



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

MAY 15 2002

Ms. Pam Bruce
Micro-Flo Company LLC
P.O. Box 772099
Memphis, TN 38117-2099

Dear Ms. Bruce:

Subject: Amendment- Update First Aid Per PR Notice 2001-1
Endosulfan 3EC
EPA Registration Number 51036-92
Your submission dated April 22, 2002

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

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

- a. Revise the fourth item of the If Swallowed advice in the First Aid section to read as follows; "Do not give anything by mouth to an unconscious or convulsing person,".
- b. Correct the spelling of "ENVIRONMENTAL" in the heading ENVIRONMENTAL HAZARDS. Also. Delete the phrase "For terrestrial uses," from the beginning of the third sentence in this section since all the labeled uses are terrestrial uses.
- c. Revise the protective clothing recommendation for the dip uses on Cherry, Peach, Plum Nursery Stock and the dip for Strawberries (Northwest use only). Replace "Wear rubber gloves during the dipping operation." with "Full personal protective equipment (PPE) requirements for applicators also apply to this dipping operation.".

Please note that your end-use product label may only carry claims for uses that appear on the endosulfan manufacturing-use product from which you formulate this product. Please check with your formulation department to determine the labeling for the

MICRO FLO
ENDOSULFAN 3 EC
For Agricultural or Commercial Use Only

MAY 15 2002
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
51036-92

ACTIVE INGREDIENT:

Endosulfan (Hexachlorohexahydromethano-2,4,3-benzodioxathiepin-3 oxide).....33.7%

INERT INGREDIENTS:*.....66.3%

TOTAL.....100.0%

Contains 3 pounds Endosulfan per gallon

*Contains Xylene Range Aromatic Solvent

KEEP OUT OF REACH OF CHILDREN
POISON
DANGER PELIGRO

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

FIRST AID

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

NOTE TO PHYSICIAN: Endosulfan is a central nervous system stimulant absorbable by mouth, inhalation or through contact with 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.

See Elsewhere On Label For Additional Precautionary Statements

ACCEPTED 3 8 18
with COMMENTS
In EPA Letter Dated:

MICRO FLO
ENDOSULFAN 3 EC
For Agricultural or Commercial Use Only

MAY 15 2002
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under EPA Reg. No.
51036-92

ACTIVE INGREDIENT:	
Endosulfan (Hexachlorohexahydromethano-2,4,3-benzodioxathiepin-3 oxide).....	33.7%
INERT INGREDIENTS:*	66.3%
TOTAL:.....	100.0%

Contains 3 pounds Endosulfan per gallon
*Contains Xylene Range Aromatic Solvent

KEEP OUT OF REACH OF CHILDREN
POISON
DANGER PELIGRO

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

FIRST AID

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious person.

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

IF ON SKIN OR CLOTHING:

- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

NOTE TO PHYSICIAN: Endosulfan is a central nervous system stimulant absorbable by mouth, inhalation or through contact with 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.

See Elsewhere On Label For Additional Precautionary Statements

EPA Reg. No. 51036-92

EPA Est. No. 51036-GA-001

4 8 18

Manufactured By:
MICRO FLO COMPANY LLC
P.O. BOX 772099
MEMPHIS, TN 38117-2099

PRECAUTIONARY STATEMENTS
Hazards To Humans And Domestic Animals

DANGER

Fatal if swallowed. May be fatal if inhaled or absorbed through the skin. Do not breathe vapors or spray mist. Causes irreversible eye damage. Do not get in eyes, on skin, or on clothing.

EMERGENCY TELEPHONE NUMBERS: Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact:

- (800) 424-9300 CHEMTREC (transportation and spills)
- (800) 900-4044 Poison Control Center (human health)
- (800) 345-4735 ASPCA (animal health)

ENVIRNMENTAL HAZARDS

This product is toxic to fish, birds, and other wildlife. Birds feeding on treated areas may be killed. 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. Due to the risk of runoff and drift, do not apply with 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. This pesticide is toxic to bees exposed to direct application. Applications should be timed to coincide with periods of minimum bee activity, usually between late evening and early morning.

PHYSICAL OR CHEMICAL HAZARDS

Do not use, pour, spill or store near heat or open flame.

PERSONAL PROTECTIVE EQUIPMENT

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:

1. Coveralls over short-sleeved shirt and short pants
2. Chemical-resistant gloves, such as barrier laminate or viton
3. Chemical-resistant footwear plus socks
4. Protective eyewear
5. Chemical-resistant headgear for overhead exposure
6. Chemical-resistant apron when cleaning equipment, mixing, or loading
7. A respirator with either an organic vapor removing cartridge with a prefilter approved for pesticides (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.

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 and maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from the laundry.

Engineering Control:

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 cleaning clothing.
3. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change clothing.

CHEMIGATION PROHIBITION

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

DIRECTIONS FOR USE

It is in violation of Federal Law to use this product in a manner inconsistent with its label. 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 and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and involves contact with anything that has been treated such as plants, soil, or water, is:

1. Coveralls over short-sleeved shirt and short pants
2. Chemical-resistant gloves, such as barrier laminate or viton
3. Chemical-resistant footwear plus socks
4. Protective eyewear
5. Chemical-resistant headgear for overhead exposure

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Do not store in or around the home. Do not use or store near heat, open flame, or hot surfaces. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

IN CASE OF SPILL, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

TO CONFINE SPILL: Dike surrounding area or absorb with sand, cat litter or commercial clay. Place damaged package in a holding container. Identify contents.

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 instruction, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: 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. Do not cut or weld metal containers.

GENERAL INSTRUCTIONS

**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. Use in sufficient water for thorough coverage of listed crops, unless otherwise noted. Coverage of upper and lower leaf surfaces 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 of finished spray per acre on vegetable and field crops, unless otherwise noted, and a minimum of 20 gallons of finished spray per acre on fruit and nut trees and on vines. 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 3EC insecticide used.

Do not plant root crops other than carrots, potatoes, sweet potatoes, and sugar beets as follow-up crops.

Observe days interval between last application and harvest indicated by the number in () following the crop.

ALFALFA (Grown for Forage) (21):

Meadow Spittlebug – Apply 2/3 pint per acre one week after eggs begin to hatch or when first small masses of froth are produced in the crowns of the plant which is actually about the time the alfalfa is 4 to 6 inches tall. Apply in a minimum of 10 gallons of water per acre by ground or 2 gallons of water per acre by air.

ALL USES:

- Do not apply more than once per cutting.
- Do not exceed a maximum of 3 applications per year.
- Do not graze or cut forage within 21 days of treatment.
- Do not exceed ¼ lb. active (1 quart) per acre per year.

APPLES (21):

Apple Aphid, Rosy Apple Aphid, Woolly Apple Aphid, Apple Rust Mite, Green Fruitworm, Tarnished Plant Bug, Tentiform Leafminers and first generation White Apple Leafhopper – Use 2/3 quart per 100 gallons of water or a maximum of 3 1/3 quarts per acre. Applications made at pink and/or petal fall provide best control of Tarnished Plant Bug and Green Fruitworm. For best control of first generation White Apple Leafhopper, apply when nymphs first appear on leaves. If necessary, prior to petal fall, use 1 quart per 100 gallons to control Apple Aphids and Rosy Apple Aphids. For control of Tentiform Leafminers, make first application as soon as moth flight begins. A second application should be made 10 days later.

ALL USES:

- Do not exceed 3 applications per year.
- Do not feed pomace from the treated apples to livestock.
- Do not feed cull fruits to animals or allow livestock to graze in treated orchards.
- Do not exceed 3.0 lbs. active (4 quarts) per acre per year.
- Do not exceed 2 applications during the fruiting period.

APRICOTS (21), NECTARINES (21), PEACHES (21):

Peach Tree Borer, Lesser Peach Tree Borer –

Use one quart per 100 gallons.

WEST COAST: Use $\frac{2}{3}$ to 1 quart 100 gallons.

SOUTHEASTERN STATES: Use 2 to $3 \frac{1}{3}$ quarts per 100 gallons.

ALL USES:

Best control is obtained with a single application during the first week of September. Spray all bark areas from ground level to lower scaffold limbs.

Do not feed cull fruits to animals or allow livestock to graze in treated orchards.

Do not make more than 2 applications per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

APRICOTS (30), NECTARINES (30), PEACHES (30):

Catfacing insects (Stinkbug type), Green Peach Aphid, Black Cherry Aphid, Black Peach Aphid, Rusty Plum Aphid, Peach Twig Borer, Green Fruitworm, Peach Silver Mite – Use $\frac{2}{3}$ quart per 100 gallons or a maximum of to $3 \frac{1}{3}$ quarts per acre.

WEST COAST: Use up to a maximum of 4 quarts per acre.

ALL USES:

Do not exceed 2 applications per year.

Do not feed cull fruits to animals nor allow livestock to graze treated orchards.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

Make applications when insects appear or feeding is noticed.

ARTICHOKES (7):

Artichoke Aphid, Green Peach Aphid – Use 1 to $1 \frac{1}{3}$ quarts per acre.

Artichoke Plume Moth – Use $1 \frac{1}{3}$ quarts per acre. Make applications when insects appear or feeding is noticed.

Apply in a minimum of 20 gallons of water per acre by ground and in a minimum of 10 gallons of water per acre by air.

ALL USES:

Do not exceed 2 applications per year.

Do not exceed 2.0 lbs. active ($2 \frac{2}{3}$ quarts) per acre per year.

BARLEY, OATS, RYE, WHEAT:

Army Cutworm – Use $\frac{2}{3}$ quart per acre. For aerial application, apply in 2 gallons of diesel fuel oil per acre. Make applications when insects appear or feeding is noticed.

Cereal Leaf Beetle (Illinois, Indiana, Michigan and Ohio only) – Use $\frac{1}{3}$ to $\frac{2}{3}$ quart per acre. Apply when small larvae are readily found in the field. For aerial application use a minimum of 1 to 2 gallons of water per acre.

Aphids – Use $\frac{2}{3}$ to 1 quart per acre.

Make applications when insects appear or feeding is noticed.

ALL USES:

Do not apply after heads begin to form.

Do not exceed 2 applications per year.

Do not feed treated forage to livestock.

Do not exceed 1.0 lb. active ($1 \frac{1}{3}$ quart) per acre per year.

BEANS, Succulent and Dry (Except Lima Beans) (3):

SOUTHERN FIELD PEAS (Succulent type, including Black-eyed Peas, Crowder Peas and Southern Peas) (3):

Black Bean Aphid, Bean Leaf Skeletonizer, Cowpea curculio, Cucumber Beetles, Flea Beetle, Green Stink Bug, Leafhoppers, Mexican Bean Beetle – Use 2/3 to 1 1/3 quarts per acre. Make applications when insects appear or feeding is noticed. For control of cowpea Curculio, make 3 applications at 5 day intervals starting when the pods are 1/2 inch long.

Aphids, Armyworms, Western Bean Cutworm and Whitefly – Use 1 1/3 quarts per acre. Make applications when insects appear or feeding is noticed.

ALL USES:

Do not exceed 3 applications per year.

Do not feed threshings or allow livestock to graze in treated fields.

Do not use on Lima Beans that are to be removed from the field for processing.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

BLUEBERRIES:

Blueberry Bud Mite – Use 2 quarts per acre in 300 gallons of water. Apply immediately after harvest and repeat 6 to 8 weeks later.

ALL USES:

Do not apply after buds are well formed.

Do not exceed 2 applications per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

BROCCOLI (7), BRUSSEL SPROUTS (14), CABBAGE (7), CAULIFLOWER (14):

Cabbage Aphid, Cabbage Looper, Cross-Striped Cabbage Worm, Diamondback Moth Larvae, Flea Beetle, Harlequin Bug, Imported Cabbage Worm, Leafhoppers, Stink Bugs – Use 1 to 1 1/3 quarts per acre.

Armyworms, Cutworms and Whitefly – Use 1 1/3 quarts per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 4 applications per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

CARROTS (7):

Green Peach Aphid, Leafhoppers – Use 2/3 to 1 1/3 quarts per acre.

Armyworms, Flea Beetles, Whitefly – Use 1 1/3 quarts per acre.

ALL USES:

Do not use tops for food or feed.

Do not exceed 1 application per season.

Do not exceed 1.0 lb. active (1 1/3 quart) per acre per year.

Make applications when insects appear or feeding is noticed.

CELERY (4):

Green Peach Aphid, Cabbage Looper, Leafhopper – Use 2/3 to 1 1/3 quarts per acre.

Armyworm, Flea Beetles, Whitefly – 1 1/3 quarts per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed one application per season.

Do not exceed 1.0 lb. active (1 1/3 quart) per acre per year.

CELERY (7):

Green Peach Aphid – Use 2/3 quart per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 2 applications per year.

Do not exceed 1.0 lb. active (1 1/3 quart) per acre per year.

CHERRIES (21):

Peachtree Borer, Lesser Peachtree Borer – Use 1 quart per 100 gallons. (West Coast) – Use 2/3 to 1 quart per 100 gallons.

Thoroughly wet all bark from ground to scaffold limbs.

Make applications when insects appear or feeding is noticed.

Black Cherry Aphid, Green Fruitworm, Plum Rust (Nursery) Mite – Use 2/3 quarts per 100 gallons or 2 2/3 to 3 1/3 quarts per acre.

Make applications when insect appear or feeding is noticed.

PACIFIC NORTHWEST ONLY – Eyespotted Bud Moth, Fruit Tree Leafroller – Use 2/3 quarts per 100 gallons or 2 2/3 to 3 1/3 quarts per acre. For Bud Moth control apply at “popcorn” stage and for leafroller control apply during pre-pink stage of growth.

MICHIGAN ONLY: Mineola Moth – Use 1 1/3 quarts per 100 gallons.

Apply in the delayed dormant period.

ALL USES:

Do not exceed 2 applications per year.

Do not feed cull fruits to animals or allow livestock to graze in treated orchards.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

CHERRY, PEACH, PLUM NUSERY STOCK DIP:

Peachtree Borer – Thoroughly mix 2 2/3 quarts per 40 gallons of water. Immerse the bundles of trees so that the roots and crowns are covered well above the grafting bud scar.

Plant immediately, or dry before returning to storage.

Wear rubber gloves during the dipping operation.

CITRUS (NON-BEARING TREES AND NURSERY STOCK):

Citrus Aphid – Use 2/3 quarts per 100 gallons; a maximum of 3 1/3 quarts per acre.

Do not apply to bearing trees or trees that will bear fruit within twelve months.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 2 application per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

COLLARDS (21):

Aphids, Cabbage Looper, Diamondback Moth Larvae, Harlequin Bug, Fall Armyworm, Flea Beetles, Imported Cabbageworm, Leafhoppers – Use 1 to 1 1/3 quart per acre.

Whitefly – Use 1 1/3 quart per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not make more than one application per year.

Do not exceed 1.0 lb. active (1 1/3 quart) per acre per year.

COTTON:

Aphids – Use 1/2 to 1 quart per acre. Thorough coverage is important.

Boll Weevil – Use 2/3 to 2 quarts per acre.

Bollworm, Cabbage Looper, Cotton Leafperforator, Cotton Leafworm, Fleahoppers, Lygus Bugs, Stink Bugs, Tobacco Budworm – Use 1 1/3 to 2 quarts per acre.

Thrips – Use 2 quarts per acre.

Applications may be made using ground or aerial application equipment.

Higher rates should be used when pest pressure is heavy.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not apply after bolls open.

Do not graze dairy or meat animals in treated fields.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

CUCUMBERS (2), MELONS (2), SUMMER AND WINTER SQUASH (2):

Aphids, Cucumber Beetles, Striped Flea Beetle, Melonworm, Pickleworm, Rindworm (on Watermelons), Squash Beetle, Squash Bug, Squash Vine Borer, Striped Flea Beetle – Use 2/3 to 1 1/3 quarts per acre. For Vine Borer control, apply weekly to flower buds, stems, and vines beginning when moths first appear.

Cabbage Looper, Omniverous Leafroller, Whitefly – Use 1 1/3 quarts per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 6 applications per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

EGGPLANT (1):

Colorado Potato Beetle, Flea Beetle, Green Peach Aphid, Blister Beetle, Green Stink Bug – Use 2/3 to 1 1/3 quarts per acre.

Whitefly – Use 1 1/3 quart per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed two applications per year.

Do not exceed 1.0 lbs. active (1 1/3 quarts) per acre per year.

GRAPES (7):

Grape Leafhopper, Rose Chafer, Grape Phylloxera (leaf form) – Use 2/3 quarts per 100 gallons or 1 1/3 to 2 quarts per acre per year.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 3 applications per year.

Do not use to Concord variety as severe injury is likely to occur. Ground application is preferred.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

KALE (21):

Cabbage Flea Beetle, Harlequin Bug, Imported Cabbageworm – Use 1 quart per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed one application per season.

Do not exceed 3/4 lbs. active (1 quart) per acre per year.

LETTUCE (14):

Cabbage Looper, Green Peach Aphid, Diamondback Moth Larvae, Imported Cabbageworm, Leafhoppers – Use 1 to 1 1/3 quarts per acre.

Armyworms, Whitefly – Use 1 1/3 quarts per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

On Head Lettuce, do not exceed 3 applications after thinning. Remove wrapper leaves at harvest.

On Leaf Lettuce, do not exceed 2 applications per season.

Do not feed crop refuse to livestock.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

MUSTARD GREENS (21):

Aphids, Cabbage Looper, Diamondback Moth Larvae, Fall Armyworm, Flea Beetles, Harlequin Bug, Imported Cabbageworm, Leafhoppers – Use 1 to 1 1/3 quart per acre.

Whitefly – 1 1/3 quarts per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed one application per season.

Do not exceed 1.0 lb. active (1 1/3 quarts) per acre per year.

PEARS (7):

Green Fruitworm, Tarnished Plant Bug – Use 2/3 quart per 100 gallons or 2 2/3 to 3 1/3 quarts per acre. Make application at white bud or petal fall when insects appear or feeding is noticed.

Pear Leaf Blister Mite – Apply 1/3 to 2/3 quarts per 100 gallons of water as a post harvest or dormant treatment.

Pear Psylla – Use 3 1/3 quarts per acre in a minimum of 10 gallons of water by aerial application, in 40 gallons of water for semi-concentrate, or in 300 gallons of water for dilute application. Apply when adults are first observed or nymphs are small and repeat to maintain control.

Conspere Stink Bug, Pear Rust Mite (foliar treatment) – Use 2/3 quart per 100 gallons; 2 2/3 to 3 1/3 quarts per acre. Stink bugs must be wet by spray to obtain control.

Conspere Stink Bug (soil treatment) – Use 2/3 quart per 100 gallons; 200 to 400 gallons per acre applied to orchard floor around trees prior to bloom.

ALL USES:

Do not exceed 2 applications per year.

Do not feed cull fruits to animals or allow livestock to graze treated orchards.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

NOTE: Aerial application does not result in satisfactory control and should only be employed if impossible to apply by ground.

PEAS (SEED CROP ONLY) (1):

Pea Aphid, Pea Weevil – Use 2/3 to 1 1/3 quart per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 2 applications per year.

Use only on Peas to be harvested by combine.

Do not feed treated vines or threshings to livestock or allow livestock to graze in treated fields.

Do not exceed 1.5 lbs. active (2 quarts) per acre per year.

PECANS:

Black Pecan Aphid, Pecan Nut Casebearer, Spittlebug – Use 1 quart per 100 gallons. Make applications when insects appear or feeding is noticed. For Casebearer, apply when eggs of first generation appear on tips of the young nuts. Another application may be required after the second generation of eggs is deposited. For Spittlebug, apply when first leaves are half grown and repeat as required.

Pecan Leaf Phylloxera – Use $\frac{2}{3}$ to 1 quart per 100 gallons when nymphs appear and before they are enclosed in plant tissue. For high populations, use the higher rate.

ALL USES:

Do not apply after shuck split.

Do not exceed 2 applications per year.

Do not graze livestock on orchard crops or grasses in treated areas.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

PEPPERS (1):

Green Peach Aphid, Flea Beetles, Hornworms, Pepper Maggot – Use $\frac{2}{3}$ quart per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 2 applications per year.

Do not exceed 1.0 lb. active ($1 \frac{1}{3}$ quart) per acre per year.

PEPPERS (4):

Armyworms, Green Peach Aphid, Flea Beetles, Hornworms, Leafhoppers, Pepper Maggot – Use $\frac{2}{3}$ to $1 \frac{1}{3}$ quarts per acre.

Whitefly – Use $1 \frac{1}{3}$ quart per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 2 applications per season.

Do not exceed 2.0 lbs. active ($2 \frac{2}{3}$ quarts) per acre per year.

PINEAPPLE (FOR FRESH MARKET ONLY) (7):

Pineapple Fruit Mite – Use 2 to $2 \frac{2}{3}$ quarts per acre. Apply at intervals of 7 to 10 days if necessary, particularly during the 40 day period of blooming.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 2 applications per year.

Do not feed forage or pineapple by-products to livestock.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

PLUMS (7), PRUNES (7):

Fruittree Leafroller (Pacific Northwest Only) – Use 2/3 quart per 100 gallons; 2 2/3 to 3 1/3 quarts per acre. Apply during pre-pink stage of growth when insects appear or feeding is noticed.

Hop Aphid, Leafcurl Plum Aphid, Plum Rust (Nursery) Mite, Thistle Aphid – Use 2/3 quart per 100 gallons; 2 2/3 to 3 1/3 quarts per acre. For aphids, apply when eggs hatch during pre-bloom or petal fall. Summer applications should be made before leaves curl.

Lesser Peachtree Borer – Use 1 quart per 100 gallons; 2 2/3 to 3 1/3 quarts per acre. Apply spray to thoroughly wet the trunk and main branches. Make applications when insects appear or feeding is noticed.

Peachtree Borer – Use 1 quart per 100 gallons per acre except (WEST COAST) – Use 2/3 to 1 quart per 100 gallons. Spray thoroughly to cover all bark areas from ground to scaffold limbs. Make applications when insects appear or feeding is noticed.

Peach Twig Borer – Use 2/3 quart per 100 gallons; 2 2/3 to 3 1/3 quarts per acre. Make applications when insect appear or feeding is noticed.

ALL USES:

Do not exceed 2 applications per year.

Do not graze livestock on orchard crops or grasses in treated areas.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

POTATOES (1):

Aphids, Armyworms, Colorado Potato Beetle, Green Stink Bug, Leaffooted Bug, Potato Flea Beetles, Potato Leafhopper, Plant Bugs, Potato Tuberworm, Threelined Potato Beetle – Use 2/3 to 1 1/3 quarts per acre.

European Corn Borer, Potato Psyllid – Use 1 to 1 1/3 quarts per acre.

False Chinch Bug, Whitefly – Use 1 1/3 quarts per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 6 applications per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

PUMPKINS (2):

Aphids, Cucumber Beetle, Squash Vine Borer – Use 2/3 to 1 1/3 quarts per acre. Make applications when insects appear or feeding is noticed. For Vine Borer, apply to flower buds, stems and vines beginning when moths first appear.

ALL USES:

Do not exceed 6 applications per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

SAFFLOWER:

Green Peach Aphid, Whitefly – Use 1 1/3 quarts per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not apply after flower heads open.

Do not exceed 2 applications per year.

Do not exceed 2.0 lbs. active (2 2/3 quarts) per acre per year.

SPINACH (21):

Armyworms, Crown Mite, Flea Beetles, Green Peach Aphid, Leafhopper – Use 1 to 1 1/3 quarts per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 1 application per season.

Do not exceed 1.0 lb. active (1 1/3 quart) per acre per year.

STRAWBERRIES (4):

Tarnished Plant Bug, Meadow Spittlebug, Strawberry Aphid, Whitefly – Use 1 1/3 quarts per acre.

Do not reapply within 15 days or more than twice during a 35 day period when fruit is present.

Cyclamen Mite – Use 2 2/3 quarts per acre in 400 gallons of water. 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. Do not exceed 3 applications per year or a maximum of 4 quarts per acre per year.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not make more than 3 applications per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

STRAWBERRIES – NORTHWEST USE ONLY:

Garden Symphylan (aids in reducing damage) – Use 1 1/3 quarts per 100 gallons (plant dip). Mix thoroughly. Dip entire plant. When immersing bundles of plants, make certain any trapped air is forced out to assure thorough wetting of entire plants.

Drain and allow plants to dry before setting them out in the field. Wear rubber gloves during the dipping operation.

SUGAR BEETS (30):

Green Peach Aphid, Meadow Spittlebug – Use 2/3 to 1 1/3 quarts per acre.

Sugar Beet Worm – Use 1 to 1 1/3 quarts per acre.

Whitefly – Use 1 1/3 quarts per acre.

Make one or two applications per year as needed for control.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not feed treated tops to livestock.

Do not make more than 2 applications per year.

Do not exceed 2.0 lbs. active (2 2/3 quarts) per acre per year.

SUNFLOWERS (1):

Sunflower Moth – Use 1 1/3 quarts per acre. Make the first application at the onset of bloom. Allow 7 days between repeat applications.

ALL USES:

Do not feed treated forage to livestock.

Do not make more than 2 applications per year.

Do not exceed 2.0 lbs. active (2 2/3 quarts) per acre per year.

SWEET CORN (FRESH VEGETABLE USE ONLY) (1):

Corn Leaf Aphid, Whitefly – Use 1 1/3 quarts per acre.

Make applications when insects appear or feeding is noticed.

Corn Earworm – Use 2 quarts per acre beginning when silks first appear and continuing until they begin to dry. Allow 5 days between applications.

ALL USES:

Do not exceed 3 applications per year.

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.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

SWEET POTATOES (1):

Sweet Potato Flea Beetle, Sweet Potato Weevil – Use 2/3 quart per acre. Begin applications shortly after transplanting or as soon as Flea Beetles appear. For Sweet Potato Weevil control, apply in sufficient water for complete coverage. Applications may be made to transplants in the nursery and/or in the field. Repeat applications may be made as necessary. For Sweet Potato Weevil control in a clean up program, apply at a rate of 2 2/3 quarts per acre to the soil under the sweet potato nursery beds and to the area immediately surrounding the nursery beds. Do not place the seed tubers directly on the ground treated with endosulfan.

Whitefly – Use 1 1/3 quarts per acre.

Make applications when insects appear or feeding is noticed.

Banded Cucumber Beetle Larvae (aids in control) (South Central States and Puerto Rico) – Use 1 1/3 to 2 2/3 quarts per acre broadcast or 1/2 to 1 quart per acre on a 16 inch band over the row (48 inch spacing). Work into the soil to a depth of approximately 3 inches. Treatment should be made just prior to plant set.

ALL USES:

Do not feed cut potatoes to livestock or allow livestock to graze in treated fields.

Do not make more than 3 applications per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

TOBACCO (5):**SEED BED:**

Budworm, Cabbage Looper, Flea Beetle, Green Peach Aphid, Hornworm, Tobacco Aphid – Use 2/3 quart per 100 gallons of water and apply about 6 gallons of finished spray per 100 square yards.

PLANT BED:

Green June Bug Larvae – Use 2/3 pint per 100 gallons of water.

Drench at a rate of 1 gallon per square yard.

FIELD:

Aphids (Green Peach Aphid, Tobacco Aphid), Budworm, Cabbage Looper, Flea Beetles, Green June Bug Larvae, Hornworms – Use 2/3 to 1 1/3 quarts per acre to control above insects.

Stink Bugs – Use 2/3 quart per 100 gallons of water.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 6 applications per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

TOMATOES (FIELD AND GREENHOUSE) (2):

Aphids, Blister Beetle, Colorado Potato Beetle, Flea Beetle, Tomato Hornworm, Webworm (California only) – Use 2/3 to 1 1/3 quarts per acre.

Cabbage Looper, Stink Bugs – Use 1 to 1 1/3 quarts per acre.

Tomato Fruitworm, Tomato Russet Mite, Whitefly, Yellow-striped Armyworm – Use 1 1/3 quarts per acre.

Whitefly – Use 2/3 quarts per 100 to 200 gallons of water.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 6 applications per acre per year.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

WALNUTS:

Walnut Aphid – Use 2 to 3 1/3 quarts per acre.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not apply after husk split.

Do not exceed 2 applications per year.

Do not graze livestock on orchard crops of grasses in treated areas.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

COMMERCIALLY GROWN ORNAMENTALS ORNAMENTAL PLANTS

LEATHERLEAF FERN:

Leatherleaf Fern Borer – Use 2/3 quart per 100 gallons of water. Begin treatment when first larval feeding is observed in the mid-vein area at the base of the leaflets. Repeat at intervals of 2 to 3 weeks as necessary.

ALL USES:

Make applications when insects appear or feeding is noticed.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

ORNAMENTALS (GREENHOUSE, AND OUT-OF-DOORS):

Aphids, Cyclamen Mite, Whitefly, Rose Chafer – Use 2/3 quart per 100 gallons of water.

ALL USES:

Make applications when insects appear or feeding is noticed.

On chrysanthemums, best results will be obtained if applied before plants flower.

Do not apply to “Bonafon Deluxe”, “Fred Shoesmith”, and “White Knight” chrysanthemums as injury may result.

Do not use on Birch trees.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

ORNAMENTAL TREES AND SHRUBS

DOGWOOD LILAC:

Dogwood Borer, Lilac Borer – Use 2/3 to 1 1/3 quarts per 100 gallons of water (1 1/3 – 2 2/3 teaspoons per gallon). Apply in early June and repeat in 10 to 14 days. Drench all bark areas down to the ground level.

ALL USES:

Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides.

Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

DOUGLAS FIR (GROWN FOR ORNAMENTALS; NURSERY STOCK OR CHRISTMAS TREES) PACIFIC NORTHWEST ONLY:

Cooley Spruce Gall Adelgid, Douglas Fir Needle Midge, Aphid – Use 2/3 quart per 100 gallons of water (1 1/3 teaspoons per gallon). Make applications when insects appear or feeding is noticed. For control of needle midge, apply in late April or early May just before buds open.

To control Gall Adelgid, apply when white cottony tufts appear.

ALL USES:

Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

PINES (AUSTRIAN, JACK, RED, SOTCH, WHITE):

Zimmerman Pine Moth – Use 1 quart per 100 gallons of water (2 teaspoons per gallon). Apply in mid-April and again, if necessary, in late fall. Thoroughly wet bark and main stem, especially where branches join main stem.

ALL USES:

Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

SHADE TREES (EXCEPT BIRCH), SHRUBS:

Aphids – Use 2/3 quart per 100 gallons of water (1 1/3 teaspoons per gallon).

ALL USES:

Make applications when insects appear or feeding is noticed.

Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

SPRUCE (NEW ENGLAND AREA ONLY):

Spruce Gall Aphid – Use 2/3 quart per 100 gallons of water (1 1/3 teaspoons per gallon). Apply in late April or early May when aphids are present but before galls are formed.

ALL USES:

Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

TAXUS:

Taxus Bud Mite – Use 2/3 quart per 100 gallons of water (1 1/3 teaspoons per gallon). Make 3 to 5 applications beginning in mid-May. Thoroughly spray foliage, twigs, and bark.

Black Vine Weevil – Use 1 1/3 quarts per 100 gallons of water (2 2/3 teaspoons per gallon). Spray thoroughly and drench soil under plants. Apply when beetles first appear. Repeat in 14 days.

ALL USES:

Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed 3.0 lbs. active (4 quarts) per acre per year.

CONDITIONS OF SALE

All statements concerning the use of this product apply only when used as directed. THE MANUFACTURER MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THIS PRODUCT OR ITS USE, WHICH EXTEND BEYOND THE DESCRIPTION ON THE LABEL. Read all directions carefully.