

# CARBARYL 4L

# INSECTICIDE INTENDED FOR AGRICULTURAL OR COMMERCIAL USE

**ACTIVE INGREDIENTS:** 

(Contains 4 pounds Carbaryl per Gallon)

# KEEP OUT OF REACH OF CHILDREN CAUTION

FOR MEDICAL AND TRANSPORTATION EMERGENCIES ONLY CALL 24 HOURS A DAY 1-866-944-8565 FOR PRODUCT USE INFORMATION CALL: 1-888-574-2878.

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

#### FIRST AID

Carbaryl is an N-Methyl Carbamate Insecticide.

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

# For MEDICAL Emergencies Call 24 Hours A Day 1-866-944-8565.

Have the product container or label with you when calling a poison control center or doctor or going for treatment.

**NOTE TO PHYSICIAN:** Carbaryl contains an N-methyl carbamate that inhibits cholinesterase. Drugs like 2-Pam (pyridine-2-aldoxime methiodide) are not recommended. To aid in the confirmation of diagnosis, urine samples should be obtained within 24 hours of exposure and immediately frozen. Consultation on therapy can be obtained at all hours by calling the appropriate emergency number 1-866-944-8565 (U.S.A.)

EPA REG. NO. 34704-447 EPA EST. NO. 086555-MO-001 NET CONTENTS 2.5 GAL (9.46.L)

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

Harmful if swallowed, absorbed through the skin, or inhaled. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing.

**OVEREXPOSURE MAY CAUSE:** Salivation, watery eyes, pinpoint eye pupils, blurred vision, muscle tremors, difficult breathing, excessive sweating, abdominal cramps, nausea, vomiting, diarrhea, weakness, headache. IN SEVERE CASES, CONVULSION, UNCONSCIOUSNESS AND RESPIRATORY FAILURE MAY OCCUR. SIGNS AND SYMPTOMS OCCUR RAPIDLY FOLLOWING OVEREXPOSURE TO THIS PRODUCT.

## PERSONAL PROTECTIVE EQUIPMENT (PPE):

Some materials that are chemical-resistant to this product are made of any waterproof material. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection chart.

Handlers applying with open cab airblast equipment at application rates equal to or greater than 5 quarts of CARBARYL 4L insecticide per acre must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear, and
- A NIOSH approved particulate respirator with any N, R, or P filter, NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.

# All other mixers, loaders, applicators, and handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical-resistant gloves, and
- Chemical-resistant apron, when mixing, loading, or cleaning up spills or equipment.

# In addition, mixers and loaders supporting aerial or chemigation applications must wear:

 A NIOSH approved particulate respirator with any N, R, or P filter, NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C.

# See engineering controls for additional requirements and exceptions.

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

#### **ENGINEERING CONTROLS:**

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170.240(d)(6)].

Applicators using airblast equipment for application to citrus in California must use an enclosed cab that meets the definition in the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, such applicators must:

- wear long-sleeve shirt, long pants, shoes, and socks;
- A NIOSH approved particulate respirator with any N, R, or P filter, NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C, or use an enclosed cab that is declared in writing by the

manufacturer or by a government agency to provide at least as much respiratory protection as this type of respirator;

- be provided, have immediately available for use, and wear in an emergency when they must exit the cab in the treated area: coveralls, chemical-resistant gloves, chemical-resistant footwear, and chemical-resistant headgear (if overhead exposure) plus if not already using one a NIOSH approved particulate respirator with any N, R, or P filter, NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C take off any PPE that was worn in the treated area before reentering the cab; and
- store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

Human flagging is prohibited, except for flagging to support ultra low volume aerial applications for Rangeland Grasshopper and Mormon Cricket Suppression through the Animal and Plant Health Inspection Service (APHIS) Program or affiliated state programs. Flagging to support aerial application for all other use patterns is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

Flaggers supporting ultra low volume aerial applications for Rangeland Grasshopper and Mormon Cricket Suppression through the Animal and Plant Health Inspection Service (APHIS) Program or affiliated state programs must use an enclosed cab that meets the definition in the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240(d)(5)] for dermal protection. In addition, flaggers must:

- wear long-sleeve shirt, long pants, shoes, and socks;
- A NIOSH approved particulate respirator with any N, R, or P filter, NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C or use an enclosed cab that is declared in writing by the manufacturer or by a government agency to provide at least as much respiratory protection as this type of respirator;
- be provided, have immediately available for use, and wear in an emergency when they must exit the cab in the treated area: chemical-resistant gloves and chemical-resistant headgear, and, if using an enclosed cab that provides respiratory protection, a NIOSH approved particulate respirator with any N, R, or P filter, NIOSH approval number prefix TC-84A; or a NIOSH-approved powered air purifying respirator with an HE filter with NIOSH approval number prefix TC-21C;
- take off any PPE that was worn in the treated area before reentering the cab; and
- store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

When applicators use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(5)), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **USER SAFETY RECOMMENDATIONS**

# **Users should:**

- Wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

#### **ENVIRONMENTAL HAZARDS**

This product is extremely toxic to aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Discharge from rice fields may kill aquatic and estuarine invertebrates. Do not apply when weather conditions favor drift from area treated. Drift and runoff may kill aquatic invertebrates in water adjacent to treated areas. Do not contaminate water by cleaning equipment or disposal of wastes. Do not contaminate water when disposing of equipment washwaters.

#### BEE CAUTION: MAY KILL HONEYBEES AND OTHER BEES IN SUBSTANTIAL NUMBERS.

This product is highly toxic to bees exposed to direct treatment or residues on crops or weeds in bloom. Notifying beekeepers within 1 mile of treatment area at least 48 hours before product is applied will allow them to take additional steps to protect their bees. Limiting application to times when bees are least active, e.g., within 2 hours of sunrise or sunset, will minimize risk to bees.

For crops in bloom (except soybean and corn): Do not apply this product to target crops or weeds in bloom.

For soybean and corn: If application cannot be avoided when target crop or weeds are in bloom, limiting applications to times when bees are least active, e.g. within 2 hours of sunrise or sunset, will minimize risk to bees.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read the entire label before using this product.

Strictly observe label directions and cautions. 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). The REI for carbaryl is 12 hours unless otherwise specified in the directions for use associated with each crop.

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-sleeve shirt and short-pants.
- Chemical-resistant footwear plus socks,
- Chemical-resistant gloves made of any waterproof material, and
- Chemical-resistant headgear if overhead exposure.

When the Restricted-Entry Interval for a crop is 7 days or longer, you must notify workers of the application by warning them orally and by posting warning signs at entrances to treated area.

#### 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 used to produce agricultural plants on farms, forests, nurseries, or greenhouses. **Do not enter or allow others to enter the treated area until sprays have dried.** 

#### **INFORMATION AND RESTRICTIONS**

CARBARYL 4L insecticide is a suspension of microfine SEVIN® Carbaryl insecticide in an aqueous medium. It readily disperses in water to form a spray which may be applied by air or ground.

#### PLANT RESPONSE PRECAUTIONS

Application to wet foliage or during periods of high humidity may cause injury to tender foliage. Do not use on Boston Ivy, Virginia creeper and Maidenhair fern as injury may result. Carbaryl may also injure Virginia and Sand pines.

The use of adjuvants may increase the potential for crop injury to sensitive crops.

# PREHARVEST AND GRAZING RESTRICTIONS AND LIMITATIONS

For all listed crops and uses, do not apply at greater rates or at more frequent intervals than stated on the label. If forage is grazed or used as feed for dairy and meat animals, follow all use restrictions in order to avoid illegal residues in crops, meat or milk.

Do not use reclaimed irrigation water from crops treated with carbaryl on crops for which carbaryl tolerances are not established.

#### APPLICATION INFORMATION

Calibrate and adjust application equipment to insure proper rate and accurate placement. To clean spray system after use, drain and flush with a water and detergent mixture. Rinse thoroughly with clean water. Refer to the Storage and Disposal section for disposal instructions.

NOTE: Staining may occur on certain surfaces such as stucco, brick, cinder block, and wood. Spray deposits on painted or stained surfaces or finishes (i.e., cars, houses, trailers, boats, etc.) should be immediately removed by washing to prevent discoloration. Avoid applications to surfaces where visible spray residues are objectionable. For outdoor use only.

#### RESISTANT SPECIES NOTICE

All references to armyworm on the crops listed below refer to the species *Pseudaletia unipuncta*, often called the "true armyworm." Except where indicated otherwise, this product is not registered for other armyworm species. Regional differences have been noted in the susceptibility of certain strains of fall armyworm, diamondback moth, Colorado potato beetle and Southern green stink bug to carbaryl. If local experience indicates inadequate product performance, use an alternative pesticide.

#### MIXING, LOADING AND HANDLING INSTRUCTIONS

TO ASSURE A UNIFORM SUSPENSION, AGITATE, STIR OR RECIRCULATE ALL CONTAINERS OF THIS PRODUCT PRIOR TO USE. Remove oil, rust, scale, pesticide residues and other foreign matter from mix tanks and entire spray system. Flush with clean water. Fill spray or mix tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of Carbaryl 4L insecticide and then the remaining volume of water. Include rinse water from container. Prepare only as much spray mixture as can be applied on the day of mixing. MAINTAIN CONTINUOUS AGITATION DURING MIXING AND APPLICATION TO ASSURE A UNIFORM SUSPENSION. DO NOT STORE SPRAY MIXTURE FOR PROLONGED PERIODS OR DEGRADATION OF CARBARYL MAY OCCUR. Local water conditions may also accelerate the degradation of spray mixtures containing carbaryl. See COMPATIBILITY INFORMATION below.

#### **COMPATIBILITY INFORMATION**

Carbaryl 4L insecticide, when diluted with at least an equal volume of water, is compatible with a wide range of pesticides. It is not compatible with diesel fuel, kerosene, fuel oil or aromatic solvents. If compatibility with another product and the resulting crop response is unknown, the mixture should be tested on a small scale. Curdling, precipitation, greasing, layer formation or increased viscosity are symptoms of incompatibility. Incompatibility will reduce product performance and may cause application and handling difficulties or plant injury. Observe all cautions and limitations on labeling of all products used in mixtures. WHEN PREPARING COMBINATION SPRAYS, FIRST ADD Carbaryl 4L INSECTICIDE TO AT LEAST AN EQUAL VOLUME OF WATER, MIX THOROUGHLY, AND THEN ADD COMBINATION PRODUCTS TO THE MIXTURE. DO NOT APPLY TANK MIX COMBINATIONS UNLESS YOUR PREVIOUS EXPERIENCE INDICATES THE MIXTURE IS EFFECTIVE AND WILL NOT RESULT IN APPLICATION PROBLEMS OR PLANT INJURY.

Carbaryl is unstable under highly alkaline conditions; and mixtures with strong bases, such as Bordeaux, lime-sulfur and casein lime spreaders, will result in chemical degradation of the insecticide. Do not use this product in water with pH values above 8.0 unless a buffer is added. If necessary, water should be buffered to neutral (pH = 7.0) before adding this product to the spray tank. Overhead irrigation with alkaline or muddy water after application will also accelerate chemical degradation and may result in reduced product performance.

#### **APPLICATION PROCEDURES**

On all crops use sufficient gallonage to obtain thorough and uniform coverage. Observe crop label instructions for specific directions regarding spray volume where they occur. Calibrate spray equipment to deliver the required volume. The flow rate of this product diluted 1:1 with water is similar to water. Use of 50 mesh slotted strainers in spray system and 25 mesh slotted strainers behind nozzles is recommended.

#### GROUND APPLICATION

Apply in sufficient volume for adequate coverage on all crops and sites.

## **AERIAL APPLICATION**

For adequate distribution, use at least 10.0 gallons of spray mixture per acre for application for tree and orchard crops or at least 2.0 gallons of spray mixture per acre for application to other crops. **EXCEPTION:** For the use on rangeland as a pest management approach for grasshoppers under the Reduced Area and Agent Treatments (RAATs) program **only**, use at least 16.0 ounces of finished spray mixture per acre for aerial application.

#### SPRINKLER IRRIGATION SYSTEMS

Apply this product only through sprinkler irrigation systems including center pivot and solid set. Do not apply this product through any other type of irrigation system.

**SPRAY PREPARATION:** First prepare a suspension of Carbaryl 4L insecticide in a mix tank. Fill tank with 1/2 to 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Add the required amount of Carbaryl 4L insecticide, and then the remaining volume of water. (Suspension concentrations using the appropriate dosage per acre recommended on this label of Carbaryl 4L insecticide per 1.0 to 4.0 gallons of water are recommended). Then set sprinkler to deliver 0.1 to 0.3 inch of water per acre. Start sprinkler and uniformly inject the suspension of Carbaryl 4L insecticide into the irrigation water line so as to deliver the desired rate per acre. The suspension of Carbaryl 4L insecticide should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. If you should have any other questions about calibration, you should contact Cooperative Extension Service Specialists, equipment manufacturers or other experts.

**NOTE:** When treatment with Carbaryl 4L insecticide has been completed, further field irrigation over the treated area should be avoided for 24 to 48 hours to prevent washing the chemical off the crop.

# **APPLICATIONS THROUGH SPRINKLER IRRIGATION SYSTEMS**

Maintain continuous agitation in mix tank during mixing and application to assure a uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute solution per unit time.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shutdown. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment, when system connection or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product must be dismantled and drained.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop may result from nonuniform distribution of treated water.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. A person knowledgeable of the chemigation system and responsible for its operation shall shut the system down and make necessary adjustments should the need arise.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the label-prescribed safety devices for public water supplies are in place.

#### SPECIFIC USE DIRECTIONS

# **USE SITES:**

Asparagus

Brassica Leafy Vegetables

Cereal Grain Crops (Field and Pop Corn; Grain Sorghum; Rice; Sweet Corn)

Cucurbit Vegetables

Flax

Forage Crops (Alfalfa, Clovers, Birdsfoot Trefoil; Pasture and Grasses Grown for Hay and/or Seed; Rangeland)

Fruiting Vegetables

Leafy Vegetables (Dandelion, Endive, Lettuce, Parsley, Spinach; Leaf Petiole Subgroup 4B)

Legume Vegetables (Edible-Podded Legume Vegetables; Dried Shelled Peas and Beans (except Soybean); Soybeans; Foliage of Legume Vegetables)

Noncropland (Conservation Reserve Program; Set-Aside Program Acreage; Wasteland; Rights-of-Way; Hedgerows; Ditchbanks; Roadsides)

Okra

**Peanuts** 

**Prickly Pear Cactus** 

Root and Tuber Crops (Root and Tuber Crops except Sugar Beets and Sweet Potatoes; Sugar Beets; Sweet Potatoes)

Small Fruits and Berries (Bushberries, Caneberries, Cranberries, Grapes, Strawberries)

Sunflower

Tobacco

Tree Fruit Crops (Citrus Fruits; Olives; Pome Fruits; Stone Fruits)

Tree Nut Crops (Pistachios; Tree Nuts)

Forested Areas and Rangeland Trees

Ornamental Trees and Plants

**Turfgrass** 

Specific Pests Across Multiple Sites

Grasshoppers

Ticks which Vector Lyme Disease

Imported Fire Ants

**Nuisance Pests** 

#### **APPLICATION TIMING AND DIRECTIONS**

Begin application when insect populations reach recognized economic threshold levels. Consult the Cooperative Extension Service Specialists or other qualified authorities to determine appropriate threshold levels and timing for treatment in your area. Where a dosage range is indicated, use the lower rate on light to moderate infestations, young plants and early instars and use the higher rate on heavy infestations, mature plants, advanced instars and adults. Thorough and uniform spray coverage is essential for effective product performance.

#### **ASPARAGUS**

PEST	QUARTS OF THIS PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Apache cicada Asparagus beetle Cutworms	1.0	Repeat applications as necessary up to a total of 3 times prior to harvest or a total of 5 applications per year to spears and ferns combined. Do not apply more than once every 3 days.  For cutworm, this product is most effective against species which feed on the upper portions of the plant.
	2.0	Application to ferns or brush growth following harvest of spears: Repeat applications as necessary but not more often than every 3 days. Do not make more than a total of 5 applications per year to spears and ferns combined.

#### **RESTRICTIONS: ASPARAGUS**

- Do not apply within 1 day of harvest.
- Do not apply more than a total of 3.0 quarts per acre (3.0 lb ai/A) before harvest of spears.
- Do not apply more than a total of 5.0 quarts per acre per year (5.0 lb ai/A/Yr).
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom.

#### **BRASSICA LEAFY VEGETABLES CROPS**

All members of the Brassica Leafy Vegetable Group 5 including: Broccoli, Broccoli raab (rapini), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccolo, Chinese broccoli (gai lon), Chinese cabbage (bok choy), Chinese cabbage (napa), Chinese mustard cabbage (gai choy), Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens, Turnip greens.

	QUARTS OF THIS	
PEST		SPECIFIC DIRECTIONS
Flea beetles Harlequin bug Leafhoppers	0.5 to 1.0	Repeat applications as needed up to a total of 4 times per year but not more often than once every 7 days.
Armyworm Aster leafhopper Corn earworm Diamondback moth Fall armyworm Imported cabbageworm Lygus bugs Spittle bugs Stink bugs Tarnished plant bug	1.0 to 2.0	Repeat applications as needed up to a total of 4 times per year but not more often than once every 7 days.

#### **RESTRICTIONS:** BRASSICA LEAFY VEGETABLES

- For Head and Stem Brassica subgroup 5A [including Broccoli, Chinese broccoli (*gai lon*), Brussels sprouts, Cabbage, Chinese cabbage (*napa*), Chinese mustard cabbage (*gai choy*), Cauliflower, Cavalo broccolo, and Kohlrabi], do not apply within 3 days of harvest.
- For Leafy Brassica Greens subgroup 5B [Broccoli raab (rapini), Chinese cabbage (bok choy), Collards, Kale, Mizuna, Mustard greens, Mustard spinach, Rape greens, and Turnip greens], do not apply within 14 days of harvest.
- Do not apply more than a total of 6.0 quarts per acre per year (6.0 lb ai/A/Yr).
- Application is permitted only within 30 days from the date of crop emergence or the date of transplanting.
- BEE CAUTION: Do not apply this product to target crops or weeds in bloom.

# CEREAL GRAIN CROPS FIELD CORN AND POP CORN

	QUARTS OF THIS	
PEST		SPECIFIC DIRECTIONS
Armyworm Chinch bugs Corn earworm Corn rootworm adults Fall armyworm Flea beetles Leafhoppers Japanese beetle Sap beetles Southwestern corn borer	1.0 to 2.0	OBSERVE BEE CAUTION. Repeat applications as needed up to a total of 4 times per year but not more often than once every 14 days. Good timing and good coverage are essential for effective product performance. For best results on chinch bug, use ground equipment to apply at least 20.0 gallons of water per acre and direct spray toward stalk to provide thorough coverage. For best results on European corn borer, do not apply in less than 3.0 gallons of water per acre by air and 15.0 gallons of water by ground. For western bean cutworm, treat when infestation averages 15% and at 90 to 100% tassel emergence. Treatment after 100% silk emergence will reduce effectiveness. For best results on cutworm, apply in a 12-inch band, over the row, using sufficient volume of water to obtain thorough coverage. For broadcast application, use at least 20.0 gallons by ground or 5.0 gallons by air per acre.
European corn borer	1.5 to 2.0	For cutworm, this product is most effective against species which feed on the upper portions of the plant.
Cutworms	2.0	
Western bean cutworm	2.0	

#### **RESTRICTIONS: FIELD AND POP CORN**

- Do not apply within 48 days of harvest of grain and fodder or within 14 days of harvest or grazing of forage or silage.
- Do not apply more than a total of 8.0 quarts per acre per year (8.0 lb ai/A/Yr).
- Hand harvesting is prohibited.
- Restricted-entry interval (REI) = 24 hours.
  - EXCEPTION: the REI is 21 days for workers detasseling corn.
- BEE CAUTION: For corn: If application cannot be avoided when target crop or weeds are in bloom, limiting applications to times when bees are least active, e.g. within 2 hours of sunrise or sunset, will minimize risk to bees. Notifying beekeepers within 1 mile of treatment area at least 48 hours before product is applied will allow them to take additional steps to protect their bees.

#### **GRAIN SORGHUM**

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Armyworm	1.0 to 2.0	Repeat applications as necessary up to a total of 4
Chinch bugs		times per year but not more often than once every 7
Corn earworm		days.
Fall armyworm		Direct spray into forming heads for best results on in-
Stink bugs		sects attacking heads.
Webworms		For best results on chinch bug, use high gallonage
Southwestern corn	1.5	ground application at the base of plants.
borer		For cutworm, this product is most effective against
Cutworms	2.0	species which feed on the upper portions of the plant.

## **RESTRICTIONS: GRAIN SORGHUM**

- Do not apply within 21 days of harvest for grain or fodder or within 14 days of harvest or grazing of forage or silage.
- Do not apply more than a total of 6.0 quarts per acre per year (6.0 lb ai/A/Yr).
- BEE CAUTION: Do not apply this product to target crops or weeds in bloom.

#### RICE

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Armyworm	1.0 to 1.5	Up to 2 applications per year may be made but not
Chinch bugs		more often than once every 7 days.
Fall armyworm		
Leafhoppers		
Stink bugs		
Tadpole shrimp	1.5	California only
, ,		Up to 2 applications per year may be made but not
		more often than once every 7 days. For best results
		on tadpole shrimp, apply to water when pest first ap-
		pears.

#### **RESTRICTIONS: RICE**

- Do not apply within 14 days of harvest for grain or straw.
- Do not apply more than a total of 3.0 quarts per acre per year (3.0 lb ai/A/Yr).
- Discharge from rice fields may kill shrimp, crabs, and crayfish.
- Do not apply propanil herbicides within 15 days before or after application of this product or plant injury will result.
- BEE CAUTION: Do not apply this product to target crops or weeds in bloom.

#### **SWEET CORN**

PEST	QUARTS OF THIS	SPECIFIC DIRECTIONS
Armyworm	1.0 to 2.0	OBSERVE BEE CAUTION.
Chinch bugs	1.0 to 2.0	Repeat applications as necessary up to a total of 8
Corn earworm		times per year but not more often than once every 3
Corn rootworm		days.
adults		Good timing and good coverage are essential for ef-
Fall armyworm		fective product performance.
Flea beetles		For insects attacking silks and ears, insecticide sprays
Japanese beetle		should be applied starting when first silks appear and
Leafhoppers		continuing until silks begin to dry.
Sap beetles		During silking, the minimum retreatment interval (3
Southwestern corn		days) may not provide adequate levels of protection
borer		under conditions of rapid growth or severe pest pres-
European corn	1.5 to 2.0	sure. The use of an alternative product should be con-
borer		sidered in conjunction with this product.
Cutworms	2.0	For best results on chinch bug, use ground equipment
Western bean		to apply at least 20.0 gallons of water per acre and di-
cutworm		rect spray toward stalk to provide thorough coverage.
		For best results on European corn borer, do not apply
		in less than 3.0 gallons of water per acre by air and
		15.0 gallons of water by ground.  For western bean cutworm, treat when infestation
		average 15% and at 90 to 100% tassel emergence.
		Treatment after 100% silk emergence will reduce ef-
		fectiveness.
		For best results on cutworm, apply in a 12-inch band,
		over the row, using sufficient volume of water to obtain
		thorough coverage. For cutworm, this product is most
		effective against species which feed on the upper por-
		tions of the plant.
		For broadcast application, use at least 20.0 gallons by
		ground or 5.0 gallons by air per acre.

#### **RESTRICTIONS: SWEET CORN**

- Do not apply within 2 days of harvest of ears, within 14 days of harvest or grazing of forage, or within 48 days of harvest of fodder.
- Do not apply more than a total of 16.0 quarts per acre per year (16.0 lb ai/A/Yr).
- Hand harvesting is prohibited.
- Restricted-entry interval (REI) = 24 hours.
   EXCEPTION: the REI is 21 days for workers detasseling corn.
- BEE CAUTION: For corn: If application cannot be avoided when target crop or weeds are in bloom, limiting applications to times when bees are least active, e.g. within 2 hours of sunrise or sunset, will minimize risk to bees. Notifying beekeepers within 1 mile of treatment area at least 48 hours before product is applied will allow them to take additional steps to protect their bees.

#### **CUCURBIT VEGETABLES**

All members of the Cucurbit Vegetable Group 9 including: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd (edible, includes hyotan, cucuzza, hechima, Chinese okra), *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melo* including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin, Squash (includes summer squash types such as: crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini, and winter squash types such as acorn squash, butternut squash, calabaza, cushaw, Hubbard squash, spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus lanatus*).

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Melonworm		Repeat applications as necessary up to a total of 6
Pickleworm		times per year but not more often than once every 7
Cucumber beetles	1.0	days.
Flea beetles		For best results on squash bugs, apply sufficient spray
Leafhoppers		volume for thorough coverage and time sprays for ear-
Squash bugs		ly morning or late afternoon.

# **RESTRICTIONS: CUCURBIT VEGETABLES**

- Do not apply within 3 days of harvest.
- Do not apply more than a total of 6.0 quarts per acre per year (6.0 lb ai/A/Yr).
- Observe plant response precautions.
- BEE CAUTION: Do not apply this product to target crops or weeds in bloom.

#### **FLAX**

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Armyworm	1.0 to 1.5	Up to 2 applications per year may be made but not
		more often than once every 14 days.

#### **RESTRICTIONS:** FLAX

- DO NOT USE IN CALIFORNIA
- Do not apply within 42 days of harvest for seed or straw.
- Do not apply more than a total of 3.0 quarts per acre per year (3.0 lb ai/A/Yr).
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom.

# **FORAGE CROPS** ALFALFA, CLOVERS, AND BIRDSFOOT TREFOIL

	OLIABTE OF THIS	
PEST	QUARTS OF THIS PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Blister beetles	0.5 to 1.0	OBSERVE BEE CAUTION.
Mexican bean	0.0 to 1.0	Observe plant response precautions.
beetle		On dense growth, use 25.0 to 40.0 gallons of water
Alfalfa caterpillar	1.0	per acre with ground equipment to ensure adequate
Bean leaf beetle		coverage.
Cucumber beetles		For alfalfa weevil larvae, if pretreatment damage is ex-
Green cloverworm		tensive, cut alfalfa and treat the stubble. This product
Japanese beetle		is not effective against adult alfalfa weevils.
Leafhoppers		For cutworm, this product is most effective against
Potato leafhopper		species which feed on the upper portions of the plant.
Three cornered		
alfalfa hopper		
Thrips		
Velvetbean		
_caterpillar		
Alfalfa blotch	1.0 to 1.5	
leafminer		
Armyworm		
Cloverhead weevil		
larvae		
Corn earworm		
Cutworms		
Egyptian alfalfa		
_weevil larvae		
Essex skipper		
European alfalfa		
beetle		
Fall armyworm		
Lygus bugs		
Stink bugs		
Webworms		
Yellow striped		
armyworm Alfalfa weevil	1.0 to 1.5	
	1.0 (0 1.5	
larvae (west of the Rocky		
Mountains)		
Alfalfa weevil	1.5	-
larvae (east of	1.5	
the Rocky		
Mountains)		

#### **RESTRICTIONS:** FORAGE CROPS

- Do not apply more than once per cutting.Do not apply within 7 days of harvest or grazing.
- Do not exceed 1.5 quarts per acre (1.5 lbs ai/A) per cutting.
- Carbaryl may cause a temporary bleaching of tender alfalfa foliage.
- BEE CAUTION: Do not apply this product to target crops or weeds in bloom.

#### PASTURE AND GRASSES GROWN FOR HAY AND/OR SEED

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Armyworm	1.0 to 1.5	Up to 2 applications per year may be made but not
Chinch bugs		more often than once every 14 days.
Cereal rust mite		To kill thrips in grasses grown for hay or seed, use
Essex skipper		high spray pressure to improve penetration into boot.
Fall armyworm		Accurately mark swaths to avoid over-application.
Striped grass		*Will kill only ticks present at the time of application
looper		and directly contacted by product.
Thrips		
Range caterpillar		
Range crane fly		
Ticks*	1.0	

# **RESTRICTIONS:** PASTURE AND GRASSES GROWN FOR HAY AND/OR SEED

- Do not apply within 14 days of harvest or grazing.
- Do not exceed a total of 3.0 quarts per acre per year (3.0 lb ai/A/Yr).
- BEE CAUTION: Do not apply this product to target crops or weeds in bloom.

#### **RANGELAND**

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Black grass bug	0.5 to 1.0	Do not make more than 1 application per year.
Range caterpillar		Accurately mark swaths to avoid over-application.
Range crane fly		Aerial application is allowed only through USDA
Grasshoppers	0.5	APHIS and affiliated state grasshopper and Mormon
Mormon cricket		Cricket suppression programs. Reduced Area and
Ticks**	1.0	Agent Treatment (RAATs) is required. See the follow-
		ing web site for details – <a href="https://www.aphis.usda.gov/">https://www.aphis.usda.gov/</a>
		import_export/plants/manuals/domestic/downloads/
		eis.pdf
		**Will kill only ticks present at the time of application
		and directly contacted by product.

#### **RESTRICTIONS: RANGELAND**

- May be harvested or grazed the same day as treatment.
- Do not apply more than 1.0 quart per acre per year (1.0 lb ai/A/Yr).
- BEE CAUTION: Do not apply this product to target crops or weeds in bloom.

#### FRUITING VEGETABLES

All members of the Fruiting Vegetable Group 8 including: Eggplant, Groundcherry, Pepinos, Pepper (includes: bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), Tomatillo, Tomato.

DEST	QUARTS OF THIS	SDECIEIC DIDECTIONS
Flea beetles Leafhoppers Colorado potato beetle European corn borer Fall armyworm Lace bugs Stink bugs (suppression) Tarnished plant bug Thrips (suppression) Tomato fruitworm Tomato hornworm	0.5 to 1.0 1.0 to 2.0	Repeat applications as necessary up to a total of 7 times per year but not more often than once every 7 days.  Thorough coverage is essential to effectively suppress stink bugs.  When disease transmission is suspected, monitor fields following application and retreat if reinfestation occurs but not more often than once every 7 days.  For cutworm, this product is most effective against species which feed on the upper portions of the plant.
Cutworms	2.0	

#### **RESTRICTIONS:** FRUITING VEGETABLES

- Do not apply within 3 days of harvest.
- Do not apply more than a total of 8.0 quarts per year (8.0 lb ai/A/Yr).
- BEE CAUTION: Do not apply this product to target crops or weeds in bloom.

#### **LEAFY VEGETABLES**

Dandelion; Endive (escarole); Lettuce (head and leaf); Parsley; Spinach;

All members of the Leaf Petiole Vegetable Subgroup 4B including: Cardoon, Celery, Celtuce, Chinese celery, Florence fennel (including sweet anise, sweet fennel, Finocchio), Rhubarb, Swiss chard.

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Flea beetles Harlequin bug Leafhoppers	0.5 to 1.0	Repeat applications as necessary up to a total of 5 times per year but not more often than once every 7 days.
Armyworm Aster leafhopper Corn earworm Fall armyworm Imported cabbageworm Lygus bugs Spittlebugs Stink bugs Tarnished plant bug	1.0 to 2.0	

**RESTRICTIONS:** LEAFY VEGETABLES • Do not apply within 14 days of harvest.

• Do not apply more than a total of 6.0 quarts per acre per year (6.0 lb ai/A/Yr).

• BEE CAUTION: Do not apply this product to target crops or weeds in bloom.

#### LEGUME VEGETABLES

All members of the Edible Podded Legume Vegetable Subgroup 6A including: Phaseolus sp. including runner bean, snap bean, and wax bean; Vigna sp. including asparagus bean, Chinese longbean, moth bean, and yardlong bean; Pisum sp. including dwarf pea, edible-pod pea, snow pea, sugar snap pea; Jackbean; Pigeon pea; Soybean (immature seed); Sword bean;

All members of the Dried Shelled Legume Vegetable (except soybean) Subgroup 6C including: Lupinus sp. including grain lupin, sweet lupin, white lupin, and white sweet lupin; Phaseolus sp. including field bean, kidney bean, dry lima bean, navy bean, pinto bean, tepary bean; Vigna sp. including adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, Urd bean; Pisum sp. including dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea; Broad bean (dry); Chickpea (dry); Guar (dry); Lablab bean (dry); Lentil (dry); Pigeon pea (dry);

All members of the Foliage of Legume Vegetables Crop Group 7: Plant parts of any legume vegetables included in the legume vegetable (Crop Group 6) that will be used as animal feed; Soybeans.

_	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Bean leaf beetle	0.5 to 1.0	Repeat applications as necessary up to a total of 4
Blister beetle		times per year but not more often than once every 7
Cucumber beetles		days.
Grape colaspis		For cutworm, this product is most effective against
Green cloverworm		species which feed on the upper portions of the plant.
Japanese beetle		Use lower rates for light to moderate populations and
Mexican bean		smaller instars. Use the higher rates for heavy popu-
beetle		lations and larger instars.
Velvetbean		
caterpillar		•
Corn earworm	0.5 to 1.5	
Alfalfa caterpillar	1.0	
Colorado potato		
beetle		
Flea beetles		
Leafhoppers		
Three cornered		
alfalfa hopper		
Thrips Western bean		
cutworm		
Armyworm	1.0 to 1.5	
Cutworms	1.0 to 1.5	
European corn		
borer		
Fall armyworm		
Stink bugs		
Tarnished plant bug		
Webworms		

Legume Vegetables cont'd

	QUARTS OF THIS	
PEST	PRODUCT PER ACRI	SPECIFIC DIRECTIONS
Alfalfa looper	1.5	Repeat applications as necessary up to a total of 4
(suppression)		times per year but not more often than once every 7
Cowpea curculio		days.
(suppression)		For cutworm, this product is most effective against
Painted lady		species which feed on the upper portions of the plant.
(Thistle caterpillar)		Use lower rates for light to moderate populations and
Pea leaf weevil		smaller instars. Use the higher rates for heavy popu-
Pea weevil		lations and larger instars.
Saltmarsh		
caterpillar		
Woollybean		
caterpillar Yellowstriped		
armyworm		
California only:	1.5	
Corn earworm	1.0	
(suppression)		
Limabean podborer		
(suppression)		
Lygus bugs		
(suppression)		
Stink bugs		
(suppression)		

#### **RESTRICTIONS:** LEGUME VEGETABLES

- Do not apply within 14 days of grazing or harvest for forage or within 3 days of harvest of fresh edible-podded beans or peas or within 21 days of harvest of dried beans or peas, seed, or hay.
- Do not apply more than a total of 6.0 quarts per acre per year (6.0 lb ai/A/Yr).
- Do not apply a combination of this product and 2,4-DB herbicides to soybeans as crop injury may result.
- Use on succulent, shelled peas and beans (Crop Subgroup 6B) is prohibited.
- Observe plant response precautions.
- DO NOT USE ON LENTILS IN CALIFORNIA
- **BEE CAUTION:** For crops in bloom (except soybeans): Do not apply this product to target crops or weeds in bloom.

For soybeans: If application cannot be avoided when target crop or weeds are in bloom, limiting applications to times when bees are least active, e.g. within 2 hours of sunrise or sunset, will minimize risk to bees.

Notifying beekeepers within 1 mile of treatment area at least 48 hours before product is applied will allow them to take additional steps to protect their bees.

#### **NONCROPLAND**

Conservation Reserve Program Acreage, Set-Aside Program Acreage, Wasteland, Rights-of-Way, Hedgerows, Ditchbanks, Roadsides

	T	
	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Black grass bug	0.25 to 0.5 qt per acre	Up to 2 applications per year may be made but not
	(0.187 to 0.375 fl oz	more often than once every 14 days.
	per 1000 ft <sup>2</sup> )	Accurately mark swaths to avoid over-application.
Range caterpillar	0.5 to 1.0 qt per acre	* Will kill only pests that are present at the time of ap-
Range crane fly	(0.375 to 0.75 fl oz	plication and directly contacted by product.
	per 1000 ft <sup>2</sup> )	
Mormon cricket	0.5 qt per acre	
	(0.375 fl oz	
	per 1000 ft <sup>2</sup> )	
Ticks*	1.0 qt per acre	
	$(0.75 \text{ fl oz per } 1000 \text{ ft}^2)$	

# **RESTRICTIONS: NONCROPLAND**

- Do not apply within 14 days of grazing or harvest for forage or hay.
- Do not apply more than a total of 3.0 quarts per acre per year (3.0 lb ai/A/Yr).
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom.

#### OKRA\*

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Corn earworm Stink bugs		Apply using ground equipment in sufficient volume to insure good coverage.  Apply as needed on 6- to 8-day intervals.
		For grasshopper, refer to the general Grasshopper Section.

#### **RESTRICTIONS:** OKRA

- Do not apply within 3 days of harvest.
- Do not apply more than a total of 6.0 quarts per acre per year (6.0 lb ai/A/Yr).
- BEE CAUTION: Do not apply this product to target crops or weeds in bloom.
- \* Use not permitted in CA.

## **PEANUTS**

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Blister beetles	0.5 to 1.0	Repeat applications as necessary up to a total of 5
Mexican bean		times per year but not more often than once every 7
beetle		days.
		For best results on thrips, use directed or banded
		sprays with hollow cone spray nozzles. Ensure ade-
		quate coverage for the underside of leaves.
		For cutworm, this product is most effective against
		species which feed on the upper portions of the plant.

#### Peanuts cont'd

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Alfalfa caterpillar Bean leaf beetle Cucumber beetle Green cloverworm Japanese beetle Leafhoppers Rednecked peanutworm Three cornered alfalfa hopper Thrips Velvetbean	1.0	Repeat applications as necessary up to a total of 5 times per year but not more often than once every 7 days.  For best results on thrips, use directed or banded sprays with hollow cone spray nozzles. Ensure adequate coverage for the underside of leaves.  For cutworm, this product is most effective against species which feed on the upper portions of the plant.
caterpillar Armyworm Corn earworm Fall armyworm Stink bugs Webworms	1.0 to 1.5	
Cutworms Whitefringed beetle adults	2.0	

#### **RESTRICTIONS: PEANUTS**

- Do not apply within 14 days of harvest.
- Do not apply more than a total of 8.0 quarts per acre per year (8.0 lb ai/A/Yr).
- Observe plant response precautions.
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom.

#### **PRICKLY PEAR CACTUS\***

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Cochineal scale	2.0	Apply using ground equipment in sufficient volume to
(crawlers)		insure good coverage.
		Apply as needed on 7- to 10-day intervals.
		For grasshopper, refer to the Grasshopper Section.

#### **RESTRICTIONS: PRICKLY PEAR CACTUS**

- Do not apply within 3 days of harvest.
- Do not apply more than a total of 6.0 quarts per acre per year (6.0 lb ai/A/Yr).
- BEE CAUTION: Do not apply this product to target crops or weeds in bloom.
- \*Use not permitted in CA.

# ROOT AND TUBER CROPS ROOT AND TUBER CROPS EXCEPT SUGAR BEETS AND SWEET POTATOES

All members of the Root and Tuber Vegetable Crop Group 1 except sugar beet and sweet potato: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Beet (garden), Beet (sugar, root), Burdock (edible), Canna (edible, Queensland arrowroot), Carrot, Cassava (bitter & sweet), Celeriac (celery root), Chayote (root), Chervil (turnip-rooted), Chicory, Chufa, Dasheen (taro), Ginger, Ginseng, Horseradish, Leren, Parsley (turnip-rooted), Parsnip, Potato, Radish, Oriental radish (daikon), Rutabaga, Salsify (black), Salsify (oyster plant), Salsify (Spanish), Skirret, Tanier (cocoyam), Turmeric, Turnip, Yam bean (jicama, manioc pea), Yam (true).

	QUARTS OF THIS	
PEST		SPECIFIC DIRECTIONS
Flea beetles	0.5 to 1.0	Repeat applications as necessary up to a total of 6
Leafhoppers		times per year but not more often than once every 7
Armyworm	1.0 to 2.0	days.
Aster leafhopper		For cutworm, this product is most effective against
Colorado potato		species which feed on the upper portions of the plant.
beetle		
Corn earworm		
Cutworms		
European corn borer		
Fall armyworm		
Lace bugs		
Lygus bugs		
Spittlebugs		
Stink bugs		
Tarnished plant bug		

**RESTRICTIONS:** ROOT AND TUBER CROPS EXCEPT SUGAR BEETS AND SWEET POTATOES

- Do not apply within 7 days of harvest.
- Do not apply more than a total of 6.0 quarts per acre per year (6.0 lb ai/A/Yr).
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom.

#### **SUGAR BEETS**

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Armyworm	1.0 to 1.5	Repeat applications as necessary up to a total of 2
Beet leaf beetle		times per year but not more often than once every 14
Fall armyworm		days.
Flea beetles		For cutworm, this product is most effective against
Leafhoppers		species which feed on the upper portions of the plant.
Webworms		
Cutworms	1.5	

#### **RESTRICTIONS:** SUGAR BEETS

- Do not apply within 28 days of harvest for roots or forage.
- Do not apply more than a total of 3.0 quarts per acre per year (3.0 lb ai/A/Yr).
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom.

#### **SWEET POTATOES**

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Corn earworm	1.0 to 2.0	For foliar sprays, repeat applications as necessary up
Cucumber beetles		to a total of 8 times per year but not more often than
Flea beetles		once every 7 days.
Sweet potato		
hornworm		
Sweet potato		
weevil		
Tortoise beetles		
Whitefringed		
beetle		
Yellowstriped	2.0	
armyworm		

## **RESTRICTIONS: SWEET POTATOES**

- Do not apply within 7 days of harvest.
- Do not apply more than a total of 8.0 quarts per acre per year (8.0 lb ai/A/Yr).
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom.

#### **SMALL FRUITS AND BERRIES**

## All members of the Caneberry Subgroup 13-07A including:

**Blackberry** (*Rubus* spp. - including Andean Blackberry, Arctic blackberry, Bingleberry, Black satin berry, Boysenberry, Brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyene blackberry, Common blackberry, Coryberry, Darrowberry, Dewberry, Dirksen thornless berry, Evergreen blackberry, Himalayaberry, Hullberry, Lavacaberry, Loganberry, Lowberry, Lucretiaberry, Mammoth blackberry, Marionberry, Mora, Mures deronce, Nectarberry, Northern dewberry, Olallieberry, Oregon evergreen berry, Phenomenalberry, Rangeberry, Ravenberry, Rossberry, Shawnee blackberry, Southern dewberry, Tayberry, Youngberry, Zarzamora, plus cultivars, varieties and/or hybrids of these).

**Raspberry** (*Rubus* spp. - including Bababerry, Black raspberry, Blackcap, Caneberry, Framboise, Frambuesa, Himbeere, Keriberry, Mayberry, Purple raspberry, Red raspberry, Thimbleberry, Tulameen, Wild raspberry, Yellow raspberry, plus cultivars, varieties and/or hybrids of these).

All members of the Bushberry Subgroup 13-07B including: Aronia berry, Blueberry (*Vaccinium* spp. - highbush, lowbush and cultivars and/or hybrids of these [= all blueberry species]), Chilean guava, Currant (black, buffalo, native and red), European barberry, Gooseberry, Highbush cranberry, Honeysuckle (edible), Huckleberry, Jostaberry, Juneberry, Lingonberry, Salal, Sea buckthorn, plus cultivars, varieties and/or hybrids of these.

Small Fruits and Berries cont'd

Siliali Fiults aliu E	1	
DECT	QUARTS OF THIS	SDECIFIC DIDECTIONS
PEST	i	SPECIFIC DIRECTIONS
European fruit	1.0 to 2.0	OBSERVE BEE CAUTION.
lecanium		Repeat applications as necessary up to a total of 5
European		times per year but not more often than once every 7
raspberry aphid		days.
Flea beetles		For cutworm, this product is most effective against
Grape leaffolder		species which feed on the upper portions of the plant.
Grape leafroller		In grapes for grape leaffolder, apply before first brood
Japanese beetle		larvae emerge from rolls.
Leafhoppers		In grapes, do not concentrate spray on the bunch or
Leafrollers		visible residues may result.
Meadow spittlebug		
Omnivorous leaftier		
Rose chafer		
Snowy tree cricket		
Strawberry bud		
weevil		
Strawberry clipper		
Strawberry		
fruitworm		
Strawberry		
leafroller		
Strawberry weevil		
Western grapeleaf		
skeletonizer		
Western		
yellowstriped		
armyworm		
Blueberry maggot	1.5 to 2.0	
Cherry fruitworm		
Cranberry fireworm		
Cranberry		
fruitworms		
Cranberry twig		
girdler		
Elm spanworm		
Gypsy moth		
Sparganothis worm		
Tarnished plant bug		
Eight-spotted forester	2.0	
Cutworms		
Grape berry moth		
June beetles		
Omnivorous leafroller		
Orange tortrix		
Raspberry fruitworm		
Raspberry sawfly		
Redbanded leafroller		
Saltmarsh caterpillar		

#### **RESTRICTIONS:** SMALL FRUITS AND BERRIES

- Do not apply within 7 days of harvest.
- Do not apply more than a total of 10.0 quarts per acre per year (10.0 lb ai/A/Yr).
- Use on cranberries may kill shrimp and crabs. Do not use in areas where these are important resources.
- Carbaryl may injure Early Dawn and Sunrise varieties of strawberries.
- For **GRAPES** only:

<u>East of the Rocky Mountains</u>: the restricted-entry interval (REI) = 2 days for all activities except grape girdling and cane turning.

**EXCEPTION:** the REI is 6 days for grape girdling and cane turning.

West of the Rocky Mountains: the restricted-entry interval (REI) = 6 days.

- Restricted-entry interval (REI) = 12 hours for Caneberries, Bushberries, Cranberries, and Strawberries.
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom. If weed or cover crop bloom is present, mow orchard floor or between rows prior to applying this product.

#### **SUNFLOWERS**

PEST	QUARTS OF THIS	SPECIFIC DIRECTIONS
	<del> </del>	
Stem weevil		Up to 2 applications may be made per year but not
Sunflower beetle		more often than once every 7 days.
Armyworm	1.5	For cutworm, this product is most effective against
Cutworms		species which feed on the upper portions of the plant.
Fall armyworm		
Sunflower moth		

#### **RESTRICTIONS: SUNFLOWERS**

- Do not apply within 30 days of grazing or harvest for forage or within 60 days of harvest for seed.
- Do not apply more than a total of 3.0 quarts per acre per year (3.0 lb ai/A/Yr).
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom.
- DO NOT USE IN CALIFORNIA.

#### **TOBACCO**

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Budworms	1.0 to 2.0	Plant bed and Field Treatment
Fall armyworm		Repeat treatments as necessary up to a total of 4
Hornworms		times per year but not more often than once every 7
Japanese beetle		days.
June beetle		Use lower rate on young plants (up to knee height).
Suckfly		Use at least 10.0 gallons of prepared spray per acre.
Tobacco flea beetles		Begin treatments when worms are small.

#### **RESTRICTIONS: TOBACCO**

- Do not apply within 2 days of harvest.
- Do not apply more than a total of 8.0 quarts per acre per year (8.0 lb ai/A/Yr).
- Observe plant response precautions.
- Restricted-entry interval (REI) = 2 days (48 hours).
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom.

#### TREE FRUIT CROPS

On all tree fruit crops, apply in sufficient volume for adequate coverage. This will vary depending on the pest and its severity, the tree condition, size, and density, and other factors.

#### **CITRUS FRUITS**

All members of the Citrus Fruit Group 10 including: Calamondin, Citrus citron, Citrus hybrids (*Citrus* spp., includes chironja, tangelo and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Orange (sweet and sour), Pummelo, Satsuma mandarin, White sapote (*Casimiroa* spp.), and other cultivars and/or hybrids of these.

PEST	QUARTS OF THIS	SPECIFIC DIRECTIONS
	PRODUCT PER ACRE	
Avocado leafroller	2.0 to 3.0	OBSERVE BEE CAUTION.
California orangedog		Repeat applications as necessary up to a
Citrus cutworm		total of 8 times per year but not more often
Fruittree leafroller		than once every 14 days.
Orange Tortrix		For scale, apply when crawlers are present.
Western tussock moth		For best results on Eriophyid mites including
Citrus rust mite	3.0 to 5.0	Citrus rust mite, apply when pest popula-
Eriophyid mites		tions are low.
Plant bugs		
Scale insects		
[Black scale, brown soft		
scale, California red scale		
(except in California), citrus		
snow scale, yellow scale		
(except in California)]		
Apopka weevil (adult)	5.0	
Citrus root weevils (adults)		
Fuller Rose Beetle		
Little leaf notcher (adult)		
California only:	5.0 to 12.0	Do not make more than 1 application per
California red scale		year for California red scale. Apply when
Yellow scale		crawlers are present.
Florida only:	5.0 to 8.0	Apply as a foliar spray in adequate volume
Adult citrus weevils		to obtain uniform coverage. May be applied
(such as, Artipes floridanus,		by ground as a dilute or concentrate spray.
Diaprepes abbreviatus,		May be applied by air in 10.0 to 25.0 gallons
Pantomorus cervinus, and		of water per acre. Repeat application as
Pachnaeus spp.)		necessary up to a total of 3 times per year
		but not more often than once every 14 days.

## **RESTRICTIONS: CITRUS FRUITS**

- Do not apply within 5 days of harvest.
- All States including California and Florida:
  - Do not apply more than a total of 20.0 quarts per acre per year (20.0 lb ai/A/Yr).
- California only:
  - Restricted-entry interval (REI) = 3 days for application rates  $\geq$  5.0 quarts per acre. Do not apply more than 12.0 quarts per acre (12.0 lbs ai/A) per application.
- Florida only:
  - Restricted-entry interval (REI) = 3 days for applications rates  $\geq 5.0$  quarts per acre.
  - Do not apply more than 8.0 quarts per acre (8.0 lbs ai/A) per application.

#### Restrictions: Citrus Fruits cont'd

- All States other than California and Florida: Restricted-entry interval (REI) = 12 hours
  - Do not apply more than 5.0 quarts per acre per application.
- **BEE CAUTION:** Do not apply this product to target crop in bloom. Mowing weed or cover crop bloom prior to applying this product will reduce hazard to bees.

#### **OLIVES**

	QUARTS OF THIS PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Scale insects	5.0 to 7.5	Up to 2 applications per crop may be made but not
(black scale, olive		more often than once every 14 days.
scale)		

#### **RESTRICTIONS: OLIVES**

- Do not apply within 14 days of harvest.
- Do not apply more than a total of 15.0 quarts per acre per year (15.0 lb ai/A/Yr).
- Restricted-entry interval (REI) = 3 days (72 hours).
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom. If weed or cover crop bloom is present, mow orchard floor or between rows prior to applying this product.

#### **POME FRUITS**

**Members of the Pome Fruit Group 11 including:** Apple, Crabapple, Loquat, Mayhaw, Pear, Oriental pear.

	T	
	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
White apple	0.5 to 1.5	OBSERVE BEE CAUTION.
leafhopper		On apples, avoid use during the period from full bloom
Apple aphid	1.0 to 3.0	until 30 days after full bloom unless fruit thinning is
Codling moth		desired. Use for pesticidal activity during this period
Apple aphid	1.5 to 3.0	may also result in fruit removal. Repeat applications
Apple maggot		as necessary up to a total of 8 times per crop (includ-
Apple mealybug		ing thinning sprays on apples) but not more often than
Apple rust mite		once every 14 days.
Bagworms		For psylla, apply when eggs hatch or young nymphs
California pearslug		are present.
(pear sawfly)		For scale, apply when crawlers are present.
European apple		
sawfly		
Eyespotted bud		
moth		
Fruittree leafroller		
Gypsy moth		
Japanese beetle		
Lesser appleworm		
Lygus bugs		
Orange tortrix		
Pearleaf blister mite		
Pear psylla		
Pear rust mite		
Periodical cicada		

# Pome Fruits cont'd QUARTS OF THIS

PEST	QUARTS OF THIS	SPECIFIC DIRECTIONS
Plum curculio Redbanded leafroller Rosy apply aphid Scale insects (Forbes scale, Lecanium scale, San Jose scale) Tarnished plant bug Tentiform leafminers Woolly apple aphid Yellowhead	1.5 to 3.0	OBSERVE BEE CAUTION. On apples, avoid use during the period from full bloom until 30 days after full bloom unless fruit thinning is desired. Use for pesticidal activity during this period may also result in fruit removal. Repeat applications as necessary up to a total of 8 times per crop (including thinning sprays on apples) but not more often than once every 14 days. For psylla, apply when eggs hatch or young nymphs are present. For scale, apply when crawlers are present.
Apples Only, for Fruit Thinning	1.0 to 3.0	OBSERVE BEE CAUTION. Apply 1.0 to 3.0 quarts per acre of Carbaryl 4L insecticide between 80% petal fall and 16 mm fruit size. Use the higher rates on hard to thin varieties at the early timing which is the 80% petal fall to 6 mm fruit size. Use the lower rates on easy to thin varieties and at the later thinning period which is the 10 to 16 mm fruit size. The rate to use per acre will depend on varieties, tree size, row spacing and weather conditions at the time of and following applications.  The most effective spray gallonage will depend on the tree size, planting density, row spacing and amount of foliage. Use sufficient spray volume to insure adequate coverage (100 to 400 gallons/acre). Avoid spray to the point of runoff. Reduce spray coverage to the lower portion of the tree since overthinning may occur here.  Factors such as climatic temperature, high humidity, frost, tree age, variety, nutrition, previous crop, pruning and bloom may influence fruit thinning results with the product. Exercise caution to avoid possible overthinning. For the most effective results, apply under good drying conditions and when daytime temperatures (°F) will be 70 to low 80s for the following 1 to 3 days. Application with daytime temperatures in excess of 80°F may result in overthinning.  Carbaryl 4L insecticide may be mixed with other fruit thinners, however, use caution to avoid overthinning and other adverse effects. Consult with local fruit thinning experts in your area for recommendations on appropriate tank mixing partners. Refer to the other product labels for specific use directions.  NOTE: The use of Carbaryl 4L insecticide may result in fruit deformity under certain environmental conditions. Before using on any variety of apples, the user must weigh the risk versus benefits when using this product, particularly when using between 80% petal

#### Pome Fruits cont'd

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Apples Only, for Fruit Thinning cont'd	1.0 to 3.0	fall and <b>6 mm fruit size</b> . Red Delicious are more sensitive to this phenomenon and in particular, the varieties Bisbee, Red Chief and Vallee Spur are very susceptible to conditions causing fruit deformity. Precipitation and temperatures below 65°F increase the possibility of fruit deformity. The use with summer spray oils and wetting agents may increase the risk of fruit deformity and injury. Consult with fruit thinning experts in your area for advice on using this product on specific apple varieties under local growing conditions or other questions. Observe all restrictions on the use of this product for apple thinning.

# **RESTRICTIONS:** POME FRUITS

- Do not apply to quince.
- Do not use on pears between the tight flower cluster up to the 20 mm fruit size. Use during this period may result in undesirable fruit thinning and/or deformed fruit.
- Do not apply within 3 days of harvest.
- Do not apply more than a total of 15.0 quarts per acre per year (15.0 lb ai/A/Yr).
- Do not make more than a total of 8 applications per year.
   FOR PROTECTION OF HONEY BEES:
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom. If weed or cover crop bloom is present, mow orchard floor or between rows prior to applying this product.

# For Apple Thinning Use

- Do not apply during bloom.
- Remove bee hives from orchard to be treated before applying this product. Removing bee hives from adjacent orchards will further minimize risk to bees.

#### Drift Management

For airblast application, follow the following drift management practices:

- Adjust deflectors and aiming devices so that spray is only directed into the canopy;
- Block off upward pointed nozzles when there is no overhanging canopy;
- Do not allow the spray to go beyond the edge of the cultivated area (i.e., turn off sprayer when turning at end rows);

For applications to the outside rows, only spray inward, toward the orchard.

# **STONE FRUITS**

All members of the Stone Fruit Group 12 including: Apricot, Cherry (including sweet and tart), Nectarine, Peach, Plum (including Chickasaw, Damson and Japanese), Plumcot, Prune (fresh).

PEST	QUARTS OF THIS	SPECIFIC DIRECTIONS
Apple pandemis	2.0 to 3.0	OBSERVE BEE CAUTION.
Black cherry aphid	2.0 to 0.0	Repeat applications as necessary up to a total of 3
Cherry fruitworm		times per crop but not more often than once every 7
Cherry maggot		days. An additional application at the dormant or de-
(Cherry fruit fly)		layed dormant timing may be made.
		For best results on scale, apply when crawlers are
Codling moth Cucumber beetles		present.
Eastern tent		For lesser peachtree borer, best results have been
caterpillar		found by thoroughly spraying limbs and tree trunks at
Eyespotted bud moth		weekly intervals during moth flight.
European earwig		
Fruittree leafroller		
Green fruitworm		
Gypsy moth		
Japanese beetle		
June beetle		
Lesser peachtree		
borer		
Mealy plum aphid		
Orange tortrix		
Oriental fruit moth		
Peach twig borer		
Periodical cicada		
Plum curculio		
Prune leafhopper		
Redbanded leafroller		
Rose chafer		
Scale insects		
(Brown soft scale,		
Forbes scale,		
Lecanium scale,		
Olive scale,		
Oystershell scale,		
San Jose scale)		
Tarnished plant bug		
Tussock moth		
Variegated leafroller		
Peach twig borer	4.0 to 5.0	For dormant or delayed dormant timing, apply in
Scale insects		combination with a recommended dormant oil.
(Brown soft scale,		Refer to the dormant oil product label for additional
Forbes scale,		use directions and restrictions.
Lecanium scale,		
Olive scale,		
Oystershell scale,		
San Jose scale)		

#### Stone Fruits cont'd

	QUARTS OF THIS	
PEST		RE SPECIFIC DIRECTIONS
California Only:	3.0 to 4.0	OBSERVE BEE CAUTION.
Black cherry aphid		Repeat applications as necessary up to a total of 3
Cherry fruitworm		times per crop but not more often than once every
Cherry maggot		14 days. An additional application at the dormant or
(Cherry fruit fly)		delayed dormant timing may be made.
Codling moth		For best results on scale, apply when crawlers are
Cucumber beetles		present.
Eyespotted bud		
_moth		
European earwig		
,		
· · · · · · · · · · · · · · · · · · ·		
,		
,		
Fruittree leafroller Green fruitworm Mealy plum aphid Orange tortrix Oriental fruit moth Peach twig borer Scale insects (Brown soft scale, Forbes scale, Lecanium scale, Olive scale, Oystershell scale, San Jose scale) Tarnished plant bug Tussock moth		

#### **RESTRICTIONS: STONE FRUIT**

- Do not apply within 3 days of harvest, except in California. In California, do not apply within 1 day of harvest.
- All States including California:

Do not apply more than a total of 14.0 guarts per acre per year (14.0 lb ai/A/Yr).

Do not apply more than a total of 5.0 quarts per acre (5.0 lbs ai/A) at the dormant or delayed dormant timing.

Do not apply more than a total of 9.0 guarts per acre (9.0 lbs ai/A) during the production season.

- California only:
  - Do not apply more than 4.0 quarts per acre (4.0 lbs ai/A) per application during the production season.
- All States other than California:
  - Do not apply more than 3.0 quarts per acre (3.0 lbs ai/A) per application during the production season.
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom. If weed or cover crop bloom is present, mow orchard floor or between rows prior to applying this product.

#### TREE NUT CROPS

On all tree nut crops, apply in sufficient volume for adequate coverage. This will vary depending on the pest and its severity, the tree condition, size, density, and other factors.

#### **PISTACHIOS**

-	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Brown soft scale	3.0 to 5.0	Repeat applications as necessary up to a total of 4
Lecanium scale		times per year (including any applications at the dor-
Navel orangeworm		mant or delayed dormant timing) but not more often
		than once every 7 days.
		For scale, apply when crawlers are present.
Scale insects	4.0 to 5.0	For dormant or delayed dormant timing, apply in
		combination with a recommended dormant oil. Refer
		to the dormant oil product label for additional use
		directions and restrictions.
California Only:	3.0 to 6.0	Apply by air in a minimum of 20.0 gallons of water
Armyworm		per acre.
Navel orangeworm		Do not make more than 1 application at the maximum
		rate of 6.0 quarts per acre per year for armyworm and
		navel orangeworm.
		If needed, make up to 3 additional applications per
		year at a rate not exceeding 5.0 quarts per acre
		(including any applications at the dormant or delayed
		dormant timing) but not more than once every 7 days.

#### **RESTRICTIONS:** PISTACHIOS

- Do not apply within 14 days of harvest.
- For all states including California:

Do not apply more than a total of 15.0 quarts per acre per year (15.0 lb ai/A/Yr), including any application at the dormant or delayed dormant timing.

- California only:
  - For a first application in a year, apply no more than 6.0 quarts per acre (6.0 lb ai/A). For any additional application, do not apply more than 5.0 quarts per acre (5.0 lb ai/A) per application.
- All States other than California:
  - Do not apply more than 5.0 quarts per acre (5.0 lb ai/A) per application.
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom. If weed or cover crop bloom is present, mow orchard floor or between rows prior to applying this product.

#### TREE NUTS

**All members of the Tree Nut Group 14 including:** Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia nut (bush nut), Pecan, Walnut [including black and English (Persian) walnuts].

		T
	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Black margined	2.0 to 5.0	OBSERVE BEE CAUTION.
aphid		Repeat applications as necessary up to a total of 4
Calico scale		times per crop (including any applications at the dor-
Codling moth		mant or delayed dormant timing) but not more often
European fruit		than once every 7 days.
lecanium		Use lower rates for pests attacking leaves. Use
Fall webworm		higher rates for pests attacking fruit and for higher
Filbert aphid		infestations.
Filbert leafroller		For scale insects, apply when crawlers are present.

#### Tree Nuts cont'd

Tree Nats com a	QUARTS OF THIS	
PEST	<del>i</del>	SPECIFIC DIRECTIONS
Filbertworm Frosted scale Fruittree leafroller Hickory shuckworm Lesser webworm Navel orangeworm Peach twig borer Pecan leaf phylloxera Pecan stem phylloxera Pecan nut casebearer Pecan spittlebug Pecan weevil San Jose scale Twig girdler Walnut caterpillar	2.0 to 5.0	For peach twig borer, best results with foliar applications have been found by making applications in "popcorn" or petal fall stages when the May brood begins to hatch.  For Navel orangeworm in almonds and walnuts, best results have been found by timing early and midseason applications to correspond with moth flight peaks. For Filbert leafroller, best results have been found by making applications when eggs are hatching, repeating application on first appearance of moths and again 3 to 4 weeks later.  For Codling moth in walnuts, best results have been found by making applications when average cross-sectional diameters of developing nuts are 0.5 to 0.75 inches and again during middle or late June as needed.
Chestnut weevil European earwig	4.0 to 5.0	For Chestnut weevil, best results have been found with 4 applications at weekly intervals beginning in late July. The last application should be made prior to shuck split.  For European earwig, thorough coverage of trunks, branches, and nuts is needed for best results.
Almonds only Peach twig borer Scale insects	4.0 to 5.0	For dormant or delayed dormant timing, apply in combination with a recommended dormant oil. Refer to the dormant oil product label for additional use directions and restrictions.

#### **RESTRICTIONS: TREE NUTS**

- Do not apply within 14 days of harvest.
- Do not apply more than a total of 15.0 quarts per acre per year (15.0 lb ai/A/Yr), including any application at the dormant or delayed dormant timing.
- **BEE CAUTION:** Do not apply this product to target crops or weeds in bloom. If weed or cover crop bloom is present, mow orchard floor or between rows prior to applying this product.

#### FORESTED AREAS AND RANGELAND TREES

Apply by ground or air equipment in sufficient volume for adequate coverage. This will vary depending on the tree size, density and stage of growth.

**Forested areas:** Forests, Parks, Planted Christmas Trees, Rural Shelter Belts, Tree Plantations; Rangeland Trees.

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Ants (except	1.0 qt per acre	Observe plant response precautions.
carpenter,	$(0.75 \text{ fl oz per } 1000 \text{ ft}^2)$	Obtain thorough coverage of upper and lower leaf
harvester, and		surfaces. The addition of a sticker may improve prod-
pharaoh)		uct performance.
Apple aphid		To kill scale insects, treat trunks, stems and twigs in
Armyworm		addition to plant foliage.
Ash whitefly		

Forested Areas and Rangeland Trees cont'd

Foresteu Areas ar	OLADTO OF THE	mit u
DECT	QUARTS OF THIS	COPOLEIO DIDECTIONO
PEST		SPECIFIC DIRECTIONS
Azalea leafminer	1.0 qt per acre	For best results on worm, treat when pests are small.
Bagworms	(0.75 fl oz per 1000 ft <sup>2</sup> )	
Balsam twig aphid		maple when larvae are in 2nd instar after mining and
Birch leafminer		as cases are being formed.
Blister beetle		Repeat treatments as necessary up to a total of 2
Boxelder bug		times per year but not more often than once every 7
Boxwood leafminer		days.
Brown tail moth		For Gypsy moths, use the higher rate for heavy infes-
Catalpa sphinx		tations.
Chiggers*		*Will kill only pests that are present at the time of
Cooley spruce gall		application and directly contacted by product.
adelgid		application and already demanded by product.
Cutworms		
Cypress tip moth		
,		
Douglas-fir tussock		
moth		
Eastern spruce		
_gall adelgid		
Elm leaf aphid		
Elm leaf beetle		
Eriophyid mites		
European pine		
shoot moth		
Fall armyworm		
Flea beetle		
Fuschia gall mite		
Fuller rose beetle		
Gall midges		
Gall wasps		
Greenstriped		
mapleworm		
Grasshoppers		
Hackberry		
nipplegall maker		
Holly bud moth		
Holly leafminer		
Jackpine budworm		
Japanese beetle		
Jeffrey pine		
needleminer		
June beetles		
Lace bugs		
•		
Leafhoppers Leafrollers		
Locust borer		
Maple leafcutter		

Forested Areas and Rangeland Trees cont'd

roresteu Areas ar	la Rangeland Trees Co	ni a
DECT	QUARTS OF THIS	CDECIFIC DIDECTIONS
PEST Magly by go		SPECIFIC DIRECTIONS
Mealy bugs Mimosa webworm	1.0 qt per acre	Observe plant response precautions.
	(0.75 ii 02 per 1000 ii-)	Obtain thorough coverage of upper and lower leaf
Nantucket pine tip moth		surfaces. The addition of a sticker may improve prod-
Oak leafminers		uct performance.
Oak realifiliters Oak moth		To kill scale insects, treat trunks, stems and twigs in addition to plant foliage.
Oak moun Oak skeletonizer		
		For best results on worm, treat when pests are small.
Oakworm complex Oleander caterpillar		Make applications for Maple leafcutter on sugar maple when larvae are in 2nd instar after mining and
Olive ash borer		as cases are being formed.
Orange-striped		Repeat treatments as necessary up to a total of 2
oakworm		times per year but not more often than once every 7
Periodical cicada		days.
Pine looper		For Gypsy moths, use the higher rate for heavy infes-
Pine sawfly		tations.
Pine spittlebug		*Will kill only pests that are present at the time of
Pitch pine tip moth		application and directly contacted by product.
Spruce budworm		application and allowing contacted by product.
Plant bugs		
Poinsettia hornworm		
Psyllids		
Puss caterpillar		
Redhumped		
oakworm		
Rose aphid		
Rose chafer		
Rose slug		
Saddled prominent		
Sawflies (exposed)		
Scale insects		
(crawlers)		
Sowbugs		
Spiney elm		
caterpillar		
Springtails		
Spruce		
needleminer		
Subtropical pine		
_tip_moth		
Tent caterpillars		
Thorn bug		
Thrips (exposed)		
Walnut caterpillar		
Western apruse		
Western spruce		
budworm		

Forested Areas and Rangeland Trees cont'd

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Willow leaf beetles	1.0 qt per acre	Observe plant response precautions.
Wooly gall aphid	(0.75 fl oz per 1000 ft <sup>2</sup>	Obtain thorough coverage of upper and lower leaf
Yellow poplar		surfaces. The addition of a sticker may improve prod-
weevil		uct performance.
Gypsy Moth	0.75 to 1.0 qt per acre	To kill scale insects, treat trunks, stems and twigs in
	(0.5 to 0.75 fl oz	addition to plant foliage.
	per 1000 ft <sup>2</sup> )	For best results on worm, treat when pests are small.
Ticks*	1.0 qt per acre	Make applications for Maple leafcutter on sugar
	(0.75 fl oz per 1000 ft <sup>2</sup>	maple when larvae are in 2nd instar after mining and as cases are being formed.
		Repeat treatments as necessary up to a total of 2
		times per year but not more often than once every 7
		days.
		For Gypsy moths, use the higher rate for heavy infes-
		tations.
		*Will kill only pests that are present at the time of
		application and directly contacted by product.

**Forested areas:** Forests, Parks, Planted Christmas Trees, Rural Shelter Belts, Tree Plantations; Rangeland Trees.

	FL OZ OF THIS	
PEST	PRODUCT	SPECIFIC DIRECTIONS
Elm bark beetle lps engraver beetles Mountain pine beetle	5.0 fl oz per gal	Direct Trunk Treatment:  Effective as a preventative treatment only. Treat annually to prevent beetle attacks.  Apply 1.0 gallon of spray per 50 square feet of bark prior to beetle flight or best tree attack. Treat tree
Roundheaded pine beetle		prior to beetle flight or host-tree attack. Treat tree trunk from ground level up, until trunk diameter is less than 5 inches.
Spruce beetle Western pine beetle		For elm bark beetle: apply approximately 20.0 to 30.0 gallons of spray mixture for each 50 feet of elm tree for thorough coverage of all bark surfaces on trunks, limbs and twigs.
		Do not make more than 2 applications per year or repeat applications more often than once every six months.

#### **RESTRICTIONS:** FORESTED AREAS AND RANGELAND TREES

- Do not make more than 2 foliar applications and 2 direct trunk treatments per year.
- Do not use on syrup-producing sugar maples where sap is harvested.
- DO NOT ENTER OR ALLOW OTHERS TO ENTER TREATED AREAS UNTIL SPRAYS HAVE DRIED.
- BEE CAUTION: Do not apply this product to plants in bloom.

# **ORNAMENTAL TREES AND PLANTS**

Apply by ground in sufficient volume for adequate coverage. This will vary depending on the plant or tree size, density, and stage of growth.

Roses, Flowers, Other Herbaceous Plants, Woody Plants, Evergreens, and Shrubs.

DECT	QUARTS OF THIS	CDECIFIC DIDECTIONS
PEST Ants (except	1.0 qt per acre	SPECIFIC DIRECTIONS Observe plant response precautions.
carpenter,	or per 100 gal	Obtain thorough coverage of upper and lower leaf
harvester and	(0.75 fl oz per 1000 ft <sup>2</sup> )	surfaces. The addition of a sticker may improve prod-
pharaoh ants)	(0.75 ii 02 per 1000 it )	uct performance.
Apple aphid		To kill scale insects, treat trunks, stems and twigs in
Armyworm		addition to plant foliage.
Ash whitefly		For best results on worms, treat when pests are
Azalea leafminer		small.
Bagworms		Make applications for Maple leafcutter on sugar
Balsam twig aphid		maple when larvae are in 2nd instar after mining and
Birch leafminer		as cases are being formed.
Blister beetle		Repeat treatments as necessary up to a total of 6
Boxelder bug		times per year but not more often than once every 7
Boxwood leafminer		days.
Brown tail moth		- <del>-</del>
Catalpa sphinx		For Gypsy moths, use the higher rate for heavy infes-
Chiggers*		tations.
Cooley spruce gall		*Will kill only pests that are present at the time of
adelgid		application and directly contacted by product.
Cutworms		
Cypress tip moth		
Douglas-fir tussock		
moth		
Eastern spruce gall		
adelgid		
Elm leaf aphid		
Elm leaf beetle		
Eriophyid mites		
European pine		
shoot moth		
Fall armyworm		
Flea beetle		
Fuchia gall mite		
Fuller rose beetle		
Gall midges		
Gall wasps		
Glassy winged		
sharpshooter		
Greenstriped		
mapleworm		
Grasshoppers		
Hackberry		
nipplegall maker		

Ornamental Trees and Plants cont'd

<u>Ornamentai Trees</u>	and Plants cont'd	
	QUARTS OF THIS	
PEST		SPECIFIC DIRECTIONS
Holly leafminer	1.0 qt per acre	Observe plant response precautions.
Jackpine budworm		Obtain thorough coverage of upper and lower leaf
Japanese beetle	$(0.75 \text{ fl oz per } 1000 \text{ ft}^2)$	surfaces. The addition of a sticker may improve prod-
Jeffrey pine		uct performance.
needleminer		To kill scale insects, treat trunks, stems and twigs in
June beetles		addition to plant foliage.
Lace bugs		For best results on worms, treat when pests are
Leafhoppers		small.
Leafrollers		Make applications for Maple leafcutter on sugar
Locust borer		maple when larvae are in 2nd instar after mining and
Maple leafcutter		as cases are being formed.
Mealy bugs		Repeat treatments as necessary up to a total of 6
Mimosa webworm		times per year but not more often than once every 7
Nantucket pine tip		days.
moth		
Oak leafminers		For Gypsy moths, use the higher rate for heavy infes-
		tations.
Oak moth		*Will kill only pests that are present at the time of
Oak skeletonizer		application and directly contacted by product.
Oakworm complex		
Oleander caterpillar		
Olive ash borer		
Orange-striped		
oakworm		
Periodical cicada		
Pine looper		
Pine sawfly		
Pine spittlebug		
Pitch pine tip moth		
Spruce budworm		
Plant bugs		
Poinsettia hornworm		
Psyllids		
Puss caterpillar		
Redhumped		
oakworm		
Rose aphid		
Rose chafer		
Rose slug		
Saddled prominent		
Sawflies (exposed)		
Scale insects		
(crawlers)		
Sowbugs		
Spiney elm caterpillar		
Springtails		
Spruce needleminer		
	•	1

Ornamental Trees and Plants cont'd

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Subtropical pine	1.0 qt per acre	Observe plant response precautions.
tip moth	or per 100 gal	Obtain thorough coverage of upper and lower leaf
Tent caterpillars	(0.75 fl oz per 1000 ft <sup>2</sup> )	surfaces. The addition of a sticker may improve prod-
Thorn bug		uct performance.
Thrips (exposed)		To kill scale insects, treat trunks, stems and twigs in
Walnut caterpillar		addition to plant foliage.
Webworms		For best results on worms, treat when pests are
Western spruce		small.
budworm		Make applications for Maple leafcutter on sugar
Willow leaf beetles		maple when larvae are in 2nd instar after mining and
Wooly gall aphid		as cases are being formed.
Yellow poplar weevil		Repeat treatments as necessary up to a total of 6
Gypsy Moth		times per year but not more often than once every 7
	or per 100 gal	days.
	(0.5 to 0.75 fl oz	For Gypsy moths, use the higher rate for heavy infes-
	per 1000 ft <sup>2</sup> )	tations.
Ticks*	1.0 qt per acre	*Will kill only pests that are present at the time of
	or per 100 gal	application and directly contacted by product
	(0.75 fl oz per 1000 ft <sup>2</sup> )	application and allocity contacted by product.

## Roses, Flowers, Other Herbaceous Plants, Woody Plants, Evergreens, and Shrubs

	FL OZ OF THIS	
PEST	PRODUCT	SPECIFIC DIRECTIONS
Elm bark beetle	5.0 fl oz per gal	Direct Trunk Treatment:
lps engraver		Effective as a preventative treatment only. Treat
beetles		annually to prevent beetle attacks.
Mountain pine		Apply 1.0 gallon of spray per 50 square feet of bark
beetle		prior to beetle flight or host-tree attack. Treat tree
Roundheaded pine		trunk from ground level up until trunk diameter is less
beetle		than 5 inches.
Spruce beetle		For Elm bark beetle: apply approximately 20.0 to 30.0
Western pine		gallons of spray mixture for each 50 feet of elm tree
beetle		for thorough coverage of all bark surfaces on trunks,
		limbs and twigs.
		Do not make more than 2 applications per year or
		repeat applications more often than once every six
		months.

#### **RESTRICTIONS:** ORNAMENTAL TREES AND PLANTS

- Do not make more than 6 foliar and 2 direct trunk treatments per year.
- Do not use on syrup-producing sugar maples where sap is harvested.
- DO NOT ENTER OR ALLOW OTHERS TO ENTER TREATED AREA UNTIL SPRAYS HAVE DRIED.
- Restricted-entry interval (REI) = 12 hours.
- EXCEPTION: the restricted-entry interval is 18 days for ornamentals grown for cuttings (cut flowers or cut foliage) where production is in outdoor areas and where average annual rainfall is less than 25 inches a year. Notify workers of the application and restricted-entry interval by warning them orally and by posting warning signs at entrances to treated area.

Note: information on average annual rainfall for your area is available from any nearby weather bureau, such as one located at a local airport or one affiliated with the National Oceanographic and Atmospheric Administration (NOAA).

• BEE CAUTION: Do not apply this product to plants in bloom.

#### **TURFGRASS**

Apply using ground pressure-type equipment in sufficient spray volume for thorough coverage and thatch penetration.

**Turfgrass:** golf turf, sports fields, sod farms, domestic and commercial lawns, cemeteries, parks, campsites, recreational areas.

	I	
DEOT	QUARTS OF THIS	ODEOLEIO DIDEOTIONO
PEST		SPECIFIC DIRECTIONS
Ants (except	2.0 to 4.0	For Armyworm, Cutworm, and Fall Armyworm:
carpenter,	(1.5 to 3.0 fl oz	Do not irrigate treated areas within 24 hrs. following
harvester,	per 1000 sq ft)	insecticide application.
and pharaoh)*		For Green June Beetle Grub (larvae): Make appli-
Armyworm		cations when grubs are feeding near the soil sur-
Cutworms		face. Water or irrigate turfgrass within 48 hours after
Essex skipper		treatment. Repeat applications as necessary up to a
European chafer		total of 4 times per year but not more often than once
Fall armyworm		every 7 days.
Fiery skipper		*Will kill only pests that are present at the time of
Grasshoppers		application and directly contacted by product.
Green June beetle		
larvae		
Leafhoppers		
Lucerne moth		
Millipedes		
Mosquitoes		
(adults)*		
Scarab beetle		
adults (green		
June beetle, May		
beetle, Japanese		
beetle, June		
beetle)		
Sowbugs		
Spittlebugs		
Yellowstriped		
armyworm		
Ticks*	1.0 qt per acre (0.75 fl	
	oz per 1000 sq ft)*	
Centipedes*	4.0 qts per acre (3.0 fl	
Chiggers*	oz per 1000 sq ft)	
Earwigs*	. ,	
Chinch bugs	6.0 to 8.0 qts per acre	For Chinch bug: Treat entire grass area rather than
Sod Webworm	(4.4 to 6.0 fl oz per	just damaged areas. Irrigation prior to treatment will
(lawn moths)	1000 sq ft)	aid in penetration of insecticide into turfgrass. Do not
•		irrigate treated areas within 24 hours. following insec-
		ticide application.

Turfgrass cont'd

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Black turfgrass	8.0 qts per acre (6.0 fl	For European Crane Fly: Apply in early spring, April
ataenius beetle	oz per 1000 sq ft)	1 to April 15, or at timing recommended by local
larvae		Agricultural Extension Service Agents. Water or irri-
Bluegrass billbug		gate turfgrass within 48 hours after treatment.
larvae		For White Grub: Apply when grubs are feeding near
European crane fly		the soil surface, usually during late March through
Hyperoides weevil		May, or July through early September, or at timing
(bluegrass weevil)		recommended by local Agricultural Extension Service
larvae		Agents. Water or irrigate turf grass within 48 hours
Springtails		after treatment.
White grubs		Repeat applications as necessary up to 2 times per
(Chafer beetle,		year but not more often than once every 7 days.
Japanese beetle,		*Will kill only pests that are present at the time of
and Phyllophaga		application and directly contacted by product.
spp. larvae)		
Fleas*	8.0 qts per acre (6.0 fl	
	oz per 1000 sq ft)	

#### **RESTRICTIONS:** TURFGRASS

- Do not apply more than a total of 16.0 quarts per acre per year (16.0 lb ai/A/Yr).
- Broadcast applications to turfgrass are permitted only on golf courses, sod farms, cemeteries, and commercial landscapes. Applications to all other lawns or turf (residential settings) are limited to spot treatments.
- Restricted-entry interval (REI) = 24 hours for turf grown for sod productions.
- DO NOT ENTER OR ALLOW OTHERS TO ENTER TREATED AREA UNTIL SPRAYS HAVE DRIED.
- Do not apply by air or chemigation.
- **BEE CAUTION:** Do not apply this product to plants in bloom.

#### SPECIFIC PESTS ACROSS MULTIPLE SITES

#### **GRASSHOPPERS**

# All crops on this label

	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Grasshoppers		Apply 0.5 to 0.75 quarts per acre of this product for nymphs on small plants or sparse vegetation. Apply 1.0 to 1.5 quarts per acre for mature grasshoppers or applications to dense foliage. Be certain spray volumes are appropriate to assure adequate coverage.

#### **RESTRICTIONS:** GRASSHOPPER

• \*NOTE: Refer to individual site listings elsewhere on this label for use restrictions. Do not use rates higher than listed for the site. Observe all use restrictions.

#### TICKS WHICH MAY VECTOR LYME DISEASE

To kill juvenile and adult ticks which may vector Lyme Disease, apply in sufficient volume for thorough coverage\*. Will kill only pests that are present at the time of application and directly contacted by product.

All crops on this label; Pastures; Forested Areas; Wasteland, (Rights-of-Way, Hedgerows, Ditchbanks, Roadsides, Set-Aside and Conservation Reserve Program Acreage); Ornamental Trees and Plants: Turfgrass\*\*.

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	QUARTS OF THIS	
PEST	PRODUCT PER ACRE	SPECIFIC DIRECTIONS
Ixodes spp.		To kill juvenile ticks, apply in late spring or early sum-
(Deer tick, Bear	$(0.75 \text{ fl oz per } 1000 \text{ ft}^2)$	mer. To kill adult ticks, apply in late summer to fall.
tick, Black legged		Treat entire area and perimeter areas where expo-
tick)		sure to ticks may occur. Ticks may be reintroduced
<i>Amblyomma</i> spp.		from surrounding areas on host animals. Retreat as
(Lone star tick)		necessary to maintain low population levels.

## **RESTRICTIONS:** TICKS WHICH MAY VECTOR LYME DISEASE

- Do not make more than 4 applications per year for ticks.
- \* Refer to individual site listings elsewhere on this label for use limitations and restrictions. Do
  not use rates higher than listed for the site or exceed other use restrictions. If product is used
  to kill ticks on any use site listed on this label, the use rate must not exceed 1.0 quart per acre
  (0.75 fl. oz. /1,000 ft²). Observe all use restrictions.
  - \*\* Broadcast applications to turfgrass are permitted only on golf courses, sod farms, cemeteries, and commercial landscapes. Applications to all other lawns or turf (residential settings) are limited to spot treatments.
- DO NOT ENTER OR ALLOW OTHERS TO ENTER TREATED AREA UNTIL SPRAYS HAVE DRIED.

#### **IMPORTED FIRE ANTS**

#### All crops/sites on this label

PEST	FL OZ OF THIS PRODUCT	SPECIFIC DIRECTIONS
Imported fire ants	0.75 fl oz per gal	DRENCH APPLICATION
		To kill active mounds, apply a total of 2.0 gallons of the diluted solution over the surface of each mound or at least 1.0 quart per 6 inches of mound diameter using a bucket, can or other appropriate equipment. Thoroughly wet mound and surrounding areas to a 4 ft diameter (12 sq ft). Do not disturb mound prior to treatment. Pour solution from a height of about 3 feet to give sufficient force to break mound apex and flow into ant tunnels. For best results apply in cool weather (65-80 °F) or in early morning or late evening hours. Repeat application if mound activity resumes after 30 days. Treat new mounds as they appear. Pressurized sprays may disturb the ants and cause migration, reducing product effectiveness.
Imported fire ants	1.5 fl oz per gal	BROADCAST APPLICATION (outdoor use only)**
(foraging)		Treat only the growing media when using on bedding
		plants and avoid contact with foliage.
		Do not make more than one application per year.

#### **RESTRICTIONS: IMPORTED FIRE ANTS**

- DO NOT ENTER OR ALLOW OTHERS TO ENTER TREATED AREA UNTIL SPRAYS HAVE DRIED.
- FOR OUTDOOR USE ONLY. DO NOT USE IN GREENHOUSES.
- DO NOT USE ON ANY FOOD CROP NOT LISTED ON THIS LABEL. Refer to the specific site use directions elsewhere on this label for additional restrictions.
- \*\* Broadcast applications to turfgrass are permitted only on golf courses, sod farms, cemeteries, and commercial landscapes. Applications to all other lawns or turf (residential settings) are limited to spot treatments.

#### **NUISANCE PESTS**

For use as a perimeter treatment to kill the listed nuisance pests, apply the specified dosage in a band 6 to 10 feet wide around the outside perimeter of the structure.

PEST	FL OZ OF THIS PRODUCT	SPECIFIC DIRECTIONS
Ants* Bees* Brown dog tick* Centipedes* Cockroaches* Crickets Darkling beetle (lesser meal worm or litter beetle) Earwigs Firebrats Fleas* Millipedes Scorpions* Silverfish* Spiders* Wasps*	2.5 fl ozs per gal	Observe plant response precautions.  Apply as a coarse wet spray in a band 6 to 10 feet wide around the outside perimeter of buildings, contacting as many pests as possible. Confine applications to areas immediately adjacent to the building. Direct application to the outside of structure should be minimal and restricted to cracks, crevices, and areas where insects tend to congregate. For use in and around flower beds and ornamental plantings, apply as a coarse wet spray.

#### **RESTRICTIONS:** NUISANCE PESTS

- Do not make more than 4 applications per year. Do not apply more often than once every 7 days.
- DÓ NOT ENTER OR ALLOW OTHERS TO ENTER TREATED AREA UNTIL SPRAYS HAVE DRIED.
- NOTE: Staining may occur on certain surfaces such as stucco, brick, cinder block, wood, fabrics, and carpet. Spray deposits on painted or stained surfaces of finishes (e.g., cars, house trailers, boats, etc.) should be removed immediately by washing to prevent discoloration. Avoid application to surfaces where visible spray residues are objectionable. Staining of fabrics and carpet may be permanent. For outdoor use only.
- \* Will kill only pests that are present at the time of application and directly contacted by product.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store unused Carbaryl 4L insecticide in original container only, in cool, dry area out of reach of children and animals. Do not store in areas where temperatures frequently exceed 100 °F.

If container is damaged, before cleaning up, put on Personal Protective Equipment.

**PESTICIDE DISPOSAL:** Open dumping is prohibited. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

#### **CONTAINER HANDLING:**

Nonrefillable Container (five gallons or less): Do not reuse or refill this container. 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. Offer for recycling, if available. If not recycled, then puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Nonrefillable Container (greater than five gallons): Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. Clean container promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then puncture and dispose of in a sanitary landfill, incinerate or burn, if allowed by state and local authorities. Stay out of smoke from burning container. 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. Refillable Container: Refillable container. Refill this container with carbaryl only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

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.

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