



1386-599

file 19811

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 21 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Nik Ramswick
UNIVERSAL COOPERATIVES INC.
P.O. BOX 460 7801 METRO PARKWAY
MINNEAPOLIS, MN 55440

Subject: Label Amendment Submission of 07/29/93 in Response to PR Notice 93-7
EPA Reg. No. 1386-599
DIAZINON 4EC (AG)

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable
Printed with Soy/Canola Ink on paper that
contains at least 50% recycled fiber

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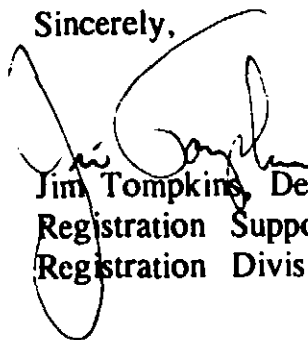
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

Attachment

3711

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division

Nik Ramswick
UNIVERSAL COOPERATIVES INC
P.O. BOX 460 7801 METRO PARKWAY
MINNEAPOLIS MN 55440

Comment for: EPA Reg Nr.1386-599
DIAZINON 4EC (AG)

The following specific comments pertain to your WPS labeling submission concerning the product cited above:

User Safety Recommendations must either be placed in a box or printed on the label in a contrasting color from surrounding text.

The Agricultural Use Requirements section must be located in a clearly separate box on the product labeling -- with lines or other graphic indicators (such as contrasting color) to separate the section from the surrounding text.

Insert the following statement above the Agricultural Use Requirements box: "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." The exact location is shown in Section F on Part 2 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

The Non-Agricultural Use Requirements section must either be placed in a box or printed on the label in a contrasting color from the surrounding text.

The circled and asterisked statement(s) in the Non-Agricultural Use Requirements box does not belong. Delete the sentence(s) from the Non-Agricultural Use Requirements box and place it where it appeared in your original labeling. If there are no remaining requirements in the box after you delete the sentence(s), delete the entire Non-Agricultural Use Requirements box.

Delete the crossed-out statements on your proposed label. They are redundant statements or phrases.

THIS PRODUCT MUST NOT BE USED ON GOLF COURSES AND SOD FARMS.

Diazinon® 4EC (AG)

Insecticide For Control Of Certain Insects On Fruits,
Nuts, Vegetables, Field Crops, and Ornamentals.

ACCEPTED
with COMMENTS
in EPA Letter Dated

MAR 21 1994

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

1386-599

KEEP OUT OF REACH OF CHILDREN

WARNING - AVISO

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

See Side Panel For Additional Precautionary Statements
And Directions For Use

ACTIVE INGREDIENT:

0,0-diethyl 0-(2-isopropyl-6-methyl- 4-pyrimidinyl) phosphorothioate	48.0%
INERT INGREDIENTS*	52.0%
Total	100.0%

*Contains Xylene Range Aromatic Solvents. Diazinon 4EC Contains
4 Pounds Diazinon Per Gallon.

Net contents: 2 1/2 Gallons

EPA Reg. No. 1386-599
EPA Est. No. 1386-OH-1



PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
WARNING

May be fatal if swallowed. May be absorbed through skin. Do not breathe spray mist. Do not get in eyes, on skin, or on clothing. Avoid contamination of food. Do not use on humans. Keep out of reach of domestic animals. Do not contaminate feed or use on household pets or livestock.

PERSONAL PROTECTIVE EQUIPMENT

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

Applicators and other handlers must wear:

- *Coveralls over short-sleeved shirt and short pants
- *Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, or viton
- *Chemical-resistant footwear plus socks
- *Protective eyewear
- *Chemical-resistant headgear for overhead exposure
- *Chemical-resistant apron when cleaning equipment, mixing, or loading

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.

Engineering controls statements: When handlers use 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

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

STATEMENT OF PRACTICAL TREATMENT
ORGANOPHOSPHATE

IF SWALLOWED*—Call a physician immediately. DO NOT INDUCE VOMITING UNLESS NO OTHER TREATMENT IS AVAILABLE. Vomiting may cause aspiration pneumonia. If it is necessary to induce vomiting, give victim one or two glasses of water and insert finger in back of throat. Repeat until vomit fluid is clear. Do not induce vomiting or give anything by mouth to an unconscious person.

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

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

IF IN EYES—Flush eyes for at least 15 minutes with water. Call a physician immediately.

*NOTE TO PHYSICIAN—Gastric lavage is indicated. Atropine sulfate and 2-PAM are specific antidotes

ENVIRONMENTAL HAZARDS

This product is toxic to birds, fish, and wildlife including waterfowl. Birds and waterfowl feeding or drinking on treated areas may be killed. Apply this product only as specified on this label. Do not exceed maximum per-

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milled label rates, as rates above those recommended significantly increase potential hazards to birds and waterfowl. Avoid overlapping of sprays. Where irrigation (watering) is recommended apply a minimum of 0.25" of water immediately after application. Stop irrigation before puddling occurs. Keep out of lakes, streams, ponds, tidal marshes, and estuaries (except for effluence from treated watercress beds). Do not apply to water that will be used for recreational purposes and human and livestock consumption. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab, and other aquatic life are important resources. This product must not be used in areas where impact on threatened endangered species is likely. Contact your State Fish and Game Agency for information pertaining to areas having threatened endangered species. Apply this product only as specified on this label.

This pesticide is highly toxic to bees exposed to direct treatment or to residues remaining on the treated area. Do not apply when bees are actively visiting the crop, cover crop, or weeds blooming in the treatment area. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

CHEMICAL OR PHYSICAL HAZARDS

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

DIRECTIONS FOR USE

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

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 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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI).

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 short-sleeved shirt and short pants
 - *Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, or viton
 - *Chemical-resistant footwear plus socks
 - *Protective eyewear
 - *Chemical-resistant headgear for overhead exposure
-

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not permit children or pets to go on to treated areas until spray has completely dried.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must inform workers of areas or fields that may not be entered without specific protective clothing until sprays have dried and of appropriate actions to take in case of accidental exposure (refer to Statement of Practical Treatment). When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: "WARNING: Area treated with DIAZINON™ 4EC (AG). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, follow these procedures: [insert here information found under "Statement of Practical Treatment"]"

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

GENERAL INFORMATION

Diazinon 4EC (AG) is an emulsifiable solution which, when diluted with water according to directions, is intended for the control of insect pests of agricultural crops. Do not use in barns or dwellings. Do not use on livestock. In the directions for use which follow, best control is obtained when application is made at the first sign of insects. Application should be repeated as necessary to maintain control.

FRUIT AND NUT CROPS

NOTE: Unless otherwise stated, the rates listed below should be applied as a dilute full cover spray.

ALMONDS—Meas. Twig Borers: Apply 1-1 1/2 pts. per 100 gals. of water. Partaloria Scales, San Jose Scales: Mix 1-1 1/2 Pts. Diazinon plus 2-3 gals. dormant oil per 100 gals. of water and apply as a dormant spray. Almond hulls may be used for feed for livestock. REI 12 hours.

APRICOTS—Aphids, Brown Mites (Clover Mites), Two-spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers: Mix 1 pt. per 100 gals. of water. Apply when aphids, mites, and scale crawlers first appear. Olive Scale Crawlers: Mix 1/2 pt. of Diazinon 4EC plus 1 1/2 gals. light medium horticultural oil per 100 gals. of water. Apply when scale crawlers are present. Apricot mealybugs: Mix 1 pt. per 100 gals. of water. Apply as a cover spray from petal fall to June. Do not apply within 10 days of harvest. REI 12 hours.

BLUEBERRIES—Cranberry Fruitworms, Cherry Fruitworms, Blueberry Maggots, Aphids, Thrips, Two-spotted Mites: Mix 1 pt. per 100 gals. of water. Apply up to 200 gals. of spray per acre. Do not apply within 7 days of harvest. REI 12 hours.

CANEBERRIES, BLACKBERRIES, BOYSENBERRIES, DEWBERRIES, LOGANBERRIES, RASPBERRIES—Leafhoppers, Thrips, Aphids, Two-spotted Mites, Raspberry Sawflies. Apply 2 pts. per acre in a minimum of 100 gals. of water. Raspberry Fruitworms: Apply at the above rates when blossom buds separate and repeat application immediately before blossoms open. Dryberry Mites: Apply 1-2 qts. per acre in a minimum of 100 gals. of water. Apply as a dormant spray in early spring, when canes are still in the ground and buds are closed. Make a second application when the buds are well developed, but still closed. Do not apply within 7 days of harvest. Raspberry Crown Borers (Raspberry Root Borers): Apply 2 qts. per acre in a minimum of 100 gals. of water as a drench to the crown area and to the lower canes. Apply either in the spring before berries begin to form, or in the fall after harvest. REI 12 hours.

CHERRIES—Eyespotted Bud Moths, Fruitree Leafrollers: Mix 1 pt. per 100 gals. of water. Apply in cover sprays as necessary beginning with petal fall. Cherry Fruit Flies: Mix 1/2-1 pt. per 100 gals. of water. Make 3 or 4 applications, beginning when adult cherry fruit flies begin to emerge and repeat at 10-day intervals. Leafhoppers:

Apply 1 pt. per 100 gals. of water in 3-5 applications beginning at petal fall and continuing through the growing season, or apply as infestations develop. Black Cherry Aphids: Mix 1 pt. per 100 gals. of water. Apply as a cover spray when aphids appear and repeat after 10 days. San Jose Scale Crawlers: Mix 1 pt. per 100 gals. of water. Apply during the pre-pink stage or when crawlers first appear. Do not apply within 10 days of harvest. Cherry Rust Mites: Mix 1/2-1 pt. per 100 gals. of water. Apply as a supplemental spray after harvest. REI 12 hours.

CITRUS FRUITS (Grapefruit, Lemons, Limes, Oranges, Tangelos, Tangerines, Citrus, Citron, Kumquats, and hybrids of these)—Citrus Aphids, Fruitree Leafrollers, Cottony-cushion Scale Crawlers, Soft Scale Crawlers: Apply 1/2-1 pt. per 100 gals. of water (maximum 1,000 gals. per acre) as a thorough cover spray when aphids and crawler stages of scale insects first appear. Fruitree Leafrollers: Use 1/2-1 pt. per 100 gals. of spray (maximum 1,000 gals. per acre) when an average of 50 percent of eggs in egg masses have hatched in the spring. Citrus Thrips: Apply 1 pt. in 100 gals. of water (maximum 1,000 gals. per acre) when thrips first appear. Citrus Snow Scales: Apply 1-2 pts. per 100 gals. of water (maximum 1,000 gals. per acre) as a postbloom spray and again as a summer spray. For heavy snow scale infestations, use the higher dosage rate. Thorough coverage of tree trunk, limbs and twigs is essential. Do not apply during bloom. Do not apply to citrus within 21 days of harvest. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where these are important resources. REI 5 days.

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CRANBERRIES—Black Headed Fireworms (*Rhopobota naevana*): Apply 2 qts. in 400 gals. of water per acre. Cranberry Fruitworms: Apply 3 qts. in 400 gals. of water per acre. Do not apply within 7 days of harvest. REI 12 hours.

FIGS—Vinegar Flies (*Drosophila* spp.), Dried Fruit Beetles: Apply 1 pt. per 100 gals. of water. Do not apply within 5 days of harvest. REI 12 hours.

FILBERTS—Filbert Leafrollers, Aphids: Apply 1-2 qts. in 250-400 gals. of water per acre as a thorough cover spray. REI 12 hours.

GRAPES—Pacific Spider Mites, Leafhoppers, Grape Berry Moths, Grape Leafhoppers: Apply 1-2 pts. per acre in a minimum of 100 gals. of water as a thorough cover spray. Do not apply within 18 days of harvest. *Drosophila* spp.: Apply 12-18 fl. oz. per acre in a minimum of 100 gals. of water as a thorough cover spray, or apply when insects first appear. Make additional applications at weekly intervals as necessary. Do not apply within 7 days of harvest. REI 5 days.

OLIVES—Olive Scales: Mix 3/4-1 pt. of Diazinon 4EC (AG) plus 1 1/2 gals. of light medium summer horticultural oil per 100 gals. of water. Apply as a cover spray in June or July. Do not apply during bloom to avoid injury to pollinating insects or within 75 days of harvest. REI 12 hours.

PEACHES, NECTARINES—Aphids, Brown Mites (Clover Mites), Two-spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers: Mix 1 pt. per 100 gals. of water. Apply when aphids, mites, and scale crawlers first appear. Olive Scale Crawlers: Mix 1/2 pt. of Diazinon 4EC (AG), plus 1 1/2 gals. light medium horticultural oil per 100 gals. of water. Apply when scale crawlers are present. Oriental Fruit Moths: Mix 1 pt. per 100 gals. of water and apply at 100% petal fall. Make 2 additional applications at 10-15 day intervals. Time the last application to peak adult oriental fruit moth flight, if possible. Peach Twig Borers: Mix 1 pt. per 100 gals. of water and apply to peaches in May and June. Leafhoppers (Peaches only): Apply 1 pt. per 100 gals. of water in 3-5 applications beginning at petal fall and continuing through the growing season, or apply as infestations develop. White Peach Scale (Peaches only): As a post-harvest spray apply 1 1/2-2 pts. per 100 gals. of water timed to coincide with peak crawler and immature scale activity. Under conditions of heavy infestations, two applications may be necessary. Do not apply to peaches within 20 days, or to nectarines within 10 days, of harvest. REI 5 days.

PECANS—Aphids, Mites, Pecan Nut Casebearers, Walnut Caterpillars: Apply 1-3 qts. per acre as a foliage spray in a minimum of 100 gals. of water. Do not apply after husks crack. REI 12 hours.

PINEAPPLE—Scales: Apply 5 qts. of Diazinon 4EC (AG) plus 2 gals. of light or medium horticultural oil in 500 gals. of water per acre to the vegetative slips on the plants following harvest of pineapple. Mealybugs: Apply 2 qts. per acre in a minimum of 100 gals. of water. May be applied on day of harvest. Pineapple forage and refuse may be fed to livestock 7 days following last application. REI 12 hours.

PLUMS, PRUNES—Brown Mites (Clover Mites), European Red Mites: Apply 1 pt. per 100 gals. of water. Leafcurl Plum Aphids, Mealy Plum Aphids, Thistle Aphids: Apply 1/2-1 pt. per 100 gals. of water. Do not apply within 10 days of harvest. REI 12 hours.

STRAWBERRIES—Aphids, Two-spotted Spider Mites: Apply 1 pt. per 100 gals. of water per acre. Cyclamen Mites: Apply 1 qt. per 100 gals. of water per acre, directing spray to plant crowns. Plants should be sufficiently irrigated to assure thorough coverage of the foliage. Make additional applications, if necessary, after harvest. Mole Crickets: Broadcast 1 qt. per acre when insects are present. Apply 1-2 days before transplanting and immediately mix into the top 1-2 inches of soil. Strawberry Leafrollers: Mix 3/4-1 pt. per 100 gals. of water. Apply 200 gals. of spray per acre when blossoms show color. Do not apply within 5 days of harvest. REI 12 hours.

WALNUTS—Aphids, Mites: Apply 1 qt. per acre as a foliage spray in a minimum of 100 gals. of water. Codling Moths, Scale Crawlers, Walnut Caterpillars: Apply 3 qts. per acre as a foliage spray in a minimum of 100 gals. of water. Do not apply after the husks open. REI 12 hours.

VEGETABLE FOLIAR INSECTS

Unless otherwise stated, foliar applications of Diazinon 4EC (AG) should always be applied to vegetable crops as a spray in a minimum of 2 gals. of water per acre for aerial applications and a minimum of 10 gals. of water per acre for ground applications.

BEANS (Pole Beans, Snap Beans, Lima Beans)—Black Bean Aphids, Mexican Bean Beetles, Leafminers: Apply 1-1 1/2 pts. per acre. Cucumber Beetles: Apply 3/4 pt. in 100 gals. of water per acre. Do not apply within 7

days of harvest. Bean forage or bean hay may be fed to dairy and beef cattle and sheep. Wait 4 days following treatment if forage is to be cut for hay. REI 12 hours.

LIMA BEANS—Dipterous Leafminers, Leafhoppers, Mites: Apply 1 pt. per acre. Do not apply within 7 days of harvest. Bean forage or bean hay may be fed to dairy and beef cattle, and sheep. Wait 4 days following treatment if forage is to be cut for hay. REI 12 hours.

BROCCOLI, CABBAGE, CAULIFLOWER—Aphids, Diamondback Moths, Imported Cabbageworms: Apply 1/2-1 pt. per acre. Applications at 7-10 day intervals will usually be required. Do not apply to broccoli or cauliflower within 5 days, or to cabbage within 7 days, of harvest. REI 12 hours.

BRUSSELS SPROUTS—Aphids, Diamondback Moths, Imported Cabbageworms: Apply 1 pt. per acre. Generally, applications at 7-10 day intervals will be required. Do not apply to brussels sprouts within 7 days of harvest. REI 12 hours.

CARROTS—Aphids: Apply 1 qt. per acre. Do not apply within 10 days of harvest. REI 12 hours.

CELERY—Aphids, Flea Beetles: Apply 1 pt. in 100 gals. of water per acre. Do not apply within 10 days of harvest. Plants should be market trimmed (tops removed) before being shipped or used. Tops should not be used for feed or food. REI 2 hours.

COLLARDS, KALE, SWISS CHARD, TURNIP TOPS—Aphids, Imported Cabbageworms, Diamondback Moths, Harlequin Cabbage Bugs: Apply 1/2-1 pt. per acre. Do not apply to collards, kale, or turnip tops within 10 days of harvest. Swiss Chard within 12 days of harvest. REI 12 hours.

CUCUMBERS—Aphids, Serpentine Leafminers, Thrips: Apply 1 pt. per acre. Do not apply within 7 days of harvest. REI 12 hours.

LETTUCE, ENDIVE—Aphids, Dipterous Leafminers: Apply 1/2-1 pt. per acre. Do not apply within 10 days of harvest. REI 12 hours.

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MELONS (Cantaloupes, Casabas, Crenshaws, Honeydew Melons, Muskmelons, Persian Melons, and hybrids of these: Watermelons and their hybrids, Summer and Winter Squash)—Aphids, Leafhoppers, Mites: Apply 1-1 1/2 pils. per acre. Serpentine Leafminers, Thrips: Apply 1/2-1 pt. per acre. Do not apply to melons and winter squash within 3 days, or to summer squash within 7 days, of harvest. REI 12 hours.

MUSHROOM HOUSES—Mushroom Flies (Phorids and Sciarids). Mix 1/2-1 gal. in 50 gals. of water (0.5% to 1.0% actual Dazimon) and spray on outside and inside walls and ventilators of mushroom houses after compost in beds has been pasteurized by heating. Do not spray compost in beds or after spawning. To treat wooden sides of beds, posts, doors, and door frames after pasteurizing, mix 1/2 pt. in 6 gals. of water and apply with a brush. Do not treat compost. REI 12 hours.

ONIONS—Onion Thrips: Apply 1 pt. per acre. Do not apply within 10 days of harvest. REI 12 hours.

PEAS—Aphids, Leafminers: Apply 3/4-1 pt. per acre. Peas may be picked immediately. Pea vines and pea vine hay may be fed to dairy and beef cattle and sheep. Wait 4 days following treatment if forage is to be cut for hay. REI 12 hours.

PEPPERS—Aphids, Serpentine Leafminers: Apply 1/2 pt. per acre. Do not apply within 5 days of harvest. REI 12 hours.

POTATOES—Aphids, Flea Beetles, Colorado Potato Beetles, Dipterous Leafminers: Apply at the rate of 1/2-3/4 pt. per acre. Banded Cucumber Beetles, Leafhopper, Southern Armyworms: Apply 3/4-1 pt. per acre. Do not apply within 35 days of harvest. REI 12 hours.

RADISHES, PARSNIPS, TURNIPS—Aphids, Flea Beetles, Dipterous Leafminers: Apply 1/2-1 pt. per acre. Do not apply within 10 days of harvest. REI 12 hours.

SPINACH, BEETS—Aphids, Dipterous Leafminers: Apply 1/2-1 pt. per acre. Do not apply to spinach within 10 days, or to beets within 14 days of harvest. REI 12 hours.

SWEET CORN—Corn Earworms: Apply 1 1/4 qts. per acre when silks first appear. Two or three repeat applications at 7-3 day intervals will usually be necessary. Corn may be picked immediately following last application. Corn forage may be fed to dairy and beef cattle and sheep. Refer also to Corn under Field and Forage Foliar Insects and Field and Forage Soil Insects. REI 12 hours.

TOMATOES—Aphids, Dipterous Leafminers: Apply 1/2 pt. per acre. To control leafminers, weekly applications are usually required. Banded Cucumber Beetles, Fall Armyworms, Southern Armyworms: Apply 3/4-1 pt. per acre. Vinegar Flies (*Drosophila* spp.): Apply 1/2-1 1/2 pils. per acre. Weekly applications are usually required. Do not apply within 1 day of harvest. REI 12 hours.

VEGETABLE SOIL INSECTS

Unless otherwise stated, soil applications of Dazimon 4EC (AG) should always be applied to vegetable crops as a spray in a minimum of 5 gals. of water per acre for ground applications.

CUTWORMS (Surface and Subterranean)

Broccoli	Celery	Lettuce	Peppers	Sweet Corn
Brussels Sprouts	Collards	Lima Beans	Potatoes	Swiss Chard
Cabbage	Cucumbers	Muskmelons	Snap Beans	Tomatoes
Cantaloupes	Endive (Escarole)	Parsley	Spinach	Watermelons
Cauliflower	Kale	Peas	Summer Squash	Winter Squash

Broadcast 2-4 qts. per acre just prior to planting. Work into the soil immediately. 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms. REI 12 hours.

GARDEN SYMPHLANS (Cenilopodes)

Cabbage	Lettuce	Pole Beans	Red Beets	Tomatoes
Carrots	Peas	Radishes	Snap Beans	Turnips

Broadcast 10 qts. per acre just prior to planting. Immediately work into soil 4-8 inches. This preplant treatment will also control other soil insects such as cutworms (surface and subterranean), mole crickets, root maggot, and wireworms. REI 12 hours.

MOLE CRICKETS

Broccoli	Cauliflower	Kale	Peppers	Tomatoes
Brussels Sprouts	Collards	Lettuce	Radishes	Turnips
Cabbage	Endive (Escarole)	Mustard		

Broadcast 1 qt. per acre when insects are present. Make application to plant beds or field 1-2 days prior to sowing of seed or transplanting and immediately work into soil 1-2 inches. REI 12 hours.

ONION MAGGOTS—Onion—Furrow Application: Apply 1 qt. per acre in sufficient water to drench the seed furrow at planting time. Broadcast Application: Broadcast 2-4 qts. per acre just prior to planting. Immediately work into soil 3-4 inches. REI 12 hours.

ROOT MAGGOTS—Broccoli, Brussels Sprouts, Cabbage, Cauliflower—Broadcast Application: Broadcast 2-3 qts. per acre and immediately work into the soil 3-4 inches before seeding, either in the seedbed or in the field, or before transplanting. Transplant Water (Drench) Application: Mix 1/4-1/2 pt. in 50 gals. of transplant water when 200-300 gals. of water are used per acre. May be applied at the rate of 1/2-1 cupful per plant, either by hand or by tractor mounted sprayer equipped with drop nozzles to direct spray to the base of the plant. Transplant water treatments may result in stand reduction due to plant stress at time of transplanting. Radishes: Mix 1 qt. in 50 gals. of water. Apply 80-100 gals. per acre (1-1 1/3 gals. per 1,000 linear feet of row) in the seed furrow at planting time. REI 12 hours.

WIREWORMS

Broccoli	Celery	Lima Beans	Peppers	Swiss Chard
Brussels Sprouts	Collards	Muskmelons	Potatoes	Tomatoes
Cabbage	Cucumbers	Onions	Summer Squash	Snap Beans
Cantaloupes	Endive (Escarole)	Parsley	Sweet Corn	Spinach
Carrots	Kale	Peas	Sweet Potatoes	Winter Squash
Cauliflower	Lettuce			

Broadcast 3-4 qts. per acre prior to planting, and immediately work into soil 4-8 inches. Potatoes—Wireworms: Broadcast 3-6 qts. per acre prior to planting. Immediately disk or harrow into soil 4-8 inches. REI 12 hours.

SOUTHERN POTATO WIREWORMS (Southeastern U.S.)—For use to control southern potato wireworms in potatoes grown on mineral soils in the Southeast, apply 2-4 qts. per acre as a soil treatment prior to planting, and immediately mix thoroughly by disking, or other suitable means into the top 3-6 inches of soil depending on location of wireworms. REI 12 hours.

FIELD AND FORAGE FOLIAR INSECTS

Unless otherwise stated, foliar applications of Dazimon 4EC (AG) should always be applied to field and forage crops as a spray in a minimum of 2 gals. of water per acre for aerial applications and a minimum of 10 gals. of water per acre for ground applications.

ALFALFA, CLOVER—Spotted Alfalfa Aphids, Yellow Clover Aphids, Pea Aphids, Leafhoppers, Plant Bug Nymphs, Mites: Apply 3/4-1 pt. per acre. Grasshoppers: Apply 1 pt. per acre. Following the above applications, dairy and beef cattle and sheep (1) may be grazed immediately following application, (2) may be fed green alfalfa or clover immediately following cutting, and (3) may be fed hay provided alfalfa or clover is not cut for hay for 7 days following treatment. Alfalfa Weevil Larvae: For control in the spring, apply 2-3 pils. per acre when feeding damage to growing tops becomes evident. Repeat application, if necessary. If damage is already extensive, cut the hay and make application to the stubble. Do not graze dairy and beef animals or sheep for 7 days. Do not cut for hay for 10 days following treatment. Do not spray livestock directly with either air or ground equipment. Do not treat during bloom to avoid injury to pollinating insects. REI 12 hours.



CLOVER—Striped Ground Crickets Broadcast 1-2 qts per acre following seeding in the fall but prior to clover emergence. REI 12 hours.

CORN—Use a minimum of 1 gal. of water for aerial applications and 5 gals. of water for ground applications. Corn Rootworm Adults: Apply 1/2-1 pt. per acre. Corn Leaf Aphids: Apply 1-2 pts. per acre. Complete coverage of the upper portions of the plants is essential. Repeat applications as necessary. Mites: Apply 1 pt. per acre when infestations first appear. Repeat applications as necessary. Flea Beetles: Apply 1 pt. per acre when insects first appear. Repeat applications as necessary. Grasshoppers: Apply 1 pt. per acre. Sap Beetles: Apply 2-2 1/2 pts. per acre. Add 1-2 gals. of soluble mineral oil per acre to the spray mixture. Consult State Agricultural Experiment Stations or State Extension Service Specialists for proper timing of sprays. Corn may be picked immediately following last application. Corn forage may be fed to dairy and beef cattle and sheep. REI 12 hours.

COTTON—Spider Mites, Aphids, Leafhoppers, Lygus Bug, Cotton Leafworms, Cotton Leaf Perforators: Apply 1-2 pts. in 5-25 gals. of water per acre. Repeat as infestation warrants. Do not apply within 14 days of harvest. Do not graze treated cotton plants, or feed gin waste to livestock. REI 12 hours.

GUAR (Texas and Oklahoma only)—Midge: Apply 1/2-1 pt. per acre in a minimum of 10 gals. of water for ground application or 2 gals. of water for aerial application when 15% of the blooms are infested. Should the infestation warrant, repeat applications should be made in 5-6 days. Do not make more than 3 applications to the same crop. Do not apply within 12 weeks of harvest. Do not graze or feed treated forage to livestock within 12 weeks of harvest. REI 12 hours.

HOPS—Aphids, Mites Apply 1 qt. per acre. Do not apply within 14 days of harvest. REI 12 hours.

SORGHUM—Use a minimum of 1 gal. of water for aerial applications and 5 gals. of water for ground applications. Sorghum Midge Apply 1/2-1 pt. per acre when 90% of heads have emerged from the boot. Repeat application within 4 days. Mites Apply 1 pt. per acre when infestation first appears and repeat applications as necessary. Greenbug Apply at the rates indicated below when infestation first appears and repeat as necessary. Texas and Oklahoma—Apply 1/2-1 pt. per acre. All Other Areas—Apply 1 pt. per acre. Crop may be fed to livestock immediately following treatment. Do not apply within 7 days of harvesting for grain. REI 12 hours.

SUGAR BEETS—Beet Leafhoppers, Dopterous Leafminers, Aphids Apply 3/4-1 pt. per acre. Grasshoppers Apply 1 pt. per acre. Note: Tops may be fed to beef and dairy animals. REI 12 hours.

SUGARCANE—Aphids Apply 1/2-1 pt. per acre. Allow 1 day between last application and harvest. Bagasse and forage may be fed to livestock. REI 12 hours.

TOBACCO—Aphids, Flea Beetles Apply 1/2-3/4 pt. per acre. Do not apply within 3 days of harvest. Grasshoppers Apply 1 pt. per acre. Do not apply within 14 days of harvest. REI 12 hours.

FIELD AND FORAGE SOIL INSECTS

Unless otherwise stated, soil applications of Dazinon 4EC (AG) should always be applied to field and forage crops as a spray in a minimum of 5 gals. of water per acre for ground applications.

ALFALFA, CLOVER, LESPEDEZA, COWPEAS, SORGHUM, SOYBEANS—Cutworms (Surface and Subterranean): Broadcast 2-4 qts. per acre just prior to planting. Work into the soil immediately 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms. REI 12 hours.

CORN—Corn Rootworm Larvae: Postemergence Basal Treatment—Apply 1 1/4-2 1/2 oz. per 1,000 linear feet of corn row in sufficient water to thoroughly wet base of corn plant and a narrow band of soil next to the plant. Refer to the row spacing chart for amounts recommended per acre. Cover treated band with 2-3 inches of soil using a disk tiller or cultivator immediately after spraying. Application should be made at the first sign of corn rootworm larvae, but not later than June 24 in the Middle Corn Belt, or July 1 in the Northern Corn Belt.

Suggested Rates According to Row Spacing for Corn Rootworm Larvae Control

Row Spacing	Linear Feet of Corn Row/Acre	Postemergence Basal Treatment (Fl. oz.)
48"	10,890	14-28
42"	12,455	15.5-31
40"	13,068	16-32
		(1/2-1 qt.)
38"	13,939	17.5-35
36"	14,250	18-36
30"	17,421	22-44
24"	21,780	27.5-55
20"	26,136	32-64
		(1-2 qts.)
15"	34,848	44-88

NOTE For row spacings not listed, calculate the appropriate dosage based on the 40-inch row figure. Seed Corn Maggots Broadcast 2-4 qts. per acre just prior to planting. Work immediately into soil 2 inches. Cutworms (Surface and Subterranean) Broadcast 2-4 qts. per acre. For surface cutworms apply just prior to planting or when larvae first appear, and immediately work into soil 1-2 inches. Do not apply later than lay-by. For subterranean cutworms apply just prior to planting and immediately work into soil 3-6 inches. Wireworms Apply 3-4 qts. per acre prior to planting and immediately work into the soil 4-8 inches. Corn may be picked immediately following last application. Corn forage may be fed to dairy and beef cattle and sheep. REI 12 hours.

PEANUTS—Cutworms Apply 2 qts. per acre in a 12-inch band over the row. Thorough coverage of the foliage is essential. Begin application when small larvae appear. Two or three additional applications at three-week intervals may be necessary. Do not apply within 21 days of peanut harvest. Livestock (1) may be fed peanut hulls, (2) may be fed peanut forage 7 days following treatment, and (3) may be fed peanut hay 21 days following treatment. REI 12 hours.

SUGAR BEETS—Wireworms: Broadcast 3-4 qts. per acre just prior to planting, and immediately work into soil 4-8 inches. Tops may be fed to beef and dairy animals. REI 12 hours.

SUGARCANE—Wireworms: Apply 1 gal. per acre in a 12-inch band centered over the furrow. Make application directly to seed pieces in open furrow at covering time. REI 12 hours.

TOBACCO—Cutworms: Broadcast 2-3 qts. per acre before transplanting and immediately work into the soil 2-4 inches. Green June Beetle Larvae: Mix 1/4 pt. in 50 gals. of water and apply as a drench (100 gals. per 100 sq. yds.) to uprooted areas of plant beds with sprinkling can. Mole Crickets: Broadcast 1 qt. per acre, when insects are present. Make application to beds or fields 1-2 days prior to sowing of seed or transplanting, and immediately work into soil 1-2 inches. Seedcorn Maggots: Broadcast 3 pts. per acre, 3-4 weeks before transplanting. Immediately work into soil 2 inches. Wireworms: Broadcast 2-3 qts. per acre 3-4 weeks before transplanting. Work immediately into soil 6-9 inches. REI 12 hours.

RANGE, PASTURE AND GRASSLAND INSECTS

Unless otherwise stated, Dazinon 4EC (AG) should always be applied as a spray in a minimum of 1 gal. of water per acre for aerial applications and a minimum of 5 gals. of water per acre for ground applications.

BERMUDAGRASS AND FORAGE GRASSES (other than Range and Pasture Grasses)—Thrips, Whiteflies, Grasshoppers: Apply 1 pt. per acre. Dairy and beef cattle and sheep (1) may be grazed immediately following application. (2) may be fed green forage immediately following cutting. Forage grasses may be cut for hay 7 days following treatment. Do not repeat application for 30 days.



RANGELAND, PASTURE, DITCHBANKS, ROADSIDES, WASTELAND, NONCROP AREAS, BARRIER STRIPS—Grasshoppers: Apply 3/4-1 pt. per acre in water or oil (minimum of 1 gal. of oil per acre) when insects first appear, preferably in the nymphal stage. Thorough coverage of the foliage is essential. Dairy and beef cattle and sheep (1) may be grazed immediately following application, (2) may be fed green forage immediately following cutting, and (3) may be fed hay provided grass is not cut for hay for 21 days if the spray is a water solution, or for 30 days if the spray is an oil solution. Do not spray livestock directly with either air or ground equipment. Do not repeat application for 30 days.

ORNAMENTAL INSECT CONTROL

To control certain insects on Arborvitae, Azalea, Birch, Boxwood, Camellia, Carnation, Chrysanthemum, Douglas Fir, Elm, Gladiolus, Hawthorn, Holly, Juniper, Lilac, Locust, Maple, Oak, Pine, Plum, Poplar, Rhododendron, Rose, Spruce, and Willow, apply the recommended rates indicated below.

Insects	Rate per 3 gals. water	Rate per 100 gals. water
Aphids, Bagworms, Carnation Bud Mites, Carnation Shoot Mites, Clover Mites, Cyclamen Mites, Dipterous Leafminers, European Pine Shoot Moths, European Red Mites, Flea Beetles, Holly Bud Moths, Leafhoppers, Obscure Root Weevils, Omnivorous Leafhoppers, Privet Mites, Scale Crawlers (Cottony-cushion, Lecanium, Pine Needle, San Jose, Soft Scale), Thrips, Two-spotted Mites, Webworms, Whiteflies	1/2 fl. oz. *	1 pt. **
Apple-and-Thorn Skeletonizers, Columbine Webworms, Fall Webworms, Hemlock Cankerworms, Oak Loopers, Obliquebanded Leafrollers, Pear Slugs, Tent Caterpillars	1/2 fl. oz. *	3 pts. **

* 1 fl. oz. = 2 tablespoons ** 16 fl. oz. = 1 pint

Do not use on Ferns, Poinsettia, Hibiscus, Papaya, Pilea, and Gardenia since injury to the plants may occur. Mimosa Webworm: Mix 1/2 fl. oz. in 3 gals. of water (or 1 pt. in 100 gals. of water) and apply as a thorough foliar spray when adults first appear. Make a second and third application at 4-5 week intervals.

LAWN INSECT CONTROL

To control insects listed below, apply recommended rates. For control of Anis, Brown Dog Ticks, Clover Mites, Crickets, Earwings, Fleas, Millipedes, Sowbugs, and Collembola (Springtails) which are commonly found near the house and may enter the house, spray a 5-ft. band of soil around the house, as well as the house foundation wall to a height of 2-3 ft. Repeat application if necessary.

Insects	Rate/1,000 sq. ft.		Remarks
	Diazinon 4EC (AG)	Water	
Lawn Chinch Bugs	2-3 fl. oz. or 3-6 fl. oz.	25 gals. *	Use higher rate for longer residual control and in lawns of dense growth such as St. Augustine lawns.
Anis, Armyworms, Clover Mites, Collembola (Springtails), Crickets, Cutworms, Dogger Wasps, Earwings, Fire Flies, Lawn Billbugs, Sod Webworms (Lawn Moths), Sowbugs	2-4 fl. oz.	3 gals.	Spot spray ant hills and wasp ground nest openings. For lawn billbugs irrigate the lawn thoroughly immediately after treatment. For fire flies, mow grass and water well before treatment but delay application until grass is dry. Do not water again until necessary.
Brown Dog Ticks, Bermuda Mites, Chiggers, Fleas, Leafhoppers	1-1/4 fl. oz.	3 gals.	Do not apply to animals. For brown dog ticks, spray grass and under shrubbery particularly near house.
Millipedes	8 fl. oz.	3 gals.	
Rhodesgrass Scales	5 fl. oz.	25 gals. *	Apply when crawlers first emerge.

* Or, make application in 3 gals. of water per 1000 sq. ft. and thoroughly water immediately following application.

BOXELDER BUGS—Spray bugs outside the home with 1-1/4-2-1/2 fl. oz. (2-1/2-5 tablespoons) in 1 gal. water. At the same time, thoroughly spray around foundation, windows, doors, tree trunks, and into cracks and other places where the insects hide.

BILLBUGS, WHITE GRUBS (such as Japanese beetle larvae, European chaler, Southern chaler) Apply 4 fl. oz. per 1000 sq. ft. of lawn. Water grass thoroughly after application. For grub control make application anytime between late July and early October. For billbug control apply when activity is first observed or when chewed or brown grass is present, indicating damage from this insect.

HYPERODES WEEVIL (New York only). Apply 3 fl. oz. per 1000 sq. ft. of grass. Water grass thoroughly after application. Treat problem areas in mid-April and again in mid-May.

WARRANTY AND LIMITATION OF DAMAGES

Seller warrants that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes the risk of any use contrary to such directions. Seller makes no other express or implied warranty, including any other express or implied warranty of Fitness or of Merchantability, and no agent of Seller is authorized to do so except in writing with a specific reference to this warranty. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made.

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