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 vamiting 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.

CONCURRENCES								
SYMBOL 15767								
SURNAME PALIT		1						
DATE \$ 129/85							*********	
EPA Form 1320-1 (12-70)				<u> </u>		OFFICIAL FI	E CORV	

- 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 preharvest interval for pumpkins.
- 3. Group the ornamantal 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 diazapam 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 vamiting should be induced under medical supervision. Drink 1 or 2 glasses of water and induce vamiting by touching the back of the throat with finger. Do not induce vamiting 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 diazapam 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 vamiting 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 vamiting by touching the back of the throat with finger. Do not induce vamiting 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 opperations," 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 tarmworker 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 Campt, 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 had 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 diazapam 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 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.

# 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

Code 3042 -

# Gallons Net Contents Thiodan<sub>®</sub> 2 Pyrenone<sub>®</sub> 0.3-0.03 EC

MAY 2 9 1985

with COMMENTS in EPA Letter Dated:

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 279-1822

Insecticide

For Agricultural or Commercial Use Only

EPA Reg. No. 279-2822

EPA Est., 279-

**Active Ingredients:** 

*Endosulfan (Hexachlorohexahydrometh	nano-
2,4,3-benzodioxathiepin oxide)	23.86%
**Technical Piperonyl Butoxide	3.57%
Pyrethrins	0.36%
Xylene Range Aromatic Solvent	65.80%
Inert Ingredients:	6.41%
	100.00%

Contains 2 pounds Endosulfan (Thiodan<sup>3</sup>) 0.03 pound Pyrethrins, and 0.3 pound piperonyl butoxide (Butacide\*) per gallon.

# KEEP OUT OF REACH OF CHILDREN WARNING

# **AVISO**

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

For Emergency Assistance Call 716-735-3765. See Other Panels for Additional Precautionary Information.

## STATEMENT OF PRACTICAL TREATMENT

If swallowed: Call a physician immediately. Drink one or two glasses of water and one ounce of syrup of ipecac, if available, and induce vomiting by touching the back of the throat with finger Repeat until vomit fluid is clear. Do not induce vomiting or give any-

thing by mouth to an unconscious person.

If inhaled: Remove victim to fresh air. Apply respiration if indicated. If on skin: Remove contaminated clothing and wash contaminated skin with soap and water.

If in eyes: Flush eyes for at least 15 minutes with water. Call a physician if irritation persists.

Note to Physicians: Endosulfan is a central nervous system stimulant and may cause convulsions. There is no specific antidote. Barbituric acid derivatives may be used for convulsions. Treat symptomatically.

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

#### Warning

Hazardous if swallowed, inhaled, or absorbed through skin! Do not breathe spray mist. Do not get in eyes, on skin or on clothing. In case of contact, immediately remove contaminated clothing and flush skin or eyes with plenty of water, for eyes, get medical attention. Wash thoroughly with soap and water after handling and before eating or smoking; wear clean clothing. During commercial or prolonged exposure in spray-mixing and loading operations, wear clean synthetic rubber gloves and a mask or respirator jointly approved by the Mining Enforcement and Safety Administration (formerly the U.S. Bureau of Mines) and by the National Institute for Occupational Safety and Health under the provisions of 30 CFR Part II. Do not allow to drift to areas occupied by unprotected humans or beneficial animals.

## ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds and other wildlife. Birds feeding on treated areas may be killed. Keep out of lakes, ponds and streams. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water by cleaning of equipment or disposal of wastes. Apply this product only as specified on this label.

This pesticide is toxic to bees exposed to direct application. Applica tions should be timed to coincide with periods of minimum bee activ ity, usually between late evening and early morning.

## PHYSICAL OR CHEMICAL HAZARDS

Do not use 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 for 24 hours unless appropriate protective clothing is worn.

Protective clothing means, at least, a hat or other suitable-head covering, a long sleeved shirt and long legged trousers or a doverall type garment (all of closely woven fabric covering the body, including the arms and leas), shoes and socks. arms and legs), shoes and socks.

Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult-your State Department of Agriculture for further information.

**FMC Corporation** Agricultural Chemical Group 2000 Market Street Philadelphia Pennsylvania 19103 5/85-R 279-2822

Page 1 of 9

<sup>\*\*</sup>Consists of 3.14% (butylcarbityl) (6-propylpiperonyl) ether and 0.43% of related compounds.

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 tanguage custome-ily 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 projective clothing for 24 hours (insert State Department of Agriculture's re-entry interval, if more restrictive).

in case of accidental exposure to pesticide apray or dust, wash the skin thoroughly with scap and water. Remove contaminated ciothing and water 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.

with COMMENTS
in EPA Letter Dated:

MAY 2 9 1985

Under the Federal Insecticide, Fungicide, and Endersteide Act as amended, for the pesticide registered under EPA Reg. No. 279-2822

## STORAGE AND DISPOSAL

Pesticide Storage

Do not store in or around the home.

Do not store below  $20^{\circ}F_{1}(-7^{\circ}C)$ .

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.

**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.

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 unless otherwise noted, for listed crops. Coverage of upper and lower leaf surfaces is essential for good control. Observe use limitations. Do not use in undiluted form, if insect control is required beyond the following use patterns, supplement the control program with other suitable pesticides. Observe days interval between last application and harvest indicated by number in ( ) following the crop.

When applying this material by aircraft, mix the recommended amount with sufficient water to provide a minimum of 1 gallon finished spray per acre. Where more than 2 quarts of this material are recommended, mix with sufficient water to provide a minimum of finished spray equal to twice the amount of Thiodan\* 2 Pyrenone\* 0.3-0.03 EC used. Apply with continuous agitation. Do not plant root crops other than carrots, potatoes, sweet potatoes, and sugar beets as follow-up crops. By ground apply a minimum of 10 gallons per acre on vegetable or row crops.

Alfalfa, Grown for Forage

(21): Spittlebug—Use 1 pint per acre. Apply 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 alfalfa is 4 to 6 inches tall. Do not apply more than 1 application per cutting.

5/85-R 279-2822 Page 2, of 9 Apples (21): Apple Aphid, Rosy Apple Aphid—Use 1 qt. per 100 gats, or 4 to 5 qts, per acre. Do not make more than three applications during fruiting period. Do not feed pomace to livestock.

Apples (30): Apple Aphid, Rosy Apple Aphid—Use 1 quart per 100 gallons or 4 to 5 quarts per acre. No limit on number of applications. Apple Rust Mite—Use 1% to 2 pints per 100 gallons or 6 to 8 quarts per acre. Do not apply more than twice during fruiting period. Do not feed pomace to livestock. \*

Apples (Western Use): Apple Rust Mite—Use 1% to 2 pints per 100 gallons. Apple Aphid, Rosy Apple Aphid—Use 1 quart per 100 gallons. Woolly Apple Aphid—Use 1 quart per 100 gallons (8 quarts per acre). If 5 quarts or tess are applied per acre may be applied within 30 days of harvest with no limit on number of applications; or if no more than 3 applications are made during the fruiting period do not apply within 21 days of harvest. Do not feed pomace from treated apples to livestock. If 5.1 to 8 quarts per acre are applied do not apply more than twice during the fruiting period nor within 30 days of harvest. Do not feed pomace from treated apples to livestock.

Apricots (21), Nectarines (21): Peachtree Borer—Use 1½ quarts per 100 gallons. (Use 1 quart per 100 gallons in Western areas). Spray all bark areas from ground level to scaffold limbs. \*

Apricots (30), Nectarines (30): Catfacing Insect, Green Peach Aphid, Peach Twig Borer—Use 1 quart per 100 gallons or 4 to 5 quarts per acre. Lesser Peachtree Borer—Use 1% quarts per 100 gallons. Thorough wetting of trunk and main branches is important. Peach Silver Mite—Use 1 pint per 100 gallons or 4 to 5 quarts per acre. Do not make more than two applications during the fruiting period.

Artichokes (7): Artichoke Aphid, Green Peach Aphid—Use 1½ to 2 quarts per acre. Artichoke Plume Moth—Use 2 quarts per acre.

Barley, Oats, Rye, Wheat: Army Cutworm—Use 1 quart per acre. Do not apply after heads begin to form. Do not feed treated forage to dairy animals or animals being finished for staughter. For Airplane Application, use 1 quart in 2 gallons diesel fuel oil per acre.

Beans, succulent and dry, except Lima Beans (3): Black Bean Aphid, Bean Leaf Skeletonizer, Cucumber Beetle, Green Stink Bug, Mexican Bean Beetle, Western Bean Cutworm—Use 1 to 2 quarts per acre. Do not make more than 3 applications per season. Do not feed treated threshings to livestock or allow to graze in treated fields.

Blueberries: Blueberry Bud Mite--Use 3 quarts 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.

Broccoll (7), Cabbage (7) Brussels Sprouts (14), Cauliflower (14): Cabbage Aphid, Cabbage Looper, Cross-Striped Cabbageworm, Diamondback Moth Larvae. Flea Beetle, Harlequin Bug, Imported Cabbageworm, Stink Bug—Use 1½ to 2 quarts per acre. Armyworms. Cutworms—Use 2 quarts per acre.

Carrots (7): Green Peach Aphid—Use 1 to 2 quarts per acre. Do not apply more than 2 times per season. Do not use tops for food or feed.

Celery (7): Green Peach Aphid—Use 1 quart —or—Celery (4): Green Peach Aphid, Cabbage Looper—Use 1 to 2 quarts per acre. Do not exceed 3 applications.

Cherries (21): Black Cherry Aphid, Eyespotted Bud Moth (Pacific Northwest Only)—Use 1 quart per 100 gallons. (4 to 5 quarts per acre). For Eyespotted Bud Moth, apply during "popcorn" stage of growth. Fruitiree Leafroller (Pacific Northwest Only)—Use 1 quart per 100 gallons (4 to 5 quarts per acre). Apply during pre-pink stage of growth. Mineola Moth (Michigan Only)—Use 2 quarts per 100 gallons. Apply in delayed dormant period. Plum Nursery Mite—Use 1 quart per 100 gallons. (4 to 5 quarts per acre). Do not exceed 2 applications after shuck split.

Cherry, Plum and Peach Nursery Stock: Peachtree Borer—Use 1 gallon per 40 gallons of water. Mix thoroughly, Immerse the bundles of trees so that the roots and crowns are covered well above the grafting bud scar. If trees are not planted immediately allow to dry before returning them to storage. Wear rubber gloves during the dipping operation.

Citrus—Non Bearing Trees and Nursery Stock: Citrus Aphid—Use 1 pint per 100 gallons or 5 quarts 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 on this label. Do not apply where these are important resources.

\*=see Attachment I

with COMMENTS to EPA Letter Dated:

MAY 2 9 1985

Under the Frit at Insecticide, Fungicide, the posticide as amended, for the pesticide registered under EPA Reg. No. 279-2822

5/85-R 279-2822 Page 3 of 9 Collards (21): Cabbage Looper, Diamondback Moth Larvae, Harlequin Bug, Imported Cabbageworm-1½ qts. per acre. Do not exceed 1 application

Corn. Sweet (Fresh Vegetable Use Only) (0): Corn Leaf Aphid—2 ats. per acre. Corn Earworm-3 qts. per acre applied 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.

Corn, Seed Crop Only: Corn Earworm—Use 2 to 3 quarts per acre. Direct spray to area of cornsilks. Corn Leaf Aphid—Use 2 quarts per acre. Do not feed treated forage to livestock. Do not use seed for food, feed, or oil purposes.

Cotton: Boll Weevil-Use 1 to 21/2 qts. per acre. Bollworm, Cabbage Looper, Cotton Leafperforator, Lygus Bugs, Stink Bugs-Use 2 qts per acre. Thrips-Use 3 qts. per acre. Do not apply after bolls open. Do not graze meat or dairy animals in treated fields

Cotton: Boll Weevil, Bollworm, Cabbage Looper, Cotton Leafperforator. Lygus Bugs, Stink Bugs-Use 1 to 1½ quarts per acre plus recommended amounts of one of the following: carbaryl, Guthion, malathion or methyl parathion. Do not graze dairy or meat animals in treated fields. Do not apply methyl parathion within 5 days or Guthion within one day of handpicking. May be used up to 25% of boll open-

Cotton (Western Use): Boll Weevil—Use 1 to 3 quarts per acre. Boll-worm, Cabbage Looper, Lygus Bugs, Stink Bugs, Cotton Leafperforator-Use 2 to 3 quarts per acre. Thrips-Use 3 quarts per acre. Do not apply after bolls open. Do not graze meat or dairy animals in treated fields. Do not feed treated plant parts to meat or dairy animals.

Cucumbers (0), Melons (0), Summer & Winter Squash (0): Aphids, Cucumber Beetles, Squash Bug, Squash Vine Borer, Striped Cabbage Flea Beetle, Melonworm, Pickleworm, Squash Beetle, Rindworm (Watermelon)—Use 1 to 2 quarts per acre. For Squash Vine Borer control, apply weekly to flowerbuds, stems and vines beginning when moths first appear. Cabbage Looper (melons), Omnivorous Leafroller (melons)—Lies 2 quarts per acre. (melons)-Use 2 quarts per acre.

Eggplant (1): Blister Beetle, Colorado Potato Beetle, Flea Beetles, Green Peach Aphid, Green Stink Bug, Whitefly—Use 1 quant per acre. Do not exceed 0.5 lbs. active ingredient endosulfan per acre.

Grapes (7): Grape Leafhopper, Rose Chafer—Use 1 quart per 100 gallons or 2 to 3 quarts per acre. Do not apply to Concord variety as severe injury is likely to occur.

Kale (21): Cabbage Flea Beetle, Harlequin Bug, Imported Cabbageworm—Use 1½ quarts per acre. Do not exceed one application.

Lettuce (14): Cabbage Looper, Diamondback Moth Larvae, Green Peach Aphid, Imported Cabbageworm—Use 1½ to 2 quarts per acre. On Head Lettuce do not make more than 3 applications after thinning. Remove outside leaves at harvest. Do not feed crop waste to livestock. On Leaf Lettuce do not apply more than 2 applications per season.

Macadamia Nuts (0) Southern Green Stink Bug-Use 2 quarts per 100 gallons. \*\*

Mustards Greens (21); Turnip Greens (21): Aphid, Cabbage Looper, Imported Cabbageworm-Use 1% quarts per acre. Do not exceed one application. Do not apply to turnips grown for roots.

Peaches (30): Black Cherry Aphid, Black Peach Aphid, Catfacing Insects, Green Peach Aphid, Peach Twig Borer, Rusty Plum Aphid—Use 1 qt. per 100 gals, or 4 to 5 qts. per acre. Lesser Peachtree Borer—Use 3 pts. per 100 gals. Thorough wetting of trunks and main branches is important. Peach Silver Mite—Use 1 pt. per 100 gals. or 4 to 5 qts. per acre. Do not exceed 2 applications during fruiting period. \*

Peaches (21): Peachtree Borer—Use 1½ quarts per 100 gallons (1 quart per 100 gallons in Western areas). Spray all bark areas from ground level to scaffold limbs. (See under "Cherries" for nursery stock dip treatment). dip treatment).

\* = see Attachment I

\*\* = see Attachment II

ACCEPTED with COMMENTS in EPA Letter Dated:

MAY 2 9 1985

Under the Federal Insecticide, Fungicide, und access side Act as amended, for the pesticide registered under EPA Reg. No. 179-2822

5/85-R 279-2822 Page 4 cf 9 Pears (7): Consperse Stink Bug—Ground treatment, use 1 quart per 100 gallons. 200 to 400 gallons per acre applied to orchard floor and ground around trees prior to bloom. Do not graze livestock in treated orchards. Foliar treatment: Use 1 quart per 100 gallons or 4 to 5 quarts per acre. Stink bugs must be wet to obtain control. Pear Rust Mite—Use 1 quart per 100 gallons or 4 to 5 quarts per acre. Pear Leaf Blister Mite—Use 1 to 2 pints per 100 gallons applied as a post-harvest or dormant treatment. Do not exceed 2 applications during the fruiting period. Second Generation Pear Psylla—Use 3 pints per 100 gallons of water, not to exceed 330 gallons of spray per acre. Apply when hymphs are still small and repeat if necessary in 7 to 10 days. Do not apply more than 2 applications during the fruiting period. \*

Peas (Grown for seed only): Pea Aphid. Pea Weevil—Use 1 to 1½ quarts per acre. Do not feed treated vines or threshings to dairy or meat animals

Peas (Succulent) (5): Pea Aphid, Pea Weevil—Use 1 to 2 quarts per acre. Do not exceed 2 applications during the fruiting period. Use only on peas to be harvested by combine. Do not feed treated vines to livestock or allow to graze in treated fields.

Peas, Southern Field (Succulent type, Including Black-eyed Peas, Crowder Peas, and Southern Peas) (3): Cowpea Curculio—Use 1 to 2 quarts per acre. Make 3 applications at 5 day intervals starting when pods are ½ inch long. Do not feed treated threshings to livestock or allow to graze in treated fields.

Pecans: Black Pecan Aphid—Use 1½ quarts per 100 gallons. Do not apply after shuck split. Do not graze meat or dairy animals in treated groves \*\*

Peppers (4)\*: Green Peach Aphid, Flea Beetles, Hornworms, Pepper Maggot—Use 1 to 2 quarts per acre. \*One day if maximum of 1 quart per acre is applied.

Pineapples (For Fresh Market Only) (7): Pineapple Fruit Mite—Use 1 gallon per acre. Apply at intervals of 7 to 10 days if necessary, particularly during the 40-day period of blooming. Do not make more than 4 applications. Do not feed treated forage or pineapple by-products to livestock.

Plums (7), Prunes (7): Fruittree Leaf Roller (Pacific Northwest Only) —Use 1 quart per 100 gallons. Apply during pre-pink stage of growth. Hop Aphid. Leaf Curl Plum Aphid, Plum Nursery Mite, Thistle Aphid—Use 1 quart per 100 gallons or 4 to 5 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 3 pints per 100 gallons or 4 to 5 quarts per acre. Apply spray to thoroughly wet trunks and main branches. Peachtree Borer—Use 3 pints per 100 gallons. (Use 2 to 3 pints in Western Areas) Spray thoroughly to cover all bark areas from ground to scaffold limbs. Do not use more than 5 quarts per acre. (See under "Cherries" for nursery stock dip treatment for Peachtree Borer.) \*\*\*

Potatoes 6: Aphids, Armyworms, Colorado Potato Beetle, Green Stink Bug, Leaffooted Bug, Plant Bugs, Potato Flea Beetle, Potato Leafhopper, Potato Tuberworm, Whitefly—1 to 2 qts. per acre. European Corn Borer, Potato Psyllid—1½ to 2 qts. per acre. False Chinch Bug—2 qts. per acre. Threelined Potato Beetle—1 qt. per acre.

Potatoes (Western Use) (0): Aphids, Armyworms, Colorado Potato Beetle, Green Stink Bug. Leaffooted Bug, Plant Bugs, Potato Flea Beetle, Potato Leafhopper, Potato Tuberworm, Whitefly, Threelined Potato Beetle—Use 1 to 2 quarts per acre. European Corn Borer, Potato Psyllid—Use 15 to 2 quarts per acre. False Chinch Bug—Use 2 quarts per acre.

Pumpkins (): Aphids—1 qt. per acre. Cucumber Beetles, Squash Vine Borer—1 to 2 qts. per acre. For Squash Vine Borer, apply weekly to flower buds, stems, and vines beginning when moths first appear.

Safflower: Green Peach Aphid—Use 2 quarts per acre. Do not apply after flower heads open.

\* = see Attachment I

\*\* = see Attachment II

with COMMENTS in EPA Letter Dates

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Under the Federal Insecticide, Fungicide, and Acceptaicide Acceptainted as amended, for the pesticide registered under EPA Reg. No. 7279-2822

5/85-R 279-2822 Page 5 of 9 Spinach (21): Crown Mite, Green Peach Aphid—Use 1½ quarts per acre. Do not exceed one application.

Strawberries (4): Cyclamen Mite—Use 1 quart per 100 gallons. Apply 800 gallons per acre on West Coast: 400 gallons per acre in other areas. Do not apply at intervals of less than 35 days when fruit is 4 present. Meadow Spittlebug, Strawberry Aphid—Use 2 quarts per acre. Tarnished Plant Bug—Use 1 quart per 100 gallons or 2 quarts per acre. Do not re-apply within 15 days or more than twice within a 35-day period when fruit is present. Garden Symphylan (Northwest Only—aids in reducing damage)—Use 2 quarts per 100 gallons plant dip. Mix thoroughly. Dip entire plant, When emersing bundles of plants, make certain any trapped air is forced out to assure thorough wetting of the entire plant. Drain and allow plants to dry before setting them out in the field. Wear rubber gloves during dipping operation.

Sugar Beets (0): Green Peach Aphid-Use 1 to 2 quarts per acre. Meadow Spittlebug-Use 1 quart per acre. Sugarbeet Webworm-Use 3 to 4 pints per acre. Do not feed sugarbeet tops to livestock.

Sugar Beets (Western Use) (0): Green Peach Aphid, Meadow Spittlebug-Use 1 to 2 quarts per acre. Sugarbeet Webworm-Use 1½ to 2 quarts per acre. Do not feed treated tops to livestock.

Sunflower (0): Sunflower Moth—Use 2 quarts per acre. Do not exceed 3 applications. Make first application at onset of bloom and make 2 more applications at 4 to 7 day intervals. Do not feed treated forage to livestock.

Sweet Potatoes (South-Central States Only): Banded Cucumber Beetle Larvae (aids in the control of) - Use 2 to 4 quarts per acre broadcast or 2/3 to 11/3 quarts per acre on a 16 inch band over the row (48 inch row spacing). Work into the soil to a depth of approximately 3 inches. Treatment should be made just prior to plant set. Sweet Potato Flea Beetle-Use 1 quart in sufficient water to treat one acre. Apply shortly after transplanting or as soon as flea beetles appear. If necessary, make a second application 7 to 10 days later. Do not feed treated potatoes to livestock

Tobacco (5): Budworm, Cabbage Looper, Flea Beetle, Green Peach Aphid, Hornworm—Field: Use 1 to 2 quarts per acre. Apply in sufficient water for uniform coverage. Stink Bug—Use 2 to 3 quarts per 100 gallons. Seed Bed: Mix 1 quart per 100 gallons of water and apply 6 gallons spray per 100 square yards. Plant Bed: Green June Bug Larvae-Use 1/2 quart per 100 gallons of water and drench plant bed with 1 gallon spray per square yard.

When using a knapsack sprayer, apply the recommended amount of this insecticide in 20 to 30 gallons of water per acre using a maximum of 20 pounds per square inch and holding the spray nozzle 12 to 18 inches above the plant. Some phytotoxicity may occur under conditions of high humidity with temperatures above 85° F.

Tomatoes (1): Blister Beetles, Colorado Potato Beetle, Flua Beetles. Green Peach Aphid—Use 1 qt. per acre. Cabbage Looper—Use 1½ qts. per acre. Stink Bugs—Use 1½ to 2 qts. per acre. Tomato Fruitworm, Tomato Russet Mite, Yellowstriped Armyworm-Use 2 qts. per acre. Tomato Hornworm-Use 1 to 2 qts. per acre. Whitefly-Use 1 qt. per 100 gals., using 100 to 200 gals. per acre. For both field and

Tomatoes (Western Use) (1): Bijster Beetles, Colorado Potato Beetle, 🕳 Flea Beetles, Green Peach Aphid, Tomato Hornworm, Webworm (Calif.), Whitefly—Use 1 to 2 quarts per acre. Cabbage Looper, Stink Bugs-Use 1/2 to 2 quarts per acre. Tomato Fruitworm, Yellowstriped Armyworm. Tomato Russet Mite-Use 2 quarts per acre.

Walnuts: Walnut Aphid-Use 3 to 4 quarts per acre. Do not use after husk split. ★★

\*\* = see Attachment II

ACCEPTED with COMMENTS n EPA Letter Dated

MAY 2 9 1985

Under the Federal Insecticid Fungicide, and Extensicide A as amended, for the pesticion registered under EPA Reg. N

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# Ornamentals Ornamental Plants

Leatherleaf Fern (Leather Holly Fern): Leatherleaf Fern Borers—Lise 1 quart per 100 gallons. 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 to maintain control.

Ornamentals, Greenhouse & Out-of-Doors: Aphids, Cyclamen Mite, Rose Chafer, Whitefly—Use 1 qt per 100 gals. On chrysanthemums, best results will be obtained if applied before plants flower. Do not use on White Birch trees. Do not apply to "Bonnaton Deluxe," "Fred Shoesmith" and "White Knight" chrysanthemums as injury may result. In greenhouse applications wear approved mask or respirator.

## Ornamental Trees and Shrubs

Box Elder: Box Elder Bug—Use 3 quarts per 100 gallons or 2 tablespoons per gallon. Beginning in May and continuing through June, spray Box Elder tree trunks and foliage when insects first appear and repeat as required to maintain control. During late summer or fall, spray tree trunks, outside walls, fences, and other places where bugs are congregating.

Dogwood, Lilac: Dogwood Borer, Lilac Borer—Use 1 to 2 quarts per 100 gallons. Apply in early June and repeat in 10 to 14 days. Drench all bark areas down to ground level.

Douglas Fir (Grown for Ornamentals) Pacific Northwest Only: Cooley Spruce Gall Aphid, Douglas Fir Needle Midge—Use 1 quart per 100 gallons or 2 teaspoonfuls per gallon. To control Gall Aphid, apply when white, cottony tufts appear. To control Needle Midge, apply in late April or early May just before buds open.

Shade Trees, Shrubs: Aphids—Use 1 quart per 100 gallons. Do not use on White Birch.

Taxus: Taxus Bud Mite—Use 1 quart per 100 gattons. Make 3 to 5 applications as required beginning in mid-May. A thorough treatment of foliage, twigs and bark is essential. Black Vine Weevil—Use 2 quarts per 100 gallons. Spray thoroughly and drench surface of soil under plants. Apply when weevils first appear; repeat in 14 days.

# Dealers Should Sell in Original Packages Only.

Terms of Sale or Use: On purchase of this product buyer and user agree to the following conditions:

Warranty: FMC makes no warranty, expressed or implied, concerning the use of this product other than indicated on the label. Except as so warranted, the product is sold as is. Buyer and user assume all risk of use and/or handling and/or storage of this material when such use and/or handling and/or storage is contrary to label instructions.

Directions and Recommendations: Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of the seller and are assumed by buyer at his own risk.

**Use of Product:** FMC's recommendations for the use of this product are based upon tests believed to be reliable. The use of this product being beyond the control of the manufacturer, no guarantee, expressed or implied, is made as to the effects of such or the results to be obtained if not used in accordance with directions or established safe practice.

Damages: Buyer's or user's exclusive remedy for damages for breach of warranty or negligence shall be limited to direct damages not exceeding the purchase price paid and shall not include incidental or consequential damages.

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with COMMENTS
in EPA Letter Dated:

MAY 2 9 1985

Under the Fred decticide, Fungicide, and de Act as amended, for the pesticide registered under EPA Reg. No. 2797282

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## Attachment I

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

ACCEPTED
with COMMENTS
in EPA Letter Dated:

MAY 2 9 1985

Under the Federal Insecticide, Fungicide, and road ratiode Act as amended, for the pesticide registered under EPA Reg. No. 279-282

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## Attachment II

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

ACCEPTED
with COMMENTS
in EPA Letter Dated:

MAY 29 1985

Under the Folian Insecticide, Funguede, and Redesarde Act as amended, for the posticide registered under EPA Reg. No. 27 9-28 22

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