

19713-99

2/28/2003

1/7



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Ms. Luz Piwonka  
Drexel Chemical Company  
P.O. Box 13327  
Memphis, TN 38113-0327

FEB 28 2003

Dear Ms. Piwonka:

Subject: Amendment - Update to match use patterns and limitations appearing on source material label [delete Leatherleaf Fern, Succulent Ornamentals (greenhouse and out-of-doors), and Macadamia Nuts]

Drexel Endosulfan 2 EC  
EPA Registration Number 19713-99  
Your submission dated February 4, 2003

The amendment referred to above, submitted in connection with registration under FIFRA section 3(c)(7)(a), is acceptable and a stamped copy is enclosed for your records.

When preparing the finished label, please incorporate the following revisions:

- a. On the front panel, under "For Agricultural or Commercial Use Only" add "Not for use or storage in or around residential sites - see DIRECTIONS FOR USE for prohibited areas."
- b. In the ingredients statement, add the missing hyphen before "3-oxide".
- c. In the beginning of the DIRECTIONS FOR USE, replace "NOT FOR USE OR STORAGE IN OR AROUND THE HOME" with "NOT FOR USE OR STORAGE IN OR AROUND RESIDENTIAL SITES, INCLUDING HOMES. NON-AGRICULTURAL OUTBUILDINGS, NON-COMMERCIAL GREENHOUSES, RECREATION VEHICLES, PRESCHOOLS, DAY CARE CENTERS, AND NOT FOR APPLICATION TO HUMANS AND PETS."
- d. Delete the unsupported crop Macadamia Nuts, which does not appear on your endosulfan MUP label.
- e. For the crop Peas, revise the Crop column entry to read "Peas, Succulent (except seed crop)(Northwest Only)".

f. Under the heading **COMMERCIALY GROWN ORNAMENTALS** add **GROWN OUTDOORS ONLY** so that it appears above the subheading **Ornamental Trees and Shrubs**.

Please submit 5 copies of labeling bearing the above revisions as soon as it becomes available. Thank you for your prompt cooperation in this regard.

Sincerely,

*Dana R Pelitt*

*for* George T. LaRocca  
Product Manager 13  
Insecticide Branch  
Registration Division (7505C)

ACCEPTED  
with COMMENTS  
In EPA Letter Dated:  
FEB 28 2003

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
as amended, for the pesticide  
registered under EPA Reg. No.  
19713-99



3/7

# Endosulfan 2EC

Insecticide

For Agricultural or Commercial Use Only

**ACTIVE INGREDIENT:**

Endosulfan (Hexachlorohexahydronethano-2,4,3-benzodioxathiepin 3-oxide)*	24.6%
OTHER INGREDIENTS**:	75.4%
<b>TOTAL:</b>	<b>100.0%</b>

\*This product contains 2 pounds Endosulfan per gallon.  
\*\*Contains xylene range aromatic solvent.

**DANGER**  **PELIGRO**  
**POISON** **VENENO**

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

See **FIRST AID** Below  
**SHAKE WELL BEFORE USING**

EPA Reg. No: 19713-99  
EPA Est. No: 19713-MS-1

Net Contents: \_\_\_\_\_

**FIRST AID**

**IF SWALLOWED:** Call a physician or Poison Control Center immediately. If possible, vomiting should be induced under medical supervision. Drink 1 or 2 glasses of water and induce vomiting by touching the back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious or convulsing person.

**IF INHALED:** Remove victim to fresh air. Apply artificial respiration if indicated. Get medical attention.

**IF ON SKIN:** Remove contaminated clothing and wash skin with soap and water. Get medical attention.

**IF IN EYES:** Flush eyes with plenty of water. Call a physician immediately.

**NOTE TO PHYSICIAN:** Endosulfan is a central nervous system stimulant absorbable by mouth, inhalation or through contact with the skin. It may cause convulsions. There is no specific antidote. Diazepam i.v. is the drug of choice. Barbituric acid derivatives such as phenobarbital may be used additionally. A neuromuscular blocking agent may be used if convulsions persist. This type of drug may be used only if complete control of respiration can be maintained. Epinephrine derivatives are absolutely contraindicated. This product contains petroleum hydrocarbons (xylene range aromatic solvent). Care should be taken to prevent aspiration because of the possibility of chemical pneumonia or pulmonary edema due to the organic solvent in the formulation.

**PRECAUTIONARY STATEMENTS**

**Hazards to Humans and Domestic Animals**

**DANGER:** Fatal if swallowed. May be fatal if inhaled or absorbed through skin. Causes moderate eye irritation. Do not breathe vapor or spray mist. Do not get in eyes, on skin or on clothing. Do not use or store near food or feed products. Do not use or store in or around the home. Keep out of reach of domestic animals. Food utensils such as spoons and measuring cups must not be used for food purposes after use in measuring pesticides.  
(Continued)

**PRECAUTIONARY STATEMENTS (Continued)**

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category G on an EPA chemical resistance category selection chart. Applicators and other handlers must wear: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate or viton, chemical-resistant footwear plus socks, protective eyewear, a respirator with an organic-vapor removing cartridge with a prefilter approved for pesticidesw (MSHA/NIOSH approval number prefix TC-23C) or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G) or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE prefilter and chemical-resistant headgear for overhead exposure and chemical-resistant apron when cleaning equipment, mixing or loading.

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

**ENGINEERING CONTROL STATEMENT**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

Users should: 1) Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. 2) Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. 3) 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 highly toxic to fish, birds and other wildlife. Birds and other wildlife feeding on treated areas may be killed. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Due to the risk of runoff and drift, do not apply within a distance of 300 feet of lakes, ponds, streams and estuaries. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab and other aquatic life are important resources. Do not contaminate water by cleaning of equipment or disposal of equipment washwaters. This product must not be used in areas where impact on threatened endangered species is likely. Contact your State Fish and Game Agency before applying this product. Apply this product only as specified on this label.

**BEE CAUTION:** This pesticide is highly toxic to bees exposed to direct treatment or to residues remaining on the treated area. Do not apply when bees are actively visiting the crop, cover crop or weeds blooming in the treatment area. Application should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

Manufactured By:

**Drexel Chemical Company**

P.O. BOX 13327, MEMPHIS, TN 38113-0327

SINCE 1972

**CHEMICAL HAZARDS**

Do not use, pour, spill or store near heat or open flames

**DIRECTIONS FOR USE**

Under regulation of Federal Law to use this product in a manner consistent with its labeling. **DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.** This product is not intended for use in CA. 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, 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), restricted entry interval (REI) and notification to workers. 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 of 24 hours. PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water is: Coveralls over long-sleeved shirt and long pants, chemical-resistant gloves, such as barrier laminate or viton, chemical-resistant footwear plus socks, protective eyewear and chemical-resistant headgear for overhead exposure.

**NOT FOR USE OR STORAGE IN OR AROUND THE HOME. DO NOT USE IN UNDILUTED FORM.**

Apply the listed amount per acre when insects first appear and repeat as required, unless otherwise noted, to maintain effective control. Unless otherwise noted, use in sufficient water for thorough coverage, unless otherwise noted, for listed crops. Coverage of upper and lower leaf surface is essential for good control. For ground application, apply recommended amount of pesticide in a minimum of 10 gallons of water per acre on vegetable or row crops. Observe use limitations. If insect control is required beyond the following use patterns, supplement the control program with other suitable pesticides. When applying this material by aircraft, mix the recommended amount with sufficient water to provide a minimum of 1 gallon finished spray per acre. Where more than 2 quarts of this material are recommended, mix with sufficient water to provide a minimum of finished spray equal to twice the amount of ENDOSULFAN 2EC used. Do not plant root crops other than Carrots, Potatoes, Sugar beets and Sweet potatoes as follow-up crops. Observe PHI (Pre-Harvest Intervals).

Crop	Pests	Rate of Application	PHI (Days)
Almonds	(Early infestation of): Peach twig borers	4 to 5 qts. per acre	-
	<p><b>SPECIFIC DIRECTIONS:</b> Apply during popcorn, pink or petal fall for control of early season infestation. Use in a minimum of 200 gals. of water per acre (dilute) or in 40 gals. per acre (concentrate). For areas less than 1 acre, use 1 qt. per 100 gals. of water.</p> <p><b>NOTE:</b> Do not graze livestock on orchard crops or grasses in treated areas. Treated hulls may be fed to livestock and dairy animals. Do not make more than 1 application per year. Do not exceed a maximum of 2½ lbs. of active ingredient (i.e., 5 qts.) per acre per year.</p>		
Apples	Apple aphids, Apple rust mites, Rosy apple aphids	1 qt. per 100 gals. of water or a maximum of 5 qts. per acre	21
	<p><b>SPECIFIC DIRECTIONS:</b> Apply when pests appear or feeding is noticed. If necessary, prior to petal fall, use 12 qts. per 100 gals. to control Apple aphids and Rosy apple aphids.</p> <p><b>NOTE:</b> Do not feed pomace from treated Apples to livestock. Do not feed cull fruits to animals or allow livestock to graze in treated orchards. For all uses, do not make more than 2 applications during the fruiting period. Do not make more than 3 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 4 quarts) per acre per year.</p>		

Crop	Pests	Rate of Application	PHI (Days)
Apricots, Peaches, Nectarines	Black cherry aphids, Black peach aphids, Cattaching insects, Green peach aphids, Peach silver mites, Peach twig borers, Rusty plum aphids	1 qt. per 100 gals. of water or a maximum of 5 qts. per acre	30
	<p><b>SPECIFIC DIRECTIONS:</b> Apply when pests appear or feeding is noticed.</p> <p><b>NOTE:</b> Do not feed cull fruits to animals or allow livestock to graze in treated orchards. For all uses, do not make more than 2 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.</p>		
	Lesser peach tree borers, Peach tree borers	1½ qts. per 100 gals. of water or a maximum of 5 qts. per acre Southeastern States: 3 to 5 qts. per 100 gals. of water	21
	<p><b>SPECIFIC DIRECTIONS:</b> Best control is obtained with a single application post-harvest during the first week of September. Spray all bark areas from ground level to lower scaffold limbs.</p> <p><b>NOTE:</b> Do not feed cull fruits or allow livestock to graze in treated areas. For all uses, do not make more than 2 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.</p>		
Beans (Dry and Succulent - Except Lima beans)	Black bean aphids, Bean leaf skeletonizers, Cucumber beetles, Green stink bugs, Mexican bean beetles.	1 to 2 qts. per acre	3
	Western bean cutworms	2 qts. per acre	
<p><b>SPECIFIC DIRECTIONS:</b> Apply when pests appear or feeding is noticed.</p> <p><b>NOTE:</b> Do not feed treated threshings or allow livestock to graze in treated fields. Do not use on Lima beans as plant injury may occur. For all uses, do not make more than 3 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per season.</p>			
Blueberries	Blueberry bud mites	3 qts. per acre in 300 gals. of water	-
	<p><b>SPECIFIC DIRECTIONS:</b> Apply to plants immediately after harvest and repeat 6 to 8 weeks later.</p> <p><b>NOTE:</b> Do not apply after buds are well formed. Do not make more than 2 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.</p>		
Broccoli, Cabbage	Cabbage aphids, Cabbage loopers, Cross-striped cabbageworms, Diamondback moth larvae, Flea beetles, Harlequin bugs, Imported cabbageworms, Stink bugs	1½ to 2 qts. per acre	7
	Amyworms, Cutworms	2 qts. per acre	
<p><b>SPECIFIC DIRECTIONS:</b> Apply when pests appear or feeding is noticed.</p> <p><b>NOTE:</b> For all uses, do not make more than 4 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.</p>			

Crop	Pests	Rate of Application	PHI (Days)
Cauliflower	Cabbage loopers, Cross-striped cabbageworms, Diamond-back moth larvae, Flea beetles, Harlequin bugs, Imported cabbageworms, Stink bugs	2 qts. per acre	7
	Armyworms, Cutworms	2 qts. per acre	
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: For all uses, do not make more than 4 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Carrots	Green peach aphids	1 to 2 qts. per acre	7
	SPECIFIC DIRECTIONS: Apply when pest appears or feeding is noticed. NOTE: Do not use tops for food or feed. Do not make more than 1 application per year. Do not exceed a maximum of 1 lb. of active ingredient (i.e., 2 qts.) per acre per year.		
Celery	Green peach aphids	1 qt. per acre	4
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: Do not exceed a maximum of 1 lb. of active ingredient (i.e., 2 qts.) per acre per year.		
	Green peach aphids	1 qt. per acre	7
SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: Do not exceed a maximum of 1 lb. of active ingredient (i.e., 2 qts.) per acre per year.			
Cherries	Black cherry aphids, Plum rust (nursery) mites	1 qt. per 100 gals. of water or 4 to 5 qts. per acre	21
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. Mineola moths (MI only) - Use 2 qts. per 100 gals. of water. Apply in the delayed dormant period. NOTE: Do not feed cull fruits to animals or allow livestock to graze in treated orchards. For all uses, do not make more than 2 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Cherry, Peach, Plum Nursery Stock Dip	Peachtree borers	4 qts. per 40 gals. of water	-
SPECIFIC DIRECTIONS: Mix thoroughly. Immerse the bundles of trees so that the roots and crowns are covered well above the grafting scar. NOTE: Plant immediately or dry before returning to storage. Full Personal Protective Equipment (PPE) requirements for applicators also apply to this dipping operation.			
Collards	Cabbage loopers, Diamondback moth larvae, Harlequin bugs, Imported cabbageworms	1½ to 2 qts. per acre	21
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: For all uses, do not make more than 1 application per year. Do not exceed a maximum of 1 lb. of active ingredient (i.e., 2 qts.) per acre per year.		
Cotton	Boll weevils	1 to 3 qts. per acre	-
	Bollworms, Cabbage loopers, Cotton leaf perforators, Lygus bugs, Stink bugs	2 to 3 qts. per acre	
	Thrips	3 qts. per acre	
SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: Applications may be made using ground or aerial equipment. The higher rate should be used under heavy pest pressure. For all uses, do not apply after the bolls are open. Do not graze dairy or meat animals in treated fields. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.			

Crop	Pests	Rate of Application	PHI (Days)
Melons, Summer and Winter squash	Flea beetles, Striped flea beetles, Melonworms, Pickleworms, Rindworms (on Watermelons), Squash beetles, Squash bugs, Squash vine borers	1 to 2 qts. per acre	2
	Cabbage loopers, Omnivorous leafrollers	2 qts. per acre	
SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. For Squash vine borer control, apply weekly to flower buds, stems and vines beginning when moths first appear. NOTE: For all uses, do not make more than 6 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.			
Eggplant	Blister beetles, Colorado potato beetles, Flea beetles, Green peach aphids, Green stink bugs, Whiteflies	1 to 2 qts. per acre	1
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: For all uses, do not make more than 2 applications per year. Do not exceed 1 lb. of active ingredient (i.e., 2 qts.) per acre per year.		
Grapes	Grape leafhoppers	1 qt. per 100 gals. of water or 2 to 3 qts. per acre	7
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: Do not use on Concord variety as severe plant injury is likely to occur. Ground application is preferred. Do not make more than 3 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Kale	Flea beetles, Harlequin bugs, Imported cabbageworms	1½ qts. per acre	21
SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: For all uses, do not make more than 1 application per year. Do not exceed a maximum of 0.75 lb. of active ingredient (i.e., 1½ qts.) per acre per year.			
Lettuce	Cabbage loopers, Green peach aphids, Diamond-back moth larvae, Imported cabbageworms	1½ to 2 qts. per acre	14
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: <u>On Head lettuce</u> : Do not make more than 3 applications after thinning. Remove wrapper leaves at harvest. <u>On Leaf lettuce</u> : Do not make more than 2 applications per year. For all uses, do not feed crop refuge to livestock. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Macadamia nuts	Southern green stink bugs	2 qts. per 100 gals. of water	1
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: Do not graze livestock on orchard crops or grasses in treated areas. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Mustard greens	Aphids, Cabbage loopers, Imported cabbageworms	1½ to 2 qts. per acre	21
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: For all uses, do not make more than 1 application per year. Do not exceed a maximum of 1 lb. of active ingredient (i.e., 2 qts.) per acre per year.		
Pears	Conspense stink bugs (Soil treatment)	1 qt. per 100 gals. of water or 200 to 400 gals. per acre	7
	SPECIFIC DIRECTIONS: Apply to orchard floor and ground around trees prior to bloom.		

(Continued)

6/7

Crop	Pests	Rate of Application	PHI (Days)
(Continued) Pears	Colorado Stink Bugs (Foliar treatment)	1 qt. per 100 gals. of water or 4 to 5 qts. per acre	
	NOTE: Stink bugs must be wet by spray to obtain control.		
	Pear rust mites	1 qt. per 100 gals. of water	7
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed.		
	Pear leaf blister mites	½ to 1 qt. per 100 gals. of water	7
	SPECIFIC DIRECTIONS: Apply to trees as a post-harvest or dormant treatment.		
	Pear psylla	5 qts. per acre	7
	SPECIFIC DIRECTIONS: Apply in a minimum of 10 gals. of water for aerial application or in 300 gals. of water for dilute application. Apply when adults are first observed or nymphs are small and repeat to maintain control. NOTE: Do not feed cull fruits to animals or allow livestock to graze in treated orchards. For all uses, do not make more than 2 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year. Aerial application may not result in satisfactory control and should only be employed if impossible to apply by ground.		
Peas, succulent (Northwest Only)	Pea aphids, Pea weevils	1 to 2 qts. per acre	5
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: Use only on Peas to be harvested by combine. Do not feed treated vines or threshings to livestock or allow livestock to graze treated fields. For all uses, do not make more than 2 applications per year. Do not exceed a maximum of 2 lbs. of active ingredient (i.e., 4 qts.) per acre per year.		
Pecans	Black pecan aphids	12 qts. per 100 gals. of water	-
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: Do not apply after shuck split. Do not graze livestock on orchards, crops or grasses in treated areas. Do not make more than 2 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Peppers	Flea beetles, Green peach aphids, Hornworms, Pepper maggots	1 qt. per acre	1
	SPECIFIC DIRECTIONS: Apply when pest appear or feeding is noticed. NOTE: Do not make more than 2 applications per year. Do not exceed a maximum of 1 lb. of active ingredient (i.e., 2 qts.) per acre per year.		
Peppers	Flea beetles, Green peach aphids, Hornworms, Pepper maggots	1 to 2 qts. per acre	4
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: For all uses, do not make more than 2 applications per year. Do not exceed a maximum of 2 lbs. of active ingredient (i.e., 4 qts.) per acre per year.		
Plums, Prunes	Peach tree borers	1 to 1½ qts. per 100 gals. of water or 4 to 5 qts. per acre	7
	SPECIFIC DIRECTIONS: Best control is obtained with a single application post-harvest during the first week of September. Spray all bark areas from ground level to lower scaffold limbs. NOTE: Do not allow livestock to graze on orchard crops or grasses in treated areas. Do not make more than 2 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		

Crop	Pests	Rate of Application	PHI (Days)
Potatoes	Aphids, Armyworms, Colorado potato beetles, Green stink bugs, Leaf-footed bugs, Plant bugs, Potato flea beetles, Potato leafhoppers, Potato tuberworms, Three-lined potato beetles	1 to 2 qts. per acre	1
	European corn borers, Potato psyllid	1½ to 2 qts. per acre	
	False chinch bugs, Whiteflies	2 qts. per acre	
	SPECIFIC DIRECTIONS: Apply when pests first appear or feeding is noticed. NOTE: For all uses, do not make more than 6 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Pumpkins	Aphids, Cucumber beetles, Squash vine borers	1 to 2 qts. per acre	2
	SPECIFIC DIRECTIONS: Apply when pests first appear or feeding is noticed. For Squash vine borer control, apply weekly to flower buds, stems and vines beginning when moths first appear. NOTE: For all uses, do not make more than 6 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Spinach	Crown mites, Green peach aphids	1½ to 2 qts. per acre	21
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: For all uses, do not make more than 1 application per year. Do not exceed a maximum of 1 lb. of active ingredient (i.e., 2 qts.) per acre per year.		
Strawberries	Meadow spittlebugs, Strawberry aphids, Tarnished plant bugs	1 qt. per 100 gals. or 2 qts. per acre	4
	SPECIFIC DIRECTIONS: Apply a minimum of 150 gals. of water per acre. Apply when pests appear or feeding is noticed. Do not reapply within 15 days or more than twice during a 35-day period when fruit is present.		
	Cyclamen mites	4 qts. per acre in 400 gals. of water	4
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. Thoroughly wet the foliage, stem and crown of the plant. For multiple applications, do not apply at intervals less than 35 days when fruit is present. NOTE: Do not make more than 3 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Sweet corn (Fresh vegetable use only)	Corn earworms	3 qts. per acre	1
	SPECIFIC DIRECTIONS: Apply when silks first appear and continue until they begin to dry. Allow 5 days between applications. NOTE: Do not apply to Sweet corn to be processed. Do not feed treated forage or ensilage to livestock or allow livestock to graze in treated fields. For all uses, do not make more than 3 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
	Corn leaf aphids	2 qts. per acre	1
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed.		
Sweet potatoes	Sweet potato flea beetles	1 qt. per acre	1
	SPECIFIC DIRECTIONS: Begin applications shortly after transplanting or as soon as Flea beetles appear.		
	Banded cucumber beetle larvae (aids in control) (South Central States Only)	2 to 4 qts. per acre broadcast or ½ to 1½ qts. per acre in a 16 inch band over the row (48 inch row spacing)	1
	SPECIFIC DIRECTIONS: Work into the soil to a depth of approximately 3 inches making a single treatment just prior to plant set. NOTE: Do not feed cull potatoes to livestock or allow livestock to graze in treated fields. For all uses, do not make more than 3 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		

Crop	Pests	Rate of Application	PHI (Days)
	Budworms, Cabbage loopers, Flea beetles, Green peach aphids, Hornworms,	Field: 1 to 2 qts. per acre	5
	SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed.		
	Budworms, Cabbage loopers, Flea beetles, Green peach aphids, Hornworms,	Seed Bed: 1 qt. per 100 gals. of water	5
	SPECIFIC DIRECTIONS: Apply about 6 gals. of finished spray per 100 sq. yds. Apply when pests appear or feeding is noticed.		
	Green June bug larvae	Plant Bed: ½ qt. per 100 gals. of water	5
	SPECIFIC DIRECTIONS: Drench at a rate of 1 gal. per sq. yd. Apply when pests appear or feeding is noticed.		
	Stink bugs	Field: ½ to 3 qts. per 100 gals. of water	5
SPECIFIC DIRECTIONS: Apply when pests appear or when feeding is noticed. NOTE: For all uses, do not make more than 6 applications per year. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.			
Tomatoes (Field & Greenhouse)	Blister beetles, Colorado potato beetles, Flea beetles, Green peach aphids, Tomato hornworms	1 to 2 qts. per acre	2
	Tomato fruitworms, Tomato russet mites, Yellow-striped armyworms	2 qts. per acre	
	Cabbage loopers, Stink bugs	2 qts. per acre	
	Whiteflies	1 qt. per 100 to 200 gals. of water per acre	
SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: For all uses, do not make more than 6 applications per year. [Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.]			

Crop	Pests	Rate of Application
Box elder	Box elder bugs	1 qt. per 100 gals. of water (2 tops per gal)
SPECIFIC DIRECTIONS: Spray foliage and trunk when insects first appear. Repeat as required in late Summer or Fall. Spray tree trunks, outside walls, fences and other places where bugs congregate. NOTE: Food utensils such as spoons must not be used for food purposes after use in measuring pesticides. Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Dogwood, Lilac	Dogwood borers, Lilac borers	1 to 2 qts. per 100 gals. of water
SPECIFIC DIRECTIONS: Apply in early June and repeat in 10 to 14 days. Drench all bark areas down to the ground level. NOTE: Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Taxus	Taxus bud mites	1 qt. per 100 gals. of water
SPECIFIC DIRECTIONS: Make 3 to 5 applications beginning in mid-May. Thoroughly spray foliage, twigs and bark. NOTE: Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		

### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage and disposal. **PESTICIDE STORAGE:** Storage should be under lock and key in a ventilated room and secure from access by unauthorized persons and children. Storage should be in a cool, dry area away from any heat or ignition source. Do not stack over 2 pallets high. Move containers by handles or case. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Keep away from any puncture source. Avoid storage near water supplies, food, feed and fertilizer to avoid contamination. Store in original containers only. If the contents are leaking or material is spilled follow these steps:

1. Contain spill, absorb with a material such as sawdust, clay granules or dirt.
2. Collect and place in suitable containers for disposal.
3. Wash area with soap and water to remove remaining pesticide.
4. Follow washing with soap and water to remove remaining pesticide.
5. Place a leaking container in a plastic tub and transfer contents as soon as possible to an empty original container.
6. Do not allow runoff to enter sewer.
7. Dispose of waste as indicated below:

**PESTICIDE DISPOSAL:** Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:** Metal Containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. Plastic Containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or, if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

### COMMERCIAL GROWN ORNAMENTALS

#### Ornamental Plants

Crop	Pests	Rate of Application
Ornamentals (Greenhouse & Out-of-Doors)	Aphids, Cyclamen mites, Rose chafers, Whiteflies	1 qt. per 100 gals. of water
SPECIFIC DIRECTIONS: Apply when pests appear or feeding is noticed. NOTE: On Chrysanthemums, best results will be obtained if applied before plants flower. Do not apply to "Bonnafon Deluxe", "Fred Shoemith" or "White Knight" chrysanthemums, as plant injury may result. Do not use on Birch trees. For all uses, do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		

#### Ornamental Trees and Shrubs

Crop	Pests	Rate of Application
Pines (Austrian, Jack, Red, Scotch, White)	Zimmerman pine moths	1½ qts. per 100 gals. of water
SPECIFIC DIRECTIONS: Apply in mid-April and again, if necessary, in late Fall. Thoroughly wet bark and main stem, especially where branches join the main stem. NOTE: Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		
Spruce (New England Area Only)	Spruce gall aphids	1 qt. per 100 gals. of water
SPECIFIC DIRECTIONS: Apply in late April or early May when Aphids are present but before galls are formed. NOTE: Do not exceed a maximum of 3 lbs. of active ingredient (i.e., 6 qts.) per acre per year.		

### WARRANTY—CONDITION OF SALE

OUR RECOMMENDATIONS FOR USE of this product are based upon tests believed reliable. Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the Seller. Buyer assumes all risks of use, storage and handling of this material not in strict accordance with directions given herewith. In no case shall the Manufacturer or the Seller be liable for consequential, special or indirect damages resulting from the use of or handling of this product when such use and/or handling is not in strict accordance with directions given herewith. The foregoing is a condition of sale by the Seller and is accepted as such by the Buyer.