

MAR - 1 1995

Mr. Ron Berens
Gowan Company
P.O. Box 5569
Yuma, AZ 85366

Dear Mr. Berens:

Subject: Amendment - Specify California-only Use Patterns
Gowan Endosulfan 3EC
EPA Registration Number 10163-110
Your submission dated February 7, 1995

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

1. Submit and/or cite all data or other material 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) In the ingredients statement, move ENDOSULFAN down to the next line, i.e., beneath ACTIVE INGREDIENT. Then add a parenthesis around the formula name.
 - b) In the **Statement of Practical Treatment**, add "Get medical attention." to the end of the **If Inhaled** advice.
 - c) In the **Statement of Practical Treatment**, add "Get medical attention." to the end of the **If On Skin** advice.
 - d) Revise the text of the **HAZARDS TO HUMANS AND DOMESTIC ANIMALS** to read as follows:

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

breathe vapor or spray mist. Do not contaminate food or feed. Keep out of reach of domestic animals. Food utensils such as teaspoons or measuring cups must not be used for food purposes after use in measuring pesticides.

- e) Change the order of the PPE listing such that the PPE for cleaning equipment, mixing, or loading appears as the last item (i.e., after the respirator requirement) and revise that entry to read:

Add a chemical-resistant apron when cleaning equipment, mixing or loading.

- f) Revise the referral to the California Supplemental label from "See supplemental label for DIRECTIONS FOR USE IN CALIFORNIA" (since the entire label now contains directions for use in California for each specific crop) to read:

See CALIFORNIA SUPPLEMENTAL LABEL for required procedures for reducing risk of contamination of aquatic ecosystems.

- g) On page 4 in the GENERAL INSTRUCTIONS, revise the sixth sentence to read: "For ground application, apply recommended amount of pesticide in a minimum of 10 gallons of water per acre on vegetable or row crops, unless otherwise noted.
- h) For Alfalfa, add NOTE: before "Do not graze...".
- i) Because your paragraph style is more difficult to read than the table format now employed by FMC, for all crops the pest names should be capitalized in the text (as well as at the beginning of each paragraph) to make them easier to find. For the crop APPLES (Except California), this would include the names White Apple Leafhopper, Apple Aphids, Rosy Apple Aphids, and Tentiform Leafminer. In this same section, add NOTE: before "Do not feed pomace...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...".
- j) For APPLES (California only) capitalize the first letters of the following pest names in the text: White Apple Leafhopper, Apple Aphids, and Rosy Apple Aphids. In this same section, add NOTE: before "Do not feed pomace...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...".

- k) For **APRICOTS (21), etc. (Except California)** add **NOTE:** before "Do not feed cull fruits...". Also, revise "Do not make more than..." to read "For all uses, do not make more than ...".
- l) For **APRICOTS (30), etc. (Except California)** add **NOTE:** before "Do not feed cull fruits...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...". The same addition/revision should also be made to **APRICOTS (30), etc. (California only)**.
- n) For **ARTICHOKES**, add **NOTE:** before "Do not make more than 2 applications...", which should be revised to read "For all uses, do not make more than 2 applications...".
- o) For consistency with the rest of the label, the **BARLEY, etc.** directions should be split into 2 separate items **BARLEY, OATS, RYE, WHEAT (Except California)** would appear as is except for deletion of "(except California)" in the aerial application directions for control of Army Cutworms. **BARLEY, OATS, RYE, WHEAT (California only)** would delete the aerial application directions for control of Army Cutworms, and ground and air directions for control of Cereal Leaf Beetle. For both sets of directions, add **NOTE:** before "Do not apply after heads begin to form." and revise "Do not make more than 2 applications..." to read "For all uses, do not make more than 2 applications...".
- p) For **Beans, etc. (Except California)**, add **NOTE:** before "Do not feed treated...". Also, revise "Do not make more than 3 applications..." to read "For all uses, do not make more than 3 applications...". The same addition/revision should be made to **Beans, etc. (California only)**.
- q) For **Blueberries**, add **NOTE:** before "Do not apply after...".
- r) For **Broccoli, etc. (Except California)**, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...". The same addition/revision should be made for **Broccoli, etc. (California only)**.
- s) For **CARROTS (Except California)**, add **NOTE:** before "Do not use tops...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...". The same addition/revision should be made to **CARROTS (California only)**.

- t) For **CELERY (4) (Except California)** , add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...". The same addition/revision should be made to **CELERY (4) (California only)**.
- u) For **CELERY (7)** add **NOTE:** before "Do not make more than...".
- v) For **Cherries (Except California)**, add **NOTE:** before "Do not feed cull fruits...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...".
- w) For **Cherries (California only)**, delete the directions for "Michigan Only: Mineola Moth". In this same section, add **NOTE:** before "Do not feed cull fruits...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...".
- x) For **CITRUS** add **NOTE:** before "Do not apply to bearing...".
- y) For **COLLARDS (Except California)**, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...". The same addition/revision should be made to **COLLARDS (California only)**.
- z) For **COTTON (Except California)**, add **NOTE:** before "Applications may be made...". Also, revise "Do not exceed..." to read "For all uses, do not exceed...". The same addition/revision should be made to **COTTON (California only)**.
- aa) For **Cucumbers, etc., (Except California)**, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...". The same addition/revision should be made to **CUCUMBERS (California only)**.
- bb) For **EGGPLANT (Except California)**, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...". The same addition/revision should be made to **EGGPLANT (California only)**.
- cc) For **GRAPES**, add **NOTE:** before "Do not use on Concord...". Also, revise "severed" to "severe" in this same **NOTE**.

- dd) For **KALE**, add **NOTE:** before "Do not make more than...".
- ee) For **LETTUCE (Except California)**, add **NOTE:** before "On Head Lettuce...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...". The same addition/revision should be made to **LETTUCE (California only)**.
- ff) For **MUSTARD GREENS (Except California)**, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...". The same addition/revision should be made to **MUSTARD GREENS (California only)**.
- gg) For **NURSERY STOCK DIP (CHERRY, PEACH, PLUM)**, add **NOTE:** before "Plant immediately...". Also, it is unclear why you have chosen to place this use pattern alphabetically for **Nursery** rather than as **CHERRY, PEACH, PLUM - Nursery Stock Dip** to appear after **CHERRIES (CALIFORNIA only)**, especially since **CITRUS (Non-bearing Trees and Nursery Stock)** appears in alphabetical listing for its crop name.
- hh) For **PEARS (Except California)**, add **NOTE:** before "Do not feed cull fruits...". Also, revise "Do not make more than 2 applications..." to read "For all uses, do not make more than 2 applications...". Then, delete **Note:** before "Aerial applications...". The same addition/revision should also be made to **PEARS (California only)**.
- ii) For **PEAS (Seed Crop Only) (Except California)**, add **NOTE:** before "Use only on peas...". The same addition/revision should also be made to **PEAS (Seed Crop Only) (California only)**.
- jj) For **PECANS (Except California)**, add **NOTE:** before "Do not apply after shuck split.". Also, revise "Do not make more than 2 applications..." to read "For all uses, do not make more than 2 applications...".
- kk) For **PEPPERS(1)**, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...". The same addition/revision should also be made to **PEPPERS(4) (Except California)** and to **PEPPERS(4) (California only)**.
- ll) For **PINEAPPLE (For Fresh Market Only)**, add **NOTE:** before "Do not feed treated forage...".

- mm) For **Plums, Prunes**, add **NOTE:** before "Do not allow...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...".
- nn) For **POTATOES**, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...".
- oo) For **SAFFLOWER**, add **NOTE:** before "Do not apply after...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...".
- pp) For **SPINACH (Except California)**, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...". The same addition/revision should be made to **SPINACH (California only)**.
- qq) For **STRAWBERRIES (4)**, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...".
- rr) For **STRAWBERRIES (Northwest Use Only)**, add **NOTE:** before "Drain and allow...".
- ss) For **SUGAR BEETS**, add **NOTE:** before "Do not feed treated...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...".
- tt) For **SUNFLOWERS**, add **NOTE:** before "Do not feed treated...".
- uu) For **SWEET CORN**, add **NOTE:** before "Do not apply to...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...".
- vv) For **SWEET POTATOES (Except California)**, add **NOTE:** before "Do not feed cull...". Also, revise "Do not make more than..." to read "For all uses, do not make more than...". The same addition/revision should be made to **SWEET POTATOES (California only)**.
- ww) For **TOBACCO**, the terms "Seed Bed", "Plant Bed", and "Field" (2 locations) should appear in either bold or italic type, preferably both, to make them stand out from the rest of the text, eg. *Seed Bed*. Also, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...".

- xx) For consistency with the rest of the label, the TOMATOES directions should be split into 2 separate items. **TOMATOES (Field and Greenhouse)(2) (Except California)** would appear as is except for deletion of "[Webworms-(California only)]". **TOMATOES (Field and Greenhouse)(2) (California only)** would appear as is except for addition of the pest name "Webworms" in the first pests listing. For both sets of directions, add **NOTE:** before "Do not make more than...", which should be revised to read "For all uses, do not make more than...".
- yy) For **WALNUTS**, add **NOTE:** before " Do not apply after husk split."
- zz) For **LEATHERLEAF FERN**, add **NOTE:** before "Do not exceed...". Since alternate rates in teaspoons per gallon are given for Ornamental Trees and Shrubs, it would seem appropriate to give such a rate (1 1/3 teaspoons per gallon of water) for this ornamental crop also. If a rate in teaspoons is added, then add "Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides." as the first item after **NOTE:**.
- aaa) For **OKNAMENTALS (Greenhouse and Out-of Doors)**, add **NOTE:** before "On chrysanthemums...". Since alternate rates in teaspoons per gallon are given for Ornamental Trees and Shrubs, it would seem appropriate to give such a rate (1 1/3 teaspoons per gallon of water) for this ornamental crop also. If a rate in teaspoons is added, then add "Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides." as the first item after **NOTE:**.
- bbb) For each of the 6 crop listings under the heading **Ornamental Trees and Shrubs**, add **NOTE:** before "Food utensils...".

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

- 3) Submit three (3) copies of your final printed labeling before you release the product for shipment. Finished revised amended labeling must be prepared in a timely manner to be available for use on this Spring's production run (which you indicated might occur in April). The Agency realizes that you must get CDPR approval of this labeling, which is why this extensive review was expedited by the Agency. However, the Agency has no control of the timing or conclusions of CDPR relative to the acceptability to them of your label. The Agency considers the

previous labeling accepted October 15, 1993 to be the last label of record for this product and that which should be printed if production is necessary prior to preparation of the finished revised amended labeling based upon this letter. Interim use (until CDPR accepts the current label) of labeling accepted prior to October 15, 1993, with use patterns and crops not appearing on current FMC labeling, which you requested in your cover letter dated February 7, 1995, is not acceptable to the Agency because it would be contrary to the condition imposed by FMC in their authorization letters to the Agency dated March 15, 1991 and November 23, 1993 which support registration/reregistration of your product. Both of FMC's letters stipulated that "This authorization is granted on the provision that the label for Gowan Company's product is the same as the label for FMC Corporation's except that certain uses may be deleted.". Furthermore, Gowan Company indicated to the Agency in your cover letter dated June 30, 1993 (which accompanied the labeling accepted by the Agency October 15, 1993) "Gowan Company has agreed to amend its endosulfan registrations to match FMC's."

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

Sincerely,

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

GOWAN ENDOSULFAN 3EC

INSECTICIDE

For Agricultural or Commercial Use Only

ACTIVE INGREDIENT: ENDOSULFAN	% BY WEIGHT
Hexachlorohexahydromethano-2,4,3-benzodioxathiepin 3-oxide.....	34.0%
INERT INGREDIENTS:*	66.0%
TOTAL:	100.0%

ACCEPTED
with COMMENTS
in EPA Letter Dated

MAR - 1 1995

*Contains Xylene Range Aromatic Solvents.
Contains 3 pounds of endosulfan per gallon.

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

**KEEP OUT OF REACH OF CHILDREN
DANGER POISON**

10163-110

PELIGRO

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

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 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.

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. 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.

For Medical Emergencies call Poison Control Center or nearest Hospital

For 24-hour Non-Medical Emergency Assistance Call CHEMTREC at (800) 424-9300.

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS: DANGER

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

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category *G* on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves, such as Barrier Laminate or Viton \geq 14 mils
- Chemical-resistant footwear plus socks
- Protective eyewear
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading
- A respirator with either an organic vapor-removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G)

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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. Due to the risk of runoff and drift, do not apply within a distance of 300 feet of lakes, ponds, streams, and estuaries. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab and other aquatic life are important resources. 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 AND CHEMICAL HAZARDS

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

GOWAN

EPA Reg. No. 10163-110
EPA Est. No. 67545-AZ-1

Gowan Company
PO Box 5569
Yuma, AZ 85366

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 a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 24 hours.

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves such as Barrier Laminate or Viton \geq 14 mils
- Protective Eyewear
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure

See supplemental label for DIRECTIONS FOR USE IN CALIFORNIA.

CHEMIGATION STATEMENT

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

GENERAL INSTRUCTIONS

Not for use or storage in or around the home.

Do not use in undiluted form.

Apply the listed amount per acre when insects first appear and repeat as required, unless otherwise noted, to maintain effective control. Use in sufficient water for thorough coverage of listed crops, unless otherwise noted. Coverage of upper and lower leaf surfaces is essential for good control. For ground application, apply recommended amount of pesticide in a minimum of 10 gallons of water per acre on vegetable or row crops. Observe use limitations. If insect control is required beyond the following use patterns, supplement the control program with other suitable pesticides.

When applying this material by aircraft, mix the recommended amount with sufficient water to provide a minimum of 1 gallon of finished spray per acre on vegetable and field crops, unless otherwise noted, and a minimum of 20 gallons of finished spray per acre on fruit and nut trees and on vines. Where more than 2 quarts of this material are recommended, mix with sufficient water to provide a minimum of finished spray equal to twice the amount of Gowan Endosulfan 3EC Insecticide used.

Do not plant root crops other than carrots, potatoes, sweet potatoes, and sugar beets as follow-up crops. Observe days interval between last application and harvest indicated by number in () following the crop.

OBSERVE STATE AND REGIONAL RESTRICTIONS AND LIMITATIONS if indicated in the crop headings. (California only) indicates instructions specific to California. (Except California) indicates uses for all states excluding California. No state restrictions indicates that the use is valid in California and all other states.

ALFALFA (Grown for Forage) (21): Meadow Spittlebug: Use $\frac{2}{3}$ pint per acre. Apply one week after eggs begin to hatch or when first small masses of froth are produced in the crown of the plant which is usually about the time the alfalfa is 4 to 6 inches tall. Apply in a minimum of 10 gals. of water per acre by ground or 2 gals. of water per acre by air. Do not graze or cut forage within 21 days of treatment. Do not apply more than once per cutting. Do not make more than 3 applications per year. Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1 qt.) per acre per year.

APPLES (21) (Except California): Aphids (including Apple Aphid, Rosy Apple Aphid, Woolly Apple Aphid), Apple Rust Mite, Green Fruitworm, Tarnished Plant Bug, Tentiform Leafminer, White Apple Leafhopper (first generation): Use $\frac{2}{3}$ qt. per 100 gals. or a maximum of $3\frac{1}{3}$ qts. per acre. Applications made at pink and/or petal fall provide best control of Tarnished Plant Bug and Green Fruitworm. For best control of first generation white apple leafhopper, apply when nymphs first appear on leaves. If necessary, prior to petal fall, use 1 qt. per 100 gals. to control apple aphids and rosy apple aphids. For control of tentiform leafminer make first application as soon as moth flights begin. A second application should be made 10 days later. Do not feed pomace from treated apples to livestock. Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications during the ripening period. Do not make more than 3 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

APPLES (30) (California only): Aphids (including Apple Aphid, Rosy Apple Aphid, Woolly Apple Aphid), Apple Rust Mite, White Apple Leafhopper (first generation): Use $\frac{2}{3}$ qt. per 100 gals. or a maximum of $3\frac{1}{3}$ qts. per acre. For best control of first generation white apple

leafhopper, apply when nymphs first appear on leaves. If necessary, prior to petal fall, use 1 qt. per 100 gals. to control apple aphids and rosy apple aphids. Do not feed pomace from treated apples to livestock. Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

APRICOTS (21), NECTARINES (21), PEACHES (21) (Except California): Peachtree Borer, Lesser Peachtree Borer: Use 1 qt. per 100 gals.; West Coast: Use $\frac{2}{3}$ to 1 qt. per 100 gals.; Southeastern States: Use 2 to $3\frac{1}{3}$ qts. per 100 gals. Best control is obtained with a single application post-harvest during the first week of September. Spray all bark areas from ground level to lower scaffold limbs. Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

APRICOTS (30), NECTARINES (30), PEACHES (30) (Except California): Aphids (including Black Cherry Aphid, Black Peach Aphid, Green Peach Aphid, Rusty Plum Aphid), Catfacing Insects (Stink Bug type), Green Fruitworm, Peach Silver Mite, Peach Twig Borer: Use $\frac{2}{3}$ qt. per 100 gals. or a maximum of $3\frac{1}{3}$ qts. per acre; West Coast: Do not use more than 4 qts. per acre. Make applications when insects appear or feeding is noticed. Do not feed cull fruits to animals nor allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

APRICOTS (30), NECTARINES (30), PEACHES (30) (California only): Aphids (including Black Cherry Aphid, Black Peach Aphid, Green Peach Aphid, Rusty Plum Aphid), Catfacing Insects (Stink Bug type), Peach Silver Mite, Peach Twig Borer: Use $\frac{2}{3}$ qt. per 100 gals. or a maximum of $3\frac{1}{3}$ qts. per acre; West Coast: Do not use more than 4 qts. per acre. Make applications when insects appear or feeding is noticed. Do not feed cull fruits to animals nor allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

ARTICHOKES (7): Aphids (including Artichoke Aphid, Green Peach Aphid): Use 1 to $1\frac{1}{3}$ qts. per acre. Artichoke Plume Moth, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Apply in a minimum of 20 gals. of water per acre by ground and in a minimum of 10 gals. of water per acre by air. Do not make more than 2 applications per year. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., $2\frac{2}{3}$ qts.) per acre per year.

BARLEY, OATS, RYE, WHEAT: Army Cutworm: Use $\frac{2}{3}$ qt. per acre. For aerial application apply in 2 gals. of diesel fuel oil per acre (except in California). Cereal Leaf Beetle (Illinois, Indiana, Michigan and Ohio only): Use $\frac{1}{3}$ to $\frac{2}{3}$ qt. per acre. Apply when small larvae are readily found in the field. For aerial application, use a minimum of 1 to 2 gals. of water per acre. Aphids: Use $\frac{2}{3}$ to 1 qt. per acre. Make application when insects appear or feeding is noticed. Do not apply after heads begin to form. Do not feed treated forage to livestock. Do not make more than 2 applications per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qts.) per acre per year.

BEANS, SUCCULENT and DRY (Except Lima Beans) (3) SOUTHERN FIELD PEAS (Succulent type, Including BLACK-EYED PEAS, CROWDER PEAS, and SOUTHERN PEAS) (3) (Except California): Black Bean Aphid, Bean Leaf Skeletonizer, Cowpea Curculio, Cucumber Beetles, Flea Beetles, Green Stink Bug, Leafhoppers, Mexican Bean Beetle: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Aphids, Armyworm, Western Bean Cutworm, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. For control of Cowpea Curculio,

make 3 applications at 5 day intervals starting when the pods are 1/2 inch long. Do not feed treated threshings or allow livestock to graze in treated fields. Do not use on Lima Beans that are to be removed from the field for processing. Do not make more than 3 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

BEANS, SUCCULENT and DRY (Except Lima Beans) (3) SOUTHERN FIELD PEAS (Succulent type, Including BLACK-EYED PEAS, CROWDER PEAS and SOUTHERN PEAS) (3) (California only): Black Bean Aphid, Bean Leaf Skeletonizer, Cucumber Beetles, Flea Beetles, Green Stink Bug, Leafhoppers, Mexican Bean Beetle: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Aphids, Western Bean Cutworm, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not feed treated threshings or allow livestock to graze in treated fields. Do not use on Lima Beans that are to be removed from the field for processing. Do not make more than 3 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

BLUEBERRIES (Except California): Blueberry Bud Mite: Use 2 qts. per 300 gals. Apply immediately after harvest and repeat 6 to 8 weeks later. Do not apply after buds are well formed. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

BROCCOLI (7), BRUSSELS SPROUTS (14), CABBAGE (7), CAULIFLOWER (14) (Except California): Cabbage Aphid, Cabbage Looper, Cross-striped Cabbageworm, Diamondback Moth Larvae, Flea Beetles, Harlequin Bug, Imported Cabbageworm, Leafhoppers, Stink Bugs: Use 1 to $1\frac{1}{3}$ qts. per acre. Armyworms, Cutworms, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 4 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

BROCCOLI (7), BRUSSELS SPROUTS (14), CABBAGE (7), CAULIFLOWER (14) (California only): Cabbage Aphid, Cabbage Looper, Cross-striped Cabbageworm, Diamondback Moth Larvae, Flea Beetles, Harlequin Bug, Imported Cabbageworm, Stink Bugs: Use 1 to $1\frac{1}{3}$ qts. per acre. Armyworms, Cutworms, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 2 applications per year. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., $2\frac{2}{3}$ qts.) per acre per year.

CARROTS (7) (Except California): Green Peach Aphid, Leafhoppers: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Armyworm, Flea Beetles, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not use tops for food or feed. Do not make more than one application per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qts) per acre per year.

CARROTS (7) (California only): Green Peach Aphid: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Flea Beetles, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not use tops for food or feed. Do not make more than one application per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qts) per acre per year.

CELERY (4) (Except California): Green Peach Aphid, Cabbage Looper, Leafhopper: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Armyworms, Flea Beetles, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not make more than one application per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qts.) per acre per year.

CELERY (4) (California only): Green Peach Aphid, Cabbage Looper: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Flea Beetles, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or

feeding is noticed. Do not make more than one application per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qts.) per acre per year.

CELERY (7): Green Peach Aphid: Use $\frac{2}{3}$ qt. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 2 applications per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qts.) per acre per year.

CHERRIES (21) (Except California): Peachtree Borer, Lesser Peachtree Borer: Use 1 qt. per 100 gals. West Coast: use $\frac{2}{3}$ to 1 qt. per 100 gals. Thoroughly wet all bark from ground to scaffold limb. Black Cherry Aphid, Green Fruitworm, Plum Rust (Nursery) Mite: Use $\frac{2}{3}$ qt. per 100 gals. or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Pacific Northwest Only: Eyespotted Bud Moth, Fruittree Leafroller: Use $\frac{2}{3}$ qt. per 100 gals or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. For bud moth control apply at "popcorn" stage. For leafroller control, apply during pre-pink stage of growth. Michigan Only: Mineola Moth: Use $1\frac{1}{3}$ qts. per 100 gals. Apply in the delayed dormant period. Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

CHERRIES (21) (California only): Black Cherry Aphid, Plum Rust (Nursery) Mite: Use $\frac{2}{3}$ qt. per 100 gals. or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Pacific Northwest Only: Eyespotted Bud Moth, Fruittree Leafroller: Use $\frac{2}{3}$ qt. per 100 gals or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. For bud moth control apply at "popcorn" stage. For leafroller control, apply during pre-pink stage of growth. Michigan Only: Mineola Moth: Use $1\frac{1}{3}$ qts. per 100 gals. Apply in the delayed dormant period. Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

CITRUS (Non-bearing Trees and Nursery Stock): Citrus Aphid: Use $\frac{2}{3}$ qt. per 100 gals. or a maximum of $3\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not apply to bearing trees or trees that will bear fruit within twelve months. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

COLLARDS (21) (Except California): Aphids, Cabbage Looper, Diamondback Moth Larvae, Fall Armyworm, Flea Beetles, Harlequin Bug, Imported Cabbageworm, Leafhoppers: Use 1 to $1\frac{1}{3}$ qt. per acre. Whitefly: Use $1\frac{1}{3}$ qt. per acre. Make applications when insects appear or feeding is noticed. Do not make more than one application per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qt.) per acre per year.

COLLARDS (21) (California only): Aphids, Cabbage Looper, Diamondback Moth Larvae, Flea Beetles, Harlequin Bug, Imported Cabbageworm, Whitefly: Use 1 qt. per acre. Make applications when insects appear or feeding is noticed. Do not make more than one application per year. Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1 qt.) per acre per year.

COTTON (Except California): Aphids: Use $\frac{1}{2}$ to 1 qt. per acre. Boll Weevil: Use $\frac{2}{3}$ to 2 qts. per acre. Bollworm, Cabbage Looper, Cotton Leafperforator, Cotton Leafworm, Fleahoppers, Lygus Bugs, Stink Bugs, Tobacco Budworm: Use $1\frac{1}{3}$ to 2 qts. per acre. Thrips: Use 2 qts. per acre. Make applications when insects appear or feeding is noticed. For control of aphids, thorough coverage is important. Applications may be made using ground or aerial application equipment. The higher rate should be used under heavy pest pressure. Do not apply after bolls open. Do not graze meat or dairy animals in treated fields. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

COTTON (California only): Aphids: Use $\frac{1}{2}$ to 1 qt. per acre. Boll Weevil: Use $\frac{2}{3}$ to 2 qts. per acre. Bollworm, Cabbage Looper, Cotton Leafperforator, Fleahoppers, Lygus Bugs, Stink Bugs: Use $1\frac{1}{3}$ to 2 qts. per acre. Thrips: Use 2 qts. per acre. Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. For control of aphids, thorough coverage is important. Applications may be made using ground or aerial application equipment. The higher rate should be used under heavy pest pressure. Do not apply after bolls open. Do not graze meat or dairy animals in treated fields. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

CUCUMBERS (2), MELONS (2), PUMPKINS (2), SUMMER and WINTER SQUASH (2) (Except California): Aphids, Cucumber Beetles, Melonworm, Pickleworm, Rindworm (on watermelons), Squash Beetle, Squash Bug, Squash Vine Borer, Striped Flea Beetle: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Cabbage Looper, Omnivorous Leafroller, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. For squash vine borer control, apply weekly to flower buds, stems, and vines beginning when moths first appear. Do not make more than 6 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

CUCUMBERS (2), MELONS (2), PUMPKINS (2), SUMMER and WINTER SQUASH (2) (California only): Aphids, Cucumber Beetles, Melonworm, Pickleworm, Rindworm (on watermelons), Squash Beetle, Squash Bug, Squash Vine Borer, Striped Flea Beetle: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Cabbage Looper, Omnivorous Leafroller, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. For squash vine borer control, apply weekly to flower buds, stems, and vines beginning when moths first appear. Do not make more than 3 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

EGGPLANT (1) (Except California): Blister Beetles, Colorado Potato Beetles, Flea Beetles, Green Peach Aphids, Green Stink Bugs: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 2 applications per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qts.) per acre per year.

EGGPLANT (1) (California only): Blister Beetles, Colorado Potato Beetles, Flea Beetles, Green Peach Aphids, Green Stink Bugs: Use $\frac{2}{3}$ to $1\frac{1}{3}$ pts. per acre. Whitefly: Use $1\frac{1}{3}$ pts. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 2 applications per year. Do not exceed a maximum of 0.5 lb. active ingredient (i.e., $1\frac{1}{3}$ pts.) per acre per year.

GRAPES (7): Grape Leafhopper, Grape Phylloxera (leaf form), Rose Chafer: Use $\frac{2}{3}$ qt. per 100 gals. or $1\frac{1}{3}$ to 2 qts. per acre. Make applications when insects appear or feeding is noticed. Do not use on Concord varieties as severed injury is likely to occur. Ground application is preferred. Do not make more than 3 applications per year. Do not exceed a maximum of 3.0 lbs active ingredient (i.e., 4 qts.) per acre per year.

KALE (21): Cabbage Flea Beetle, Harlequin Bug, Imported Cabbageworm: Use 1 qt. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 1 application per year. Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1 qt.) per acre per year.

LETTUCE (14) (Except California): Cabbage Looper, Diamondback Moth Larvae, Green Peach Aphid, Imported Cabbageworm, Leafhoppers: Use 1 to $1\frac{1}{3}$ qts. per acre. Armyworms,

Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. On Head Lettuce: Do not exceed 3 applications after thinning. Remove wrapper leaves at harvest. On Leaf Lettuce: Do not make more than 2 applications per year. Do not feed crop refuse to livestock. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

LETTUCE (14) (California only): Cabbage Looper, Diamondback Moth Larvae, Green Peach Aphid, Imported Cabbageworm: Use 1 to $1\frac{1}{3}$ qts. per acre. Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. On Head Lettuce: Do not exceed 3 applications after thinning. Remove wrapper leaves at harvest. On Leaf Lettuce: Do not make more than 2 applications per year. Do not feed crop refuse to livestock. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

MUSTARD GREENS (21) (Except California): Aphids, Cabbage Looper, Diamondback Moth Larvae, Fall Armyworm, Flea Beetles, Harlequin Bug, Imported Cabbageworm, Leafhoppers: Use 1 to $1\frac{1}{3}$ qts. per acre. Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 1 application per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qts.) per acre per year.

MUSTARD GREENS (21) (California only): Aphids, Cabbage Looper, Diamondback Moth Larvae, Flea Beetles, Harlequin Bug, Imported Cabbageworm, Leafhoppers, Whitefly: Use 1 qt. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 1 application per year. Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1 qt.) per acre per year.

NURSERY STOCK DIP (CHERRY, PEACH, PLUM): Peachtree Borer: Use $2\frac{2}{3}$ qts. per 40 gals. Mix thoroughly. Immerse trees so that the roots and crowns are covered well above the grafting bud scar. Plant immediately or dry before returning stock to storage.

PEARS (7) (Except California): Green Fruitworm, Tarnished Plantbug: Use $\frac{2}{3}$ qt. Per 100 gals. or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. Make applications at white bud or petal fall when insects appear or feeding is noticed. Pear Psylla: Use $3\frac{1}{3}$ qts. per acre. Apply in a minimum of 10 gals. of water for aerial application or in 300 gals of water for dilute application. Apply when adults are first observed or nymphs are small and repeat to maintain control. Pear Rust Mite, Consperse Stink Bug (foliar treatment): Use $\frac{2}{3}$ qt. per 100 gals. or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Stink bugs must be wet by spray to obtain control. Consperse Stink Bug (soil treatment): Use $\frac{2}{3}$ qt. per 100 gals.; 200 to 400 gals. per acre. Apply to orchard floor and around trees prior to bloom. Pear Leaf Blister Mite: Use $\frac{1}{3}$ to $\frac{2}{3}$ qt. per 100 gals. Apply as a post harvest or dormant treatment. Do not feed cull fruits to animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

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

PEARS (7) (California only): Pear Psylla: Use $3\frac{1}{3}$ qts. per acre. Apply in a minimum of 10 gals. of water for aerial application or in 300 gals of water for dilute application. Apply when adults are first observed or nymphs are small and repeat to maintain control. Pear Rust Mite, Consperse Stink Bug (foliar treatment): Use $\frac{2}{3}$ qt. per 100 gals. or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Stink bugs must be wet by spray to obtain control. Consperse Stink Bug (soil treatment): Use $\frac{2}{3}$ qt. per 100 gals.; 200 to 400 gals. per acre. Apply to orchard floor and around trees prior to bloom. Pear Leaf Blister Mite: Use $\frac{1}{3}$ to $\frac{2}{3}$ qt. per 100 gals. Apply as a post harvest or dormant treatment. Do not feed cull fruits to

animals or allow livestock to graze in treated orchards. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

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

PEAS (Seed Crop Only) (1) (Except California): Pea Aphid, Pea Weevil: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Use only on peas to be harvested by combine. Do not feed treated vines or threshings to livestock or allow livestock to graze in treated fields. Do not make more than 2 applications per year. Do not exceed a maximum of 1.5 lbs. active ingredient (i.e., 2 qts.) per acre per year.

PEAS (Seed Crop Only) (1) (California only): Pea Aphid, Pea Weevil: Use $\frac{2}{3}$ to 1 qt. per acre. Make applications when insects appear or feeding is noticed. Use only on peas to be harvested by combine. Do not feed treated vines or threshings to livestock or allow livestock to graze in treated fields. Do not make more than 2 applications per year. Do not exceed a maximum of 1.5 lbs. active ingredient (i.e., 2 qts.) per acre per year.

PECANS (Except California): Black Pecan Aphid, Pecan Nut Casebearer, Spittlebug: Use 1 qt. per 100 gals. Make applications when insects appear or feeding is noticed. For casebearer, apply when eggs of first generation appear on the tips of the young nuts. Another application may be required after the second generation of eggs are deposited. For spittlebug, apply when first leaves are half grown and repeat as required. Pecan Leaf Phylloxera: Use $\frac{2}{3}$ to 1 qt. per 100 gals. Apply 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 on orchard crops or grasses in treated areas. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

PEPPERS (1): Flea Beetles, Green Peach Aphid, Hornworms, Pepper Maggot: Use $\frac{2}{3}$ qt. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 2 applications per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qts.) per acre per year.

PEPPERS (4) (Except California): Armyworms, Flea Beetles, Green Peach Aphid, Hornworms, Leafhoppers, Pepper Maggot: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 2 applications per year. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., $2\frac{2}{3}$ qts.) per acre per year.

PEPPERS (4) (California only): Flea Beetles, Green Peach Aphid, Hornworms, Pepper Maggot: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 2 applications per year. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., $2\frac{2}{3}$ qts.) per acre per year.

PINEAPPLE (For Fresh Market Only) (7): Pineapple Fruit Mite: Use 2 to $2\frac{2}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Apply at intervals of 7 to 10 days if

necessary, particularly during the 40 day period of blooming. Do not feed treated forage or pineapple by-products to livestock. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

PLUMS (7), PRUNES (7): Fruittree Leafroller (Pacific Northwest Only): Use $\frac{2}{3}$ qt. per 100 gals. or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. Apply during pre-pink stage of growth when insects appear or feeding is noticed. Aphids (including Hop Aphid, Leafcurl Plum Aphid, Thistle Aphid), Plum Rust (Nursery) Mite: Use $\frac{2}{3}$ qt. per 100 gals. or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. For control of aphids, apply when eggs hatch during pre-bloom or petal fall. Summer applications should be made before leaves curl. Peach Twig Borer: Use $\frac{2}{3}$ qt. per 100 gals. or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Lesser Peachtree Borer: Use 1 qt. per 100 gals. or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. Apply spray to thoroughly wet the trunk and main branches. Peachtree Borer: Use 1 qt. per 100 gals or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre; West Coast: Use $\frac{2}{3}$ to 1 qt. per 100 gals. or $2\frac{2}{3}$ to $3\frac{1}{3}$ qts. per acre. Spray thoroughly to cover all bark areas from ground to scaffold limbs. Do not allow livestock to graze on orchard crops or grasses in treated areas. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

POTATOES (1): Aphids, Armyworms, Colorado Potato Beetle, Green Stink Bug, Leafhopper, Plant Bugs, Potato Flea Beetles, Potato Leafhopper, Potato Tuberworm, Threelined Potato Beetle: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. European Corn Borer, Potato Psyllid: Use 1 to $1\frac{1}{3}$ qts. per acre. False Chinch Bug, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 6 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

SAFFLOWER: Green Peach Aphid, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not apply after flower heads open. Do not make more than 2 applications per year. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., $2\frac{2}{3}$ qts.) per acre per year.

SPINACH (21) (Except California): Armyworms, Crown Mite, Flea Beetles, Green Peach Aphid, Leafhoppers: Use 1 to $1\frac{1}{3}$ qts. per acre. Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 1 application per year. Do not exceed a maximum of 1.0 lb. active ingredient (i.e., $1\frac{1}{3}$ qt.) per acre per year.

SPINACH (21) (California only): Crown Mite, Flea Beetles, Green Peach Aphid, Whitefly: Use 1 qt. per acre. Make applications when insects appear or feeding is noticed. Do not make more than 1 application per year. Do not exceed a maximum of 0.75 lb. active ingredient (i.e., 1 qt.) per acre per year.

STRAWBERRIES (4): Meadow Spittlebug, Strawberry Aphid, Tarnished Plant Bug, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not reapply within 15 days or more than twice during a 35 day period when fruit is present. Cyclamen Mite: Use $2\frac{2}{3}$ qts. per acre in 400 gals. Make applications when insects appear or feeding is noticed. Thoroughly wet the foliage, stem and crown of the plant. For multiple applications, do not apply at intervals less than 35 days when fruit is present. Do not make more than 3 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

STRAWBERRIES (Northwest Use Only): Garden Symphylan (aids in reducing damage): Use $1\frac{1}{3}$ qts. per 100 gals. 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.

SUGAR BEETS (30): Green Peach Aphid, Meadow Spittlebug: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Sugar Beet Webworm: Use 1 to $1\frac{1}{3}$ qts. per acre. Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make application(s) when insects appear or feeding is noticed. Make 1 or 2 applications per year as needed for control. Do not feed treated tops to livestock. Do not make more than 2 applications per year. Do not exceed a maximum of 2.0 lbs. active ingredient (i.e., $2\frac{2}{3}$ qts.) per acre per year.

SUNFLOWERS (1): Sunflower Moth: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Make the first application at the onset of bloom. Allow 7 days between repeat applications. Do not feed treated forage to livestock. Do not make more than 3 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

SWEET CORN (Fresh Vegetable Use Only) (1): Corn Leaf Aphid, Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Corn Earworm: Use 2 qts. per acre. Apply when silks first appear and continue until they begin to dry. Allow 5 days between applications. Do not apply to sweet corn to be processed. Do not feed treated forage or ensilage to livestock or allow livestock to graze in treated fields. Do not make more than 3 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

SWEET POTATOES (1) (Except California): Sweet Potato Flea Beetle, Sweet Potato Weevil: Use $\frac{2}{3}$ qt. per acre. Make applications when insects appear or feeding is noticed. For flea beetle control, begin applications shortly after transplanting or as soon as flea beetles appear. For sweet potato weevil control, apply in sufficient water for complete coverage. Applications may be made to transplants in the nursery and/or in the field. Repeat applications may be made as necessary. For sweet potato weevil control in a clean up program, apply at a rate of $2\frac{2}{3}$ qts. per acre to the soil under the sweet potato nursery beds and to the area immediately surrounding the nursery beds. Do not place the seed tubers directly on the ground treated with endosulfan. Whitefly: Use $1\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Banded Cucumber Beetle Larvae (aids in control) (South Central States and Puerto Rico Only): Use $1\frac{1}{3}$ to $2\frac{2}{3}$ qts. per acre broadcast $\frac{1}{2}$ to 1 qt. 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. Do not feed cull potatoes to livestock or allow livestock to graze in treated fields. Do not make more than 3 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

SWEET POTATOES (1) (California only): Sweet Potato Flea Beetle, Sweet Potato Weevil: Use $\frac{2}{3}$ qt. per acre. Make applications when insects appear or feeding is noticed. For flea beetle control, begin applications shortly after transplanting or as soon as flea beetles appear. For sweet potato weevil control, apply in sufficient water for complete coverage. Applications may be made to transplants in the nursery and/or in the field. Repeat applications may be made as necessary. Do not feed cull potatoes to livestock or allow livestock to graze in treated fields. Do not make more than 3 applications per year. Do not exceed a maximum of 1.5 lbs. active ingredient (i.e., 2 qts.) per acre per year. Do not feed cull potatoes to livestock or allow livestock to graze in treated fields. Do not make more than 3 applications per year. Do not exceed a maximum of 1.5 lbs. active ingredient (i.e., 2 qts.) per acre per year.

TOBACCO (5) (Except California): Aphids (including Green Peach Aphid, Tobacco Aphid), Budworm, Cabbage Looper, Flea Beetles, Hornworms: Seed Bed: Use $\frac{2}{3}$ qt. per 100 gals. Make

applications when insects appear or feeding is noticed. Apply about 6 gals. of finished spray per 100 square yards. Green June Bug Larvae: Plant Bed: Use $\frac{2}{3}$ pt. per 100 gals. Make applications when insects appear or feeding is noticed. Drench at a rate of 1 gal. per square yard. Aphids (including Green Peach Aphid, Tobacco Aphid), Budworm, Cabbage Looper, Flea Beetles, Green June Bug Larvae, Hornworms: Field: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Stink Bugs: Field: Use $\frac{2}{3}$ qt. per 100 gals. Make applications when insect activity or feeding is noticed. Do not make more than 6 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

TOMATOES (Field and Greenhouse) (2): Aphids, Blister Beetles, Colorado Potato Beetle, Flea Beetles, Tomato Hornworm, [Webworm-(California only)]: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per acre. Cabbage Looper, Stink Bugs: Use 1 to $1\frac{1}{3}$ qts. per acre. Tomato Fruitworm, Tomato Russet Mite, Whitefly, Yellowstriped Armyworm: Use $1\frac{1}{3}$ qts. per acre. Whitefly: Use $\frac{2}{3}$ qts. per 100 to 200 gals. of water. Make applications when insects appear or feeding is noticed. Do not make more than 6 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

WALNUTS (Except California): Walnut Aphid: Use 2 to $3\frac{1}{3}$ qts. per acre. Make applications when insects appear or feeding is noticed. Do not apply after husk split. Do not graze livestock on orchard crops or grasses in treated areas. Do not make more than 2 applications per year. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

COMMERCIALLY GROWN ORNAMENTALS

Ornamental Plants

LEATHERLEAF FERN (LEATHER HOLLY FERN) (Except California): Leatherleaf Fern Eorer: Use $\frac{2}{3}$ qt. per 100 gals. 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. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

ORNAMENTALS (Greenhouse and Out-of-Doors): Aphids, Cyclamen Mite, Rose Chafer, Whitefly: Use $\frac{2}{3}$ qt. per 100 gals. Make applications when insects appear or feeding is noticed. On chrysanthemums, best results will be obtained if applied before plants flower. Do not apply to 'Bonafon Deluxe', 'Fred Shoemith', and 'White Knight' chrysanthemums as injury may result. Do not use on Birch trees. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

Ornamental Trees and Shrubs

DOGWOOD, LILAC (Except California): Dogwood Borer, Lilac Borer: Use $\frac{2}{3}$ to $1\frac{1}{3}$ qts. per 100 gals. ($1\frac{1}{3}$ to $2\frac{2}{3}$ teaspoons per gallon). Apply in early June and repeat in 10 to 14 days. Drench all bark areas down to the ground level. Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

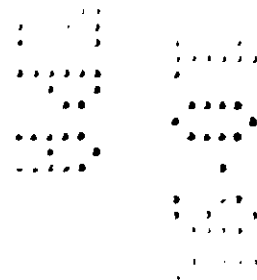
DOUGLAS FIR (Grown for Ornamentals, Nursery Stock or Christmas Trees) (Pacific Northwest Only): Aphids, Cooley Spruce Gall Adelgid, Douglas Fir Needle Midge: Use $\frac{2}{3}$ qt. per 100 gals. ($1\frac{1}{3}$ teaspoons per gal.). Make applications when insects appear or feeding is noticed. For control of gall adelgid, apply when white cottony tufts appear. For control of needle midge, apply in late April or early May just before buds open. Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

PINES (Austrian, Jack, Red, Scotch, White) (Except California): Zimmerman Pine Moth: Use 1 qt. per 100 gals. (2 teaspoons per gal.). Apply in mid-April and again, if necessary, in late fall. Thoroughly wet bark and main stem, especially where branches join main stem. Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

SHADE TREES (Except Birch), SHRUBS: Aphids: Use $\frac{2}{3}$ qt. per 100 gals. ($\frac{1}{3}$ teaspoons per gal.). Make applications when insects appear or feeding is noticed. Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

SPRUCE (New England Area Only): Spruce Gall Aphid: Use $\frac{2}{3}$ qt. per 100 gals. ($\frac{1}{3}$ teaspoons per gal.). Apply in late April or early May when aphids are present but before galls are formed. Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.

TAXUS (Except California): Taxus Bud Mite: Use $\frac{2}{3}$ qt. per 100 gals. ($\frac{1}{3}$ teaspoons per gal.). Make 3 to 5 applications beginning in mid-May. Thoroughly spray foliage, twigs, and bark. Black Vine Weevil: Use $1\frac{1}{3}$ qts. per 100 gals. ($2\frac{2}{3}$ teaspoons per gal.). Spray thoroughly and drench soil under the plants. Apply when the weevils first appear and repeat in 14 days. Food utensils such as teaspoons must not be used for food purposes after use in measuring pesticides. Do not exceed a maximum of 3.0 lbs. active ingredient (i.e., 4 qts.) per acre per year.



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 lid and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills.

To confine spill: 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 rinsate 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.

Returnable/Refillable Sealed Containers: Do not rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

For 24-hour Non-Medical Emergency Assistance Call CHEMTREC at (800) 424-9300.

NOTICE ON CONDITION OF SALE

Our recommendations for 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. The buyer must assume all responsibility, including injury or damage, resulting from its misuse as such, or in combination with other materials.

CALIFORNIA SUPPLEMENTAL LABEL
Procedures for reducing risk of contamination of
Aquatic ecosystems

FOR CROP USES LISTED ON THE PRODUCT LABEL

Endosulfan may be a source of contamination in aquatic ecosystems as a result of run-off from agricultural land due to discharge of irrigation water or during periods of heavy rainfall.

To minimize the chance of aquatic impact, the following conditions must be met to allow endosulfan applications:

DIRECTIONS FOR USE IN CALIFORNIA
(General)

IN ADDITION TO SPECIFIC INSTRUCTIONS UNDER DIRECTIONS FOR USE ON THE PRINCIPAL LABELS, THE FOLLOWING CONDITIONS MUST ALSO BE FOLLOWED FOR USE IN CALIFORNIA:

1. Do not apply this product to fields during irrigation or irrigate for 72 hours following an application.
2. Do not apply this product through any type of irrigation system.
3. Do not apply more than 1.5 lbs. a.i. per acre per application or more than 3.0 lbs. a.i. per acre per season. (Orchard crops and strawberries exempted on rate per acre per application restriction.)
4. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.
5. Do not apply by ground or air within a distance of 300 feet to natural bodies of water including lakes, ponds, streams and estuaries.

FOR DRIFT CONTROL

1. All application equipment should be properly maintained and calibrated using appropriate carriers.
2. Do not make aerial or ground applications during temperature inversions.
3. Make aerial or ground applications when the wind velocity favors on-target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 10 mph. Do not discharge at a height of more than 10 feet above the crop or target.
4. For aerial application a positive shutoff system shall be in place to control flow of liquid to spray nozzles as follow: Each individual nozzle shall be equipped with a check valve and the flow controlled by a suckback device or a boom pressure release device; or each nozzle shall be equipped with a positive action valve.
5. For aerial applications, the spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip or rotor vortices. The working boom length must not exceed 75% of wing span or rotor diameter.
6. Aircraft boom pressure shall not exceed 40 pounds per square inch.
7. Aircraft nozzles shall be equipped with orifices directed backward parallel to the horizontal axis of the aircraft in flight.
8. Aircraft nozzles shall not be equipped with any device or mechanism which would cause a sheet, cone, fan, or similar type dispersion of the discharged material except as otherwise provided.

9. Fixed wing aircraft and helicopters operating in excess of 60 mph shall be equipped with jet nozzles having an orifice not less than $\frac{1}{16}$ inch in diameter (D-4 or larger).
10. Helicopters operating at 60 mph or less shall be equipped with nozzles having an orifice not less than $\frac{1}{16}$ inch in diameter. A number 46 or equivalent whirlplate may be used.
11. For ground applications, equipment other than handguns shall be equipped with nozzles having an orifice not less than $\frac{1}{16}$ inch in diameter or larger. Boom nozzles shall be operated at a boom pressure not to exceed 30 pounds per square inch.

ACCEPTABLE SITES FOR ENDOSULFAN APPLICATION

1. FIELDS, WITH NO DRAINS, HAVING CONTAINMENT THROUGH BERMS (able to hold irrigation water and normal rainwater), LEVEES AND NON-DRAINING CIRCULATION SYSTEMS.
2. FIELDS WITH DRAINS, BUT DRAINAGE FLOWS TO SUMP, FARM POND, EVAPORATION POND, OR RECIRCULATION SYSTEM WITHOUT DRAINAGE (uncontrollable overflow acceptable, e.g., 10 or 100 year flood). Only grower maintained recirculation systems without drainage are acceptable.
3. FIELDS WITH SURFACE DRAINS THAT NATURALLY FLOW ONTO PASTURELAND OR FALLOW FIELDS THAT HAVE NO CHANNELED DRAINAGE AND ARE AT LEAST 300 FEET LONG.

UNACCEPTABLE SITES FOR ENDOSULFAN APPLICATION

1. FIELDS DRAINING DIRECTLY INTO SURFACE WATERS SUCH AS STREAMS, RIVERS, LAKES, PONDS, MARSHES, BAYS, ESTUARIES, OR THE OCEAN.
2. FIELDS DRAINING INTO SURFACE DRAINAGE DITCHES OR CANALS THAT FLOW DIRECTLY INTO SURFACE WATERS SUCH AS STREAMS, RIVERS, LAKES, PONDS, MARSHES, BAYS, ESTUARIES, OR THE OCEAN.
3. ANY AND ALL FIELDS WITH SURFACE DRAINAGE PATTERNS IN THE MOSS LANDING DRAINAGE SYSTEM HAVING MAIN ARTERIES THAT DRAIN INTO THE ELKHORN SLOUGH (northern portion of Monterey County).
4. ANY AND ALL FIELDS WITH DRAINAGE PATTERNS IN THE SAN DIEGO CREEK DRAINAGE SYSTEM HAVING MAIN ARTERIES THAT DRAIN INTO NEWPORT BAY.

All applicable directions, restrictions and precautions on the EPA registered label are to be followed. **THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF PESTICIDE APPLICATION.**

rev. 2/95