

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SEP 22 1993

300/5437932
17/2

Mr. Morris Gaskins
Micro-Flo Company
P.O. Box 5948
Lakeland, FL 33807

Dear Mr. Gaskins:

Subject: Amendment - Revised Labels
Endosulfan 3EC
EPA Registration No. 51036-92
Your Application Dated March 18, 1993

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable provided that you make the labeling changes indicated below prior to release for shipment of product bearing the amended labeling.

1. In the Environmental Hazards, revise the statement "Do not apply directly to water or wetlands" to read "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."
2. Under the site APPLES (21), place all the use limitations under the heading ALL USES, since these limitations are not just for controlling tentiform leafminers.
3. Under APRICOTS (21), make the following changes:
 - a. add the application rate of 1 quart per 100 gallons to the peachtree borer, lesser peachtree borer pests.
 - b. delete the first ALL USES heading and place the use limitation under the second ALL USES.
4. The following method of application statement should appear on all sites and pests which do not specify application instructions.

Make applications when insects appear or feeding is noticed.

CONCURRENCES

CONCURRENCES							
SYMBOL							
SURNAME							
DATE							

5. Under ARTICHOKES (7), add the statement **"Make applications when insects appear or feeding is noticed."** as the first before the statement, "Apply in a minimum of 20 gallons...".
6. Under BEANS, add the following method application:

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.
7. Change the heading CITRUS, NURSERY AND NON-BEARING STOCK to read **CITRUS (NON-BEARING TREES AND NURSERY STOCK)**.
8. Under PEARS(7) for the pests Green Fruitworm and Tarnished Plant Bug, revise the method of application as follows:

Make applications at white bud or petal fall when insects appear or feeding is noticed.
9. Under PECANS, place the statement, **Make applications when insects appear or feeding is noticed.**, before the directions beginning with "For Casebearer, apply when...".
10. Under PLUMS (7), PRUNES (7) make the following changes:
 - a. For Fruittree leafroller, change the method of application to read:

Apply during pre-pink stage of growth when insects appear or feeding is noticed.
 - b. For Peach twig borer add the method of application statement as follows:

Make applications when insects appear or feeding is noticed.
11. Change the site PUMPKINS (1) to PUMPKIN (2) and place the statement, **Make applications when insects appear or feeding is noticed.**, before the directions beginning with "For Vine Borer, apply...".
12. Under SPINACH (21) change the rate of application to 1 to 1 1/3 qts per acre.
13. In the limitations appearing under the crops **TOMATO (FIELD AND GREENHOUSE)** and **ORNAMENTALS (GREENHOUSE AND OUT-OF DOORS)**, delete the statement "In greenhouse

applications, wear a mask or respirator approved by MSA and OSHA for protection against endosulfan." since wearing a MSHA/NIOSH approved respirator is required for all applications, not just those in greenhouses.

- 14. Under DOUGLAS FIR add the following application instructions:

For control of needle midge, apply in late April or early May just before buds open.

In order to reduce the risk of contamination of aquatic ecosystems with the use of thiodan products, FMC has a supplemental labeling for use in California. Enclosed is a copy of the last accepted labeling and the supplemental labeling for FMC product, EPA Reg. No. 279-2924 for your use.

Please note that this acceptance of you label does not relieve you of any obligation to comply with the Worker Protection Standard (WPS). Under the WPS labeling regulations at 40 CFR part 156, subpart K, § 156.200(c)(3), you are prohibited from distributing or selling any product within the scope of the WPS requirements after April 21, 1994, without amended labeling accepted by the Agency.

Submit five copies of your final printed labeling before you release the product for shipment. A stamped copy of the labeling is enclosed for your records.

Sincerely yours,

George T. LaRocca
Product Manager 13
Insecticide-Rodenticide Branch
Registration Division (H7505C)

Enclosure

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Draft label to amend uses to match up with FMC Thiodan 3EC (Reg. No. 279-2924

ENDOSULFAN 3 EC
For Agricultural or Commercial Use Only ✓

ACTIVE INGREDIENT:

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

INERTINGREDIENTS:*.....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

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este
producto hasta que le etiqueta haya sido explicado ampliamente.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center
immediately. If possible, vomiting should be induced under medical
supervision. Drink one or two glasses of water and induce vomiting
by giving one (1) ounce of syrup of ipecac, if available, or by
touching the back of the throat with a finger. Do not induce
vomiting or give anything by mouth to a person who is unconscious
or convulsing.

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
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.

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See Elsewhere On Label For Additional Precautionary Statements

EPA Reg. No. 51036-92

EPA Est. No. 51036-GA-1

Manufactured By
MICRO FLO COMPANY

ACCEPTED
with COMMENTS
in EPA Letter Dated

SEP 22 1993

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

51036-92

P.O. Box 5948
Lakeland, Florida 33807

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. Applicators must wear a long sleeve shirt, trousers, unlined waterproof gloves made of natural rubber or neoprene, full foot covering (such as shoes or boots), head covering (such as a hat), and a pesticide mask or respirator jointly approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH) under the provisions of 30 CFR Part II for protection against endosulfan. Mixers and/or loaders must wear a chemical resistant apron and goggles or face shield in addition to all of the protective equipment specified for applicators. Do not apply or allow to drift to areas occupied by unprotected humans or beneficial animals. Wash thoroughly with soap and water after handling and before smoking or eating. Remove contaminated clothing and wash with soap and hot water before reuse.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds, and other wildlife. Birds feeding on treated areas may be killed. Do not apply directly to water or wetlands. 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. 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.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
Do not apply this product through any type of irrigation system.
Do not apply this product in such a manner as to directly or

through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

RE-ENTRY STATEMENTS

Do not enter treated areas without protective clothing for 24 hours. Protective clothing means, at least, a hat or other suitable head covering, a long sleeved shirt and long legged trousers or a coverall type garment (all of closely woven fabric covering the body including the arms and legs), socks, and shoes. Because certain states may require more restrictive reentry intervals for various crops treated with this product such as the 48 hour re-entry interval established by California, consult your State Department of Agriculture for further information. Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Inform workers of areas or fields that may not be entered without specific protective clothing, period of time that field must be vacated, and appropriate actions to take in case of accidental exposure. An example of such information is given under written warnings. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information:

DANGER Area treated with endosulfan on (insert date of application). Do not enter without appropriate protective clothing for 24 hours. (Insert State Department of Agriculture re-entry date, if more restrictive.) In case of accidental exposure to pesticide spray, wash the skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse. If in eyes, flush with plenty of water. If inhaled, go to an area where the pesticide has not been applied. Get medical attention if needed.

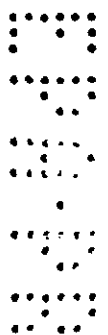
STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. **PESTICIDE STORAGE:** Do not store in or around the home. Do not store below 20 degrees F (-7 degrees C). 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 usually 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 3/4 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. Do not exceed 3 applications per year.

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

ALL USES:

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 - *1 qt per 100 gal*

WEST COAST: Use 2/3 to 1 quart per 100 gallons.

SOUTHEASTERN STATES - Use 2 to 3 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.

ALL USES:

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 2/3 quart per 100 gallons or a maximum of to 3 1/3 quarts per acre. *Add whole application*

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.

ARTICHOKES (7):

Artichoke Aphid, Green Peach Aphid - Use 1 to 1 1/3 quarts per acre.

Artichoke Plume Moth - Use 1 1/3 quarts per acre.

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 2/3 quarts) per acre per year.

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BARLEY, OATS, RYE, WHEAT:

Army Cutworm - Use 2/3 quart per acre. For aerial application, apply in 2 gallons of diesel fuel oil per acre.

Cereal Leaf Beetle (Illinois, Indiana, Michigan and Ohio only) - Use 1/3 to 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 2/3 to 1 quart per acre. *M, h, d*

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 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.

Aphids, Armyworms, Western Bean Cutworm and Whitefly - Use 1 1/3 quarts per acre.

Add method of application

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.

*Acid
M. h. d.*

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

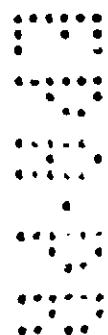
Cabbage Aphid, Cabbage Looper, Cross-Striped Cabbage Worm, Diamondback Moth larvae, Flea Beetle, Harlequin Bug, Imported Cabbage Worm, Leafhoppers, Stink Bugs - Use 1 to 1 1/3 quarts per acre.

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

ALL USES:

Do not exceed 4 applications per year.

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



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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.

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CELERY (4):
Green Peach Aphid, Cabbage Looper, Leafhopper - Use 2/3 to 1 1/3 quarts per acre.
Armyworms, Flea Beetles, Whitefly - 1 1/3 quarts per acre.

ALL USES:
Do not exceed one application per season.
Do not exceed 1.0 active (1 1/3 quart) per acre per year.

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CELERY (7):
Green Peach Aphid - Use 2/3 quart per acre.

ALL USES:
Do not exceed 2 applications per season.
Do not exceed 1.0 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.

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

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.

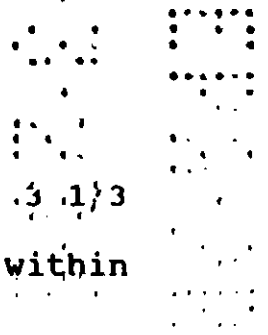
MICHIGAN ONLY: Mineola Moth - Use 1 1/3 quarts per 100 gallons.
Apply in the delayed dormant period.

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 NURSERY 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.



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CITRUS, (NURSERY AND NON-BEARING STOCK): *NUSE -*
Citrus Aphid - Use 2/3 quart 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:
Do not exceed 2 applications per year.
Do not exceed 3.0 lbs active (4 quarts) per acre per year.

M. (21)

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:

Do not make more than one application per year.
Do not exceed 1.0 lb active (1 1/3 quart) per acre per year.

M. T. C.

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:

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.

M. (2)

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 ^{Squash} 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:

Do not exceed 6 applications per year.
Do not exceed 3.0 lbs active (4 quarts) per acre per year.

M. (1)

EGGPLANT (1):

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

ALL USES:

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

GRAPES (7):

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

ALL USES:

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:

Do not exceed one application per season.

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

lettuce
green
CABBAGE (Loopers) 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:

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:

Do not exceed one application per season.

Do not exceed 1.0 lb active (1 1/3 quart) 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. Apply at white bud or petal fall. *Use insect appear on seedling & not on tree!*

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.

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PEAS (SEED CROP ONLY) (1):

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

ALL USES:

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.

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PECANS:

Black Pecan Aphid, Pecan Nut Casebearer, Spittlebug - Use 1 quart per 100 gallons. 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 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.

Handwritten mark

PEPPERS (1):

Green Peach Aphid, Flea Beetles, Hornworms, Pepper Maggot - Use 2/3 quart per acre.

ALL USES:

Do not exceed 2 applications per year.

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

Handwritten mark

PEPPERS (4):

Armyworms, Green Peach Aphid, Flea Beetles, Hornworms, Leafhoppers, Pepper Maggot - Use 2/3 to 1 1/3 quarts per acre.

Whitefly - Use 1 1/3 quart per acre.

ALL USES:

Do not exceed 2 applications per season.

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

PINEAPPLE (FOR FRESH MARKET ONLY) (7):

Pineapple Fruit Mite - Use 2 to 2 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:

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.

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.

Peach **Peach Twig Borer** - Use 2/3 quart per 100 gallons; 2 2/3 to 3 1/3 quarts per acre.

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 **POTATOES (1):**

Aphids, Armyworms, Colorado Potato Beetle, Green Stink Bug, Leafhopper, 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:

Do not exceed 6 applications per year.

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

→ **PUMPKINS (1):**

Aphids, Cucumber Beetle, Squash Vine Borer - Use 2/3 to 1 1/3 quarts per acre. 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 **SAFFLOWER:**

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

ALL USES:

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

to 1 1/2 "

- Use 1 quart per acre.

ALL USES:

Do not exceed 1 application per season.

Do not exceed 1.0 lbs 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.

Do not exceed 3 applications per year.

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

ALL USES:

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 plant.

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

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 Webworm - 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:

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. ^{renewed} Make the first application at the onset of bloom. Allow 7 days between repeat applications.

Allow 7 days between repeat applications.

Allow 7 days between repeat applications.

Allow 7 days between repeat applications.

Allow 7 days between repeat applications.

Allow 7 days between repeat applications.

Allow 7 days between repeat applications.

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

Corn Leaf Aphid, Whitefly - Use 1 1/3 quarts per acre. ^{renewed}

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

Allow 5 days between applications.

Allow 5 days between applications.

ALL USES:

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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.

Banded Cucumber Beetle larvae (aids in control) (South Central States and Puerto Rico only) - 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 cull 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:

Do not exceed 6 applications per year.

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

TOMATOES (FIELD AND GREENHOUSE) ():

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 quart per 100 to 200 gallons of water.

ALL USES:

Deluxe
Do not exceed 6 applications per acre per year.
In Greenhouse applications, wear a mask or respirator approved by MSA and OSHA for protection against endosulfan.
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:

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.

COMMERCIALY 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:

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

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

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

ALL USES:

On chrysanthemums, best results will be obtained if applied before plants flower.
Do not apply to "Bonnafon Deluxe," "Fred Shoemith," and "White Knight", chrysanthemums as injury may result.
Do not use on Birch trees.

Deluxe
In greenhouse applications, wear a mask or respirator approved by MSA and OSHA for protection against endosulfan.

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

ALL USES: *Needle Midge Application*

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, SCOTCH, 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.

mark SHADE TREES (EXCEPT BIRCH), SHRUBS:

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

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.

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.

