ground application equipment. With aerial application, spray coverage and the resulting control of mites is less than with ground application. For this reason, the user accepts all liability for the level and duration of control of mites when Reaper Advance is aerially applied.

Pest	Fl Ozs/A	Instructions
Carmine spider mite *Liriomyza* leafminers Twospotted spider mite	8.0 to 16.0 plus a nonionic surfactant	• Use 8.0 to 12.0 fl ozs/A for low to moderate infestations and 16.0 fl ozs/A for severe infestation. • **Spider mites:** Apply when mites first appear, and repeat as needed to maintain control. (**See Use Restrictions**) • **Leafminers:** Apply when adult flies are first observed and repeat applications as needed to maintain control. (**See Use Restrictions**) • **Note:** Reaper Advance may be used without a wetting agent. Spreading and penetrating surfactants can improve insect control. When necessary to improve the wetting of foliage and to smooth out spray deposits, a nonionic surfactant is recommended. Do not use binder or sticker-type surfactants.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 22

Leafy Vegetable (Except Brassica Vegetables) Crop Group 4

Use Restrictions:
PHI: Do not apply within **7** days of harvest.
Application Method: Ground or aerial application permitted; however do not apply with aircraft in New York State.
Prohibited Use: For resistance management, do not use on leafy vegetables grown for transplanting.
Amount of Water: Do not apply in less than 20.0 gals of water/A with ground application equipment. Do not apply in less than 5.0 gals of water/A with aircraft. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures) use a greater volume of water to insure adequate coverage.
Maximum Amount/Application: Do not apply more than 16.0 fl ozs/A (or 0.019 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.
Application Interval: Wait at least 7 days before repeating application.
Number of Applications: Do not make more than 2 sequential applications of Reaper Advance or any other foliarly applied abamectin containing product.
Maximum Amount/Season: Do not apply more than 48.0 fl ozs/A (or 0.056 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/growing season.

MINT (Peppermint and Spearmint)
For control of Twospotted spider mite
Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage may result in reduced control.

Pest	Fl Ozs/A	Instructions
Twospotted spider mite	8.0 to 12.0	• Treat when mites first appear. • For optimum control, a nonionic surfactant or organosilicone-based surfactant should be used at the manufacturer's recommended rate.

Use Restrictions:
PHI: Do not apply within **28** days of harvest.
Application Method: Ground or aerial application permitted; however do not apply with aircraft in New York State.
Amount of Water: Do not apply in less than 20.0 gals of water/A with ground application equipment. Do not apply in less than 5.0 gals of water/A with aircraft. Under conditions such as high pest populations, dense foliage, or adverse application conditions such as high temperatures, use a greater volume of water to insure adequate coverage.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 23

Mint (Peppermint and Spearmint) cont'd.:

Maximum Amount/Application: Do not apply more than 12.0 fl ozs/A (or 0.042 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.
Application Interval: Wait at least 7 days before repeating application.
Number of Applications: Do not make more than 2 sequential applications of Reaper Advance or any other foliarly applied abamectin containing product and do not apply more than 3 applications of Reaper Advance or any other foliarly applied abamectin containing product/season.
Maximum Amount/Season: Do not apply more than 36.0 fl ozs/A (or 0.042 lb AI/A) of Reaper Advance or any other abamectin containing product/crop/season.
Grazing: Do not allow livestock to graze or feed treated foliage to livestock.

PEARS (Including Oriental Pear Trees)
For control of European red mite, McDaniel spider mite, Pear psylla, Pear rust mite, Twospotted spider mite, and Yellow mite
Reaper Advance may be applied using conventional dilute or concentrate ground application sprayers calibrated to deliver sufficient water for thorough coverage. Gallons of spray will vary with size and number of trees per acre and density of foliage. In any case, thorough coverage is essential for good spider mite and insect control.
Note: For best results, apply in combination with horticultural spray oil (not a dormant oil) as directed. Applications without horticultural spray oil may result in reduced efficacy and/or residual control. When using Reaper Advance plus horticultural spray oil, carefully follow the **Directions for Use** and **Precautions** on the horticultural spray oil label as well as the precautions in official spray guides or on product labels. For example, applying Reaper Advance plus horticultural spray oil in less than 14 days before or after applying Captan can result in phytotoxicity and crop loss.

Pest	Dilute Sprays[a] Fl Ozs/100 Gals	Concentrate Sprays[b] Fl Ozs/A	Instructions
European red mite McDaniel spider mite Pear psylla Pear rust mite Twospotted spider mite Yellow mite	2.5 to 5.0	10.0 to 20.0	• Apply Reaper Advance when spider mite or insect thresholds are reached. • A second application may be made if needed to maintain control. (**See Use Restrictions**)
Horticultural Spray Oil (not a dormant oil)	0.25% or 1.0 gal/A	Minimum of 1.0 gal/A	

[a] The rate of Reaper Advance/100 gals is based on a volume of 400 gals/A dilute spray.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 24

Pears (Including Oriental Pear Trees) cont'd.:

[b] To determine the amount of product/A for concentrate sprays, first determine the amount that would be required in a full cover dilute spray. Use the same amount of product/A in concentrate sprays as would be required for the dilute sprays to the same orchard/grove. This may result in use of less than 10.0 fl ozs/A on small trees.

Use Restrictions:
PHI: Do not apply within **28** days of harvest.
Application Method: Ground application only. Do not apply with aircraft.
Amount of Water: Do not apply in less than 40.0 gals of water/A.
Maximum Amount/Application: Do not apply more than 20.0 fl ozs/A (or 0.023 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.
Application Interval: If a second application is necessary, wait at least 21 days before repeating application.
Number of Applications: Do not make more than 2 applications of Reaper Advance or any other foliarly applied abamectin containing product/growing season.
Maximum Amount/Season: Do not apply more than 40.0 fl ozs/A (or 0.047 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product in a growing season.
Grazing: Do not allow livestock to graze in treated orchards.

STONE FRUIT CROP GROUP 12
Crops in this group are: Apricot, Cherry (sweet and tart), Nectarine, Peach, Plum, Plum (chickasaw, damson, and Japanese), Plumcot and Prune (fresh)
For control of European spider mite, Pacific spider mite, and Twospotted spider mite
Reaper Advance may be applied using conventional dilute or concentrate sprayers calibrated to deliver sufficient water for thorough coverage. Gallons of spray will vary with size and number of trees per acre and density of foliage. In any case, thorough coverage is essential for good spider mite control.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 25

Stone Fruit Crop Group 12 cont'd.:

Pest	Dilute Sprays[a] Fl Ozs/100 Gals	Concentrate Sprays[b] Fl Ozs/A	Instructions
European red mite Pacific spider mite Twospotted spider mite	2.5 to 5.0	10.0 to 20.0	• Apply when mites first appear. • A second application may be made, if needed, to maintain control. (**See Use Restrictions**) • Always apply Reaper Advance in combination with a non-ionic surfactant that spreads on and/or penetrates the leaf cuticle, or apply with horticultural spray oil (not a dormant oil). • **NOTE:** 1) A nonionic surfactant that spreads on and/or penetrates the leaf cuticle can improve insect control. Although Reaper Advance has been tested in combination with nonionic surfactants for safety to stone fruit, it is impossible to test on all stone fruit varieties under the variety of conditions that may cause crop injury. Therefore, when using Reaper Advance in combination with a nonionic surfactant, carefully follow the **Directions for Use** and **Precautions** on the surfactant label and in official spray guides. 2) A horticultural oil (not a dormant oil) may improve efficacy and can be used but it may increase the possibility of phytotoxicity to foliage and fruit. • Use nonionic surfactants at the manufacturer's recommended rate. • Use a minimum of 0.25% horticultural spray oil (not a dormant oil) in the dilute spray mixture and not less than 1.0 gal of horticultural spray oil/A in the final finished spray.
Horticultural Spray Oil (not a dormant oil)	0.25% or 1.0 gal/A	Minimum of 1.0 gal/A	
OR Nonionic Surfactant	Labeled Rate		

[a] The rate of Reaper Advance per 100 gals is based on the volume of 400 gals/A dilute spray.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 26

Stone Fruit Crop Group 12 cont'd.:

[b] To determine the amount of product per acre for concentrate sprays, first determine the amount that would be required in a full cover dilute spray. Use the same amount of product/A in concentrate spray as would be required for the dilute sprays to the same orchard/grove. This may result in use of less than 10.0 fl ozs/A on small trees.

Use Restrictions:
PHI: Do not apply within **21** days of harvest.
Application Method: Ground application only. Do not apply with aircraft.
Amount of Water: Do not apply in less than 40.0 gals of water/A.
Maximum Amount/Application: Do not apply more than 20.0 fl ozs/A (or 0.023 lb AI/A) of Reaper 0.15 EC or any other foliarly applied abamectin containing product/A/application.
Application Interval: If a second application is needed, wait at least 21 days before repeating application.
Number of Applications: Do not make more than 2 applications of Reaper Advance or any other foliarly applied abamectin containing product in a growing season.
Maximum Amount/Season: Do not apply more than 40 fl ozs/A (or 0.047 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product in a growing season.
Grazing: Do not allow livestock to graze in treated orchards.

STRAWBERRIES
For control of Strawberry spider mite and Twospotted spider mite
Mix with water as indicated below. Apply with ground application equipment as a foliar spray and insure thorough coverage on upper and lower leaf surfaces. Adjust spray volume and nozzle placement to insure maximum coverage of tops and undersides of leaves.

Pest	Fl Ozs/A	Instructions
Strawberry spider mite Twospotted spider mite	16.0	• Make 2 applications 7 to 10 days apart when mites first appear. Repeat this application sequence, if needed, to maintain control. (**See Use Restrictions**) • **Note:** Reaper Advance may be used without a wetting agent. When necessary to improve the wetting of foliage and to smooth out spray deposits, a nonionic surfactant is recommended.

Use Restrictions:
PHI: Do not apply within **3** days of harvest.
Application Method: Ground application only. Do not apply with aircraft.
Prohibited Use: For resistance management purposes, do not use in strawberry nurseries.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 27

Strawberries cont'd.:

Amount of Water: Do not apply in less than 50.0 gals of water/A with conventional ground application equipment. When using electro-static sprayers do not apply in less than 10.0 gals of water/A.

Maximum Amount/Application: Do not apply more than 16.0 fl ozs/A (or 0.019 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/application.

Application Interval: Wait at least 21 days after the second application before repeating application.

Maximum Amount/Season: Do not apply more than 64.0 fl ozs/A (or 0.075 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product in a growing season.

TREE NUTS CROP GROUP 14 AND PISTACHIO

Crops in this group are: Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia nut, Pecan, and Walnuts (black and English)

For control of European red mite, Pacific spider mite, Strawberry spider mite, and Twospotted spider mite.

Reaper Advance may be applied using conventional dilute or concentrate sprayers calibrated to deliver sufficient water for thorough coverage. Gallons of spray will vary with size and number of trees per acre and density of foliage. In any case, thorough coverage is essential for good spider mite and insect control.

Pest	Dilute Sprays[a] Fl Ozs/100 Gals	Concentrate Sprays[b] Fl Ozs/A	Instructions
European red mite Pacific spider mite Strawberry spider mite Twospotted spider mite	2.5 to 5.0	10.0 to 20.0	• Always use Reaper Advance in combination with a horticultural spray oil (not a dormant oil) approved for use on tree nuts. • Apply Reaper Advance when spider mites first appear. Residual spider mite control is greater from spray deposits on newer leaves compared to older leaves. • A second application may be made, if needed, to maintain control. (**See Use Restrictions.**)
Horticultural Spray Oil (not a dormant oil)	0.25% or 1.0 gal/A	Minimum of 1.0 gal/A	

a The rate of Reaper Advance per 100 gals based on a volume of 400 gals/A dilute spray.

b To determine the amount of product/A for concentrate sprays, first determine the amount that would be required in a full cover dilute spray. Use the same amount of product/A in concentrate sprays that would be required for the dilute sprays to the same orchard/grove. This may result in use of less than 10.0 fl ozs/A on small trees.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 28

Tree Nuts Crop Group 14 and Pistachio cont'd.:

Use Restrictions:
PHI: Do not apply within 21 days of harvest.
Application Method: Ground application only. Do not apply with aircraft.
Amount of Water: Do not apply in less than 40.0 gals of water/A.
Application Interval: If a second application is necessary, wait at least 21 days before repeating application.
Maximum Amount/Application: Do not apply more than 20.0 fl ozs/A (or 0.023 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product per application.
Applications/Season: Do not make more than 2 applications of Reaper Advance or any other foliarly applied abamectin containing product per growing season.
Maximum Amount/Season: Do not apply more than 40.0 fl ozs/A (or 0.047 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product in a growing season.
Grazing: Do not allow livestock to graze in treated groves/orchards.

TUBEROUS AND CORM VEGETABLES CROP SUBGROUP 1C
Crops in this subgroup are: Arracacha, Arrowroot, Artichoke (Chinese), Artichoke Jerusalem, Canna edible, Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen, Ginger, Leren, Potato, Sweet Potato, Tanier, Tumeric, Yam bean, and Yam (true)
For control of Colorado potato beetle, *Liriomyza* leafminers, Potato psyllid, and Spider mites
Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage may result in reduced control.
Note: Reaper Advance may be applied using ground application equipment or aircraft. For best control of mites, apply Reaper Advance with ground application equipment. With aerial application, spray coverage and the resulting control of mites is less than with ground application. For this reason, the user accepts all liability for the level and duration of control of mites when Reaper Advance is aerially applied.

Pest	Fl Ozs/A	Instructions
Colorado potato beetle *Liriomyza* leafminers Potato psyllid Spider mites	8.0 to 16.0	• Use 8.0 to 12.0 fl ozs/A for low to moderate infestations and 16.0 fl ozs/A for severe infestations. • The addition of a nonionic surfactant or organosilicone-based surfactant, at the manufacturer's recommended rate, is suggested for optimum spider mite and insect control. • Insect and spider mite control may be reduced if Reaper Advance is used in combination with a sticker or binder type product such as Initiate® 720 Flowable Fungicide.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 29

Tuberous and Corm Vegetables Crop SubGroup 1C cont'd.:

Pest	Fl Ozs/A	Instructions
		• **Colorado potato beetle:** Make the first application after approximately 50% of the egg masses have hatched and larvae are present. If 2 applications are needed, limit them to a single Colorado potato beetle generation per crop. Do not make more than 2 applications per crop. (**See Use Restrictions**) • ***Liriomyza* leafminers:** Make the first application when adult flies are first observed. Repeat applications as needed to maintain control. (**See Use Restrictions**) • **Spider mites:** Make the first application when mites first appear. Repeat application as needed to maintain control. (**See Use Restrictions**)

Use Restrictions:
PHI: Do not apply within **14** days of harvest.
Application Method: Ground or aerial application permitted; however do not apply with aircraft in New York State.
Amount of Water: Do not apply in less than 20.0 gals of water/A with ground application equipment. Do not apply in less than 5.0 gals of water/A with aircraft. Under conditions such as high pest populations, dense foliage, or adverse application conditions (such as high temperatures) use a greater volume of water to insure adequate coverage.
Maximum Amount per Application: Do not apply more than 16.0 fl ozs/A (or 0.019 lb AI/A)/application.
Application Interval: Wait at least 7 days before repeating application.
Number of Applications: Do not make more than 2 sequential applications of Reaper Advance or any other foliarly applied abamectin containing product.
Maximum Amount per Crop: Do not apply more than 32.0 fl ozs/A (0.038 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/crop for spider mite or Colorado potato beetle control. Do not apply more than 48.0 fl ozs/A (or 0.056 lb AI/A) of Reaper Advance or any other foliarly applied abamectin containing product/crop for leafminer control.
Grazing: Do not allow livestock to graze or feed treated foliage to livestock.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 30

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

PESTICIDE STORAGE: Store in a tightly closed container in a cool, dry place.

PESTICIDE DISPOSAL: Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instruction, contact your State Pesticide or Environmental Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Nonrefillable container. Do not reuse or refill this container. It may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrecycle.org. If not recycled, then puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Triple rinse or pressure rinse container (or equivalent) 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 ¼ 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. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC - 1-800-424-9300.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

923stich RA_LPIstich.qxd 2/2/2012 8:13 AM Page 31

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL AND TO THE EXTENT REQUIRED BY APPLICABLE LAW, BUYER OR USER MUST SEND WRITTEN NOTICE OF ITS CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, P.O. BOX 1286, GREELEY, CO 80632-1286.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

Reaper and Initiate are registered trademarks of Loveland Products, Inc.

Reaper Advance is a restricted use pesticide.