



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
PREVENTION, PESTICIDES
AND TOXIC SUBSTANCES

Ms. Emily Smathers Ratliff
Helena Chemical Company
6075 Poplar Avenue, Suite 500
Memphis, TN 38119-4702

DEC 27 2001

Dear Ms. Ratliff:

Subject: Amendment - Comply with 2000 Diazinon MOA;
Delete Beans, Cucumbers, Parsley, Parsnips,
Peas, Peppers, Potatoes, Summer Squash,
Winter Squash, Sweet Potatoes, Swiss Chard,
Turnips, Lawn Pest Control, Nuisance Pests
in Outside Areas, Grassland Insects
(Roadsides, Ditch Banks, Wasteland, Non-
crop Areas, & Barrier Strips), Ornamentals
except those Grown Outdoors in Nurseries
Update First Aid per PR Notice 2001-1; and
Update CSF/replacement diazinon source
Helena Diazinon 7E Insecticide
EPA Registration Number 5905-474
Your submission dated June 18, 2001

The amendment referred to above, submitted in connection with registration under FIFRA section 3(c)(7)(sa), 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. Delete directions for use on the crops Cucumbers and Turnips. Under the diazinon MOA, and as stipulated on the labeling for the replacement diazinon manufacturing-use products from which agricultural end-use products may be formulated, use on cucumbers and turnips is no longer permitted. Also, be sure to delete "Cucumbers" and "Turnips" or "Turnip Tops" from the minium gallonage and PHI tables.
 - b. On the front panel, delete "and in Mushroom Houses". This product is not registered for use in mushroom houses.

- c. Since you have deleted lawn use, you should delete the front panel limitation "This product must not be used on golf courses and sod farms."
- d. In the Environmental Hazards text, since you have deleted the use on lawns, delete the sentences "Avoid overlapping sprays. If waterfowl....before puddling occurs.". Also, revise the sentence beginning "For terrestrial uses, do not apply directly..." to begin "Do not apply directly...", since all uses for this product are terrestrial.
- e. Correct the word processing error that resulted in a false start of part of the FRUIT AND NUT CROPS directions followed by a second entry of the "Operating Instructions" from the Chemigation directions.
- f. Under the heading General Information, replace the sentence "Do not use on food crops grown in greenhouses." with "Do not use in greenhouses."
- g. For the crop Caneberries, delete "Do not make more than 5 applications per season. Do not apply within 7 days of harvest or illegal residues may occur." from the directions for Leafhoppers. For Dryberry Mites delete "Do not apply within 7 days of harvest or illegal residues may occur." Then add a NOTE for this crop as follows:

NOTE: (1) Do not apply more than 1 1/4 qts. of product per acre per application and no more than 3 qts. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 7 days between the last application and harvest.
- h. For the crop Cranberries, add a Note "4" which reads "Do not use water from irrigated or flooded cranberry beds for drinking purposes or to irrigate crops other than those appearing on EPA-approved diazinon labels."
- i. For the crop Grapes, "Notes" should appear in bold type to be consistent with the rest of the label.
- j. For the crop Strawberries, for consistency revise "Twospotted" to "Two-spotted".
- k. For the crop Walnuts, for both sets of pest directions, delete "Do not apply within 45 days of harvest or after husks open or illegal residues may occur.". Then, revise the heading "NOTE" to "Notes" and expand that section to read:

Notes: (1) For all the above uses, do not apply more than 5 1/2 qts. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 45 days between the last application and harvest, and do not apply after husks open.
- l. In the minimum gallonage table and the PHI table revise "casabas" to read "casaba melons" and revise "crenshaws" to read "crenshaw melons".

- m. Under the heading INSECT CONTROL ON ORNAMENTALS GROWN IN OUTDOOR NURSERIES ONLY, correct the pest name "Fea Beetles" to "Flea Beetles", and correct the pest name "Pear Dlug's" to "Pear Slugs".
3. Submit three (3) copies of your final printed labeling before you release the product for shipment.

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.

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

The Basic Confidential Statement of Formula (CSF) dated June 14, 2001 which identifies a replacement diazinon source Manufacturing Use Product is acceptable and has been added to this product's registration file.

Sincerely,

George T. LaRocca
Product Manager 13
Insecticide Branch
Registration Division (7505C)

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RESTRICTED USE PESTICIDE
Due to Avian and Aquatic Toxicity
For retail sale to and use by Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's Certification.

DIAZINON® 7E
INSECTICIDE

For Control of Certain Insects on Agricultural Fruits, Nuts, Vegetables,
Field Crops, and Ornamentals (Grown in Outdoor Nurseries ONLY) and in Mushroom Houses.

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

ACTIVE INGREDIENT:

Diazinon: O,O-Diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate..... 77.80%

INERT INGREDIENTS..... 22.20%

TOTAL..... 100.00%

*Contains xylene range aromatic solvent
Diazinon 7E contains 7 lbs. diazinon per gallon.

KEEP OUT OF REACH OF CHILDREN
CAUTION
See Additional Precautionary Statements Inside Booklet

EPA REG. NO.: 5905-474

'A EST. NO.: First letters of product batch code indicate producing establishment:
5905-GA-1=CG.5905-AR-1=WA. 5905-CA-1=KC. 5905-IA-1=DI

MANUFACTURED BY
HELENA CHEMICAL COMPANY
6075 POPLAR AVENUE, SUITE 500
MEMPHIS, TN 38119

ACCEPTED
with COMMENTS
The EPA Letter Dated:
DEC 27 2001
5905-474

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye injury. Avoid contact with skin, eyes, or clothing. Avoid breathing vapor or spray mist. Avoid contamination of food and feed. Food utensils such as tablespoons and measuring cups should not be used for food purposes after use in measuring pesticides. Keep out of reach of domestic animals. Do not use on humans, household pets or livestock. Do not contaminate ornamental fish ponds.

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:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, or viton
- Shoes plus socks

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 with 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.

**FIRST AID
Organophosphate**

IF SWALLOWED:

- Call a poison control center or doctor immediately for treatment advice.
- Have person sip a glass of water if able to swallow.
- Do not induce vomiting unless told to do so by the poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

IF INHALED:

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
- Call a poison control center or doctor for further treatment advice.

IF IN EYES:

- Hold eye open and rinse slowly and gently with water for 15-20 minutes.
- Remove contact lenses, if present after the first 5 minutes, then continue rinsing eye.
- Call a poison control center or doctor for treatment advice.

IF ON SKIN:

- Take off contaminated clothing
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment

Have the product container with you when calling a poison control center or doctor, or going for treatment.

Note to Physician: This product is an organophosphate insecticide. If symptoms of cholinesterase inhibition are present, atropine sulfate by injection is antidotal. 2-PAM is also antidotal and may be administered, but only in conjunction with atropine. This product contains a xylene range aromatic solvent which may present an aspiration hazard. Gastric lavage may be indicated if product was taken internally.

ENVIRONMENTAL HAZARDS

This product is highly toxic to birds, fish and other wildlife. Birds, especially waterfowl, feeding or drinking on treated areas may be killed. Do not exceed maximum permitted label rates. Rates above those recommended significantly increase potential hazards to birds, especially waterfowl. Avoid overlapping of sprays. If waterfowl (ducks or geese), can be expected in the treated area after treatment (except spot treatments), apply at least ¼ inch of water immediately after spraying this product, however stop watering before puddling occurs. Keep out of lakes, streams, ponds, tidal marshes and estuaries. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. 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.

Do not contaminate water by cleaning of equipment or disposal of equipment washwaters.

This pesticide is highly toxic to bees exposed to direct treatment or to residues on blooming crops or weeds. Do not apply this pesticide or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

PHYSICAL OR CHEMICAL HAZARDS

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

DIRECTIONS FOR USE

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

Reformulation or repackaging of this product is prohibited.

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).
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
- Chemical-resistant gloves, such as barrier laminate, butyl rubber, nitrile rubber, or viton
- Shoes plus socks

Do not use water from irrigated or flooded cranberry beds for drinking purposes or to irrigate crops other than those appearing on EPA approved diazinon labels.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal. Open dumping is prohibited.

Pesticide:

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If pesticide, spray mixture or rinsate 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:

Triple rinse (or equivalent). Then puncture and dispose of in a sanitary landfill, or incinerate, or burn, if allowed by state and local authorities. Stay out of smoke from burning container.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup and disposal of wastes. In the event of a major spill, fire, or other emergency, call ChemTrec 1-800-424-9300 day or night.

GENERAL INFORMATION

diazinon 7E is an emulsifiable solution which, when diluted with water according to the directions, is intended for the control of insect pests of agricultural crops and other plants. Do not use on food crops grown in greenhouses. 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 first sign of pests. Application should be repeated only as directed to maintain control.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, since crop of plant injury may result.

Work Safety Rules

REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CONTAINED IN THIS PRODUCT MAY, WITHOUT WARNING, CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

When handling **Diazinon 7E**, do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away. See Practical Treatment section of this label.

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Note: The California Department of Agriculture has set a 5-day reentry period for diazinon on grapes, peaches, and nectarines. Five days should elapse between the time of application and the time a worker may enter the field to engage in any activity requiring substantial contact with treated foliage. When a mixture of two or more organophosphate pesticides are applied in combination, the interval should be prolonged by adding to the largest applicable interval an additional 50% of that interval.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND ALL PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

CHEMIGATION

APPLICATION THROUGH AN IRRIGATION SYSTEM (CHEMIGATION) - CRANBERRIES ONLY.

Diazinon 7E may be applied alone or in combination with other pesticides registered for application through sprinkler irrigation systems to cranberries. To insure compatibility, pour the products into a small container of water in the correct proportions. After thorough mixing, let stand for five minutes. If the combination remains mixed, or can be remixed readily, the mixture is compatible.

Do not apply this product through any type of irrigation system to other crops. For chemigation, apply this product to cranberries only through sprinkler irrigation systems. Do not apply this product to cranberries through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers, or other experts.

Do not connect the irrigation system used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments if the need arises.

Chemigation System Connected to Public Water Systems

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

2. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction.. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

Sprinkler Chemigation

1. The system must contain a functional check valve, a vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to

prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

7. Do not apply when wind speed favors drift beyond the area intended for treatment.

Operating Instructions

1. Determine the acreage to be treated by the sprinkler system.

2. Measure the appropriate amount of **Diazinon 7E** needed to treat the acreage to be treated. Refer to the specific directions for use for cranberries for the application rate and the amount of water per acre.

3. Add the pre-measured **Diazinon 7E** to the chemigation system supply tank and dilute with water if needed. Proper agitation is needed if **Diazinon 7E** is tank mixed with other pesticides registered for sprinkler chemigation application to cranberries.

4. Start the irrigation system and bring the system up to full pressure, making certain that all sprinkler heads are functioning properly.

5. Engage the chemigation injection or venturi system to add the diazinon to the irrigation lines.

6. Continue to run irrigation system for a few minutes after supply tank is empty to allow material in the irrigation lines to reach the sprinkler heads further from the chemigation injection point.

FRUIT AND NUT CROPS

REI - 24 hours

Diazinon 7E may be applied using ground or aerial application equipment as specified in the following Table. This Table indicates the *minimum* amount of water that can be used for various methods of application. The rate of **Diazinon 7E** for aerial spray or concentrated spray applied to fruit trees by ground equipment is based on a dilute full cover spray applied with conventional ground equipment at a rate of 300-400 gals. of water per acre. The specific amount of product to be used appears under separate directions for use for each crop. If the Rate calls for 1/2 pt. of **Diazinon 7E** in 100 gals. of water, this amounts to 1 1/2 - 2 pts. of product per acre when applied at the usual dilute ground spray volumes of 300-400 gals. of water per acre. In no case should the amount of product used per acre exceed the maximum amount per acre per application that is specified in the Timing/Special Directions for individual crops.

Crop	Aerial application Minimum Gals./Acre	Ground Application Minimum Gals./Acre	
		Dilute	Concentrate
Almonds*	20	100	20
Apricots	20	100	20
Blackberries**	20	100	20

Operating Instructions

1. Determine the acreage to be treated by the sprinkler system.

2. Measure the appropriate amount of **Diazinon 7E** needed to treat the acreage to be treated. Refer to the specific directions for use for cranberries for the application rate and the amount of water per acre.
3. Add the pre-measured **Diazinon 7E** to the chemigation system supply tank and dilute with water if needed. Proper agitation is needed if **Diazinon 7E** is tank mixed with other pesticides registered for sprinkler chemigation application to cranberries.
4. Start the irrigation system and bring the system up to full pressure, making certain that all sprinkler heads are functioning properly.
5. Engage the chemigation injection or venturi system to add the diazinon to the irrigation lines.
6. Continue to run irrigation system for a few minutes after supply tank is empty to allow material in the irrigation lines to reach the sprinkler heads further from the chemigation injection point.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

FRUIT AND NUT CROPS

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Crop	Aerial application Minimum Gals./Acre	Ground Application Minimum Gals./Acre	
		Dilute	Concentrate
Almonds*	20	100	20
Apricots	20	100	20
Blackberries**	20	100	20
Raspberries**	20	100	20
Cherries	20	100	20
Cranberries	20	15	-
Dewberries**	20	100	20
Grapes	20	100	20
Loganberries**	20	100	20
Nectarines	20	100	20
Plums	20	100	20
Prunes	20	100	20
Raspberries**	20	100	20
Strawberries	20	100	20
Walnuts*	20	100	20

*CA only.

**CA, OR, or WA only.

Observe stated time intervals between last application and harvest, as well as intervals between applications and total amount of product that can be applied per season:

Crop	PHI*
Almonds	**
Apricots	21
Blackberries	7
Boysenberries	7
Cherries	21
Cranberries	7
Dewberries	7
Grapes	28
Loganberries	7
Nectarines	21
Peaches	21
Plums, Prunes	21
Raspberries	7
Strawberries	5
Walnuts	45

*PHI = Pre-Harvest Interval, or the number of days between the last application and harvest.

* = Dormant spray only.

Note: To protect bees, do not apply to fruit trees when trees or substantial numbers of weeds in the orchard are in bloom.

ALMONDS (CA only): San Jose Scale, Parlatoria Scale - $\frac{1}{2}$ - $\frac{3}{4}$ pts. + 2-3 gallons dormant oil or 1-1 $\frac{1}{2}$ gallons superior type oil in 100 gallons of water. Apply as a dormant spray. Do not apply more than 3 $\frac{1}{2}$ pts. of diazinon or 9 gallons of oil per acre.

APRICOTS: Aphids, Brown Mites (Clover Mites), Two-spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers - $\frac{1}{2}$ pt. in 100 gallons of water. Apply as infestations occur. Repeat application after 14 days if necessary. **Olive Scale Crawlers** - $\frac{1}{4}$ pt. + 1 $\frac{1}{2}$ gallons of light medium horticultural oil per 100 gals. of water. Apply when scale crawlers are present. **Apricot Mealybugs** - $\frac{1}{2}$ pt. per 100 gallons of water. Apply as a cover spray from petal fall to June. Allow 14 days between applications.

Notes: (1) Do not apply more than 2 $\frac{1}{2}$ pts. of product per acre per application and no more than 7 $\frac{1}{4}$ pts. of product per acre per season. (2) To avoid illegal residues allow a minimum of 21 days between the last application and harvest.

CANEBERRIES (CA, OR and WA only) (Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries): Leafhoppers, Thrips, Aphids, Two-spotted Spider Mites, Raspberry Sawflies, Raspberry Fruitworms - $\frac{1}{2}$ qt. per acre. Apply as insects occur. Repeat applications after 14 days if necessary. Do not make more than 5 applications per season. Do not apply within 7 days of harvest or illegal residues may occur. Apply in a minimum of 100 gallons of water per acre (200 gals. per acre maximum.) For raspberry fruitworms, make one application when blossom buds separate. Make a second application immediately before blossoms open. **Dryberry Mites** - $\frac{1}{2}$ -1 $\frac{1}{4}$ qts. per acre. Apply as a dormant spray in the early Spring when canes are still on the ground and buds are closed. Make a second application when buds are well developed but still closed. Apply in a minimum of 100 gallons of water per acre. Do not apply within 7 days of harvest or illegal residues may occur.

Raspberry Crown Borers (Raspberry Root Borers) - 1¼ qts. per acre. Apply a single application in a minimum of 100 gallons of water per acre as a drench to the crown and lower canes in the Spring before buds break.

CHERRIES: Eyespotted Bud Moths, Fruit Tree Leafrollers - ½ pt. in 100 gallons of water. Apply in cover sprays as infestations occur beginning at petal fall. Repeat application after 7 days if necessary. **Leafhoppers** - ½ pt. in 100 gallons of water. Make 3 applications beginning at petal fall and continuing through the growing season as infestations occur. Allow 7 days between applications. **Cherry Fruitflies** - ¼-½ pt. in 100 gallons of water. Make 3-4 applications beginning when adult flies begin to emerge and repeating at 10 day intervals. **Black Cherry Aphids** - ½ pt. in 100 gallons of water. Apply as a cover spray when aphids appear. Repeat application after 10 days if necessary. **San Jose Scale Crawlers** - ½ pt. in 100 gallons of water. Apply during the pre-pink stage or when crawlers first appear. **Cherry Rust Mites** - ¼-½ pt. in 100 gallons of water. Apply to trees as a single supplemental spray after harvest.

Notes: (1) Do not apply more than 2½ pts. of product per acre per application and no more than 7¼ pts. of product per acre per season. (2) Allow a minimum of 21 days between the last application and harvest.

CRANBERRIES: Blackheaded Fireworms (*Rhopobota naevana*) - 1¼ qts. in a minimum of 15 gals. of water per acre for ground application and up to 400 gals. of water per acre for chemigation. Apply to larval stage. Pheromone trap captures and sweep monitoring may be used to optimize treatment timing. Repeat application after 14 days if necessary. A maximum of 6 application per season is permitted. **Cranberry Fruitworms** - 1¼ - 1¾ qts. in a minimum of 15 gals. of water per acre for ground application and up to 400 gals. of water per acre for chemigation. Cranberry growth stage and/or berry inspection for eggs may be used to optimize treatment timing; consult your local extension agent or pest management adviser. Repeat application after 14 days as needed. A maximum of 4 applications per season is permitted for the 1¾ qt. rate. A maximum of 6 applications per season is permitted for the 1¼ qt. rate.

Notes: (1) Do not apply more than 7¼ qts. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 7 days between the last application and harvest. (3) This product may be applied to cranberries through sprinkler irrigation. Refer to the **Chemigation** section for specific chemigation directions for use.

GRAPES: Pacific Spider Mites, Leafhoppers, Grape Berry Moths, Grape Leafrollers, Omnivorous Leafrollers, Aphids, Spider Mites - ½-1¼ pts. per acre in a minimum of 100 gals. of water. Apply as pest occurs as a thorough cover spray. Repeat application after 7 days if necessary. **Drosophila spp.** - 3½ fl. oz. per acre in a minimum of 100 gallons of water (300 gal. of water maximum). Apply as pest occurs as a thorough cover spray. Repeat application after 7 days if necessary.

Notes: (1) Do not apply more than 1¼ pts. of product per acre per application and no more than 6 pts. per acre per season. (2) To avoid illegal residues, allow 28 days between the last application and harvest.

NECTARINES: Oriental Fruitmoths - ½ pt. in 100 gallons of water. Apply at 100% petal fall. Make 2 additional applications at 10-15 day intervals. Time the last application to peak adult flight. **Aphids, Brown Mites (Clover Mites), Two-spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers, Peach Twig Borers** - ½ pt. in 100 gallons of water. Apply as infestations occur. Repeat application after 14 days if necessary.

Notes: (1) Do not apply more than 2½ pts. of product per acre per application and no more than 7¼ pts. per acre per season. (2) Allow a minimum of 21 days between the last application and harvest.

PEACHES: Aphids, Brown Mites (Clover Mites), Two-spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers - ½ pt. in 100 gallons of water. Apply as infestations occur. Repeat application after 14 days if necessary. **Oriental Fruitmoths** - ½ pt. in 100 gallons of water. Apply at 100% petal fall. Make 2 additional applications at 10-15 day intervals. Time the last application to peak adult flight. **Peach Twig Borers** - ½ pt. in 100 gals. of water. Apply as insects occur in May and June. Allow 7 days between application. **Leafhoppers** - ½ pt. in 100 gallons of water. Make 3-4 applications beginning at petal fall and continuing through the growing season. Allow at least 7 days between applications. **White Peach Scale** - 1-1¼ pts. in 100 gallons of water. Apply post-harvest timed to coincide with peak crawler and immature scale activity. Under conditions of heavy infestation, 2 applications (7 days apart) may be needed. Do not apply before fruit is harvested.

Notes: (1) Do not apply more than 2½ pts. of product per acre per application and no more than 7¼ pts. of product per acre per season. (2) Allow a minimum of 21 days between the last application and harvest.

PLUMS: Brown Mites (Clover Mites), European Red Mites - ½ pt. in 100 gallons of water. Apply as needed every 7 days. **Leafcurl Plum Aphids, Mealy Plum Aphids, Thistle Aphids** - ¼-½ pt. in 100 gallons of water. Apply as needed every 7 days.

Notes: (1) Do not apply more than 2½ pts. of product per acre per application and no more than 7¼ pts. of product per acre per season. (2) Allow a minimum of 21 days between the last application and harvest.

PRUNES: Brown Mites (Clover Mites), European Red Mites - ½ pt. in 100 gallons of water. Apply as needed every 7 days. **Leafcurl Plum Aphids, Mealy Plum Aphids, Thistle Aphids** - ¼-½ pt. in 100 gallons of water. Apply as needed every 7 days.

Notes: (1) Do not apply more than 2½ pts. of product per acre per application and no more than 7¼ s. of product per acre per season. (2) Allow a minimum of 21 days between the last application and harvest.

STRAWBERRIES: Aphids, Twospotted Spider Mites - ½ pt. in 100 gallons of water per acre. Apply as pests occur. Repeat application if necessary every 7 days, but do not make more than 3 applications per season. **Cyclamen Mites** - ½ qt. in 100 gallons of water per acre. Direct spray to the plant crowns. Plants should be sufficiently agitated to assure thorough coverage of the foliage. Repeat applications after 7 days if necessary. Do not make more than 3 foliar applications per season. Application may be made to plants after harvest. **Mole Crickets** - ½ qt. per acre. Broadcast in sufficient water to obtain even coverage when insects are present. Apply 1-2 days before transplanting and immediately incorporate into the top 1-2 inches of soil. **Strawberry Leafrollers** - ½ pt. in 100 gallons of water. Apply 200 gallons of spray per acre when blossoms show color.

Notes: (1) Do not apply more than ½ qt. of product per acre per application and no more than 2½ qts. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 5 days between the last application and harvest.

WALNUTS (CA only): Aphids, Spider Mites - ½ qt. per acre. Apply as a foliar spray. Repeat application in 14 days if necessary. Do not make more than 3 applications per season. Do not apply

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within 45 days of harvest or after husks open or illegal residues may occur. Make ground applications in a minimum of 100 gallons of water per acre. **Codling Moths, Scale Crawlers, Walnut Caterpillars** - 1¼ qts. per acre. Apply as a foliar spray. Repeat application in 14 days if necessary. Do not make more than 3 applications per season. Do not apply within 45 days of harvest or after husks open or illegal residues may occur. Make ground applications in a minimum of 100 gallons of water per acre.

NOTE: For all of the above uses, do not apply more than a total of 5½ qts. of product per acre per season.

VEGETABLE CROPS

REI - 24 hours

For foliar or soil applications, **Diazinon 7E** should always be applied as a spray in sufficient water to assure thorough coverage of the foliage or soil. **Diazinon 7E** may be applied using ground or aerial application equipment as specified in the following table. This table indicates the minimum amount of water that can be used for the various methods of application. The specific amount of product to be used appears under the separate directions for use for each crop.

Crop	Ground Application		Aerial Application	
	Minimum Gals./Acre	OR	Minimum Gals./1,000 Sq.Ft.	Minimum Gals./Acre
Beets, Red (Table)	10		2	5
Broccoli	10		2	5
Brussels Sprouts	10		2	5
Cabbage	10		2	5
Cantaloupes	5		1	5
Carrots	10		2	5
Casabas	5		1	5
Cauliflower	10		2	5
Chinese Broccoli	10		2	5
Chinese Cabbage	10		2	5
Chinese Mustard	10		2	5
Chinese Radish	10		2	5
(FL, CA only)				
Collards	10		2	5
Crenshaws	5		1	5
Cucumbers	5		1	5
Endive (Escarole)	10		2	5
Ginseng	10		2	5
Honeydew Melons	5		1	5
Kale	10		2	5
Lettuce, Head	10		2	5
Lettuce, Leaf	10		2	5
Muskmelons	5		1	5
Mustard	10		2	5
Onions, (Bulb and Green)	10		2	5
Persian Melons	5		1	5
Radishes	10		2	5
only)				
Spinach	10		2	5

Crop	Ground Application		Minimum Gals./1,000 Sq.Ft.	Aerial Application	
	Minimum Gals./Acre	OR		Minimum Gals./Acre	
Sweet Corn	20		4		5
Tomatoes	10		2		5
Turnips	10		2		5
Watermelons	5		1		5

Observe stated time intervals between last application and harvest as well as intervals between and maximum numbers of applications per season. Do not apply to food crops in greenhouses.

Pre-Harvest Intervals (PHI*) for Foliar Applications:

Crop	PHI
Beets, Red (Table)	14
Broccoli	7
Brussels Sprouts	7
Cabbage	21
Cantaloupes	3
Carrots	14
Casabas	3
Cauliflower	7
Chinese Broccoli	10
Chinese Cabbage	10
Chinese Mustard	10
Chinese Radish	10
Collards	10
Crenshaws	3
Cucumbers	7
Endive (Escarole)	14
Ginseng	30
Honeydew Melons	3
Kale	10
Lettuce	14
Muskmelons	3
Mustard	10
Onions (Green and Bulb)	14
Persian Melons	3
Radish	14
Spinach	14
Sweet Corn	7
Tomatoes	1
Turnip Tops	14
Watermelons	3

*PHI-Pre-harvest Interval or number of days between the last application and harvest.

Notes: 1) **Soil Incorporation:** Following application of this product to control vegetable soil insects, immediately incorporate the product into the soil to the recommended depth (see TIMING/SPECIAL DIRECTIONS) using a rotary hoe, cultivator, disk, harrow, or other suitable means. For control of surface cutworms, incorporate 2-3 inches; for subterranean cutworms, incorporate 3-6 inches. 2) **To**

Protect Bees: Foliar applications of this product should not be made to peas or beans if these crops or weeds in the treatment area are in bloom, or to corn during the pollen shed period.

BEETS, RED (Table): **Cutworms** - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms**- 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Dipterous Leafminers** - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 14 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers.

BROCCOLI: **Root Maggots** - 1¼-1¾ qts. per acre. One to two days before planting, broadcast and immediately incorporate into the top 3-4 inches of soil. **Root Maggots** - 2½-5 ozs. per 50 gals. of water. In transplant water as a drench application when 200-300 gals. of water are used per acre. Apply ¼-½ cup (2½ to 5 ozs.) per plant by hand or by tractor mounted sprayer equipped with drop nozzles to direct spray to the base of the plant. NOTE: Transplant water treatments may result in stand reduction due to plant stress at time of transplanting. **Cutworms** - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers** - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 7 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers.

BRUSSELS SPROUTS: **Root Maggots** - 1¼-1¾ qts. per acre. One to two days before planting, broadcast and immediately incorporate into the top 3-4 inches of soil. **Root Maggots** - 2½-5 ozs. in 50 gals. of water. In transplant water as a drench application when 200-300 gals. of water are used per acre. Apply ¼-½ cup (2½ to 5 ozs.) per plant by hand or by tractor-mounted sprayer equipped with drop nozzles to direct spray to the base of the plant. NOTE: Transplant water treatments may result in stand reduction due to plant stress at time of transplanting. **Cutworms** - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Diamondback Moths, Imported Cabbageworms** - ¼-½ pt. per acre. Apply as insects occur. Repeat application as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 7 days of harvest or illegal residues may occur.

CABBAGE: **Root Maggots** - 1¼-1¾ qts. per acre. One to two days before planting, broadcast and immediately incorporate into the top 3-4 inches of soil. **Root Maggots** - 2½-5 ozs. in 50 gals. of water. In transplant water as a drench application when 200-300 gals. of water are used per acre. Apply ¼-½ cup (2½ to 5 ozs.) per plant by hand or by tractor-mounted sprayer equipped with drop nozzles to direct spray to the base of the plant. NOTE: Transplant water treatments may result in stand reduction due to plant stress at time of transplanting. **Cutworms** - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before

planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers** - ¼-½ pt. per acre. Apply as insects occur. Repeat application as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 21 days of harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

CARROTS: Cutworms - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids** - ½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 14 days of harvest or illegal residues may occur.

CAULIFLOWER: Root Maggots - 1¼-1¾ qts. per acre. One to two days before planting, broadcast and immediately incorporate into the top 3-4 inches of soil. **Root Maggots** - 2½-5 ozs. in 50 gals. of water. In transplant water as a drench application where 200-300 gals. of water are used per acre. Apply ¼-½ cup (2½ to 5 ozs.) per plant by hand or by tractor-mounted sprayer equipped with drop nozzles to direct spray to the base of the plant. **NOTE:** Transplant water treatments may result in stand reduction due to plant stress at time of transplanting. **Cutworms** - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers** - ¼-½ pts. per acre. Apply as insects occur. Repeat application, as necessary, up to 5 times, with a minimum of 7 days between application. Do not apply within 5 days of harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

CHINESE BROCCOLI: Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 10 days of harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

CHINESE CABBAGE (BOK CHOY AND NAPA): Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 10 days of harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

CHINESE MUSTARD (GAI CHOY): Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 10 days of harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

CHINESE RADISH (JAPANESE RADISH OR DAIKON) (FL and CA Only): Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers - ½ pt. per acre. Mix in a minimum of 100 gallons of water per acre and apply as a foliar spray as pests occur. Repeat application as necessary, every 14 days. Do not make more than 3 applications per season. Do not apply within 10 days of

harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

COLLARDS: Cutworms - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.

Wireworms - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Diamondback Moths, Imported Cabbageworms, Harlequin Bugs, Corn Earworms** - ¼-½ pt. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 10 days of harvest or illegal residues may occur.

CUCUMBERS: Cutworms - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Serpentine Leafminers, Thrips, Striped Cucumber Beetles, Melonworms** - ½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 7 days of harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

ENDIVE (ESCAROLE): Cutworms - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Dipterous Leafminers** - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 14 days of harvest. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

GINSENG: Leafhoppers, Aphids, Lygus Bugs, Flea Beetles, Jumping Plant Lice - ½ pt. per acre. Spray when insects first appear. For heavy insect infestations, use ½ pt. per acre. Apply by ground equipment using 10 to 100 gals. of water per acre. **Do not apply more than one application per growing season.** Do not apply during flowering of three or four year old crops. Do not apply within 30 days of harvest. Do not graze treated areas or feed treated forage to livestock.

KALE: Cutworm - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Diamondback Moths, Imported Cabbageworms, Harlequin Bugs, Corn Earworms** - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 14 days of harvest or illegal residues may occur.

LETTUCE: Cutworms - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Dipterous Leafminers** - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season.

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Do not apply within 14 days of harvest. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

MELONS (CANTALOUPE, CASABAS, CRENSHAW, HONEYDEW, MUSKMELON, PERSIAN, AND HYBRIDS OF THESE) AND WATERMELONS: **Cutworms** - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Dipterous Leafminers, Thrips, Striped Cucumber Beetles, Melonworms, Leafhoppers, Spider Mites** - ¼-¾ pts. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 3 days of harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

MUSTARD: **Cutworms** - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Dipterous Leafminers, Diamondback Moths, Imported Cabbageworms** - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 10 days of harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

ONION (GREEN & BULB): **Onion Maggots** - 1¼-2½ qts. per acre. Broadcast just before planting and mix into the top 3-4 inches of soil. **NOTE:** Diazinon will not control organophosphate-resistant onion maggots. **Onion Thrips** - ½ pt. per acre. Apply as thrips appear. Repeat application, as necessary, every 7 days. Do not make more than 3 applications per season. Do not apply within 14 days of harvest or illegal residues may occur. **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into top 4-8 inches of soil.

RADISHES: **Cutworms** - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - ½ qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Flea Beetles, Dipterous Leafminers** - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 3 applications per season. Do not apply within 14 days of harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

SPINACH: **Cutworms** - 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Wireworms** - 1¾-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Dipterous Leaf-miners** - ¼-½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 14 days of harvest. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

SWEET CORN: **Cutworms** 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Seed Corn Maggots** 1¼-2½ qts. per acre. Broadcast just before planting and immediately incorporate into the top 2 inches of soil. **Wireworms** - 1¾-2½ qts. per acre. Broadcast before planting and immediately incorporate into the top 4-8 inches of

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soil. **Corn Earworms** - 1/2-3/4 qts. per acre. Apply when silks first appear. Repeat application every 7 days if necessary. Do not make more than 5 applications per season. **Corn Rootworm Adults** - 1/4-1/2 pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. **Corn Leaf Aphids** - 1/2-1 1/4 pts. per acre. Apply in sufficient water to provide complete coverage to the upper portions of the plants. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. **Grasshoppers, Spider Mites, Flea Beetles** - 1/2 pt. per acre. Apply as insects occur. Repeat, as necessary, every 7 days. Do not make more than 5 applications per season. **Sap Beetles** - 1 1/4-1 1/2 pts. per acre. Consult local agricultural authorities for proper timing of sprays. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season.

NOTE: (1) To protect bees, do not apply foliarly to corn during the pollen shed period. (2) Allow 7 days after the last application before grazing or cutting for forage. Forage may be fed to beef and dairy cattle and sheep. (3) Corn may be picked 7 days after the last application.

TOMATOES: Cutworms - 1 1/4-2 1/2 qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - 1/2 qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.

Wireworms - 1 3/4-2 1/2 qts. per acre. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Dipterous Leafminers** - 1/4 pt. per acre. Apply as insects appear. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within one day of harvest or illegal residues may occur. **Note:** Diazinon will not control organophosphate-resistant leafminers. **Banded Cucumber Beetles, Fall Armyworms, Southern Armyworms, Beet Armyworms** - 1/2 pt. per acre. Apply as insects appear. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within one day of harvest or illegal residues may occur. **Vinegar Flies (*Drosophila Spp.*)** 1/4-3/4 pts. per acre. Apply as insects appear. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within one day of harvest or illegal residues may occur.

TURNIPS AND TURNIP TOPS: Cutworms - 1 1/4-2 1/2 qts. per acre. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets** - 1/2 qt. per acre. One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil. **Wireworms** - 1 3/4-2 1/2 qts. per acre. Broadcast just before planting and immediately incorporate to the top 4-8 inches of soil. **Aphids, Flea Beetles, Dipterous Leafminers** - 1/4-1/2 pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 14 days of harvest or illegal residues may occur. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

FIELD CROPS

REI - 24 Hours

Soil and foliar applications of **Diazinon 7E** should always be applied as a spray in sufficient water to ensure thorough coverage. For foliar applications, observe stated time intervals between last application and harvest, as well as intervals between applications and total number of application that can be made per season.

Preharvest Interval (PHI*) for Foliar Applications

Crop	PHI
Hops	14
Sugar Beets	14

*PHI = Pre-Harvest Interval or the number of days between the last application and harvest.

HOPS: Aphids, Spider Mites - ½ qt. per acre. Apply as pest occur. Repeat application, as necessary, every 14 days. Do not make more than 4 applications per season. Do not apply within 14 days of harvest.

SUGAR BEETS: Wireworms - 1¾-2½ qts. per acre. Broadcast just before planting. Incorporate into soil 4-6 inches. Do not apply more than 2½ qts. of this product to the soil, per season. **Beet Leafhoppers, Dipterous Leafminers, Aphids** - ½ pt. per acre. Apply as insects occur. Repeat applications, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 14 days of harvest. **NOTE:** Diazinon will not control organophosphate-resistant leafminers. **Grasshoppers** - ½ pt. per acre. Apply as insects occur. Repeat application, as necessary, every 7 days. Do not make more than 5 applications per season. Do not apply within 14 days of harvest.

NOTE: Sugar beet tops may be fed to beef and dairy animals.

INSECT CONTROL ON ORNAMENTALS GROWN IN OUTDOOR NURSERIES ONLY
REI - 12 HOURS

To control certain insects on Arborvitae, Azalea, Birch, Boxwood, Camellia, Carnation, Chrysanthemum, Douglas Fir, Elm Gladioli, Hawthorn, Holly, Juniper, Lilac, Locust, Maple, Oak, Pine, Ornamental Plum, Poplar, Rhododendron, Rose, Spruce, and Willow, apply the recommended rates indicated below. Try to spray underside of leaves and penetrate dense foliage.

Aphids, Bagworms, Carnation Bud Mites, Carnation Shoot Mites, Clover Mites, Cyclamen Mites, Dipterous Leafminers, European Pine Shoot Moths, European Red Mites, Fea Beetles, Holly Bud Moths, Leafhoppers, Obscure Root Weevils, Omnivorous Leaf-tiers, Privet Mites, Scale Crawlers (Cottony-cushion, Lecanium, Pine Needle, San Jose, Soft), Thrips, Two-spotted Spider Mites, Juniper Webworms, and Whiteflies - Use ¼ fl. oz.* per 3 gallons of water or ½ pt.** per 100 gallons of water. **Apple-and-Thorn Skeletonizers, Cotoneaster Webworms, Fall Webworms, Hemlock Chermes, Oak Loopers, Obliquebanded Leafrollers, Pear Dugs, and Tent Caterpillars** - Use ¾ fl oz.* per 3 gallons of water or 1¾ pts.** per 100 gallons of water.

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

Precaution: Do not use on Ferns, Poinsettia, Hibiscus, Papaya, Pilea, and Gardenia, since injury to the plants may occur.

Mimosa Webworms: Mix ¼ fl. oz. in 3 gallons of water (or ½ pt. in 100 gallons of water) and apply as a thorough foliar spray when adults first appear. Make a second and third application at 4-5 week intervals.

**CONDITIONS OF SALE - LIMITED WARRANTY
AND LIMITATIONS OF LIABILITY AND REMEDIES**

Read the Conditions of Sale - Warranty and Limitations of Liability and Remedies before using this product. If the terms are not acceptable, return the product, unopened, and the full purchase price will be refunded.

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions, the failure to follow the label directions, or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals,

man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

The exclusive remedy against the Company for any cause of action relating to the handling or use of this product shall be limited to, at Helena Chemical Company's election, one of the following:

1. Refund of the purchase price paid by buyer or user for product bought, or
2. Replacement of the product used

To the extent allowed by law, the Company shall not be liable and any and all claims against the Company are waived for special, indirect, incidental, or consequential damages or expense of any nature, including, but not limited to, loss of profits or income. The Company and the seller offer this product and the buyer and user accept it, subject to the foregoing conditions of sale and limitation of warranty, liability and remedies.

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