

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

FMC Corporation  
2000 Market Street  
Philadelphia, PA 19103

MAY 29 1985

Dear Sir:

SUBJECT: Lifting the Notice of Intent to Suspend  
Registrations of Certain Products  
Containing Endosulfan dated May 2, 1985  
Amendments- Delete Alfalfa (seed crops)  
Delete watercress and forestry uses  
Revise ingredients statement  
Your submissions received May 17 and 22, 1985

A Notice of Intent to Suspend the registrations of your products listed in the Attachment was issued on May 2, 1985, for failure to submit endosulfan residue data on alfalfa (seed crops).

The Environmental Protection Agency has determined that you have complied with the requirements which served as the basis of the above-mentioned Notice of Intent to Suspend by submitting amended labeling deleting the use pattern alfalfa (seed crops) within the 30 day period allowed. Therefore, the Notice of Intent to Suspend will not become an Order of Suspension of the registrations of the products listed in the Attachment and is hereby lifted.

The amendments referred to above, submitted in connection with registrations under FIFRA Sec. 3(c)(7)(A), are acceptable, provided that you make the label changes listed below before you release the products listed in the Attachment for shipment bearing the amended labeling:

EPA Reg. No. 279-2306

- 1. Revise the "If swallowed" text to read as follows:

If swallowed- Call a physician or Poison Control Center immediately. Drink 1 or 2 glasses of water and induce vomiting by touching the back of the throat with finger. Repeat until vomit fluid is clear. Do not induce vomiting or give anything by mouth to a person who is unconscious or convulsing.

- 2. Delete "Antidote" appearing above "Note to Physicians" since there is no specific antidote.

- 3. Revise the beginning of the "Hazards to Humans" section to read:

Fatal if swallowed, inhaled or absorbed through skin.

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- 4. In the Directions for Use, rearrange the listing into separate general headings, each with associated specific uses. Only the listing of specific fruit and nut trees should appear under the heading Tree Fruit and Nut Crops, the specific field and vegetable crops under the heading Field and Vegetable Crops, and ornamental plants and ornamental trees and shrubs (with specific sub-listing) under the heading Domestic Outdoor Use. The proposed listing of ornamental plants and tomatoes under the heading Greenhouse Uses is acceptable.
- 5. Submit five copies of the "Product Description Sheet", referred to on the label, for Agency review.

EPA Reg. No. 279-1182

- 1. This label must be updated to be in conformance with 40 CFR §162.10 and all appropriate PR Notices. It is suggested that a reworked copy of this label be submitted for Agency review prior to the expense of actual printing. The updated label should be based on the revised labeling submitted February 3, 1981 and our letter of objection dated September 14, 1981 plus inclusion of required farmworker safety labeling items including re-entry restrictions.
- 2. The livestock feeding and other use restrictions detailed on pages 66 and 67 of the Endosulfan Registration Standard must be incorporated in the directions for use. Be sure to note the pre-harvest interval for pumpkins.
- 3. Group the ornamental plants, shrubs, and trees under the heading Ornamentals to ensure deletion of the forestry use pattern.
- 4. When preparing this revision, change "Hazardous if swallowed, etc" to "May be fatal if swallowed, etc." delete "Antidote" and be sure to use the current names of the regulating agencies in the respirator advice.

The Agency's records have been adjusted to show the change in product name for EPA Reg. No. 279-1182 from "Niagra Thiodan Miscible Insecticide" to "Thiodan Miscible".

EPA Reg. No. 279-1380

- 1. You may choose to delete diazepam from the recommended treatments based on the data recently submitted to the Agency under the Endosulfan Registration Standard.
- 2. Correct the spelling of "absorbed" in the second sentence of the Hazards to Humans & Domestic Animals section.

3. Revise the Environmental Hazards text by replacing "Keep out of lakes,... etc." to "... and livestock consumption" with "Do not apply directly to water or wetlands".

EPA Reg. No. 279-2659

1. Revise the "If swallowed" advice to read as follows:

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 the throat with finger. Do not induce vomiting or give anything by mouth to a person who is unconscious or convulsing.

2. Revise the Note to Physician to appear as that found on the latest submission for EPA Reg. No. 279-2924. You may choose to delete the recommendation of diazepam based on the latest antidote data submitted under the Endosulfan Registration Standard.
3. Update the names of the agencies regulating respirators, i.e. MSHA and OSHA.
4. Revise the Environmental Hazards text by replacing "Keep out of lakes,... etc." to "... and livestock consumption" with "Do not apply directly to water or wetlands".
5. Delete the paragraph "Because certain states..." from the bottom of the first page. The correct version of this same paragraph appears at the top of page 2 of the label.
6. In the "Corn-Seed Crop Only" directions, replace "Do not feed treated forage to livestock." with "Do not feed forage or ensilage to livestock or allow livestock to graze in treated fields.". Also, add "Do not make more than five applications."

[See page 67 of the Endosulfan Registration Standard for source of comments.]

7. In the "Peas, Garden (Grown for Seed Only)" directions, replace "Do not feed treated vines or threshings to livestock." with "Do not apply more than two times during the fruiting season. Do not feed treated vines to livestock or allow livestock to graze in treated fields. Use only on peas to be harvested by combine."

[See page 67 of the Endosulfan Registration Standard for source of comments.]

EPA Reg. No. 279-2822

## 1. Revise the "If swallowed" advice to read as follows:

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 one ounce of syrup of ipecac. If syrup of ipecac is not available, drink 1 or 2 glasses of water and induce vomiting by touching the back of the throat with finger. Do not induce vomiting or give anything by mouth to a person who is unconscious or convulsing.

2. Replace "Hazardous if swallowed, inhaled, or absorbed through skin." with "May be fatal if swallowed, inhaled, or absorbed through skin." in the "Hazards to Humans & Domestic Animals" section.
3. Delete "During commercial or prolonged exposure in spray-mixing and loading operations," from this same section and update the names of the agencies regulating respirators to MSHA and OSHA.
4. In the "Environmental Hazards" section, replace "Keep out of lakes, ponds, and streams. Do not apply where runoff is likely to occur." with "Do not apply directly to water or wetlands."
5. Delete the paragraph "Because certain states..." from the bottom of the first page. The correct version of this same paragraph appears at the top of page 2 of the label.
6. Change the signal word on the recommended text for the re-entry sign in the farmworker safety section to WARNING.
7. In the "Corn-Seed Crop Only" directions, replace "Do not feed treated forage to livestock." with "Do not feed forage or ensilage to livestock or allow livestock to graze in treated fields.". Also, add "Do not make more than five applications."

[See page 67 of the Endosulfan Registration Standard for source of comments.]

8. In the "Peas, Garden (Grown for Seed Only)" directions, replace "Do not feed treated vines or threshings to livestock." with "Do not apply more than two times during the fruiting season. Do not feed treated vines to livestock or allow livestock to graze in treated fields. Use only on peas to be harvested by combine."

[See page 67 of the Endosulfan Registration Standard for source of comments.]

- 9. There should be a 1 day pre-harvest interval for pumpkins. Since this is a change from previous directions, it might be wise to also include the sentence: "Do not apply within one day of harvest."

[See page 67 of the Endosulfan Registration Standard]

- 10. The directions for use on tomatoes, both general and "Western Use", should include a precaution about using an approved respirator during application in greenhouses.

Stamped copies of the amended labels for the products listed in the Attachment are enclosed for your records. It is understood, based upon your letter of May 21, 1985 to Mr. Douglas Camp, that FMC Corporation will delete the alfalfa (seed crop) use from end-use products being packaged after June 6, 1985 and that any stocks of unsold (previously manufactured) inventory remaining in FMC's control and care at the end of the year, December 31, 1985, will be relabeled to delete the alfalfa (seed crop) use. Stocks of the manufacturing-use product Thiodan Technical, EPA Reg. No. 279-2306, released for shipment 90 days after the date of this letter must bear the amended label.

Please submit five (5) copies of labeling for each of the affected products bearing the revisions detailed above prior to release for shipment under the amended labeling.

Revisions and deletions on these labels also constitutes your company's final response to the outstanding data requirements to support the watercress and forestry uses. It is assumed that these uses will also be deleted from products being packaged after June 6, 1985. Please confirm this in writing. Submission of the revised finished labels prior to shipment under the amended labeling will, of course, serve as final confirmation.

The Agency appreciates your submission of amended labeling for the product Thiodan 3EC, EPA Registration No. 279-2924, which has included the alfalfa (seed crop) use pattern but which inadvertently had not been listed on Attachment I of the Notice of Intent to Suspend issued May 2, 1985. The amended labeling for this product, deleting the use pattern alfalfa (seed crops), is acceptable provided the following revisions are made prior to release for shipment under the amended labeling:

- 1. You may choose to delete the recommendation of diazepam in the Note to Physician based on the latest antidote data submitted under the Endosulfan Registration Standard.
- 2. Change "Hazardous if inhaled or absorbed through skin." to "May be fatal if inhaled or absorbed through skin." in the Hazards to Humans & Domestic Animals section.
- 3. Revise the Environmental Hazards text by replacing "Keep out of lakes,... etc." to "... and livestock consumption" with "Do not apply directly to water or wetlands".

4. It is assumed that the alfalfa (seed crop; text, which had a line drawn through it in the submitted copy, will not appear on the revised labeling.
5. In the "Peas, Seed Crop Only" directions, replace "Do not feed treated vines or threshings to livestock." with "Do not apply more than two times during the fruiting season. Do not feed treated vines to livestock or allow livestock to graze in treated fields. Use only on peas to be harvested by combine."

[See page 67 of the Endosulfan Registration Standard for source of comments.]

6. There should be a 1 day preharvest interval for pumpkins. Since this is a change from previous directions, it might be wise to also include the sentence: "Do not apply within one day of harvest."

[See page 67 of the Endosulfan Registration Standard for source of comments.]

A stamped copy of the label is enclosed for your records.

This also serves to acknowledge receipt of "Offer to Pay" forms in compliance with PR Notice 84-4 for EPA Reg. Nos. 279-1380, 279-2306, and 279-2924 for endosulfan reregistration. Please note that future "Offer to Pay" compliance should be made in regard to 40 CFR Part 152 Subpart E and should employ the forms found in PR Notice 85-3.

Sincerely yours,

George T. LaRocca  
Product Manager (15)  
Insecticide-Rodenticide Branch  
Registration Division

P.S. The revised labels for the end-use products should be prepared in a timely manner so that they will be available for the 1985 Winter production runs, but in no case should the affected end-use products be released for shipment under the previous (non-amended) labels after December 31, 1985.

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ATTACHMENT

EPA Reg. No.

Product Name

279-1182

Niagra Thiodan Miscible Insecticide

279-1380

Thiodan 50W

279-2306

Thiodan Technical Insecticide

279-2659

Thiodan 2 C.O. EC

279-2822

Thiodan 2 Pyrenone 0.3-0.03 EC

MAY 29 1985

Under the Federal Insecticide,  
Fungicide, and Fertilizer Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
279-2924

Code 3212

Gallons Net Contents

# Thiodan® 3 E.C. Insecticide

For Agricultural or Commercial Use Only.

EPA Reg. No. 279-2924

EPA Est., 279-

Active Ingredients:

By Wt.

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

Inert Ingredients: ..... 66.3%  
100.0%

\*Thiodan

Thiodan 3 E.C. contains 3 pounds of Endosulfan per gallon.  
Contains Xylene Range Aromatic Solvents

**KEEP OUT OF REACH OF CHILDREN**

**☠ DANGER—POISON ☠**

## PELIGRO

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

See Other Panels for Additional Precautionary Information.

# FMC.

FMC Corporation  
Agricultural Chemical Group  
2000 Market Street  
Philadelphia Pennsylvania 19103

If on skin: Remove contaminated clothing and wash skin with soap and water.  
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. There is no antidote, but, excitant effects can usually be controlled by barbiturates or diazepam. There also is hazard of chemical pneumonia from aspiration, because of the petroleum hydrocarbon content.

### PRECAUTIONARY STATEMENTS Hazards to Humans (& Domestic Animals) Danger

Fatal if swallowed. Hazardous if inhaled or absorbed through skin. Do not breathe spraymist. Do not get in eyes, on skin or on clothing. Wash thoroughly with soap and water after handling and before eating or smoking. Wear clean clothing. During commercial exposure in spray mixing and loading operations, wear clean synthetic rubber gloves and a pesticide respirator jointly approved by MSHA (Mine Safety and Health Administration) and NIOSH (National Institute for Occupational Safety and Health) under the provisions of 30 CFR Part 11.

### Environmental Hazards

This product is toxic to fish, birds, and other wildlife. Birds feeding on treated areas may be killed. Keep out of lakes, streams, ponds, tidal marshes, and estuaries. Do not apply to water that will be used for recreational purposes and human and livestock consumption. 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. 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 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.

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), shoes and socks.

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Because certain states may require more restrictive re-entry 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 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). Do not enter without appropriate protective clothing for 24 hours (insert State Department of Agriculture's re-entry interval, if more restrictive).

In case of accidental exposure to pesticide spray or dust, 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.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

MAY 29 1985

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

279-2924

**STORAGE AND DISPOSAL**

**Pesticide Storage**

Do not store in or around the home.

Do not store below 20°F. (-7°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. Call FMC collect. (716) 735-3765.

To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

**Pesticide Disposal**

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or residue 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**

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.

Not for use or storage in or around the home.

Do not use in undiluted form

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Apply the listed amount per acre when insects first appear and repeat as required 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. 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 on vegetable and field crops and a minimum of 20 gallons of finished spray per acre on deciduous trees and 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 Thiodan 3 E.C. 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 number in ( ) following the crop.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

MAY 29 1985

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
279-2924

**Ailalfa, Grown for Forage (21):** Meadow Spittlebug— $\frac{1}{2}$  pt. per acre. Apply 1 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 ailalfa 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. Do not apply more than once per cutting. Do not graze or cut forage within 21 days of treatment. ~~Seed Crops: Alys. Aphids— $1\frac{1}{2}$  pints. Lygus Bugs—2 to 2 $\frac{1}{2}$  quarts. Meadow Spittlebug— $\frac{1}{2}$  pints.~~  
Do not feed treated forage to dairy or meat animals. Do not use on forage to be sold commercially or shipped interstate.

**Almonds:** Peach Twig Borer—2 $\frac{1}{2}$  to 3 $\frac{1}{3}$  qts per acre for control of early season infestation. Apply during popcorn, pink or petal fall. Use in a minimum of 200 gallons of water per acre dilute or in 40 gallons per acre concentrate. For areas less than one acre, use 1 qt. per 100 gallons of water. Do not exceed one application per season. Treated hulls may be fed to livestock and dairy animals.

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

**Apples (30):** Apple Aphid, Rosy Apple Aphid, Woolly Aphid— $\frac{1}{2}$  qt per 100 gallons or 2 $\frac{1}{2}$  to 3 $\frac{1}{2}$  qts per acre. Apple Rust Mite— $\frac{1}{2}$  to  $\frac{3}{4}$  qts per 100 gallons or 4 to 5 $\frac{1}{2}$  qts per acre. Do not feed pomace from treated apples to livestock. Do not exceed 2 applications during the fruiting period at rate above 3 $\frac{1}{2}$  quarts per acre.

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

**Apples (21):** Apple Aphid, Rosy Apple Aphid— $\frac{1}{2}$  qt per 100 gallons or 2 $\frac{1}{2}$  to 3 $\frac{1}{2}$  qts per acre. Do not exceed 3 applications during fruiting period. Do not feed pomace to livestock.

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

**Apples (30) Western Use Only:** Woolly Apple Aphid— $\frac{1}{2}$  qt per 100 gallons or 5 $\frac{1}{2}$  qts per acre. Do not exceed 2 applications during fruiting period. Do not feed pomace from treated apples to livestock.

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

**Apricots (21), Nectarines (21), Peaches (21):** Peach Tree Borer, Lesser Peach Tree Borer—Use 1 qt per 100 gallons. West Coast— $\frac{1}{2}$  qt per 100 gallons. Southeastern States—Use 2 to 3 $\frac{1}{2}$  qts per 100 gallons. Best control is obtained with a single application during the first week of September. Spray all bark areas from ground level to scaffold limbs.

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

—OR—

**Apricots (30), Nectarines (30), Peaches (30):** Aphids (Black Cherry, Black Peach, Green Peach, Rusty Plum), Catfacing Insects, Peach Twig Borer— $\frac{1}{2}$  qt per 100 gallons or 2 $\frac{1}{2}$  to 3 $\frac{1}{2}$  qts per acre. Peach Silver Mite— $\frac{1}{2}$  qt per 100 gallons or 2 $\frac{1}{2}$  to 3 $\frac{1}{2}$  qts per acre. Do not exceed 2 applications during the fruiting period.

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

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**Artichokes (7):** Artichoke Aphid, Green Peach Aphid—1 to 1 1/2 qts per acre Artichoke Plume Moth—1/2 qts per acre

**Barley, Oats, Rye, Wheat:** Army Cutworm—1 1/2 pt per acre. For aerial application, apply in 2 gallons diesel fuel oil per acre Cereal Leaf Beetle (Illinois, Indiana, Michigan, and Ohio only)—Use 2/3 to 1 1/2 pints 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. Do not apply after heads begin to form Do not feed treated forage to livestock

**Beans, Succulent and Dry (Except Lima Beans) (3):** Black Bean Aphid, Bean Leafskeltonizer, Cucumber Beetles, Green Stink Bug, Mexican Bean Beetle—Use 1 1/2 to 2 1/2 pts Western Bean Cutworm—Use 1 1/2 qts. Do not exceed 3 applications per season Do not feed threshings or allow livestock to graze in treated fields

**Blueberries:** Blueberry Bud Mite—2 qts. per acre in 300 gallons of water. Apply immediately after harvest and repeat 6 to 8 weeks later. Do not apply after buds are well formed

**Broccoli (7), Brussels Sprouts (14), Cabbage (7), Cauliflower (14):** Cabbage Aphid, Cabbage Looper, Cross-Striped Cabbageworm, Diamondback Moth Larvae, Flea Beetle, Harlequin Bug, Imported Cabbageworm, Stink Bug—1 to 1 1/2 qts Armyworms, Cutworms—1 1/2 qts per acre

**Carrots (7):** Green Peach Aphid—1 1/3 to 2 2/3 pts Do not exceed 2 applications. Do not use tops for food or feed.

**Celery (7):** Green Peach Aphid—1 1/3 pts.—or—**Celery (4):** Green Peach Aphid, Cabbage Looper—2 2/3 pts. Do not exceed 3 applications per season.

**Cherries (21):** Black Cherry Aphid, Plum Rust (Nursery) Mite—1/2 qt per 100 gallons or 2 1/2 to 3 1/2 qts per acre Do not exceed 2 applications after shuck split (Michigan only)—Mineola Moth—1 1/2 qts per 100 gallons applied in delayed dormant period

**Cherries (21)—Pacific Northwest Only:** Eyespotted Bud Moth, Fruit-tree Leafminer—1/2 qt per 100 gallons or 2 1/2 to 3 1/2 qts per acre For Eyespotted Bud Moth, apply during popcorn stage of growth For Fruit-tree Leafminer, apply during pre-pink stage of growth Do not exceed 2 applications after shuck split

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

**Cherry, Peach, Plum Nursery Stock Dip:** Peachtree Borer—Thoroughly mix 2/3 gallon 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 when dipping

**Citrus (Nonbearing Trees and Nursery Stock):** Citrus Aphid—1/2 pt per 100 gallons or 3 1/2 qts per acre Do not apply to bearing trees or trees that will bear fruit within 12 months Shrimp and crab may be killed at application rates recommended Do not apply where these are important resources

**Collards (21):** Cabbage Looper, Diamondback Moth Larvae, Harlequin Bug, Imported Cabbageworm—1 qt per acre Apply only once per season

**Cotton:** Thrips—2 qts per acre Do not apply after bolls open Do not graze dairy or meat animals in treated fields

**Cotton—Eastern Use Only:** Boll Weevil—1/2 to 1 1/2 qts per acre Bollworm, Cabbage Looper, Cotton Leafperforator, Lygus Bugs, Stink Bugs—1 1/2 qts per acre Do not apply after bolls open Do not graze dairy or meat animals in treated fields

**Cotton—Western Use Only:** Boll Weevil—1/2 to 2 qts per acre Bollworm, Cabbage Looper, Cotton Leafperforator, Lygus Bugs, Stink Bugs—1 1/2 to 2 qts per acre Do not apply after bolls open Do not graze dairy or meat animals in treated fields

**Cucumbers (0), Melons (0), Summer & Winter Squash (0):** Aphids, Cucumber Beetles, Striped Flea Beetle, Melonworm, Pickleworm, Rindworm (on Watermelons), Squash Beetle, Squash Bug, Squash Vine Borer—1 1/3 to 2 2/3 pts For Vine Borer control, apply weekly to flowerbuds, stems and vines beginning when moths first appear. For Cabbage Looper, Diamondback Moth Larvae, Leafroller on Melons use 1 1/2 qts

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

MAY 29 1985

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
279-2924

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**Eggplants (1):** Colorado Potato Beetle, Flea Beetle, Green Peach Aphid, Whitefly, Blister Beetle, Green Stink Bug—1/2 pts per acre

**Do not exceed 0.5 lbs. active ingredient endosulfan per acre.**

**Grapes (7):** Grape Leafhopper—2/3 quart per 100 gallons or 1 1/3 to 2 qts per acre. Rose Chafer—2/3 qt. per 100 gallons. Do not apply to Concord variety as severe injury is likely to occur. Ground application preferred.

ACCEPTED  
WITH COMMENTS  
in EPA Label Dated:

MAY 29 1985

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

279-2924

**Kale (21):** Cabbage Flea Beetle, Harlequin Bug, Imported Cabbageworm—1 qt per acre. Apply only once per season.

**Lettuce (14):** Cabbage Looper, Green Peach Aphid, Diamondback Moth Larvae, Imported Cabbageworm—1 to 1 1/3 qts. Do not exceed 3 applications after thinning head lettuce and remove outside leaves at harvest. Do not exceed 2 applications per season on leaf lettuce. Do not feed crop refuse to livestock.

**Macadamia Nuts (0):** Southern Green Stink Bug—1 1/3 qts. per 100 gallons of water (maximum of 5 gallons per acre).

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

**Mustard Greens (21):** Aphids, Cabbage Looper, Imported Cabbageworm—1 qt. per acre. Do not exceed 1 application per season.

**Pears (7):** Conspire Stink Bug—Ground Treatment, use 2/3 qt. per 100 gallons. 200 to 400 gallons spray per acre applied to orchard floor and ground around trees prior to bloom. Do not graze livestock in treated orchards. Follar Treatment, use 2/3 qt per 100 gallons or 2 2/3 to 3 1/2 qts. per acre. Stink Bugs must be wet to obtain control. Pear Rust Mite—2/3 qt per 100 gallons or 2 2/3 to 3 1/2 qts. per acre. Pearleaf Blister Mite—1/2 to 2/3 qt. per 100 gallons applied as a post harvest or dormant treatment. Pear Psylla—3 1/2 qts. in sufficient water to treat 1 acre. (Minimums of 10 gallons per acre for aerial application, 40 gallons per acre for semi-concentrate, and 300 gallons per acre for dilute). Apply when adults are first observed or nymphs are small and repeat to maintain control. Make no more than 2 applications during the fruiting period. (21): Make no more than 5 applications during the fruiting period.

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

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

**Peas, Seed Crop Only (0):** Pea Aphid, Pea Weevil—1/2 to 1 qt. per acre. Do not feed treated vines or threshings to dairy or meat animals.

**Peas, Succulent (0):** Pea Aphid, Pea Weevil—1 1/3 to 2 2/3 pts. per acre.

**Do not apply more than 2 times during the fruiting season. Do not feed treated vines to livestock or allow livestock to graze in treated fields. Use only on peas to be harvested by combine.**

**Peas, Southern (Black-eyed Peas, Crowder Peas, Southern Peas) (3):** Cowpea Curculio—1/2 to 1 1/2 qt per acre. Do not feed treated threshings to livestock or allow to graze in treated fields. Make 3 applications at 5 day intervals starting when pods are 1/2 inch long.

**Pecans:** Black Pecan Aphid—1 quart per 100 gallons. Pecan Leaf Phylloxera—1/2 to 1 quart per 100 gallons when nymphs appear and before they are enclosed in plant tissue. For high populations, use the higher rate. Do not apply after shuck split. Do not graze livestock in treated groves.

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

**Peppers (4):** Green Peach Aphid, Flea Beetle, Hornworms, Pepper Maggot—1 1/3 to 2 2/3 pts. \*1 day if maximum of 1 1/3 pts per acre is applied.

**Pineapples (for Fresh Market only) (7):** Pineapple Fruit Mite—1/2 gallon per acre. Apply at intervals of 7 to 10 days if necessary, particularly during the 40 day period of blooming. Do not exceed 4 applications per season. Do not feed treated forage or pineapple by-products to livestock.

Plums (7), Prunes (7): Hop Aphid, Leafcurl Plum Aphid, Thistle Aphid— $\frac{1}{2}$  qt. per 100 gallons or  $2\frac{1}{2}$  to  $3\frac{1}{2}$  qts. per acre. Apply when eggs hatch during pre-bloom or petal fall. Summer applications should be made before leaves curl. Plum Rust (Plum Nursery) Mite— $\frac{1}{2}$  qt. per 100 gallons or  $2\frac{1}{2}$  to  $3\frac{1}{2}$  qts. per acre. Lesser Peachtree Borer—1 qt. per 100 gallons or  $2\frac{1}{2}$  to  $3\frac{1}{2}$  qts. per acre. Apply spray to thoroughly wet trunk and main branches. Peachtree Borer—1 qt. per 100 gallons or  $2\frac{1}{2}$  to  $3\frac{1}{2}$  qts. per acre. Spray thoroughly to cover at bark areas from ground to scaffold limbs.

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

Plums (7), Prunes (7)—Eastern Use Only: Peachtree Borer—1 qt. per 100 gallons. Spray thoroughly to cover all bark areas from ground to scaffold limbs.

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

Plums (7), Prunes (7)—Pacific Northwest Only: Fruitree Leafroller— $\frac{1}{2}$  qt. per 100 gallons or  $2\frac{1}{2}$  to  $3\frac{1}{2}$  qts. per acre. Apply during pre-pink stage of growth.

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

Plums (7), Prunes (7)—Western Use Only: Peachtree Borer— $\frac{1}{2}$  to 1 qt. per 100 gallons. Spray thoroughly to cover all bark areas from ground to scaffold limbs. Peach Twig Borer— $\frac{1}{2}$  qt. per 100 gallons or  $2\frac{1}{2}$  to  $3\frac{1}{2}$  qts. per acre.

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

Potatoes (0): Aphids, Armyworms, Colorado Potato Beetle, Green Stink Bug, Leafhopper, Potato Flea Beetles, Potato Leafhopper, Plant Bugs, Potato Tuberworm, Whitefly— $1\frac{1}{2}$  to 2 $\frac{1}{2}$  pts. per acre. European Corn Borer, Potato Psyllid—1 to  $1\frac{1}{2}$  qts. per acre. False Chinch Bug— $1\frac{1}{2}$  qts. per acre. Threelined Potato Beetle— $1\frac{1}{2}$  pts. per acre.

Potatoes (0)—Eastern Use Only: Threelined Potato Beetle— $\frac{1}{2}$  qt. per acre.

Pumpkins (0): Aphids, Cucumber Beetles, Squash Vine Borer— $1\frac{1}{3}$  to 2 $\frac{2}{3}$  pts. per acre. For Vine Borer control, apply weekly to flower buds, stems and vines beginning when moths first appear.

Safflower: Green Peach Aphid— $1\frac{1}{2}$  qts. per acre. Do not apply after flower heads open.

Spinach (21): Crown Mite, Green Peach Aphid—1 qt. Do not exceed one application per season.

Strawberries (4): Cyclamen Mite— $2\frac{1}{2}$  qts. per acre in 400 gallons of water. Do not reapply within 35 days when fruit is present. Meadow Spittlebug, Strawberry Aphid, Tarnished Plant Bug— $1\frac{1}{2}$  qts. per acre in 200 gallons of water. Do not reapply within 15 days or more than twice within a 35 day period when fruit is present.

Strawberries (4)—Eastern Use Only: Cyclamen Mite— $2\frac{1}{2}$  qts. per acre in 400 gallons of water. Do not apply at intervals of less than 35 days when fruit is present.

Strawberries—Northwest Use Only: Garden Symphylan (aids in reducing damage)— $1\frac{1}{2}$  qts. 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 dipping operation.

Strawberries (4)—Western Use Only: Cyclamen Mite—8 qts. per acre in 800 gallons of water. Do not apply at intervals of less than 35 days when fruit is present.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:

MAY 29 1985

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

279-2924

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**Sugar Beets (30):** Green Peach Aphid— $\frac{1}{2}$  to  $1\frac{1}{2}$  quarts Meadow Spittlebug— $\frac{1}{2}$  qt Sugar Beet Webworm—1 to  $1\frac{1}{2}$  qts. Do not feed treated tops to livestock

**Sugar Beets (30)—Eastern Use Only:** Meadow Spittlebug— $\frac{1}{2}$  qt. per acre Do not feed treated tops to livestock

**Sugar Beets (30)—Western Use Only:** Meadow Spittlebug— $\frac{1}{2}$  to  $1\frac{1}{2}$  qts per acre Do not feed treated tops to livestock

**Sunflower (0):** Sunflower Moth— $1\frac{1}{3}$  qts. per acre. Do not exceed 3 applications. Make first application at onset of bloom and make two more applications at 4 to 7 day intervals. Do not feed treated forage to livestock.

**Sweet Corn, Fresh Vegetable Use Only (0):** Corn Leaf Aphid— $1\frac{1}{3}$  qts. Corn Earworm—2 qts. Apply at 2 to 3 day intervals beginning when silks first appear and continuing until they begin to dry. Do not exceed 5 applications. Do not apply to sweet corn to be processed. Do not feed treated forage or ensilage to livestock or allow to graze in treated fields.

**Sweet Potatoes (0):** Sweet Potato Flea Beetle— $2\frac{2}{3}$  qts. per acre. Begin applications shortly after transplanting or as soon as Flea Beetles appear. Banded Cucumber Beetle Larvae (aids in control of, and for use in South Central States only)— $1\frac{1}{3}$  to  $2\frac{2}{3}$  qts. per acre broadcast. Work into the soil to a depth of approximately 3 inches making a single treatment just prior to plant set. Do not feed treated potatoes to livestock.

**Tobacco (5):** Budworm, Cabbage Looper, Flea Beetle, Green Peach Aphid, Hornworm—Field:  $2\frac{2}{3}$  to  $1\frac{1}{3}$  qts. Seed Bed: Mix  $2\frac{2}{3}$  qt per 100 gals. of water and apply 6 gals. spray per 100 sq. yds. Green June Bug Larvae— $\frac{1}{3}$  qt. per 100 gals. of water. Drench plant bed with 1 gal. spray per sq. yd. Stink Bug—Use field application of  $2\frac{2}{3}$  qt per 100 gals.

**Tomatoes, Field and Greenhouse (1):** Blister Beetle, Colorado Potato Beetle, Flea Beetle, Green Peach Aphid— $\frac{2}{3}$  qt. Hornworms— $\frac{2}{3}$  to  $1\frac{1}{2}$  qts. Tomato Fruitworm, Tomato Russet Mite, Yellowstriped Armyworm— $1\frac{1}{2}$  qts. Stink Bugs—1 to  $1\frac{1}{2}$  qts. Cabbage Looper—1 qt. Whitefly— $\frac{2}{3}$  qt. per 100 gals. in 100 to 200 gals. water. In greenhouse applications, wear approved mask or respirator.

**Tomatoes (Field & Greenhouse) (1)—California Only:** Webworm— $\frac{2}{3}$  to  $1\frac{1}{2}$  qts. per acre. In greenhouse applications, wear approved mask or respirator.

**Tomatoes (Field & Greenhouse) (1)—Eastern Use Only:** Blister Beetles, Colorado Potato Beetle, Flea Beetles, Green Peach Aphid— $\frac{2}{3}$  qt. per acre. Cabbage Looper—1 qt. per acre. In greenhouse applications, wear approved mask or respirator.

**Tomatoes (Field & Greenhouse) (1)—Western Use Only:** Blister Beetles, Colorado Potato Beetle, Flea Beetles, Green Peach Aphid— $\frac{2}{3}$  to  $1\frac{1}{2}$  qts. per acre Cabbage Looper—1 to  $1\frac{1}{2}$  qts. per acre. In greenhouse applications, wear approved mask or respirator.

**Walnuts:** Walnut Aphid—2 to  $3\frac{1}{2}$  qts per acre. Do not apply after husk split

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

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