

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

June 2, 2016

Lisa Nichols Loveland Products Inc. P.O. Box 1286 Greeley, CO 80632-1286

Subject: Label Amendment – Revising PPE, precautionary language, and Storage and Stability

Product Name: Reaper Clearform

EPA Registration Number: 34704-1078

Application Date: April 21, 2016

Decision Number: 517946

Dear Ms. Nichols:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

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 18 months from the date of this letter. After 18 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.

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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance

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with FIFRA section 6. If you have any questions, please contact Jessica Rogala by phone at 703-347-0263, or via email at rogala.jessica@epa.gov.

Sincerely,

Mark Suarez

Product Manager 07

Invertebrate & Vertebrate Branch 3

Registration Division (7505P)

Office of Pesticide Programs

Enclosure

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.





GROUP INSECTICIDE

100.0%

ACTIVE INGREDIENT:

*1.0 gallon contains 0.15 pound 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.)

> For Additional Precautionary Statements, Complete First Aid, Directions for Use, Storage and Disposal and Other Use Information. See Inside This Label Booklet.

	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.
	Take off contaminated clothing.
or 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

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, 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.

ACCEPTED

06/02/2016

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 34704-1078

EPA REG. NO. 34704-1078

EPA EST. NO. 34704-MS-001

NET CONTENTS 1.0 GAL (3.78 L)

031114 V2D 10B15

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 skin contact may cause allergic reactions in some individuals.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Coveralls worn over short-sleeved shirt and short pants,
- Chemical-resistant gloves made out of : barrier laminate or butyl rubber ≥ 14mils,
- Chemical-resistant footwear plus socks,
- Protective evewear.
- 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.

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 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.

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 made out of : barrier laminate or butyl rubber ≥ 14mils.
- Chemical-resistant footwear plus socks,
- Protective evewear.
- Chemical-resistant headgear for overhead exposure.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are not within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is use to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not reenter treated areas until sprays have dried.

FAILURE TO FOLLOW DIRECTIONS AND PRECAUTIONS ON THIS LABEL MAY RESULT IN CROP INJURY, POOR PEST CONTROL, AND/ Or illegal residues.

APPLICATION INFORMATION

Reaper® ClearForm® 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.

IMPORTANT:

- **Phytotoxicity:** Reaper ClearForm has been tested for phytotoxicity and has a wide margin of safety on a variety of crops. Reaper ClearForm 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 ClearForm to ensure the physical compatibility and lack of phytotoxic effects.
- New York State Restrictions: Do not apply Reaper ClearForm 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

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

Spray Drift Precautions for Application with Aircraft or Ground Application Equipment

- Apply Reaper ClearForm 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, potholes, 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 ClearForm 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.

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 to 10 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.

IMPORTANT: 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 ClearForm 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 ClearForm 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 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 ClearForm 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 ClearForm 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 ClearForm 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 ClearForm with other products with different modes of action,
- avoiding treatment of successive generations with Reaper ClearForm,
- 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 ClearForm 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.

IMPORTANT:

- 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 ClearForm 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).
- When using Reaper ClearForm 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 ClearForm 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 Oz/100 Gal	Concentrate Sprays ^b FI Oz/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 ClearForm 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
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 ClearForm per 100 gallons is based on a volume of 400 gallons per acre dilute spray.

^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 per acre 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 fluid ounces per acre on small trees.

Apples cont'd.:

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 gallons of water per acre.

Maximum Amount per Application: Do not apply more than 20.0 fluid ounces per acre (or 0.023 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per 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 ClearForm or any other foliarly applied abamectin containing product per growing season.

Maximum Amount per Season: Do not apply more than 40.0 fluid ounces per acre (or 0.047 pound active ingredient per acre) of Reaper ClearForm 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

IMPORTANT: Reaper ClearForm 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 ClearForm 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.

 For best results, apply when immature Thrips are first observed but before numbers exceed 5 immature Thrips/leaf/fruit. Use 10.0 to 15.0 fl oz of product/A for low* to moderate* infestations and
ozs • Use 10.0 to 15.0 fl oz of product/A for low* to moderate* infestations and
A 15.0 to 20.0 fl oz of product/A for severe* infestations. Add 1 to 4% of a
horticultural spray oil (not a dormant oil) approved for use on avocados.
days after the first application to retreat. (See Use Restrictions)
 For Ground Application: If spray volume is greater than 400 gal/A apply
Reaper ClearForm at a rate of 2.5 fl oz/100 gal of water plus 1 to 4% 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% treat a small test area before
making a large-scale application.
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*Thrips Infestation Level	Number of Immature Thrips/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 gallons of water with ground equipment or 50.0 gallons 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 ClearForm or any other foliarly applied abamectin containing product per season.

Maximum Amount per Season: Do not apply more than 40.0 fluid ounces per acre (or 0.047 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per season.

Maximum Amount per Application: Do not apply more than 20.0 fluid ounces per acre (or 0.023 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

Grazing: Do not allow livestock to graze in treated orchards.

CELERIAC (Apium graveollens)

For control of Twospotted spider mite

Reaper ClearForm 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	FI Oz/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 gallons of water per acre.

Application Interval: Wait at least 7 days before repeating application.

Number of Applications: Do not make more than 2 sequential applications of Reaper ClearForm or any other foliarly applied abamectin containing product.

Maximum Amount per Season: After transplanting the celeriac, do not apply more than 48.0 fluid ounces per acre (or 0.056 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per 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.

Pest	Dilute Sprays ^a Fl Oz/100 Gal	Concentrate Sprays ^b FI Oz/A
Asian citrus psylla		10.0 to 20.0 ^c
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

Instructions

- Applications should be made with a minimum of 0.2% 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 ClearForm 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)

^a The rate of Reaper ClearForm per 100 gallons is based on a volume of 1000 gallons per acre dilute spray.

b For concentrate sprays, adjust the dosage to apply an amount per acre equal to that used in full cover dilute spray.

^c Ground application: For best results, use 150 to 300 gallons per acre of spray mix with a minimum of 3.0 gallons per acre of horticultural oil (not a dormant oil) and apply at a ground speed of 1 to 1-1/2 mph.

d For best results, use a minimum of 500 gallons per acre of spray mix with a minimum of 0.5% horticultural spray oil (not a dormant oil).

^e For best results, use 100 to 250 gallons per acre of spray mix applied to achieve outside coverage.

Citrus Fruit Crop Group 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 gallons of finished spray volume per acre. 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 ClearForm, 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 per Season:** Do not apply more than 40.0 fluid ounces per acre (0.047 pound active ingredient per acre) of Reaper ClearForm, or any other foliarly applied abamectin containing product, in any growing season. Do not make more than 3 applications of Reaper ClearForm, 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 Beaper ClearForm with ground application equipment.

Pest	FI Oz/A	Instructions
Spider mites	Lower rate:	Apply when Mites first appear. The use rate depends on the
(Twospotted, Carmine,	4.0 to 6.0	size of the plant and density of the foliage. Repeat application
Pacific and Strawberry)		if needed to maintain control. (See Use Restrictions)
-,	(For early season cotton	· ·
	See Instructions)	The lower use rates of 4.0 to 6.0 fl oz/A are only recommended
		if cotton is early season and under 10 inches in height. Do
	Higher rate:	not use less than 4.0 fl oz/A. West of the Rocky Mountains –
	8.0 to 16.0	the lower use rates may only be used on cotton less than 10
		inches in height and applied only with ground equipment.
		Note: Reaper ClearForm 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.
		recommended. Do not use billuer of sticker-type surfactants.

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 gallons of water per acre. Use sufficient volume to insure thorough coverage

Maximum Amount per Application: Do not apply more than 16.0 fluid ounces per acre (or 0.019 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

Application interval: Wait at least 21 days before repeating application.

Maximum Amount per Season: Do not apply more than 32.0 fluid ounces per acre (or 0.038 active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per 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 ClearForm may be applied with ground application equipment or aircraft. For best control of Mites, apply Reaper ClearForm 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 ClearForm is aerially applied.

Pest	FI Oz/A	Instructions
Leafminers	8.0 to 16.0	 Use 8.0 to 12.0 fl oz/A for low to moderate infestations and
Spider mites		16.0 fl oz/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)

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 gallons of water per acre with ground application equipment. Do not apply in less than 5.0 gallons of water per acre 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 fluid ounces per acre (or 0.019 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

Application Interval: Wait at least 7 days before repeating application.

Number of Applications: Do not make more than 2 sequential applications of Reaper ClearForm or any other foliarly applied abamectin containing product.

Maximum Amount per Season: Do not apply more than 48.0 fluid ounces per acre (or 0.056 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product in a growing season.

DRY REANS

Crops include: Cicer arietinum (Chickpea, Garbanzo bean), Lupinus spp. (including Sweet Iupine, White sweet Iupine, White Iupine, and Grain Iupine), Phaseolus spp. (including Kidney bean, Lima bean, Mung bean, Navy bean, Pinto bean, Snap bean, and Waxbean), Vicia faba (Broad bean, Fava bean), and Vigna spp. (including Adzuki bean, Asparagus bean, Blackeyed pea, Catjang, Chinese longbean, Cowpea*, Crowder pea, Moth bean, Mung bean, Rice bean, Southern pea, Urd bean, and Yardlong bean)
*For use on cowpeas that are grown only for dry seed. Do not allow livestock to graze cowpea forage and do not harvest cowpea forage or hay for use as livestock feed.

For control of Liriomyza leafminers and Spider mite.

Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage can result in reduced control.

IMPORTANT: Apply Reaper ClearForm with ground application equipment or aircraft. For best control, apply Reaper ClearForm with ground application equipment. With aerial application, the resulting control of leafminers and spider mites could be less than with ground application.

Pest	FI Oz/A	Instructions
<i>Liriomyza</i> leafminers Spider mite	8.0 to 16.0	 Use 8.0 to 12.0 fl oz/A for low to moderate infestations and 13.0 to 16.0 fl oz/A for high 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.)

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.

Dry Beans cont'd.:

Amount of Water: Do not apply in less than 10.0 gallons of water per acre with ground application equipment. Do not apply in less than 5.0 gallons of water per acre 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 ensure adequate coverage.

Maximum Amount per Application: Do not apply more than 16.0 fluid ounces per acre (or 0.019 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

Application Interval: Wait at least 6 days before repeating application.

Number of Applications: Do not make more than 2 sequential applications of Reaper ClearForm or any other foliarly applied abamectin containing product.

Maximum Amount per Season: Do not apply more than 48.0 fluid ounces per acre (or 0.056 pound active ingredient per acre) of Reaper ClearForm 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.

IMPORTANT: Reaper ClearForm may be applied with ground application equipment or aircraft. For best control of Mites, apply Reaper ClearForm 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 ClearForm is aerially applied.

Pest	FI Oz/A	Instructions
Broad mite	8.0 to 16.0	 Broad, russet, and Spider mite: Apply when Mites first
Colorado potato beetle		appear.
<i>Liriomyza</i> leafminers		 Thrips palmi: Apply when Thrips are first observed.
Potato psyllid		 Tomato pinworm: Application may be made from the time
Spider mites		moth activity is detected up to, but no later than, the time
Thrips palmi		when newly emerged larvae are present.
Tomato russet mite		• Mites, Leafminers, <i>Thrips palmi</i> , and Colorado potato beetle:
Tomato pinworm	16.0	Use 8.0 fl oz/A for low to moderate infestations and 16.0 fl
		oz/A for severe infestations.
		 Repeat application as necessary to maintain control. (See
		Use Restrictions)
		 Note: Reaper ClearForm 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.

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 gallons of water per acre with ground application equipment. Do not apply in less than 5.0 gallons of water per acre 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 ClearForm or any other foliarly applied abamectin containing product.

Number of Applications: Do not make more than 2 sequential applications of Reaper ClearForm or any other foliarly applied abamectin containing product.

Maximum Amount per Season: Do not apply more than 48.0 fluid ounces per acre in a growing season (or 0.056 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product in a growing season.

Maximum Amount per Application: Do not apply more than 16.0 fluid ounces per acre (or 0.019 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

GRAPES

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

Reaper ClearForm 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 ClearForm must be applied to both sides of each row for maximum coverage.

Pest	FI Oz/A	Instructions
Pacific spider mite	8.0 to 16.0	Use 8.0 to 12.0 fl oz/A for low to moderate infestations and
Twospotted spider mite	plus a nonionic	16.0 fl oz for severe infestations.
Variegated leafhopper	surfactant	 Repeat application, if needed. (See Use Restrictions)
Western grape leafhopper		• Note: Reaper ClearForm must be applied in combination with
Western grapeleaf skeletonizer		a nonionic surfactant to improve wetting of foliage and to
Willamette spider mite		smooth out spray deposits. Spreading and penetrating
		surfactants can improve insect control. Do not use binder or
		sticker-type surfactants. Although Reaper ClearForm 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 ClearForm 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/leaf.
		Western grapeleaf skeletonizer: Apply Reaper ClearForm
		plus a nonionic surfactant when larvae are first observed. For
		optimum control, apply shortly after egg hatch.
		• Leafhoppers: Apply Reaper ClearForm plus a nonionic
		surfactant using thorough spray coverage for contact knock-
		down 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 gallons of water per acre with conventional ground application equipment. When using an electro-static sprayer, less than 50.0 gallons of water per acre may be used, however do not use less than 5.0 gallons of water per acre.

Maximum Amount per Application: Do not apply more than 16.0 fluid ounces per acre (or 0.019 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per 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 ClearForm or any other foliarly applied abamectin containing product per growing season.

Maximum Amount per Season: Do not apply more than 32.0 fluid ounces per acre (or 0.038 pound active ingredient per acre) of Reaper ClearForm 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

Crops in this subgroup are: Angelica, Balm, Basil, Borage, Burnet, Catnip, Chamomile, Chervil (dried), Chives, Chives (Chinese), 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 and Spider mite

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	FI Oz/A	Instructions
Liriomyza leafminers Spider mite	8.0 to 16.0	 Use 8.0 fl oz/A for low to moderate infestations and 16.0 fl oz/A for severe infestations. Apply when adult flies are first observed and repeat application, as necessary to maintain control. (See Use Restrictions) Reaper ClearForm 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 for all crops in the Herb Crop Subgroup except chives. Do not use a surfactant when applying this product to chives. Note: Although Reaper ClearForm 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 ClearForm in combination with a nonionic surfactant, carefully follow the Directions for Use and Precautions on the nonionic surfactant label and in official spray guides.

Use Restrictions:

PHI: Do not apply within 14 days of harvest. For chives, do not apply within 7 days of harvest.

Application Method: Apply with ground application equipment. **Amount of Water:** Use a minimum of 20.0 gals of water per acre. **Application Interval:** Wait at least 7 days before repeating application.

Maximum Amount per Application: Do not apply more than 16.0 fluid ounces per acre (or 0.019 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

Number of Applications: Do not make more than 2 applications of Reaper ClearForm or any other foliarly applied abamectin containing product per single cutting (harvest).

Maximum Amount per Season: Do not apply more than 48.0 fluid ounces per acre (or 0.056 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per 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 ClearForm per acre should remain the same as for dilute sprays.

Pest	FI Oz/A	Instructions
Twospotted spider mite	8.0 to 16.0	 Apply Reaper ClearForm 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 oz/A in a minimum of 40.0 gal of water/A. For applications beyond 1/2 trellis growth, do not use less than 16.0 fl oz/A in a minimum of 100 gal of water/A. Note: Reaper ClearForm 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.

Hops cont'd.:

Use Restrictions:

PHI: Do not apply within 28 days of harvest.

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 per Application: Do not apply more than 16.0 fluid ounces per acre (or 0.019 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

Maximum Number of Applications: Do not make more than 2 applications (32.0 fluid ounces per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per growing season.

Grazing: Do not allow livestock to graze in treated hops vards.

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.

IMPORTANT: Reaper ClearForm may be applied with ground application equipment or aircraft. For best control of Mites, apply Reaper ClearForm 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 ClearForm is aerially applied.

Pest	FI Oz/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 oz/A for low to moderate infestations and 16.0 fl oz/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 ClearForm 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.

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 gallons of water per acre with ground application equipment. Do not apply in less than 5.0 gallons of water per acre 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 fluid ounces per acre (or 0.019 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

Application Interval: Wait at least 7 days before repeating application.

Number of Applications: Do not make more than 2 sequential applications of Reaper ClearForm or any other foliarly applied abamectin containing product.

Maximum Amount per Season: Do not apply more than 48.0 fluid ounces per acre (or 0.056 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per 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	FI Oz/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 gallons of water per acre with ground application equipment. Do not apply in less than 5.0 gallons of water per acre 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 12.0 fluid ounces per acre (or 0.042 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

Application Interval: Wait at least 7 days before repeating application.

Number of Applications: Do not make more than 2 sequential applications of Reaper ClearForm or any other foliarly applied abamectin containing product and do not apply more than 3 applications of Reaper ClearForm or any other foliarly applied abamectin containing product per season.

Maximum Amount per Season: Do not apply more than 36.0 fluid ounces per acre (or 0.042 pound active ingredient per acre) of Reaper ClearForm or any other abamectin containing product per crop per season.

Grazing: Do not allow livestock to graze or feed treated foliage to livestock.

ONION, BULB CROP SUBGROUP 3-07A

Crops in this group are: Onion, bulb, including daylily, bulb; Fritillaria, bulb; Garlic, bulb; Garlic, great-headed, bulb; Garlic, serpent, bulb; Lily, bulb; Onion, Chinese, bulb; Onion, pearl; Onion, potato, bulb; Shallot, bulb; Cultivars, varieties, and/or hybrids of these.

For control of Liriomyza Leafminers and Thrips.

Mix with water as indicated below. Thorough coverage of the crop canopy is essential for optimum results. Inadequate coverage can result in reduced control.

IMPORTANT: Apply Reaper ClearForm with ground application equipment or aircraft. For best control, apply Reaper ClearForm with ground application equipment. With aerial application, the resulting control of Leafminers and Thrips could be less than with ground application.

Pest FI Oz	Instructions	
Liriomyza leafminers 8.0 to Thrips	 Use 8.0 to 12.0 fl oz/A for low to moderate in 13.0 to 16.0 fl oz/A for high infestations. Leafminers: Apply when adult Leafminer flie observed and repeat application, as needed, to control within constraints of a sound resistant program. (See Use Restrictions) Thrips: Apply in a Thrips management program. Thrips are at economic threshold. Repeat application, as needed, to maintain constraints of a sound resistance management Use Restrictions) Do not use Reaper ClearForm as a rescue treathrips control. Note: Add a non-ionic activator type wetting and/or penetrating adjuvant approved for use Do not use binder sticker type adjuvants. Tank products that have binder sticker type formula Reaper ClearForm performance. 	es are first or maintain on maintain on management for management for management on bulb onion.

Use Restrictions:

PHI: Do not apply within 30 days of harvest.

Application Method: Ground or aerial application permitted; however, do not apply with aircraft in New York State.

Onion, Bulb Crop Subgroup 3-07A cont'd.:

Amount of Water: Do not apply in less than 20.0 gallons of water per acre with ground application equipment. Do not apply in less than 5.0 gallons of water per acre 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 ensure adequate coverage.

Maximum Amount per Application: Do not apply more than 16.0 fluid ounces per acre (or 0.019 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

Application Interval: Wait at least 7 days before repeating application.

Number of Applications: Make 2 consecutive applications of Reaper ClearForm, then rotate to a chemistry with a different mode of action. Make at least 2 applications of a chemistry with a different mode of action before making additional Reaper ClearForm applications. Do not make more than 2 sequential applications of Reaper ClearForm or any other foliarly applied abamectin containing product.

Maximum Amount per Season: Do not apply more than 48.0 fluid ounces per acre (or 0.056 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product in a growing season.

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 ClearForm 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.

IMPORTANT: 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 ClearForm 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 ClearForm 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 Oz/100 Gal	Concentrate Sprays ^b FI Oz/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 ClearForm 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 ClearForm per 100 gallons is based on a volume of 400 gallons per acre dilute spray.

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 gallons of water per acre.

Maximum Amount per Application: Do not apply more than 20.0 fluid ounces per acre (or 0.023 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per 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 ClearForm or any other foliarly applied abamectin containing product per growing season.

Maximum Amount per Season: Do not apply more than 40.0 fluid ounces per acre (or 0.047 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product in a growing season.

Grazing: Do not allow livestock to graze in treated orchards.

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 per acre 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 fluid ounces per acre on small trees.

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 ClearForm 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.

Pest	Dilute Sprays ^a Fl Oz/100 Gal	Concentrate Sprays ^b FI Oz/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)
Horticultural Spray Oil (not a dormant oil) OR	0.25% or 1.0 gal/A	Minimum of 1.0 gal/A	 Always apply Reaper ClearForm 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).
Nonionic Surfactant	Labeled Rate		oil). • NOTE: 1) A nonionic surfactant that spreads on and/or penetrates the leaf cuticle can improve insect control. Although Reaper ClearForm 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 ClearForm 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

^a The rate of Reaper ClearForm per 100 gallons is based on the volume of 400 gallons per acre dilute spray.

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 gallons of water per acre.

Maximum Amount per Application: Do not apply more than 20.0 fluid ounces per acre (or 0.023 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per acre per 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 ClearForm or any other foliarly applied abamectin containing product in a growing season.

Maximum Amount per Season: Do not apply more than 40.0 fluid ounces per acre (or 0.047 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product in a growing season.

Grazing: Do not allow livestock to graze in treated orchards.

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 per acre 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 fluid ounces per acre on small trees.

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	FI Oz/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 ClearForm 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.

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

Maximum Amount per Application: Do not apply more than 16.0 fluid ounces per acre (or 0.019 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

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

Maximum Amount per Season: Do not apply more than 64.0 fluid ounces per acre (or 0.075 pound active ingredient per acre) of Reaper ClearForm 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 ClearForm 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 Oz/100 Gals	Concentrate Sprays ^b FI Oz/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 ClearForm in combination with a horticultural spray oil (not a dormant oil) approved for use on tree nuts. Apply Reaper ClearForm when Spider mites first appear.
Horticultural Spray Oil (not a dormant oil)	0.25% or 1.0 gal/A	Minimum of 1.0 gal/A	Residual Spider mite control is greater from spray deposits newer leaves compared to older leaves. • A second application may be made, if needed, to maintain control. (See Use Restrictions.)

^a The rate of Reaper ClearForm per 100 gallons based on a volume of 400 gallons per acre dilute spray.

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 gallons of water per acre.

Application Interval: If a second application is necessary, wait at least 21 days before repeating application.

Maximum Amount per Application: Do not apply more than 20.0 fluid ounces per acre (or 0.023 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product per application.

Applications per Season: Do not make more than 2 applications of Reaper ClearForm or any other foliarly applied abamectin containing product per growing season.

Maximum Amount per Season: Do not apply more than 40.0 fluid ounces per acre (or 0.047 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product in a growing season.

Grazing: Do not allow livestock to graze in treated groves/orchards.

^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 per acre 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 fluid ounces per acre on small trees.

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 ClearForm may be applied using ground application equipment or aircraft. For best control of Mites, apply Reaper ClearForm 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 ClearForm is aerially applied.

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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 gallons of water per acre with ground application equipment. Do not apply in less than 5.0 gallons of water per acre 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 fluid ounces per acre (or 0.019 pound active ingredient per acre) per application.

Application Interval: Wait at least 7 days before repeating application.

Number of Applications: Do not make more than 2 sequential applications of Reaper ClearForm or any other foliarly applied abamectin containing product.

Maximum Amount per Crop: Do not apply more than 32.0 fluid ounces per acre (0.038 pound active ingredient per acre) of Reaper ClearForm or any other foliarly applied abamectin containing product/crop for Spider mite or Colorado potato beetle control. Do not apply more than 48.0 fluid ounces per acre (or 0.056 pound active ingredient per acre) of Reaper ClearForm 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.

ORNAMENTALS

Shadehouse, Greenhouse, Field-grown ornamentals, Foliage plants, Christmas trees, and Other woody ornamentals

Pest	FI Oz/100 Gal	Instructions
Mites ¹ :	4.0	monuono
Carmine spider mite		
Eriophyid mites:		
Bud mites		
Rust		
European red mite		
Southern red mite		
Spruce spider mite		
Tarsonemid mites ³ :		
Cyclamen		
Broad mites		
Twospotted spider mite		
<u>Liriomyza leafminers²</u>	8.0	Repeat at 7-day intervals or as necessary to maintain control.
Boxwood leafminer	8.0	For control of Mining larvae, make the application when adults
		are beginning to lay eggs in the new foliage.
Aphids	8.0	For suppression of pest populations, young immatures must
Thrips		be contacted by the spray.
Whiteflies		

Product Information: Residual control of pests may be enhanced with the addition of a horticultural spray oil at 0.5 to 1.0% of the spray volume on field-grown Woody ornamentals, landscape plants, and Christmas trees. Repeat application as necessary, but no sooner than 7 days to maintain control. Some plants are sensitive to oils and so without prior experience, the user should spray a small number of plants and observe plants for 2 weeks before spraying the remaining plants. Excessive cold or warm temperatures may increase the chance of plant damage following application with oils. Carefully read and follow directions on the oil label and do not exceed maximum rates listed on either label.

Product Information Per Application: Use sufficient water to obtain uniform plant coverage. Refer to the **Resistance Management** section and the **Use Restrictions** section for additional information.

¹Apply, for example, in 200 to 400 gallons of water per acre. In volumes of water below 200 gallons, use a minimum of 8.0 fluid ounces per acre. If more than 400 gallons of water per acre are required for good plant coverage, apply a maximum rate of 16.0 fluid ounces per acre. For example, if 650 gallons of water are required, use 2.5 fluid ounces per 100 gallons.

²Apply, for example, in 100 to 200 gallons of water per acre. In volumes of water below 100 gallons, use a minimum of 8.0 fluid ounces per acre. If more than 200 gallons of water per acre are required for good plant coverage, apply a maximum rate of 16.0 fluid ounces per acre. For example, if 400 gallons of water are required, use 4.0 fluid ounces per 100 gallons.

³For Tarsonemid mites, repeat applications to newly developing tissue may be necessary to maintain control.

Use Restrictions on Ornamentals:

- Do not apply less than 8.0 fluid ounces or more than 16.0 fluid ounces per acre.
- Do not use Reaper ClearForm for suppression of Aphids, Whiteflies, and Thrips on roses, chrysanthemums, and gerbera. These
 ornamentals are primary hosts of Mites and *Liriomyza* leafminers for which Reaper ClearForm applications should be targeted.
 Additional applications of Reaper ClearForm to suppress Aphids, Thrips, and Whiteflies on these plants will increase the selection
 pressure on Mites and *Liriomyza* leafminers which may result in greater tolerance to Reaper ClearForm among these pests.
- Do not apply Reaper ClearForm through any type of irrigation system.
- Not for aerial use.
- · Do not use in citrus nurseries.
- Reaper ClearForm has been evaluated for phytotoxicity on a wide range of ornamental plants. However, since all combinations or sequences of pesticide sprays including surfactants and adjuvants have not been tested, it is recommended that a small area be sprayed first to make certain that no phytotoxicity occurs. Phytotoxicity has been observed following the use of Reaper ClearForm on certain species of ferns (e.g., *Adiantum* spp.) and Shasta daisy (*L. eucanthemum* spp.). It is therefore recommended that Reaper ClearForm not be used on ferns or Shasta daisy.

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 HANDLING: 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.

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 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. **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.

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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.

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