

769-954

05/10/2002

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES  
AND TOXIC SUBSTANCES

Value Garden Supply, LLC.  
c/o Ms. Carrie Crawford  
Rt. 2 Box 956  
New Castle, VA 24127

MAY 10 2002

Dear Ms. Crawford:

Subject: Amendment- Comply with 2000 Diazinon MOA;  
Delete Beans (except seed treatment),  
Cucumbers, Parsley, Parsnips,  
Peas (except seed treatment), Peppers,  
Potatoes, Summer Squash, Winter Squash,  
Sweet Potatoes, Swiss Chard, Turnips,  
Grasslands, Non-crop Areas, Ditchbanks,  
Roadsides, Barrier Strips, Wasteland,  
Nuisance Pests, Indoor Ornamentals,  
and Lawns  
Update First Aid per PR Notice 2001-1; and  
Update CSF/replacement diazinon source  
AllPro Diazinon 50WP Insecticide  
EPA Registration Number 769-954  
Your submissions dated June 30 and November 12, 2001,  
and FAX of April 23, 2002

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

1. Submit and/or cite all data or other material required for registration/reregistration of your product under FIFRA section 3(c)(5) or FIFRA section 4 when the Agency requires all registrants of similar products to submit such data.
2. Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:
  - a. On the front panel claims, revise "...Field Crops, and Ornamentals" to read "...Field Crops, and Ornamentals grown outdoors in nurseries".
  - b. Since there is no lawn use on the label, delete the front panel limitation "This product must not be used on golf courses and sod farms".
  - c. In the FIRST AID section, relocate the IF SWALLOWED advice to be the first item presented.

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- d. Under the heading HOTLINE NUMBER correct the spelling of "ORGANOPHOSPHATE".
- e. In the Environmental Hazards, delete the sentence that refers to the now deleted use on lawns. Specifically, delete the sentence beginning "On lawns, if waterfowl...". In its place add the following: "Do not exceed maximum permitted label rates. Rates above those recommended significantly increase potential risks to birds and waterfowl."
- f. Delete the section entitled Special Precautions to Reduce Risks to Birds. These are lawn use precautions, and lawn use has been deleted.
- g. Delete the heading Physical and Chemical Hazards and the associated text. Your proposed text is appropriate for a solvent based emulsifiable concentrate, not for a wetttable powder such as this product.
- h. Delete the Non-Agricultural Use Requirements box and its associated text since all the remaining uses on this label are agricultural uses.
- i. Under the heading GENERAL INFORMATION, replace the sentence "Do not use on food crops grown in greenhouses." with "Do not use in greenhouses, barns, or dwellings."
- j. Under the heading DIRECTIONS FOR USE, slightly revise the prohibition so that it reads, "Reformulation or repackaging of this product is prohibited."
- k. As we recently discussed regarding the use and submission of a separate container label and booklet label, the referral statement to the attached booklet should appear only on the container label. Be sure to include the Storage and Disposal section on both labels. Among other items, the booklet should contain the full version of the Agricultural Use Requirement block and should not contain the referral to the booklet. You must submit both the container label and the booklet when submitting your finished labeling in response to this letter. Note that there are certain minimum information/items that must be present on it. Please refer to Novartis's separate container label for their D.z.n Diazinon 50W product as a guide when preparing your container label.
- l. Under the heading "Diazinon 50WP is registered for use in or on", for Beans replace "Lima, Pole and Snap" with "(succulent only)". Delete the entry "Non-crop Areas". For Peas, revise the entry to read "Peas(Seed treatment only)(succulent only)".
- m. In the minimum gallonage table for foliar or soil application to VEGETABLE CROPS, delete the entries for Beans and for Peas. Also, revise "Casabas" to read "Casaba Melons", and

revise "Crenshaws" to read "Crenshaw Melons". The Agency assumes that all of the blank entries will be deleted when you prepare the finished labeling.

- n. In the PHI table for VEGETABLE CROPS, revise "Casabas" to read "Casaba Melons", and revise "Crenshaws" to read "Crenshaw Melons". The Agency assumes that all of the blank entries will be deleted when you prepare the finished labeling.
  - o. Delete the entry for Grassland Insects. Your submission dated November 12, 2001 indicated that you were deleting this unsupported use.
  - p. To reflect the deletion of indoor ornamentals, revise the heading "Insect Control on Ornamentals" to read "Insect Control on Ornamentals Grown Outdoors in Nurseries". In the listing of ornamentals, the "M" of "Maple" should be capitalized to match the rest of the entries.
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 November 10, 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 only by, Certified Applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification

**AllPro Diazinon 50WP Insecticide**

For Control of Certain Insect on Fruits, Nuts, Vegetables, Field Crops, Lawns and Ornamentals.

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

**Active Ingredient:**

Diazinon (0,0-diethyl 0-(2-isopropyl-6-methyl-4-pyrimidinyl)phosphorothioate).....	50.0%
Inert Ingredients*.....	50.0%
Total.....	100.0%

Diazinon 50WP is a wettable powder.

EPA Reg. No. 769-954

EPA Est. No. 44616-MO-1

**KEEP OUT OF REACH OF CHILDREN  
CAUTION**

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

See Side Panel For Additional Precautionary Statements

**PRECAUTIONARY STATEMENTS****Hazards to Humans and Domestic Animals**

**CAUTION:** Harmful if swallowed, inhaled, or absorbed through the 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 fishponds.

**PERSONAL PROTECTIVE EQUIPMENT:**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- 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.

**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.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing

**FIRST AID**

This is an organophosphate insecticide

**IF INHALED:**

- Move person to fresh air.
- If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.
- 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 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 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 a poison control center or doctor.
- Do not give anything by mouth to an unconscious or convulsing person.

**HOTLINE NUMBER  
[ORGANOPHOSPHAE]**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-250-9291 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** Contains an organophosphate that inhibits cholinesterase. 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.

Distributed By:  
Value Garden Supply, LLC.  
P. O. Box 585  
St. Joseph, MO 64502

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated:**

**MAY 10 2002**

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

**769-954**

**ENVIRONMENTAL HAZARDS**

This product is toxic to birds, fish and other wildlife. Birds, especially waterfowl, feeding or drinking on treated areas may be killed. On lawns, if waterfowl (ducks and geese) can be expected in the treated area after treatment (except spot treatment), water lawn with 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. 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 product or allow it to drift to blooming crops or weeds if bees are visiting the treatment areas.

**SPECIAL PRECAUTIONS TO REDUCE RISKS TO BIRDS**

Birds feeding or drinking on treated areas may be killed. To reduce risks to birds:

1. Do not treat areas larger than 15,000 sq. ft.
2. Because of the migratory habits of certain waterfowl, do not apply in Nassau County, New York between November 1 and May 20.
3. Do not exceed maximum permitted label rates, since rates above those recommended significantly increase potential hazards to birds, especially waterfowl.
4. Avoid overlapping treated areas.
5. Follow all watering instructions included within the directions for use; however, stop watering before puddling occurs.
6. Do not apply this product to sites occupied by waterfowl or to sites within 75 Ft. of any body of water that may attract waterfowl, such as lakes or ponds.
7. If necessary to repeat application, wait a minimum of 3 weeks between applications. Make no more than 4 applications per year.

**PHYSICAL AND CHEMICAL HAZARDS**

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

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or 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. To avoid harming aquatic organisms in rivers and other surface waters, do not pour spray mixture or rinse water into sanitary drains (for example, toilets, floor drains, and sinks) or into storm water sewers (for example, street drains). If pesticide, spray mixture, or rinsates 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 1-800-888-8371, day or night.

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**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). 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.
- 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, forest, nurseries, or greenhouses.

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.

**General Information**

This product is a 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 pests. Application should be repeated only as directed to maintain control.

Since this product 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.

**General Information for Water Soluble Packets**

To prepare spray mixture, drop the required number of unopened, water soluble packets of All Pro Diazinon 50WP into the spray tank, while filling with water to the desired level. Be certain packet and its contents have completely dissolved and dispersed before applying spray. Operate agitator while mixing and applying.

Do not open packets or allow them to become wet prior to adding to the spray tank. Wear gloves when handling. If all water soluble packets are not used, store remaining packets in resealed, outer package.

**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 this product 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. When handling this product, wear the personal protective equipment listed on label.

**CHEMIGATION****APPLICATION THROUGH AN IRRIGATION SYSTEM (CHEMIGATION) — CRANBERRIES ONLY**

This product 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**

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, 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 this product 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 amount to the chemigation system supply tank and dilute with water if needed. Constant agitation is required to keep the product in solution when this product is used alone or 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 furthest from the chemigation injection point.

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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.

Reformulation or repackaging 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 you State or Tribe, consult the agency responsible for pesticide regulation.

**IMPORTANT:** Read the entire Directions for Use and Notice before using this product.

**DISCLAIMER:** Value Garden Supply, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the specific purposes referred to in the Directions For Use, subject to the inherent risks referred to above. Value Garden Supply makes no other express or implied warranty of fitness or merchantability nor any other express or implied warranty. In no case shall Value Garden Supply be liable for consequential, special, or indirect damages resulting from the use, handling or application of this product.

Please Refer To Attached Booklet For Complete Directions For Use.

**Diazinon 50 WP is registered for use in or on:**

Almonds (CA only)	Loganberries
Apples	(CA, OR, WA only)
Apricots	Melons
Beans (seed treatment only)	Mushroom Houses
Lima, Pole, and Snap	Mustard
Beets	Nectarines
Blackberries	Non-crop areas
(CA, OR, WA only)	Onions
Boysenberries	Peaches
(CA, OR, WA only)	Pears
Broccoli	Peas (Seed
Brussels Sprouts	treatment only)
Cabbage	Pineapples
Caneberries	Plums
(CA, Or, WA only)	Prunes
Carrots	Radishes
Cauliflower	Raspberries
Cherries	(CA, Or, WA only)
Chinese Broccoli	Seed Treatment
Chinese Cabbage	(Corn & Succulent
(Bok choy and Napa)	Peas & Beans)
Chinese Mustard	Spinach
Collards	Strawberries
Cranberries	Sugar Beets
Dewberries (CA, OR, WA only)	Sweet Corn
Endive (Escarole)	Tomatoes
Grapes	Walnuts (CA only)
Hops	
Kale	
Lettuce	

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Fruit and Nut Crops - REI 24 Hours

This product may be applied using ground or aerial application equipment as specified in the table below. This table also indicates the minimum amount of water that can be used for the various methods of application. The rate of Diazinon 50 WP 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 gallons of water per acre. The specific amount of product to be used appears under the separate directions for use for each crop. (Note: "lbs." or "lbs of product" in the directions means pounds of product, not pounds of active ingredient.) If the "Rate" calls for 1 lb. Of this product per 100 gallons of water, this amounts to 3-4 lbs. of product per acre when applied to fruit trees at usual dilute ground spray volumes of 300-400 gallons 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.

Crop	Aerial Application Minimum Gals./Acre	Ground Application Minimum Gals./Acre	
		Dilute	Concentrate
Almonds*	20	100	20
Apples	20	100	20
Apricots	20	100	20
Blackberries**	20	100	20
Boysenberries**	20	100	20
Caneberries**	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
Peaches	20	100	20
Pears	20	100	20
Pineapples	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 state time intervals between last application and harvest, as well as intervals between application and total number of applications that can be made per season.

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

\*PHI = Pre-Harvest interval or the number of days to wait between the last application and harvest.

\*\* = Dormant spray only.

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

Crop	Pest	Rate	Timing/Special Directions
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, Meal Plum Aphid Eggs, Mealybugs	1-1 1/2 lbs. + 2-3 gals. dormant oil or 1-1 1/2 gals. superior type oil in 100 gals. of water.	Apply as a single dormant spray. Do not apply more than 6 lbs. of product or 9 gals of oil per acre.



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## Fruit and Nut Crops continued

Crop	Pest	Rate	Timing/Special Directions
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.
	Leafhoppers	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 application 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 russetting 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 gals. of water	Apply as infestations occur. Repeat application after 14 days if necessary.
	Olive Scale Crawlers	½ lb. + 1½ gals. of light medium horticultural oil in 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. in 100 gals. 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.

Caneberries (CA, OR and WA only) (Blackberries, Boysenberries, Dewberries, Loganberries, 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 application after 14 days if necessary. Do not make more than 5 applications per season. For raspberry fruitworm 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 Spring before buds break.

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## Fruit and Nut Crops continued

Crop	Pest	Rate	Timing/Special Directions
Cherries	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	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.
	Eye Spots, Bud Moths, Fruit Tree Leafrollers	1 lb. in 100 gals. of water	Apply as infestations occur beginning at petal fall. Repeat application after 7 days if necessary.
	Leafhoppers	1 lb. in 100 gals. 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 gals 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 gals. 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 gals. of water	Apply during the prepink stage or when crawlers first appear.
	Cherry Rust Mites	½-1 lb. in 100 gals of water	Apply as a single supplemental spray to trees after harvest.

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	4 lbs. 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.
	Cranberry Fruitworms	4-6 lbs. 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 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 is permitted for the 4 lb. rate.

Notes: (1) Do not apply more than 24 lbs. 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 section CHEMIGATION for specific chemigation directions for use. (4) 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.

Grapes	Pacific Spider Mites, Leafhoppers, Grape Berry Moths, Grape Leafrollers, 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 appears. Repeat application after 7 days if necessary.
	Drosophila spp.	6 oz. per acre in a minimum of 100 gals. of water (300 gals. of water maximum)	Apply as a thorough cover spray at 7-day intervals.

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

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## Fruit and Nut Crops continued

Crop	Pest	Rate	Timing/Special Directions
Nectarines	San Jose Scale, Parlatoria Scale, Black Scale, Brown 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. 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 gals. 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, 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.
	Aphids, Brown Mites (Clover Mites), Two-Spotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers	1 lb. in 100 gals. 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 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 oil per acre, per application. Allow 7 days between applications.
	Oriental Fruit Moths	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.
	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 gals. 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	1½-2 lbs. in 100 gals. 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.

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.

## Fruit and Nut Crops continued

Crop	Pest	Rate	Timing/Special Directions
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 1-1½ 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.
	Pear Psylla	½-1 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	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, Woolly 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 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.

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. Pineapple forage and refuse may not be fed to livestock.
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 gals. of water	Apply as needed every 7 days.
	Leafcurl Plum Aphids, Mealy Plum Aphids, Thistle Aphids	1 lb. in 100 gals. of water	

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.

## Fruit and Nut Crops continued

Crop	Pest	Rate	Timing/Special Directions
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 gals. of water	Apply as needed every 7 days.
	Leafcurl Plum Aphids, Mealy Plum Aphids, Thistle Aphids	½-1 lb. in 100 gals. of water	

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 gals. of water	Apply as pests occur. Repeat application if necessary after 7 days.
	Cyclamen Mites	2 lbs. in 100 gals. of water per acre	Direct spray to the plant crowns. Plants should be sufficiently agitated to assure thorough coverage of the foliage. Repeat application after 7 days if necessary.
	Male Crickets	2 lbs. per acre	Apply 1-2 days before transplanting and immediately incorporate into the top 1-2 inches of soil.
	Strawberry Leafrollers	¼-1 lb. in 100 gals. of water	Apply 200 gals. of spray per acre when blossoms show color.

Notes: (1) Do not apply 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. Repeat application in 14 days if necessary.
	Codling Moths, Scale Crawlers, Walnut Caterpillars	6 lbs. in 100 gals. of water per acre	

Notes: (1) Do not apply more than 6 lbs. of product per acre per application. (2) Do not apply more than 18 lbs. of product per acre per season. (3) To avoid illegal residues, allow a minimum of 45 days between the last application and harvest and do not apply after husks open.

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**Vegetable Crops — REI 24 HOURS**

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.

Crop	Ground Application		Aerial Application Minimum Gals./Acre
	Minimum Gals./Acre	OR Minimum Gals./1,000 Sq. Ft.	
Beans (seed treatment only) Lima, Pole, and Snap			
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
Endive (Escarole)	10	2	5
Honeydew Melons	5	1	5
Kale	10	2	5
Lettuce (Head and Leaf)	10	2	5
Muskmelons	5	1	5
Mustard	10	2	5
Onions (Bulb and Green)	10	2	5
Peas (Seed treatment only)	1/2 oz. per bushel of seed		
Persian Melons	5	1	5
Radishes	10	2	5
Spinach	10	2	5
Sweet Corn	20	4	5
Tomatoes	10	2	5
Watermelons	5	1	5

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

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

Crop	PHI* (Days)	Crop	PHI* (Days)
		Lettuce (Head and Leaf)	14
Beets, Red (Table)	14	Muskmelons	3
Broccoli	7	Mustard	10
Brussels Sprouts	7	Onions (Bulb and Green)	14
Cabbage	21		
Cantaloupes	3		
Carrots	14		
Casabas	3	Persian melons	3
Cauliflower	7		
Chinese Broccoli	10	Radishes	14
Chinese Cabbage	10	Spinach	14
Chinese Mustard	10		
Collards	10		
Crenshaws	3	Sweet Corn	7
Endive (Escarole)	14	Tomatoes	1
Honeydew Melon	3		
Kale	10	Watermelons	3

\*PHI = Pre-Harvest interval or the number of days to wait between the last application and harvest.

Note: (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 corn during the pollen shed period.

Crop	Pest	Rate	Timing/Special Directions
Beets, Red (Table)	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.	One to two days before planting, broadcast 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 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 organophospho resistant leafminers.

Crop	Pest	Rate	Timing/Special Directions
Broccoli	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.
		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 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 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.	One to two days before planting, broadcast 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.
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.
		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 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 1½-3 oz. per 1,000 sq. ft.	Broadcast just before planting and incorporate into the soil. (See Soil Incorporation Notes.)
	Mole Crickets	2 lbs. per acre or ¾ oz. per 1,000 sq. ft.	One to two days before planting, broadcast 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.
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.
		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 oz.) per plant by hand or by tractor mounted sprayer equipped with crop 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 Incorporation Note.)
	Mole Crickets	2 lbs. per acre or ¾ oz. per 1,000 sq. ft.	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	6-8 lbs. per acre or 1½ - 2½ 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 7 days of harvest or illegal residues may occur. Note: Diazinon will not control organophosphate-Resistant leafminers.	



## Vegetable Crops continued

Crop	Pest	Rate	Timing/Special Directions
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.	One to two days before planting, broadcast 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.
Cauliflower	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.
		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 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 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.	One to two days before planting, broadcast 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 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.
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.	One to two days before planting, broadcast 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.

## Vegetable Crops continued

Crop	Pest	Rate	Timing/Special Directions
Endive (Escarole)	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.	One to two days before planting, broadcast 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 4-8 inches into 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 times with a minimum of 7 days between applications. Do not apply within 14 days of harvest. Note: Diazinon will not control organophosphate-resistant leafminers.
Kale	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.	One to two days before planting, broadcast 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 Cabbageworms, 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 Notes.)
	Mole Crickets	2 lbs. per acre or ¾ oz. per 1,000 sq. ft.	One to two days before planting, broadcast 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 times with a minimum of 7 days between applications. Do not apply within 14 days of harvest. Note: Diazinon will not control organophosphate-resistant leafminers.
Melons (Cantaloupes, Casabas, Cranshaws, Honeydew, Muskmelons, Persians, and Hybrids if 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	½-1½ 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.
Mustard	Mole Crickets	2 lbs. per acre or ¾ oz. per 1,000 sq. ft.	One to two days before planting, broadcast 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, 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 5 times, with a minimum of 7 days between applications. Do not apply within 10 days of harvest. Note: Diazinon will not control organophosphate-resistant leafminers.

## Vegetable Crops continued

Crop	Pest	Rate	Timing/Special Directions
Onions (Bulb and Green)	Onion Maggots	4-8 lbs. per acre or 1½-3 oz. per 1,000 sq. ft.	Broadcast just before planting and mix into the to 3-4 inches of soil. (See Soil Incorporation Note.) Note: Diazinon will not control organophosphorus resistant onion maggots.
	Onion Thrips	1 lb. per acre or 2/5 oz. per 1,000 sq. ft.	Apply as thrips appear. Repeat 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 the top 4-8 inches of soil.
Radishes	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.	One to two days before planting, broadcast 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, Flea Beetles, 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 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.
Spinach	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 times, with a minimum of 7 days between applications. Do not apply within 14 days of harvest. Note: Diazinon will not control organophosphate-resistant leafminers.
Sweet Corn	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.)
	Seed Corn Maggots	4-8 lbs. per acre or 1½-3 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 2¼-3 oz. per 1,000 sq. ft.	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	Corn Earworms	2-2½ lbs. per acre or ¾-1 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 2/5-¾ 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, Fleabeetles	1 lb. per acre or 2/5 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	2-2½ lbs. per acre or ¾-1 oz. per 1,000 sq. ft.	Consult local agricultural authorities for proper timing of application. Repeat application in 7 days, if necessary. Do not make more than 5 applications per season.

Notes: (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.

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.	One to two days before planting, broadcast 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.
	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.	Note: Diazinon will not control organophosphate-resistant leafminers.
	Vinegar Flies (Drosophila spp.)	½-1½ lbs. per acre or 1/5-3/5 oz. per 1,000 sq. ft.	

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**Mushroom flies (Phorida and Scliarids)**

Mix 4-5 lbs. of this product 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 this product 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 planter, 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 12 Hours**

Apply soil and foliar applications of this product 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 applications that can be made per season:

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

Crop	PHI*
Hops	14
Sugar Beets	14

\*PHI = Pre-Harvest interval or the number of days to wait between the last application and harvest.

**Field Crops — REI 12 Hours**

Crop	Pest	Rate	Timing/Special Directions
Hops	Aphids, Spider Mites	2 lbs. per acre	Apply as pest occur. Repeat applications, 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 and immediately incorporate into the top 4-6 inches of soil. Do not apply more than 8 lbs. of this product to the soil, per season.
	Beet Leafhoppers, Dipterous Leafminers, Aphids	3/4-1 lb. per acre	Apply as insects occur. Repeat application, as necessary, up to 5 times per season with a minimum of 7 days between 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 applications. Do not apply within 14 days of harvest.

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

**Grassland Insects — REI 12 Hours**

**Ditch Banks, Roadsides, Wasteland, Noncrop Areas, Barrier Strips**

Grasshoppers: Apply 3/4-1 lb. per acre in sufficient water or oil to obtain thorough coverage when insects first appear, preferably in the nymphal stage.

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

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To control certain insects on ornamentals, such as Arborvitas, Azalea, Birch, Boxwood, Camellia, Carnation, Chrysanthemum, Dougl. 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. Apply when pests first appear. Try to spray underside of leaves and penetrate dense foliage.

Insects	Amount of this product to Use	
	Rate per 3 gals. water	Rate per 100 gals. water
Aphids, Bagworms, Carnation Bud Mites, Carnation Shoot Mites, Clover Mites, Cyclamen Mites, Dipterous Leafminers, European Pine Shoot Moths, European Red Mites, Flea Beetles, Holly Bud Moths, Leafhoppers, Obscure Root Weevils, Omnivorous Leafhoppers, Privet Mites, Scale Crawlers (Cottoncushion, Lecanium, Pine Needle, San Jose, Soft), Thrips, Two-Spotted Spider Mites, Juniper Webworms, Whiteflies	1/2 oz.	1 lb.
Apple-and-Thorn Skeletonizers, Coloneaster Webworms, Fall Webworms, Hemlock Chermes, Oak Loopers, Obliquebanded Leafrollers, Pear Slugs, Tent Caterpillars	1 1/2 oz.	3 lbs.

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

Mimosa Webworms: Mix 1/2 oz. in 3 gals. of water (or 1 lb. in 100 gals. of water) and apply as a thorough foliar spray when adults first appear. Make a second and third application at 4-5 week intervals.