

FEB 14 1995

Ms. Rebecca Horton
Dragon Corporation
P.O. Box 7311
Roanoke, VA 24019

Subject: Amendments - Upgrade signal word to DANGER
Delete Greenhouses, Peas and Corn
Dragon Thiodan Insect Spray
EPA Reg. No. 16-141
Your submission dated February 12, 1993

The amendments referred to above, submitted in connection with registration under FIFRA section 3(c)(7)(a), are acceptable provided that you:

- 1) Submit and/or cite all data or other materials required for registration/reregistration of your product under FIFRA section 3(c)(5) or FIFRA section 4 when the Agency requires all registrants of similar products to submit such data.
- 2) Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
 - a) Revise the first front panel claim to read "Controls listed insects on ...".
 - b) Revise the inerts sentence under the ingredients statement to read "This product contains xylene range aromatic solvent."

[NOTE: When preparing the label, not include the quotation marks appearing around indicated text in this letter.]

- c) Revise the front panel referral under the signal word to read "for additional precautionary statements" rather than "for additional cautions".
- d) The Agency would prefer relocation of the Statement of Practical Treatment and the Precautionary Statements, including the respirator statement, to the beginning of the label, as on previous versions of this product's labeling.

- e) Add "Get medical attention." to the end of the **IF INHALED** advice in the Statement of Practical Treatment.
- f) Add "Get medical attention." to the end of the **IF ON SKIN** advice in the Statement of Practical Treatment.
- g) Revise the **NOTE TO PHYSICIAN** to read as follows:

Endosulfan is a central nervous system stimulant absorbable by mouth, inhalation, or through contact with the skin. It may cause convulsions. There is no specific antidote. Diazepam I.V. is the drug of choice. Barbituric acid derivatives such as Phenobarbital may be used additionally. A neuromuscular blocking agent may be used if convulsions persist. This type of drug may be used *only* if complete control of respiration can be maintained. Epinephrine derivatives are absolutely contraindicated.

- h) In the Hazards to Humans & Domestic Animals, revise "Do not get into eyes or on clothing." to read "Do not get in eyes, on skin or on clothing." revise "Wear goggles or safety glasses." to read "Wear goggles, a face shield, or safety glasses." and revise "Do not breathe spray mist." to read "Do not breathe vapors or spray mist.". In this same section, delete "Avoid contact with skin eyes or clothing.".
- i) Also in the Hazards to Humans & Domestic Animals, replace "**WARNING**" before the respirator statement with "**IMPORTANT**", this word may be brought into alignment with the rest of the paragraph. It might also be useful to add "in addition to eye protection" between "and spraying," and "wear unlined rubber gloves...".
- j) In the **ENVIRONMENTAL HAZARDS**, after "Do not apply directly to water." add "Due to the risk of runoff and drift, do not apply within a distance of 300 feet of lakes, ponds, streams, and estuaries.".
- k) In the list of Insects Controlled by Dragon Thiodan, revise "Box elder bug: to "Boxelder bug".
- l) Capitalize the "F" of "Federal law" under the heading Directions For Use.
- m) For the crop **Beans**, revise the limitation to read "Do not make more than 3 applications per year."
- n) For the crops **Broccoli, Cabbage**, etc., Add the limitation "Do not make more than 4 applications per year."

- o) For the crop **Carrots**, revise the limitation to read "Do not make more than 1 application per year."
- p) For the pest cabbage looper on the crop **Celery**, revise the limitation to read "Do not make more than 1 application per year."
- q) For the pest green peach aphid on the crop **Celery**, a 7 day PHI is required. Also revise the limitation to read "Do not make more than 2 applications per year."
- r) For the crops **Collards, Kale**, etc., revise the limitation to read "Do not make more than 1 application per year."
- s) For the crops **Cucumbers, Melons**, etc., revise the PHI to 2 days and revise the limitation to read "For all uses on these crops do not make more than 6 applications per year."
- t) For the crop **Eggplants**, add a limitation to read " Do not make more than 2 applications per year."
- u) For the crop **Peppers**, revise "*1 day time intervals" to read "*1 day pre-harvest interval". Also, add a limitation to read "Do not make more than 2 applications per year."
- v) For the crop **Potatoes**, revise the PHI to 1 day and add a limitation to read "Do not make more than 6 applications per year."
- w) For the crop **Sweet Potatoes**, revise the PHI to 1 day and expand the limitation by adding "or allow them to feed in treated areas. Do not make more than 3 applications per year."
- x) For the crop **Tomatoes**, revise the PHI to 2 days and add a limitation to read "For all uses, do not make more than 6 applications per year."
- y) For the crop **Apples**, revise the PHI to 21 days. After "Do not exceed 2 applications during the fruiting period." add "Do not make more than 3 applications per year."
- z) For the crop **Blueberries**, add "to bushes" between "Apply" and "immediately". Add the limitation "Do not make more than 2 applications per year."
- aa) For the crop **Cherries**, change "Do not exceed 2 applications after shuck split." to "Do not make more than 2 applications

per year." in the two locations this text appears for this crop.

- bb) For the crops **Peaches, Apricots, and Nectarines**, delete "Do not exceed 2 applications during the fruiting period." from the catfacing insects control directions. Directly before "Do not feed cull fruits..." add "For all uses, do not make more than 2 applications per year." in the directions for control of peach tree borers, replace "Usually 2 applications are required - one immediately after harvest and a second 3 to 4 weeks later." with "Best control is obtained with a single application to the trees after harvest during the first week of September."
- cc) For the crops **Plums, Prunes**, directly before "Do not feed cull fruits..." add "Do not make more than 2 applications per year."
- dd) For the crop **Strawberries**, add the limitation "Do not make more than 3 applications per year."
- ee) For the sites **Ornamentals & Flowers**, revise the rate to 1 1/3 TBS (2/3 oz.). You may delete DO NOT use on birch trees since this limitation should appear under the use site Shade Trees.
- ff) For the site **Shade Trees**, revise the rate to 1 1/3 TBS (2/3 oz.) and add the limitation "DO NOT use on birch trees."
- gg) For the site **Pine**, revise the rate to 2 TBS per gallon of water.
- hh) For the site **Dogwoods**, revise the rate to 1 1/3 TBS (2/3 oz.).
- ii) For the site **Box elder**, revise the rate to 1 1/3 TBS (2/3 oz.).
- jj) For the site **Taxus**, revise the rate to 1 1/3 TBS (2/3 oz.) and add " Make 3 to 5 applications beginning in mid-May. Thoroughly spray foliage, twigs, and bark.
- kk) Relocate the directions for use on **Pecans** to appear in the crops listing, i.e., after the entry for **Peaches, Apricots, Nectarines**. Revise the group heading to **Fruits & Nuts**.
- ll) Add the heading **STORAGE and DISPOSAL** over that section of text at the end of the label.

A stamped copy of the label is enclosed for your records. Please submit five copies of the revised amended label prior to release for shipment under the amended label.

Sincerely,

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

10-710

[FRONT PANEL]

**DRAGON®
THIODAN® INSECT SPRAY**

Controls insects on vegetables, fruit & shade trees, ornamentals and flowers.

A broad-spectrum insect spray that kills over 60 listed insects on vegetables, fruits and ornamentals.

[Note to EPA: Front panel of label may include graphics representing product use, e.g., insects controlled -
Bean beetle, Colorado potato beetle, Aphid, etc.]

ACTIVE INGREDIENT:

Endosulfan (hexachlorohexahydromethano-
2,4,3-benzodioxathiepin 3-oxide

BY WT.

9.9%

INERT INGREDIENTS:

90.1%

TOTAL:

100.0%

This product contains aromatic petroleum solvent.

This product contains 3/4 lbs. endosulfan per gallon.

Keep Out of Reach of Children

DANGER

See back/side/other panel(s) for additional cautions.

NET WEIGHT 8 OZ/1 PT/1 QT

ACCEPTED
with COMMENTS
in EPA Letter Dated
FEB 14 1995
Under the Federal Insecticide,
Fungicide, and Herbicide Act
as amended, for this pesticide
registered under EPA Reg. No.
16-141

[BACK/SIDE PANELS AND/OR BOOKLET]

**INSECTS CONTROLLED BY DRAGON® THIODAN INSECT SPRAY
WHEN USED ACCORDING TO LABEL DIRECTIONS**

- | | | |
|-------------------------------|------------------------|------------------------|
| Aphids | Apple aphid | Apple rust mite |
| Armyworm | Banded cucumber beetle | Bean leaf skeletonizer |
| Black bean aphid | larvae | Black cherry aphid |
| Black peach aphid | Blister beetle | Blueberry bud mite |
| Box elder bug | Cabbage aphid | Cabbage flea beetle |
| Cabbage looper | Colorado potato beetle | Cowpea curculio |
| Cross-striped
cabbage worm | Crown mite | Cucumber beetle |
| Diamond black moth
larvae | Cutworm | Cyclamen mite |
| Green peach aphid | Dogwood borer | European corn borer |
| Hornworms | False chinch bug | Flea beetles |
| Lesser peach tree borer | Green stink bug | Harlequin bug |
| Mexican bean beetle | Imported cabbage worm | Leaf-footed bug |
| Peach tree borer | Meadow spittlebug | Melonworm |
| Pickleworm | Omnivorous leaf roller | Peach silvermite |
| Potato psyllid | Peach twig borer | Pepper maggot |
| Rose chafer | Plum rust mite | Potato flea beetle |
| Squash beetle | Potato tuberworm | Rindworms |
| | Rosy apple aphid | Rusty blight aphid |
| | Squash bug | Squash vine borer |

Stink bugs
Sweet potato flea beetle
Tomato russet mite
Yellow-striped armyworm

Strawberry aphid
Tarnished plant bug
Threelined potato beetle
Western bean cutworm
Zimmerman pine moth

Striped flea beetle
Taxus budmite
Tomato fruitworm
Whitefly

DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

(SEE COMPLETE DIRECTIONS FOR USE IN ATTACHED PAMPHLET.)

READ ALL WARNINGS AND CAUTIONS ON THE LABEL BEFORE USING THIS PRODUCT.

In the garden, apply DRAGON® Thiodan Insect Spray when insects first appear and repeat as required to maintain effective control. Coverage of both upper and lower leaf surfaces is essential for good control. Approximately 1 gallon of dilute spray will be required per 100 feet of row. Follow the time intervals between last application and harvest indicated by number in parentheses () following the crop. If insect control is required beyond the listed time interval, supplement the control program with other suitable DRAGON® pesticides.

CONVERSION TABLE: 3 Tsp. = 1 Tablespoon (Tbs.) = 1/2 ounce (oz.)

VEGETABLES

BEANS (3 days): To control black bean aphid, bean leaf skeletonizer, cucumber beetle, green stink bug, Mexican bean beetle and western bean cutworm apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water. Do not exceed 3 applications per season. Do not feed threshing or allow livestock to graze in treated fields. Do not use on lima beans that are to be removed from the field for commercial processing.

BROCCOLI and CABBAGE (7 days), BRUSSELS SPROUTS and CAULIFLOWER (14 days): To control cabbage aphid, cabbage looper, cross-striped cabbageworm, diamond-back moth larvae, flea beetle, harlequin bug, imported cabbageworm, stink bug, armyworms and cutworms apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water.

CARROTS (7 days): To control aphids apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water. Do not exceed 2 applications. Do not use tops for food or feed.

CELERY (4 days): To control cabbage looper apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water. For green peach aphid apply 1 1/3 Tbs. (2/3 oz.) per gallon of water. Do not exceed 3 applications per season on celery.

COLLARDS, KALE, MUSTARD GREENS, SPINACH (21 days): To control aphids, cabbage flea beetle, cabbage looper, diamond-back moth larvae, harlequin bug, imported cabbageworm and crown mite (on spinach), apply 2 Tbs. (1 oz.) per gallon of water. Do not exceed 1 application.

CUCUMBERS, PUMPKINS, MELONS, SUMMER and WINTER SQUASH (May be applied up to and including day of harvest): To control aphids, cucumber beetles, striped flea beetle, melonworm, pickleworm, rindworm (on watermelons), squash beetle, squash bug and squash vine borer apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water. For vine borer control, apply weekly to flower buds, stems and vines beginning when moths first appear. For cabbage looper and omnivorous leaf roller on melons, apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water.

EGGPLANTS (1 day): To control Colorado potato beetle, flea beetle, aphids and whitefly apply 1 1/3 Tbs. (2/3 oz.) per gallon of water. Do not exceed 0.5 pounds active ingredient endosulfan per acre.

Y. 2/10

- LETTUCE (14 days):** To control aphids, cabbage looper, diamond-back moth larvae and imported cabbageworm, apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water. 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.
- PEPPERS (4 days*):** To control aphids, flea beetles, hornworms and pepper maggot apply 1 1/3 to 2 2/3 Tbs. (2/3 to 1 1/3 oz.) per gallon of water. [*1 day time interval if maximum of 1 1/3 Tbs. (2/3 oz.) per gallon of water is used.]
- POTATOES (May be used up to day of harvest):** To control aphids, armyworms, Colorado potato beetle, stink bug, leaf-footed bug, potato flea beetle, potato leafhopper, potato tuberworm, potato psyllid, European corn borer, false chinch bug, three-lined potato beetle and whitefly apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water. Do not plant root crops other than carrots, potatoes, sugar beets and sweet potatoes as follow-up crops.
- SWEET POTATOES (May be used up to day of harvest):** To control sweet potato flea beetle apply 1 1/3 Tbs. (2/3 oz.) per gallon of water. Begin applications shortly after transplanting or as soon as flea beetles appear. To control banded cucumber beetle larvae (aids in control of, and for use in South Central states only), apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water. Broadcast the spray and 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.
- TOMATOES (1 day):** To control blister beetle, Colorado potato beetle, flea beetle and aphids apply 1 1/3 Tbs. (2/3 oz.) per gallon of water. To control hornworms, tomato russet mite, tomato fruitworm, yellow-striped armyworm, stink bug, cabbage looper and whitefly apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water.

FRUITS

- APPLES (30 days):** To control apple aphids, rosy apple aphids, apple rust mite, apply 1 1/3 Tbs. (2/3 oz.) per gallon of water and spray entire tree thoroughly. Do not feed pomace from treated apples to livestock. Do not exceed 2 applications during the fruiting period. Do not feed cull fruits to animals nor allow livestock to graze treated orchards.
- BLUEBERRIES (postharvest):** To control blueberry bud mite apply 1 2/3 Tbs. (4/5 oz.) in one gallon of water. Apply immediately after harvest and repeat 6 to 8 weeks later. Do not apply after buds are well formed.
- CHERRIES (21 days):** To control black cherry aphid, plum rust mite apply 1 1/3 Tbs. (2/3 oz.) per gallon of water and spray entire tree thoroughly. Do not exceed 2 applications after shuck split. To control mineola moth in Michigan only, apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water at the delayed dormant stage. Do not exceed 2 applications after shuck split. Do not feed cull fruits to animals nor allow livestock to graze treated orchards.
- PEACHES, APRICOTS, NECTARINES (30 days):** To control black cherry aphids, black peach aphid, green peach aphid, peach twig borer, rusty plum aphid and peach silvermite apply 1 1/3 Tbs. (2/3 oz.) per gallon of water and spray entire tree thoroughly. To control catfacing insects (stink bug type) apply 1 1/3 Tbs. (2/3 oz.) per gallon of water. Apply at petal fall and at shuck-off. Do not exceed 2 applications during the fruiting period. To control peach tree borer and lesser peach tree borer, apply 2 Tbs. (1 oz.) per one gallon of water. Spray thoroughly to cover all bark areas from ground to scaffold limbs. For lesser peach tree borer, thoroughly wet trunk and main branches. Usually 2 applications are required — one immediately after harvest and a second 3 to 4 weeks later. Do not feed cull fruits to animals nor allow livestock to graze treated orchards.
- PLUMS, PRUNES (7 days):** For control of peach tree borer and lesser peach tree borer, follow directions above. Do not feed cull fruits to animals nor allow livestock to graze treated orchards.
- PUMPKINS (1):** To control aphids, cucumber beetles, squash vine borer, striped flea beetle apply 2 2/3 Tbs. (1 1/3 oz.) per gallon of water. For squash vine borer, apply weekly to flower buds, stems and vines beginning when moths first appear. Do not apply within one day of harvest.

STRAWBERRIES (4 days): To control cyclamen mite, apply 5 1/3 Tbs. (2 2/3 oz.) in 3 gallons of water applied to 100 feet of row. Do not reapply within 35 days when fruit is present. To control meadow spittle bug, strawberry aphids and tarnished plant bug, apply 2 2/3 Tbs. (1 1/3 oz.) in 1 1/2 gallons of water applied to 100 feet of row. Do not reapply within 15 days or more than twice within a 35 day period when fruit is present.

ORNAMENTALS & FLOWERS

OUT OF DOORS: To control aphids, cyclamen mites, whitefly and rose chafer, apply 1 2/3 Tbs. (4/5 oz.) per gallon of water. On chrysanthemums best results will be obtained if applied before plants flower. DO NOT apply to "Bonafon Deluxe," "Fred Shoemith," and "White Knight" chrysanthemums as injury may result. DO NOT use on birch trees.

SHADE TREES (except birch), SHRUBS: To control aphids apply 1 2/3 Tbs. (4/5 oz.) per gallon of water.

PINE (Austrian, Jack, Red, Scotch, White): To control Zimmerman pine moth, apply 2 1/2 Tbs. per gallon of water. Apply in mid-April and again if necessary in late fall. Thoroughly wet bark and main stem, especially where branches join main stem.

DOGWOODS: To control Dogwood borer, apply 1 2/3 Tbs. per gallon of water. Apply to trunk and lower limbs in May and June before borers enter the trunk. Apply thoroughly, particularly to injured areas and old borer wounds. Repeat applications 2 to 3 times at 10 day intervals.

BOX ELDER: To control box elder bug apply 5 1/3 Tbs. (2 2/3 oz.) per gallon of water. Spray foliage and trunk when insects first appear. Repeat as required in late summer or fall. Spray trunks, outside walls, fences and other places where bugs congregate.

TAXUS: To control taxus bud mite, apply 1 2/3 Tbs. (4/5 oz.) per gallon of water.

PECANS

To control black pecan aphid apply 1 1/3 Tbs. per gallon of water. Do not apply after shuck split. Do not graze livestock on orchard crops or grasses in treated areas.

PRECAUTIONARY STATEMENTS

Hazards to Humans & Domestic Animals

DANGER: Corrosive! Causes irreversible eye damage. Do not get into eyes or on clothing. Wear goggles or safety glasses. May be fatal if swallowed, inhaled or absorbed through the skin. Do not breathe spray mist. Avoid contact with skin, eyes or clothing. Wash with soap and water after handling and before eating or smoking. Wash contaminated clothing with soap and hot water before reuse. Avoid contamination of feed and foodstuffs. Food utensils such as tablespoons must not be used for food purposes after use for measuring pesticides.

WARNING: During mixing, loading and spraying, wear unlined rubber gloves and a pesticide respirator jointly approved by the Mine Safety and Health Administration (MSHA) and the National Institute for Occupational Safety and Health (NIOSH) for protection against endosulfan.

10 of 10

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center immediately. **DO NOT INDUCE VOMITING.**

Vomiting may cause aspiration pneumonia.

IF INHALED: Remove victim to fresh air. Apply artificial respiration if indicated.

IF ON SKIN: Remove contaminated clothing and wash affected areas with soap and water.

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

NOTE TO PHYSICIAN: Thiodan is a central nervous system stimulant. There is no specific antidote. Treat symptomatically. Barbituric acid derivatives may be used in treatment. Solvent presents aspiration hazard. Gastric lavage may be indicated if material was taken internally.

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, to areas where surface water is present, or to intertidal areas below the mean high water mark. 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.

PROTECT BEES: This pesticide is toxic to bees exposed to direct application. Applications should be time to coincide with periods of minimum bee activity between late evening and early morning.

STORAGE: Store in original container in an area inaccessible to children and pets. Do not use near heat or open flame. Do not store near feed or foodstuffs.

PESTICIDE DISPOSAL: Product remaining in original container should be disposed of by securely wrapping original container in several layers of newspaper and discarding in trash.

CONTAINER DISPOSAL: Do not reuse empty container. Securely wrap in newspaper and discard in trash.

NOTICE: Buyer assumes all risks of use, storage or handling of this material not in strict accordance with **DIRECTIONS FOR USE** and **PRECAUTIONARY STATEMENTS** stated on this label (and attached pamphlet).

Thiodan[®] is a registered trademark of Canadian Hoechst, Ltd., U.S. Patent No. 2,799,685.

Distributed by
DRAGON CORPORATION
Roanoke, VA 24019

BEST AVAILABLE COPY