PM13 5905-526 P11/31 516803 P11/31

JAN - 6 1997

Ms. Judy Oldham Helena Chemical Company 6075 Poplar Avenue, Suite 500 Memphis, TN 38119

Dear Ms. Oldham:

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Subject: Amendments- Revise per Agency letter of November 22, 1996, and Update to match current Ciba label including addition of Blueberries and Rutabagas Diazinon 50WP

> EPA Registration Number 5905-526 Your submission dated December 12, 1996 and your FAX dated January 2, 1997

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

- Submit and/or cite all data or other material required for registration/reregistration of your product under FIFRA section 3(c)(5) or FIFRA section 4 when the Agency requires all registrants of similar products to submit such data.
- 2. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling
- a) In the seventh sentence of the Environmental Hazards, revise "if waterfowl, i.e. ducks or geese, can be" to read "if waterfowl (ducks or geese), can be". Also in this same sentence, revise "1/4 inch water" to read "1/4 inch of water".
- b) You may delete the heading **PHYSICAL OR CHEMICAL HAZARDS** and its associated text from this wettable powder product label.
- c) In the newly added text regarding water from irrigated or flooded cranberry beds, correct "bed sfor" to "beds for".
- d) In the specific directions for Cucumber Beetles on Beans, delete the NOTE about leafminers (be sure to retain that NOTE in the specific directions for Black Bean Aphids, Mexican Bean Beetles, Dipterous Leafminers on Beans).

- e) In both the specific directions for Banded Cucumber Beetles, Fall Armyworms, Southern Armyworms, Beet Armyworms on Tomatoes and the specific directions for Vinegar Flies on Tomatoes, delete the NOTE about leafminers (be sure to retain that NOTE in the specific directions for Aphids, Dipterous Leafminers on Tomatoes).
- f) In the list of plants under the heading INSECT CONTROL ON ORNAMENTALS, revise "Crap Apple" to "Crab Apple".
- g) Under the heading Nuisance Pests in Outside Areas, in the directions for Fire Ants revise the NOTE to read "For best results, apply in cool weather (60-80°F) or in early morning or late evening. Treat new mounds as they appear."
- 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.

A revised Confidential Statements of Formula (CSF), must be submitted for this product. The CSF must include upper certified limits for the impurities of toxicological concern as identified in the Diazinon Registration Standard (TEPP, 0,S-TEPP, S,S-TEPP, and oxo-diazinon), and should include signed and dated certification statements relative to FIFRA Sec 12 (a) (1) (C) and the method of arriving at the certified limits for the impurities (i.e., reliance on Ciba-Geigy's analysis, or another producer's analysis if another source of diazinon is used) and addressing data requirements under Guidelines 61-3 and 61-2b. If you have more than one diazinon supplier or Basic and Alternate Formulas, separate CSF forms should be submitted for each supplier for each Basic and Alternate Formula since the levels of toxicologically significant impurities are different for each diazinon technical and the certification of analyses are only appropriate to each supplier's own material. The text of these certification statements is as follows:

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I hereby certify that, for the purposes of FIFRA Sec.12(a)(1)(C), the description of the composition of [your product's name], EPA Reg. No. [insert correct number for your product], refers to the composition set forth on this Statement of Formula and supporting materials. This description includes the representation that (1) no ingredient will be present in the product in an amount greater

than the upper certified limit or in an amount less than the lower certified limit specified for that ingredient in this Statement of Formula; and (2) if the Agency requires that the source of supply of an ingredient be specified, that all quantities of such ingredient will be obtained from the source specified in the Statement of Formula.

I certify that the upper certified limits for the impurities listed on this Statement of Formula are based on [your supplier's name] analysis and certification of limits for this product based on [name of source product that your supplier has analyzed]. I further certify under Section 61-3 and 61-2(b) that there are no chemical reactions between diazinon and/or its impurities with the intentionally added inerts.

If you do not already have the impurities information required on the CSF, please immediately contact your supplier(s) directly. The Agency notes that one of the alternate suppliers on file for your product is no longer an active diazinon supplier. The new CSF(s) you will be preparing will, presumably, reflect this fact.

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Sincerely,

George T. LaRocca Product Manager 13 Insecticide/Rodenticide Branch Registration Division (7505C) Jan. 2. 1997 7:14AM HELENA C

HELENA CHEMICAL CO \_

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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.

# HELENA DIAZINON 50WP INSECTICIDE

For Control of Certain Insects and Mites on Fruits, Nuts, Vegetables, Field Crops, Lawns and Ornamentals. For specific pests, refer to use directions in booklet.

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

### **ACTIVE INGREDIENT:**

Diazir	non: 0,0-Diethyl 0-0	(2-isopropyl-6-i	methyl-4-	pyrimidinyl)	,
	phosphorothioate		******		
INERT					-50.00%
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Diazinon 50WP is a wettable powder.

# **KEEP OUT OF REACH OF CHILDREN**

# CAUTION

See Additional Precautionary Statements Inside Booklet

EPA REG. NO.: 5905-526 EPA 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 NET CONTENTS:

ACCEPTED with COMMENTS in EPA Letter Dated

**JAN - 6** 1997

Under the Federal Insecticide, Fungleide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 5905-526

MANUFACTURED BY HELENA CHEMICAL COMPANY MEMPHIS, TN 38137

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed, inhaled or absorbed through skin. Avoid breathing dust or spray mist. Avoid contact with skin, eyes, and clothing. Avoid contamination of food and feed. Keep out of reach of domestic animals. Food utensils, such as teaspoons or measuring cups, must not be used for food purposes after use in measuring pesticides. Do not use on humans or pets. Do not contaminate ornamental fish ponds. Be sure to read and follow "Work Safety Rules" and Worker Protection precautions that appear in this booklet.

### STATEMENT OF PRACTICAL TREATMENT

This product is an organophosphate.

If Swallowed: Call a physician or Poison Control Center immediately. Drink one or two glasses of water and induce vomiting by touching back of throat with finger. Repeat until vomit fluid is clear. Do not induce vomiting or give anything by mouth if person is unconscious or convulsing.

If Inhaled: Remove victim to fresh air. Apply artificial respiration if indicated. Get medical attention.

If on Skin: Remove contaminated clothing and wash affected areas thoroughly with soap and water. Get medical attention.

If in Eyes: Flush eyes with plenty of water. Call a physician if irritation develops or persists. <u>Note to Physician</u>: 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.

# PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: Long-sleeved shirt and long pants

Long-sleeved sint and long pan

Shoes plus socks Waterproof gloves

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

### USER SAFETY RECOMMENDATIONS

Users should:

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

#### ENVIRONMENTAL HAZARDS

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This product is highly toxic to birds, fish and other wildlife. Birds, especially waterfowl, feeding or drinking on treated areas may be killed. Because of the migratory habits of Atlantic Coast waterfowl, do not apply this product to lawns in Nassau County, New York between November 1 and May 20. Do not exceed maximum permitted label rates. Rates above those recommended significantly increase potential hazards to birds and waterfowl. Avoid overlapping of sprays. On lawns, if waterfowl, i.e. ducks or geese, can be expected in the treated area after treatment (except spot treatments), apply a minimum of ¼ inch water immediately after applying this product. Stop irrigation before puddling occurs. Keep out of lakes, streams, ponds, tidal marshes and estuaries. Do not apply directly to water, 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.

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#### DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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

### 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. Exception:

If the product is 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

Waterproof gloves

Shoes plus socks

# 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 enter or allow entry into treated areas until sprays have dried. Do not permit children or pets to go onto sprayed grass until spray has completely dried.

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

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.

### 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:

Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration or, if allowed by state and local authorities by burning. 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.

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#### **GENERAL INFORMATION**

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**Diazinon 5OWP** is an wettable powder which should be mixed with sufficient water to assure thorough coverage unless otherwise noted in the Directions for Use. Best control is obtained when application is made at first sign of pest. Application should be repeated only as directed to maintain control.

Since **Diazinon 50WP** is a wettable powder formulation, constant agitation is necessary during application.

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

Do not use on food crops grown in greenhouses.

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# Work Safety Rules REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CON-TAINED IN THIS PRODUCT MAY, WITHOUT WARNING, CAUSE PROLONGED SUS-CEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

When handling **Diazinon 50WP**, 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.

### CHEMIGATION

# APPLICATION THROUGH AN IRRIGATION SYSTEM (CHEMIGATION) - CRANBER-RIES ONLY.

**Diazinon 50WP** 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 knowledge-

able 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.

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### Chemigation System Connected to Public Water Systems

1. 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, reducedpressure 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 50WP** 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.

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3. Add the pre-measured **Diazinon 5OWP** to the chemigation system supply tank and dilute with water if needed. Proper agitation is needed if **Diazinon 5OWP** 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

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**Diazinon 50WP** 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 50WP** for aerial spray or concentrated spray applied by ground equipment is based on a dilute full cover spray applied to fruit or nut trees 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. (Note: "lbs." or "lbs. of product" in the direction means pounds of this product, not pounds of active ingredient). If the Rate calls for 1 lb. of **Diazinon 50WP** per 100 gallons of water, this amounts to 3-4 lbs. of product per acre when applied to fruit trees 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 directions for use for individual crops.

	Aerial application	Ground Appl Minimum Ga	
Сгор	Minimum Gals./Acre	Dilute	Concentrate
Almonds*	20	100	
Apples	20	100	= 20
Apricots	20		20
Blackberries**	20		20
Blueberries	20	100	20

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	Boysenberries**	20		100		20	8
	Cherries	20		100		20	· · · ·
	Cranberries	20		15		 -	· • · · · · · · · · · · · · · · · · · ·
	Dewberries**	20	·	100		20	-
	Grapes	20	· · ·	100		20	
	Loganberries**	20		100		20	
	Nectarines	20		100		20	
	Peaches	20		100		20	
)	Pears	20		100		20	
	Pineapple	20		200			
	Plums	20		· 100.	- 	20	··· · _ ··· -
	Prunes	20		100	· .	20	· · · ·
	Raspberries**	20		100	·	20	: -
	Strawberries	20		100		20	÷ .*
	Walnuts*	20		. 100		20	
}	*C A only						

\*CA only.

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\*\*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:

Сгор		PHI*
Almonds		**
Apples		21
Apricots		21
Blackberries	· ·	7

Blueberries		9
Boysenberries		7
Cherries	2	21
Cranberries		7
Dewberries		7
Grapes	2	28
Loganberries	· · · · · · · · · · · · · · · · · · ·	7
Nectarines		21
Peaches	2	1
Pears	2	1
Pineapple		7 .
Plums, Prunes	2	1
Raspberries		7
Strawberries	· · · · · · · · · · · · · · ·	5
Walnuts		5

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

\*\* = Dormant spray only.

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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, Black Scale, Brown Scale, Apricot Scale, European Red Mite Eggs, Brown Mite Eggs, Twig Borers, Apple Aphid Eggs, Black Cherry Aphid Eggs, Mealy Plum Aphid Eggs, Mealybugs - 1-1½ lbs. + 2-3 gallons dormant oil or 1-1½ gallons superior type oil in 100 gallons of water. Apply as a single dormant spray. Do not apply more than 6 lbs. of diazinon or 9 gallons of oil per acre.

APPLES: San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite Eggs, Brown Mite Eggs, Twig Borers, Apple Aphid Eggs, Black Cherry Aphid Eggs, Mealy Plum Aphid Eggs, Mealybugs - 1 lb. + 2 gals. dormant oil or 1-1½ gals. superior type oil in 100 gals. of water. Apply as a dormant or delayed dormant spray. Do not apply more than 4 lbs. of product or 6 gals. of oil per acre. Leafhopper - 1 lb. in 100 gals. of water. Apply, beginning at petal fall, as infestations develop. Repeat application in 14 days if necessary. Eyespotted Bud Moths, Fruit Tree Leafrollers, Mealybugs - 1 lb. in 100 gals. of water. Make 3 cover sprays beginning at pink stage. Do not repeat applications closer than 14 days. Codling Moths, Rosy Apple Aphids, Green Apple Aphids, Woolly Apple Aphids, Spider Mites - 1 lb. in 100 gals. of water. Make 3 cover sprays beginning when infestations occur. Do not repeat applications closer than 14 days. Note: Mites will be suppressed if diazinon is used in the regular cover spray program. Slight russeting may occur on some varieties of apples such as Golden Delicious. Apple Maggots - 1 lb. in 100 gals. of water. Make 3 cover sprays when flies are active and laying eggs. Do not repeat applications closer than 14 days. Note: Diazinon may not control organophosphate-resistant apple maggots. San Jose Scale Crawlers, Forbes Scale Crawlers: 1 lb. in 100 gals. of water. Apply early in the season when crawlers first appear. If infestation warrants, make a second application 14 days later.

**NOTES:** (1) Do not apply more than 4 lbs. of product per acre per application and no more than 12 lbs. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 21 days between the last application and harvest.

APRICOTS: San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite Eggs, Brown Mite Eggs, Twig Borers, Apple Aphid Eggs, Black Cherry Aphid Eggs, Mealy Plum Aphid Eggs, Mealybugs - 1 lb. + 2 gals. dormant oil or 1-1½ gals. superior type oil in 100 gals. of water. Apply as a dormant spray. Do not apply more than 4 lbs. of product or 6 gals. of oil per acre. Aphids, Brown Mites (Clover Mites), Two-spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers - 1 lb. in 100 gallons of water. Apply as infestations occur. Repeat application after 14 days if necessary. Olive Scale Crawlers - ½ lb. + 1½ gallons of light medium horticultural oil per 100 gals. of water. Apply when scale crawlers are present. Do not apply more than 4 lbs. of product or 6 gals. of oil per acre per application. Apricot Mealybugs - 1 lb. 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 4 lbs. of product per acre per application and no more than 12 lbs. of product per acre per season. (2) To avoid illegal residues allow a minimum of 21 days between the last application and harvest.

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BLUEBERRIES: Cranberry Fruitworms, Cherry Fruitworms, Blueberry Maggots, Aphids, Thrips, Two-spotted Spider Mites - 1 lb. in 100 gals. of water. Apply as infestations occur. Allow 14 days between applications. Fire Ants - 1 lb. in 100 gals. of water. To aid in the control of fire ants, slowly apply 1 gal. of diluted mixture over and 6 inches to each fire ant mound. Apply gently to avoid disturbing ants. Use equipment capable of delivering the diluted product as a gentle rain. High pressure sprays may disturb the ants and cause migration, reducing product effectiveness. Note: For best results, apply in cool weather, 65-80°F, or in early morning or late evening hours.

**NOTES:** (1) Do not apply more than 2 lbs. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 7 days between the last application and harvest.

CANEBERRIES (CA, OR and WA only) (Blackberries, Boysenberries, Dewberries, Loganber-

ries, Raspberries): Leafhoppers, Thrips, Aphids, Two-spotted Spider Mites, Raspberry Fruitworms - 2 lbs. per acre in a minimum of 100 gals. of water (200 gals. of water maximum). 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. For raspberry fruitworms, make one application when blossom buds separate. Make a second application immediately before blossoms open. Dryberry Mites - 2-4 lbs. per acre in a minimum of 100 gals. of water. 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. Raspberry Crown Borers (Raspberry Root Borers) - 4 lbs. per acre in a minimum of 100 gals. of water. Apply as a drench to the crown and lower canes in the Spring before buds break.

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CHERRIES: San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite Eggs, Brown Mite Eggs, Twig Borers, Apple Aphid Eggs, Clack Cherry Aphid Eggs, Mealy Plum Aphid Eggs, Mealybugs - 1¼ lbs. + 3 gals. dormant oil or 1-1½ gals. superior type oil in 100 gals. of water. Apply as a dormant spray. Do not apply more than 4 lbs. of product or 6 gals. of oil per acre. Eyespotted Bud Moths, Fruit Tree Leafrollers - 1 lb. in 100 gallons of water. Apply as infestations occur beginning at petal fall. Repeat application after 7 days if necessary. Leafhoppers - 1 lb. in 100 gallons of water. Make 3-4 applications beginning at petal fall and continuing through the growing season as infestations occur. Allow 7 days between applications. Cherry Fruitflies - ½-1 lb. 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 - 1 lb. in 100 gallons of water. Apply as a cover spray when aphids appear. Repeat application after 10 days if necessary. San Jose Scale Crawlers - 1 lb. in 100 gallons of water. Apply during the pre-pink stage or when crawlers first appear. Cherry Rust Mites - ½-1 lb. in 100 gallons of water. Apply as a single supplemental spray to trees after harvest.

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Notes: (1) Do not apply more than 4 lbs. of product per acre per application and no more than 12 lbs. of product per acre per year. (2) To avoid illegal residues, allow a minimum of 21 days between the last application and harvest.

**CRANBERRIES: Blackheaded Fireworms** (<u>Rhopobota naevana</u>) - 4 lbs. 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 applications per season is permitted. **Cranberry Tipworms -** 4 lbs. Presence of damage is not an indicator of active infestation. For best results, target early-stage larvae. Repeat application after 14 days if necessary. A maximum of 6 applications per season is permitted. **Cranberry Fruitworms -** 4 -6 lbs. per acre. Cranberry growth stage and/or berry inspection for eggs may be used to optimize treatment timing; consult your local extension agent or pest management advisor. Repeat application every 14 days as needed. A maximum of 4 applications per season is permitted for the 6 lb. rate. A maximum of 6 applications per season is permitted for the 4 lb. rate.

**Notes:** (1) This product may be applied to cranberries via ground, aerial, or sprinkler irrigation. For ground applications, apply the product in a minimum of 15 gals. of water per acre, for aerial application, a minimum of 20 gals. of water per acre, for chemigation up to 400 gals. of water per acre. Refer to the Chemigation section of this label for specific chemigation directions. (2) Do not apply more than 24 lbs. of product per acre per season. (3) To avoid illegal residues, allow a minimum of 7 days between the last application and harvest.

GRAPES: Pacific Spider Mites, Leafhoppers, Grape Berry Moths, Grape Leaffolders, Omnivorous Leafrollers, Aphids, Spider Mites - 1-2 lbs. per acre in a minimum of 100 gals. of water. (200 gals. of water maximum). Apply as a thorough cover spray when pest appear. Repeat application after 7 days if necessary. <u>Drosophila</u> spp. - 6 oz. per acre in a minimum of 100 gallons of water (300 gal. of water maximum). Apply as a thorough cover spray at 7 day intervals.

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Notes: (1) Do not apply more than 2 lbs. of product per acre per application and no more than 10 lbs. per acre per season. (2) To avoid illegal residues, allow a minimum of 28 days between the last application and harvest.

NECTARINES: San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, European Red Mite Eggs, Twig Borers, Apple Aphid Eggs, Black Cherry Aphid Eggs, Mealy Plum Aphid Eggs, Mealybugs - 1 lb.+ 2-3 gals. of dormant oil or 1-1½ gals. superior type oil in 100 gals. of water. Apply as a dormant spray. Do not apply more than 4 lbs. of product or 6 gals. of oil per acre. Aphids, Brown Mites (Clover Mites), Two-spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers - 1 lb. in 100 gallons of water. Apply as infestations occur. Repeat application after 7 days if necessary. Peach Twig Borers, Parlatoria Scale - 1 lb. + 1 gal. light medium summer horticultural oil in 100 gals. of water. Apply at petal fall. Do not apply more than 4 lbs. of product or 4 gals. of summer oil per acre. Olive Scale Crawlers - ½ lb. + 1½ gals. light medium horticultural oil in 100 gals. of water. Apply as insects occur. Do not apply more than 4 lbs. of product or 4 gals. of summer oil per acre per application. Allow 7 days between applications. Oriental Fruitmoths - 1 lb. in 100 gals. of water. Apply at 100% petal fall. Make 2 additional applications at 10-15 day intervals. Time the last application to peak adult flight.

Notes: (1) Do not apply more than 4 lbs. of product per acre per application and no more than 12 lbs. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 21 days between the last application and harvest.

PEACHES: San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, European Red Mite Eggs, Twig Borers, Apple Aphid Eggs, Black Cherry Aphid Eggs, Mealy Plum Aphid Eggs, Mealybugs - 1 lb. + 2-3 gals. dormant oil or 1-11/2 gals. superior type oil in 100 gals. of water. Apply as a dormant spray. Do not apply more than 4 lbs. of product or 6 gals. of oil per acre. Aphids, Brown Mites (Clover Mites), Two-spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers - 1 lb, in 100 gallons of water. Apply as infestations occur. Repeat application after 14 days if necessary. Peach Twig Borers, Parlatoria Scale - 1 lb. + 1 gal. light medium summer horticultural oil in 100 gals, of water. Apply at petal fall. Do not apply more than 4 lbs, of product or 4 gals. of summer oil per acre .Olive Scale Crawlers  $-\frac{1}{2} + \frac{1}{2}$  gals. light medium horticultural oil in 100 gals. of water. Apply as insects occur. Do not apply more than 4 lbs. of product or 4 gals. of summer oil per acre per application. Allow 7 days between applications. Oriental Fruitmoths - 1 lb. 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 - 1 lb. in 100 gals. of water. Apply as insects occur in May and June. Allow 7 days between applications. Leafhoppers - 1 lb. 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 - 11/2-2 lbs. 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.

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Notes: (1) Do not apply more than 4 lbs. of product per acre per application and no more than 12 lbs. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 21 days between the last application and harvest.

PEARS: San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite Eggs, Brown Mite Eggs, Pear Leaf Blister Mite Eggs, Twig Borers, Apple Aphid Eggs, Black Cherry Aphid Eggs, Mealy Plum Aphid Eggs, Mealybugs - 1 lb. + 2-3 gals. dormant oil or 1-11/2 gals. superior type oil in 100 gals. of water. Apply as a dormant spray. Do not apply more than 4 lbs. of product or 6 gals. of oil per acre. Pear Psylla - 1/2-1 lb. in 100 gals. of water. Apply as a cover spray at pre-pink stage. Make 1-2 additional applications during the first and second cover sprays, if necessary. Allow at least 14 days between applications. Tentiform Leafminers, Mealybugs - 1 lb. in 100 gals. of water. Make 3 cover sprays, beginning in April. Allow at least 14 days between applications. Codling Moths, Rosy Apple Aphids, Green Apple Aphids, Wooly Apple Aphids, Spider Mites - 1 lb. in 100 gals. of water. Make 3 cover sprays beginning as infestations occur. Allow at least 14 days between applications. Note: Mites will be suppressed if diazinon is used in this regular cover spray program. Apple Maggots - 1 lb. in 100 gals. of water. Make 3 cover sprays when flies are active and laying eggs. Allow at least 14 days between applications. Note: Diazinon will not control organophosphate-resistant apple maggot. San Jose Scale Crawlers, Forbes Scale Crawlers - 1 lb. in 100 gals. of water. Apply early in the season when crawlers first appear. If infestation warrants, make a second application 14 days later.

Notes: (1) Do not apply more than 4 lbs. of product per acre per application and no more than 12 lbs. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 21 days between the last application and harvest.

**PINEAPPLE:** Pineapple Mealybugs - 2 lbs. per acre in 200-500 gals. of water. Repeat application as necessary every 28 days up to a maximum of 8 applications. Do not apply within 7 days of harvest or illegal residues may occur.

PLUMS: San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite Eggs, Brown Mite Eggs, Twig Borers, Apple Aphid Eggs, Black Cherry Aphid Eggs, Mealy Plum Aphid Eggs, Mealybugs - 1 lb. + 2-3 gals. dormant oil or 1-1½ gals. superior type oil in 100 gals. of water. Apply as a dormant spray. Do not apply more than 4 lbs. of product or 6 gals. of oil per acre. If applied in late April or May, mix diazinon with 1 gal. of light medium summer horticultural oil per 100 gals. of water. Brown Mites, Clover Mites, European Red Mites - 1 lb. in 100 gallons of water. Apply as needed every 7 days. Leafcurl Plum Aphids, Mealy Plum Aphids, Thistle Aphids - ½-1 lb. in 100 gallons of water. Apply as needed every 7 days.

Notes: (1) Do not apply more than 4 lbs. of product per acre per application and no more than 12 lbs. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 21 days between the last application and harvest.

PRUNES: San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite Eggs, Brown Mite Eggs, Twig Borers, Apple Aphid Eggs, Black Cherry Aphid Eggs, Mealy Plum Aphid Eggs, Mealybugs - 1 lb. + 2-3 gals. dormant oil or 1-1½ gals. superior type oil in 100 gals. of water. Apply as a dormant spray. Do not apply more than 4 lbs. of product or 6 gals. of oil per acre. For late April or May applications, mix diazinon with 1 gal. of light medium summer horticultural oil per 100 gals. of water. Brown Mites, Clover Mites, European Red Mites - 1 lb. in 100 gallons of water. Apply as needed every 7 days. Leafcurl Plum Aphids, Mealy Plum Aphids, Thistle Aphids - ½-1 lb. in 100 gallons of water. Apply as needed every 7 days.

Notes: (1) Do not apply more than 4 lbs. of product per acre per application and no more than 12 lbs. of product per acre per season. (2) To avoid illegal residues, allow a minimum of 21 days between the last application and harvest.

STRAWBERRIES: Aphids, Two-spotted Spider Mites - 1 lb. in 100 gallons of water per acre. Apply as pests occur. Repeat application if necessary every 7 days. Cyclamen Mites - 2 lbs. 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. Mole Crickets - 2 lbs. per acre. Apply 1-2 days before transplanting and immediately incorporate into the top 1-2 inches of soil. Strawberry Leafrollers - ¾ -1 lb. in 100 gallons of water. Apply 200 gallons of spray per acre when blossoms show color.

Notes: (1) Do not make more than 3 foliar applications per season. (2) Do not apply more than 2 lbs. of product per acre per application and no more than 8 lbs. of product per acre per season. (3) Allow a minimum of 5 days between the last application and harvest.

WALNUTS (CA only): Aphids, Spider Mites - 2 lbs. in 100 gals. of water per acre.. Apply as a foliar spray as needed. 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. Codling Moths, Scale Crawlers, Walnut Caterpillars - 6 lbs. in 100 gals. of water 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.

#### **VEGETABLE CROPS**

#### **REI - 24 hours**

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For foliar or soil applications, **Diazinon 50WP** should always be applied as a spray in sufficient water to assure thorough coverage of the foliage or soil. **Diazinon 50WP** may be applied aerially or by ground application as specified in the following table. The specific amount of product to be used appears under the separate directions for use for each crop.

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0			plication		·		
Crop	Minimum	<sup>–</sup> OR	Minim		Aerial Ap		
<b>~</b> <i>a</i>	Gals./Acre		Gals./1	,000 Sq.Ft.	Minimum	Gals./Acre	
Beans (Lima, Snap,	10		• •	2	5		·····
and Pole) (succu-							- F T T
lend only)							
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		
Collards	10			2	5_		· ·· · · · · ·
Crenshaws	5			1	5		
Cucumbers	. 5	•		1	5		·· ·· ·
Endive (Escarole)	10			2	5		
Honeydew Melons	5			1	5		
Kale	10			2	5		
Lettuce (Head	10			2	5		
and Leaf)							
Muskmelons	5		-	1	5		
Mustard	10			2	5.		
Onions, (Bulb and	10			2			
Green)							
Parsley	10		, •	2	. 5		
Parsnips	10			2			
Peas (succulent only)	10			2	5		
Peppers	10		, -	2	5		
Persian Melons	5			1	5		
Potatoes (Irish)*	10		-	2	5		
Radishes	10		-	2	5		
Rutabagas	10			2			<u>     .                               </u>
Spinach	10		ر •	2	5	-	·
Squash, Summer	5	-		1	5		
Squash, Winter	5			1	. 5		·
Sweet Corn	20	:		4	5		<u> </u>
Sweet Potatoes	10	· -		2		· · · · · · · · · · · · · · · · · · ·	
Swiss Chard	10			2	. 5		
Tomatoes	10			2			
Turnips	10		-	2	5		
Watermelons	5			1	5		

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\*Do not use on commercially grown potatoes which will be hand-harvested.

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Observe stated time intervals between last application and harvest as well as intervals between and maximum numbers of applications per season.

	PHI	
Crop	(Days)	
Beans, (Lima, Snap, Pole)	7	
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	
Collards	1Ó	
Crenshaws	3	
Cucumbers		
Endive (Escarole)	14	
Honeydew Melons	3	
Kale	10	
Lettuce (Head and Leaf)	14	
Muskmelons	3	
Mustard	10	
Onions (Green and Bulb)	14	
Parsnips	14	
Peas	- 7	
Peppers	5	
Persian Melons	3	
Potatoes (Irish)	35	-
Radishes	14	
Rutabagas	14	
Spinach	14	
Squash, Summer	7	
Squash, Winter	3 7	
Sweet Corn	7	:
Swiss Chard	14	
Tomatoes	1	
Turnips (Roots and Tops)	14	
Watermelons	3	

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

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

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**Notes:** 1) <u>Soil Incorporation</u>: 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) <u>To Protect Bees</u>: 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.

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BEANS (Lima, Pole, Snap -succulent only): Cutworms - 4-8 lbs. per acre or 11/2-3 oz. per 1,000 sq. ft.. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Wireworms - 6-8 lbs. per acre or 2<sup>1</sup>/<sub>4</sub>-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Black Bean Aphids, Mexican Bean Beetles, Dipterous Leafminers - 1-11/2 lbs. per acre or 2/5-3/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, every 5 days. Do not make more than 3 applications per season. Do not apply within 7 days of harvest or illegal residues may occur. 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. NOTE: Diazinon will not control organophosphate-resistant leafminers. Cucumber Beetles - ½-¾ lb. per acre or 1/5-3/10 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, every 5 days. Do not make more than 3 applications per season. Do not apply within 7 days of harvest or illegal residues may occur. 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. Make cucumber beetle application in 100 gallons of water per acre. NOTE: Diazinon will not control organophosphate-resistant leafminers. Leafhoppers, Spider Mites - 1 lb. per acre or 2/5 oz. per 1,000 sq. ft. Apply as pests occur. Repeat application as necessary every 5 days. Do not make more than 3 applications per season. Do not apply within 7 days of harvest or illegal residues may occur. 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.

**BEETS, RED (Table):** Cutworms - 4-8 lbs. per acre or  $1\frac{1}{2}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole **Crickets** - 2 lbs. per acre or  $\frac{3}{4}$  oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms- 6-8 lbs. per acre or  $2\frac{1}{4}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Dipterous Leafminers -  $\frac{1}{2}$ -1 lb. per acre or  $\frac{1}{5}$ - $\frac{2}{5}$  oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary up to 5 times with a minimum of 7 days between applications. Do not apply within 14 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers.

**BROCCOLI:** Root Maggots - 4-6 lbs. per acre or  $1\frac{1}{2}-2\frac{1}{4}$  oz. per 1,000 sq. ft. Broadcast just before planting or transplanting and immediately incorporate into the top 3-4 inches of soil. Root Maggots - 4-8 ozs. per 50 gals. of water. In transplant water as a drench application when 200-300 gals. of water are used per acre. Apply  $\frac{1}{2}-1$  cup (4 to 8 oz.) 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 - 4-8 lbs. per acre or  $1\frac{1}{2}-3$  oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or  $\frac{3}{4}$ oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2<sup>1</sup>/<sub>4</sub>-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers - <sup>1</sup>/<sub>2</sub>-1 lb. per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times, with a minimum of 7 days between applications. 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 - 4-6 lbs. per acre or 1½-2¼ oz. per 1,000 sq. ft. Broadcast just before planting or transplanting and immediately incorporate into the top 3-4 inches of soil. Root Maggots - 4-8 in 50 gals. of water. In transplant water as a drench application when 200-300 gals. of water are used per acre. Apply ½-1 cup (4 to 8 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 - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or ¾ oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Diamondback Moths, Imported Cabbageworms, - ½-1 lb. per acre or 1/5-2/5 oz. per 1,000 sq ft. Apply as insects occur. Repeat application as necessary, up to five times, with a minimum of 7 days between applications. Do not apply within 7 days of harvest or illegal residues may occur.

**CABBAGE:** Root Maggots - 4-6 lbs. per acre or 1½-2¼ oz. per 1,000 sq. ft. Broadcast just before planting or transplanting and immediately incorporate into the top 3-4 inches of soil. Root Maggots - 4-8 oz. in 50 gals. of water. In transplant water as a drench application when 200-300 gals. of water are used per acre. Apply ½-1 cup (4 to 8 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 - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or ¾ oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before sowing of seed or transplanting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq ft. Broadcast just before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq ft. Broadcast just before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq ft. Broadcast just before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers - ½-1 lb. per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application as necessary, up to 5 times, with a minimum of 7 days between applications. Do not apply within 21 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers.

CARROTS: Cutworms - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or ¾ oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Carrot Rust Fly - 4 lbs. per acre or 1½ oz. per 1,000 sq. ft. Apply as a drench to the seed furrow at planting. Aphids - 1 lb. per acre. or 2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat

application, as necessary, up to 5 times with a minimum of 7 days between applications. Do not apply within 14 days of harvest or illegal residues may occur.

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CAULIFLOWER: Root Maggots - 4-6 lbs. per acre or 11/2-21/4 oz. per 1,000 sq. ft. Broadcast just before planting or transplanting and immediately incorporate into the top 3-4 inches of soil. Root Maggots - 4-8 ozs. in 50 gals. of water. In transplant water as a drench application where 200-300 gals. of water are used per acre. Apply ½-1 cup (4 to 8 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 -4-8 lbs. per acre or 11/2-3 oz. per 1,000 sq. ft., Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or 3/4 oz. per 1,000 sq. ft. . Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 21/4-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers - 1/2-1 lb. per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times, with a minimum of 7 days between applications. Do not apply within 7 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers.

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CHINESE BROCCOLI, CHINESE CABBAGE (BOK CHOY AND NAPA), CHINESE MUSTARD (GAI CHOY): Aphids, Diamondback Moths, Imported Cabbageworms, Dipterous Leafminers - ½-1 lb. per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times with a minimum of 7 days between applications. Do not apply within 10 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers.

**COLLARDS: Cutworms - 4-8** lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Mole Crickets -** 2 lbs. per acre or ¾ oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. **Aphids, Diamondback Moths, Imported Cabbageworms, Harlequin Cabbagebugs, Corn Earworms -** ½-1 lb per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times, with a minimum of 7 days between applications. Do not apply within 10 days of harvest or illegal residues may occur.

CUCUMBERS: Cutworms - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Serpentine Leafminers, Thrips, Striped Cucumber Beetles, Melonworm - 1 lb. per acre or 2/5 oz. per 1,000 sq. ft. 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** - 4-8 lbs. per acre or  $1\frac{1}{2}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or  $\frac{3}{4}$  oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or  $2\frac{1}{4}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or  $2\frac{1}{4}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Dipterous Leafminers -  $\frac{1}{2}$ -1 lb. per acre or  $1\frac{1}{5}-2\frac{1}{5}$  oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 time with a minimum of 7 days between applications. Do not apply within 14 days of harvest. NOTE: Diazinon will not control organophosphate-resistant leafminers.

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KALE: Cutworm - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or ¾ oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Diamondback Moths, Imported Cabbageworms, Harlequin Cabbagebugs, Corn Earworms -½-1 lb. per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times, a minimum of 7 days between applications. Do not apply within 10 days of harvest or illegal residues may occur.

LETTUCE (Head and Leaf): Cutworms - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole **Crickets** - 2 lbs. per acre or <sup>3</sup>⁄<sub>4</sub> oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Dipterous Leafminers - ½-1 lb. per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 time with a minimum of 7 days between applications. Do not apply within 14 days of harvest. NOTE: Diazinon will not control organophosphate-resistant leafminers.

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MELONS (CANTALOUPES, CASABAS, CRENSHAWS, HONEYDEWS, MUSKMELONS, PERSIANS, AND HYBRIDS OF THESE) AND WATERMELONS: Cutworms - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. 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 - ½-1 lbs. per acre or 1/5-3/5 oz. per 1,000 sq. ft. 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 organophosphateresistant leafminers.

MUSTARD: Mole Crickets - 2 lbs. per acre or <sup>3</sup>⁄<sub>4</sub> oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2<sup>1</sup>⁄<sub>4</sub>-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Dipterous Leafminers, Diamondback Moths, Imported Cabbageworms - <sup>1</sup>⁄<sub>2</sub>-1 lb. per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times, with a minimum of 7 days between applications. 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 - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. 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 - 1 lb. per acre or 2/5 oz. per 1,000 sq. ft. Apply as thrips appear. Repeat application after 7 days, if necessary. Do not make more than 3 applications per season. Do not apply within 14 days of harvest or illegal residues may occur. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into top 4-8 inches of soil.

**PARSLEY: Cutworms -** 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into top 4-8 inches of soil.

**PARSNIPS: Aphids, Flea Beetles, Dipterous Leafminers** - <sup>1</sup>/<sub>2</sub>-1 lb. per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times, with a minimum of 7 days per application. Do not apply within 14 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers.

**PEAS (SUCCULENT ONLY): Cutworms -** 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) **Wireworms -** 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil (See Soil Incorporation Note). Aphids, Dipterous Leafminers - ¾-1 lb. per acre or 3/10-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, every 5 days. Do not make more than 3 applications per season. To avoid illegal residues, allow a minimum of 7 days between the last application and harvest. Vines and hay may be fed to dairy and beef cattle and sheep. To avoid illegal residues, wait 7 days following treatment if forage is to be cut for hay. **NOTE:** Diazinon will not control organophosphate-resistant leafminers.

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**PEPPERS:** Cutworms - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or ¾ oz. per 1,000 sq ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq ft. Broadcast just before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Serpentine Leafminers - ½ lb. per acre or 1/5 oz. per 1,000 sq. ft. Apply as insects appear. Repeat application after 7 days if necessary. Do not make more than 5 applications per season. Do not apply within 5 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers.

**POTATOES:** Cutworms (Surface & Subterranean) - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Southern Potato Wireworms (Southeastern U.S.) - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. For potatoes grown on mineral soils in the Southeast, apply prior to planting and immediately incorporate into the top 3-6 inches of soil depending on location of wireworms. Aphids, Flea Beetles, Colorado Potato Beetles, Dipterous Leafminers - ½-¾ lb. per acre or 1/5-3/10 oz. per

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1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times with a minimum of 7 days between applications. Do not apply within 35 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers. Banded Cucumber Beetles, Leafhoppers, Southern Armyworms - ¾-1 lb. per acre or 3/10-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times with a minimum of 7 days between applications. Do not apply within 35 days of harvest or illegal residues may occur.

Note: Do not use on commercially grown potatoes which will be hand harvested.

**RADISHES:** Cutworms - 4-8 lbs. per acre or  $1\frac{1}{2}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or  $\frac{3}{4}$  oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or  $\frac{2}{4}$ -3 oz. per 1,000 sq. ft. Broadcast before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Flea Beetles, Dipterous Leafminers - $\frac{1}{2}$ -1 lb. per acre or  $\frac{1}{5}$ - $\frac{2}{5}$  oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 3 times with a minimum of 7 days between applications. Do not apply within 14 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers.

**RUTABAGAS:** Cutworms - 4-8 lbs. per acre or  $1\frac{1}{2}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or  $\frac{3}{4}$  oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms: 6-8 lbs. per acre or  $\frac{2}{4}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Flea Beetles, Dipterous Leafminers -  $\frac{1}{2}$ -1 lb. per acre or  $\frac{1}{5}$ - $\frac{2}{5}$  oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times, with a minimum of 7 days between applications. Do not apply within 14 days of harvest or illegal residues may occur. Note: Diazinon will not control organophosphate-resistant leafminers.

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SQUASH, SUMMER: Cutworms - 4-8 lbs. per acre or 11/2-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Wireworms - 6-8 lbs. per acre 21/4-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Leafminers, Thrips, Striped Cucumber Beetles, Melonworms, Leafhoppers, Spider Mites - 1/2-11/2 lbs. per acre or 1/5-3/5 oz. per 1,000 sq. ft. 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.

SQUASH, WINTER: Cutworms - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft.. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incor-

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porate into the top 4-8 inches of soil. Aphids, Leafminers, Thrips, Striped Cucumber Beetles, Melonworms, Leafhoppers, Spider Mites - ½-1½ lbs. per acre or 1/5-3/5 oz. per 1,000 sq. ft. 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.

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SWEET CORN: Cutworms 4-8 lbs. per acre or  $1\frac{1}{2}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Seed Corn Maggots - 4-8 lbs. per acre or  $1\frac{1}{2}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 2 inches of soil. Wireworms - 6-8 lbs. per acre or  $2\frac{1}{4}$ -3 oz. per 1,000 sq. ft. Broadcast before planting and immediately incorporate into the top 2 inches of soil. Wireworms - 6-8 lbs. per acre or  $2\frac{1}{4}$ -3 oz. per 1,000 sq. ft. Broadcast before planting and immediately incorporate into the top 4-8 inches of soil. Corn Earworms - 2-2\frac{1}{2} lbs. per acre or  $\frac{3}{4}$ -1 oz. per 1,000 sq. ft. Apply when silks first appear. Repeat application every 7 days up to a maximum of 5 applications, if necessary. Corn Leaf Aphids - 1-2 lbs. per acre or  $2\frac{1}{5}$ - $3\frac{1}{4}$  oz. per 1,000 sq. ft. Apply in sufficient water to provide complete coverage to the upper portions of the plants. Repeat in 7 days, if necessary. Do not make more than 5 applications per season. Grasshoppers, Spider Mites, Flea Beetles - 1 lb. per acre or  $2\frac{1}{5}$  oz. per 1,000 sq. ft. Apply as insects occur. Repeat if necessary, but do not make more than 5 applications per season. Sap Beetles - 2-2\frac{1}{2} lbs. per acre or  $\frac{3}{4}$ -1 oz. per 1,000 sq. ft. Consult local agricultural authorities for proper timing of sprays. Repeat application in 7 days, if necessary. Do not make more than 5 applications per season.

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**NOTE**: (1) To protect bees, do not apply foliarly to corn during the pollen shed period. (2) Allow a minimum of 7 days between the last application and grazing or cutting for forage. (3) Corn may be picked 7 days after the last application.

SWEET POTATOES: Wireworms, Flea Beetles - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.

SWISS CHARD: Cutworms - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Corn Earworms, Imported Cabbageworms, Diamond-back Moths, Harlequin Cabbagebugs - ½-1 lb. per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times with a minimum of 7 days between applications. Do not apply within 14 days of harvest or illegal residues may occur.

**TOMATOES:** Cutworms - 4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or ¾ oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or 2¼-3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Dipterous Leafminers - ½ lb. per acre or 1/5 oz. per 1,000 sq. ft. Apply as insects appear. Repeat application after 7 days, if necessary. 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 - ¾-1 lb. per acre or 3/10-2/5 oz. per 1,000 sq. ft. Apply as insects appear. Repeat application after 7 days, if necessary. 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 - ¾-1 lb. per acre or 3/10-2/5 oz. per 1,000 sq. ft. Apply as insects appear. Repeat application after 7 days, if necessary. 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. Vinegar Flies (*Drosophila Spp.*) <sup>1</sup>/<sub>2</sub>-1<sup>1</sup>/<sub>2</sub> lbs. per acre or 1/5-3/5 oz. per 1,000 sq. ft. Apply as insects appear. Repeat application after 7 days, if necessary. 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.

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TURNIPS (ROOTS AND TOPS): Cutworms - 4-8 lbs. per acre or  $1\frac{1}{2}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the soil. (See Soil Incorporation Note.) Mole Crickets - 2 lbs. per acre or  $\frac{3}{4}$  oz. per 1,000 sq. ft. Apply to plant beds or fields 1-2 days before planting and immediately incorporate into the top 1-2 inches of soil. Wireworms - 6-8 lbs. per acre or  $2\frac{1}{4}$ -3 oz. per 1,000 sq. ft. Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil. Aphids, Flea Beetles, Dipterous Leafminers -  $\frac{1}{2}$ -1 lb. per acre or 1/5-2/5 oz. per 1,000 sq. ft. Apply as insects occur. Repeat application, as necessary, up to 5 times, with a minimum of 7 days between applications. Do not apply within 14 days of harvest or illegal residues may occur. NOTE: Diazinon will not control organophosphate-resistant leafminers.

### **MUSHROOM HOUSES**

Mushroom flies (Phorida and Sciarids) - Mix 4-5 lbs. of Diazinon 50WP in 50 gallons of water and spray on outside and inside walls, floors and sideboards of mushroom houses after compost has been pasteurized by heating. Also, spray over the plastic covering the beds and trays after spawning. Note: Do not spray the compost. To avoid illegal residues, do not apply more than 3 applications to mushroom houses per crop.

### SEED TREATMENT - PLANTER BOX TREATMENT

In the planter box, mix with seed as a dry mixture. Stir slightly using a mixing stick. DO NOT MIX WITH BARE HANDS. Treat only those seeds needed for immediate use, minimizing the interval between treatment and planting. Do not store excess treated seed beyond planting time. Exposed treated seeds may be hazardous to birds and other wildlife. Dispose of excess treated seed by burial away from bodies of water.

Note: (1) If seed has not been treated with a fungicide, use an EPA-registered fungicide combination with **Diazinon 50WP** at rates indicated on the fungicide package. Failure to use a fungicide may result in injury to the seed. (2) If the seed treatment increases the friction between seeds sufficiently to reduce the rate of delivery through the plant,  $\frac{1}{2}$  oz. of graphite per bushel seed should be added as a drill lubricant. Adjust the planter to give the required rate of seed delivery with the treated seed. (3) Treated seed must not be used for or mixed with food or animal feed or processed for oil.

CORN: Seedcorn Beetle - Mix 3 oz. per bushel of seed.

CORN, SUCCULENT PEAS AND SUCCULENT BEANS: Seedcorn Maggot - Mix 1/2 oz. per bushel of seed.

### FIELD CROPS

### REI - 24 hours

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Apply soil and foliar applications of **Diazinon 50WP** 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

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Crop	. 14777	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 -** 2 lbs. per acre. Apply as pest occur. Repeat application, if necessary, in 14 days. Do not make more than 4 applications per season or apply within 14 days of harvest or illegal residues may occur.

SUGAR BEETS: Wireworms - 6-8 lbs. per acre. Broadcast just before planting. Incorporate into soil 4-6 inches. Do not apply more than 8 lbs. of this product to the soil, per season. Beet Leafhoppers, Dipterous Leafminers, Aphids - <sup>3</sup>/<sub>4</sub>-1 lb. per acre. Apply as insects occur. Repeat applications, as necessary, up to 5 times per season with a minimum of 7 days between applications. Do not apply within 14 days of harvest. NOTE: Diazinon will not control organophosphate-resistant leafminers. Grasshoppers - 1 lb. per acre. Apply as insects occur. Repeat application, as necessary, up to 5 times per season with a minimum of 7 days between application, as necessary, up to 5 times per season with a sinsect occur. Repeat application, as necessary, up to 5 times per season with a minimum of 7 days between application. Do not apply as insects occur. Repeat application, as necessary, up to 5 times per season with a minimum of 7 days between applications. Do not apply within 14 days of harvest.

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

#### **GRASSLAND INSECTS**

Ditch Banks, Roadsides, Wasteland, Noncrop Areas, Barrier Strips: Grasshoppers - Apply ¾-1 lb. per acre in sufficient water or oil to obtain thorough coverage when insects firs appear, preferably in the nymphal stage.

Do not graze or use treated grass for food or feed.

### LIVESTOCK INSECTS

Sheep "Ticks" (Keds), Lice

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High gallonage, high pressure spray: Mix ½ lb. in 100 gals. of water, and apply at the rate of 1 gal. per animal.

Low gallonage, low pressure spray: Mix 1 lb. in 100 gals. of water. Apply at the rate of 1 qt. per animal.

Sprinkler Can: Mix 1 oz. in 6 gals. of water. Crowd sheep into a small pen and sprinkle 1 qt. of this mixture over the head, neck, top, and side of each sheep. Stir or agitate mixture frequently.

Note: Do not slaughter sheep within 14 days after treatment. Repeat applications as necessary.

### FLY CONTROL IN LIVESTOCK STRUCTURES

Fly control in barns and animal sleeping quarters (except dairy barns, milk rooms, and poultry houses).

Residual Sprays: Remove animals from buildings or corrals prior to treatment and keep animals out

for at least four hours. Mix 2 lbs. of **Diazinon 50WP** in 25 gals. of water and apply as an overall spray to ceilings and walls of livestock sheds, calf barns, hog barns, loafing sheds, and other farm buildings except poultry houses, dairy barns, and milk rooms. Areas where flies congregate, such as garbage dumps and corrals, should be sprayed thoroughly. Longer residual control may be obtained by increasing the rate to 4 lbs. in 25 gals. of water. Applications should be made to point of runoff. One gal. of the above spray should cover from 350-750 sq. ft. of area, depending on the surface treated. Repeat applications as fly populations warrant.

Bait Sprays: Mix the appropriate amount of Diazinon 50WP with 1 lb. of sugar (or 2 cups of syrup or molasses) for the desired application.

For knapsack or similar type sprayer, mix ½ lb. with the sugar in 2½ gals. of water and spot treat areas frequented by flies including cracks, crevices, doorways, around windows, or other areas where flies congregate. Repeat applications as fly populations warrant.

For sprinkling can application, mix 2 oz. with the sugar in 5 gals. of water and sprinkle lightly over the floor in areas frequented by flies. Applications every day or two will generally be required.

Do not contaminate milk, feed, drinking water, or apply to animals or poultry. Do not use in edible product areas of food processing plants or other areas where food is commercially prepared or processed. Do not use in dwellings.

# INSECT CONTROL ON ORNAMENTALS

### REI - 12 hours

To control certain insects on Arborvitae, Azalea, Birch, Boxwood, Camellia, Carnation, Chrysanthemum, Crap Apple, Dogwood, Douglas Fir, Elm, Enonymus, Gladioli, Hawthorn, Holly, Honey Locust, Honeysuckle, Juniper, Lilac, Lily, Locust, Maple, Marigold, Oak, Pansy, Petunia, Pine, Ornamental Plum, Poplar, Rhododendron, Rose, Scotch Pine, Spirea, Spruce, Sycamore, Wax Plant (Hoya), Willow, Yellowwood and Yew, 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, Flea Beetles, Holly Bud Moths, Leafhoppers, Obscure Root Weevils, Omnivorous Leaftiers, Privet Mites, Scale Crawlers (Cottonycushion, Lecanium, Pine Needle, San Jose, Soft), Thrips, Two-spotted Spider Mites, Juniper Webworms, and Whiteflies - Use ½ oz. per 3 gallons of water or 1 lb. per 100 gallons of water.

Apple-and-Thorn Skeletonizers, Cotoneaster Webworms, Fall Webworms, Hemlock Chermes, Oak Loopers, Obliquebanded Leafrollers, Pear Slugs, and Tent Caterpillars - Use 1½ oz. per 3 gallons of water or 3 lbs. per 100 gallons of water.

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

**Mimosa Webworms:** Mix ½ oz. in 3 gallons of water (or 1 lb. 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.

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### LAWN PEST CONTROL (EXCLUDING GOLF COURSES AND SOD FARMS)

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Precautions: Birds, especially waterfowl, feeding or drinking on treated areas may be killed. Apply this product only as specified on this label. Because of the migratory habits of certain waterfowl, do not apply in Nassau County, New York between November 1 and May 20. Do not exceed maximum permitted label rates, since rates above those recommended significantly increase potential hazards to birds, especially waterfowl. Avoid overlapping of sprays. If waterfowl, i.e., ducks or geese, can be expected to enter the treated area after treatment (except spot treatments), water lawn with at least ¼ inch of water immediately after application, however, stop watering before puddling occurs.

To control pest listed below, apply recommended rates.

Lawn Chinch Bugs - Use 2-3 ozs. in 3 gals. of water per 1,000 square feet. Use higher rate for longer residual control and in turfgrass of dense growth, such as St. Augustine.

Ants, Armyworms, Bermudagrass Mites, Clover Mites, Springtails (Collembola), Crickets, Cutworms, Digger Wasps, Earwigs, Frit Flies, Lawn Billbugs, Leafhoppers, Sod Webworms (Lawn Moths), Sowbugs (Pillbugs), Brown Dog Ticks, Chiggers, Fleas - Use 3 ozs. in 3 gallons of water per 1,000 square feet. Spot spray ant hills and wasp ground nest openings. For digger wasps, apply product at dusk when wasps are not active. For frit flies, mow grass and water well before treatment, but delay application until grass is dry. Do not apply to animals. For brown dog ticks, spray grass and under shrubbery.

Hyperodes Weevil - Apply 3 ozs. in 3 gallons of water per 1,000. Treat problem areas in mid-April and again in mid-May.

Millipedes - Use 3 ozs. in 3 gallons of water per 1,000 square feet. Rhodesgrass Scales - Use 3 ozs. in 3 gallons of water per 1,000 square feet. Apply when crawlers first emerge.

White Grubs (such as Japanese Beetle Larvae, European Chafer, Southern Chafer) - Apply 3 ozs. in 3 gallons of water per 1,000 sq. ft. of lawn. Apply any time between late July and early October.

Nuisance Pests in Outside Areas: Ants, Boxelder Bugs, Brown Dog Tick, Chiggers, Clover Mites, Cockroaches, Crickets, Earwigs, Fleas, Flies, Millipedes, Sowbugs (Pillbugs), Spiders, Springtails (Collembola) - Mix 3 ozs. in 3 gals. of water. Spray window and door screens, sills, foundations, porch and patio walls, entranceways, walks, garbage cans, tree trunks, and into cracks and other places where insects can hide. To prevent these pest from entering the house, spray a fivefoot band of soil around the house next to the foundation and spray the foundation of the house to a height of 2-3 feet. Repeat application as necessary. Note: Do not apply to animals. Do not apply to plants (except tree trunks as noted above) at this nuisance pest rate. Fire Ants: 2 teaspoons per 1,000 sq. ft. Evenly apply this product in its dry, undiluted state over each fire ant mound or 1 oz. per gals. of water. Apply 1 gal. of solution to each mound by sprinkling the mound and the immediate surrounding area until wet. Apply gently to avoid distributing ants. Note: For best results, apply in cool weather (60-80°F, or in early morning or late afternoon when the ants are most active. Treat new mounds as they appear.

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**IMPORTANT:** Read the entire DIRECTIONS FOR USE and the CONDITIONS OF SALE AND WARRANTY before using this product. If terms are not acceptable, return the unopened product container at once.

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

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 is a claim for damage and in no event shall damages or any other recovery of any kind against the Company exceed the price of the product which causes the alleged loss, damage, injury, or other claim. 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.