



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

April 13, 2016

Mr. Bill Washburn  
Registration Specialist  
Helena Chemical Company  
225 Schilling Blvd. Suite 300  
Collierville, TN 38017

Subject: Label Amendment – typographical error in Precautionary Statements  
Product Name: Diazinon AG500 Insecticide  
EPA Registration Number: 5905-248  
Application Date: April 12, 2016  
Decision Number: 516046

Dear Washburn:

The amended label referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions about this letter, please contact Linda A. DeLuise at (703) 305-5428 or via e-mail at [deluise.linda@epa.gov](mailto:deluise.linda@epa.gov).

Sincerely,

A handwritten signature in dark ink, appearing to read 'Gebken', with a long horizontal flourish extending to the right.

Richard Gebken  
Product Manager 10  
Invertebrate & Vertebrate Branch 2  
Office of Pesticide Programs

Enclosure

**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.**

# **DIAZINON AG500**

## **Insecticide**

**For control of certain insects on fruits, nuts, vegetables, and ornamentals grown outdoors in nurseries**

<b>ACTIVE INGREDIENT:</b> Diazinon:	<b>% BY WT.</b>
O,O-diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate .....	48.0%
<b>INERT INGREDIENTS*</b> .....	52.0%
<b>TOTAL</b>	<b>100.0%</b>

Contains 4 lbs. diazinon per gallon

\*Contains xylene range aromatic solvent

### **KEEP OUT OF REACH OF CHILDREN CAUTION**

#### **FIRST AID**

**Contains an organophosphate that inhibits cholinesterase**

<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Do not induce vomiting unless told to by a poison control center or doctor.</li><li>• Do not give any liquid to the person.</li><li>• Do not give anything by mouth to an unconscious or convulsing person.</li></ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency medical treatment information.

**NOTE TO PHYSICIAN:** This product is an organophosphate insecticide. If symptoms of cholinesterase inhibition are present, atropine sulfate by injection is antidotal. 2-PAM is also antidotal and may be administered, but only in conjunction with atropine. This product contains petroleum distillates (xylene range aromatic solvent) which may pose an aspiration hazard. Vomiting may cause aspiration pneumonia. Gastric lavage may be indicated if product was taken internally.

EPA Reg. No. 5905-248  
AD 040516

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:** \_\_\_\_\_ **GALLON(S)**

**MANUFACTURED FOR  
HELENA CHEMICAL COMPANY  
225 SCHILLING BOULEVARD, SUITE 300  
COLLIERVILLE, TN 38017**

**ACCEPTED**

**04/13/2016**

Under the Federal Insecticide, Fungicide  
and Rodenticide Act as amended, for the  
pesticide registered under  
EPA Reg. No. 5905-248

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

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

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below. .

**Mixers, loaders, applicators, and other handlers using engineering controls must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical resistant gloves, such as barrier laminate, butyl or nitrile rubber  $\geq$  14 mils, or Viton  $\geq$  14 mils if mixing or loading
- Chemical resistant apron if mixing or loading

See engineering controls for additional requirements.

**Handlers performing tasks, such as cleaning equipment or spill clean-up for which engineering controls are not feasible must wear:**

- Coveralls over long-sleeved shirt and long pants
- Chemical resistant gloves, such as barrier laminate, butyl or nitrile rubber  $\geq$  14 mils, or Viton  $\geq$  14 mils
- Chemical resistant footwear plus socks
- Chemical resistant apron if exposed to the concentrate
- Goggles, face shield, or safety glasses
- A respirator with an organic-vapor removing cartridge with a prefilter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH-approved respirator with an organic vapor (OV) cartridge or canister with any R, or P, or HE prefilter.

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

**ENGINEERING CONTROLS**

Mixers and loaders must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides that provides dermal and inhalation protection [40 CFR 170.240 (d)(4)], and must:

- wear the personal protective equipment required for mixers/loaders using engineering controls;
- wear protective eyewear if the system operates under pressure; and
- be provided and have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown, chemical resistant footwear and the respirator specified in the PPE section of this labeling for handlers not using engineering controls.

Applicators using motorized ground equipment and flaggers supporting aerial applications to lettuce must use an enclosed cab that meets the definition in the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240 (d)(5)] for dermal protection. In addition, applicators must:

- wear the personal protective equipment required in the PPE section of this labeling for handlers using engineering controls;
- *either* wear the respirator specified for handlers not using engineering controls *or* use an enclosed cab that is declared in writing by the manufacturer or by a government agency to provide at least as much respiratory protection as the respirator specified for handlers not using engineering controls;
- be provided and have immediately available for use in an emergency when they must exit the cab in the treated area, coveralls, chemical resistant footwear, and, if not already using one, the respirator specified for handlers not using engineering controls;
- take off any PPE that was worn in the treated area before reentering the cab, and
- store all such PPE in a chemical-resistant container, such as a plastic bag, to prevent contamination of the inside of the cab.

**Exception:** For application to lettuce, see directions for use for a special exception to these engineering controls requirements. Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

When entering or leaving an aircraft contaminated with pesticide residues, pilots must wear chemical resistant gloves and must store used gloves in a chemical resistant container, such as a plastic bag, to prevent contamination of the inside of the cockpit.

**Note:** Aerial applications are permitted only on lettuce.

### USER SAFETY RECOMMENDATIONS

#### Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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.

### ENVIRONMENTAL HAZARDS

This product is highly toxic to birds, fish, and other wildlife. Birds, especially waterfowl, feeding or drinking on treated areas may be killed. Do not exceed maximum permitted label rates. Rates above those recommended significantly increase potential hazards to birds, especially waterfowl. 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 washwater. 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

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

### DIRECTIONS FOR USE

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

**Reformulation or repackaging of this product is prohibited.**

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

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI). The REI for each crop is listed in the directions for use associated with each crop. 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 worn over long sleeve shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear if overhead exposures

Notify workers of the application by warning them orally and by posting warning signs at entrance to treated areas.

### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in a dry place. Open dumping is prohibited.

**PESTICIDE DISPOSAL:** 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 the concentrate, spray mixture, or rinse water into sanitary drains (for example, street drains). If pesticide, spray mixture, or rinsate cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL: NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, incinerate or burn, if allowed by state and local authorities. Stay out of smoke from burning container. For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup and disposal of wastes.

**NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, incinerate or burn, if allowed by state and local authorities. Stay out of smoke from burning container. For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup and disposal of wastes.

**REFILLABLE CONTAINER:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill or by incineration or by other procedures approved by State and local authorities.

### WORK SAFETY RULES

Repeated exposures to cholinesterase inhibitors such as are contained in this product may, without warning, cause prolonged susceptibility to very small doses of any cholinesterase inhibitor. When handling Diazinon AG500, do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away. See **FIRST AID** section of this label. When handling this product, wear the personal protective equipment listed on this label.

### GENERAL INFORMATION

Diazinon AG500 is an emulsifiable solution which, when diluted with water according to the directions, is intended for the control of insect pests of agricultural crops and other plants. Do not use in greenhouses. Do not use in barns or dwellings. Do not use on livestock. Aerial application is prohibited, except as allowed on the label for use on lettuce.

In the directions for use which follow, best control is obtained when application is made when infestation is noticed.



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

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

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

Failure to follow the directions for use and precautions on this label may result in poor insect control, crop injury, or illegal residues.

#### **CHEMIGATION STATEMENT APPLICATION THROUGH IRRIGATION SYSTEMS - CHEMIGATION**

Diazinon AG500 may be applied alone or in combination with other pesticides registered for application through irrigation systems. Apply this product only through sprinkler, including center pivot, lateral move, end tow side (wheel) roll, traveler, big gun, solid set, or hand move, flood (basin) furrow, border, or drip (including surface and subsurface) irrigation systems. Do not apply this product through any other type of irrigation system.

Diazinon is physically compatible with most insecticide and fungicide products; if you are not certain of the physical compatibility of Diazinon AG500 with other tank mix partners, please contact your local Helena Chemical Company sales representative. **Note: Do not mix Diazinon AG500 with any formulation of captan or Captec® because crop injury may occur.**

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform 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 an 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 should the need arise.

Mix in clean supply tank the recommended amount of this product for acreage to be covered, and needed quantity of water.

This product should not be tank-mixed with other pesticides, surfactants or fertilizers unless prior use has shown the combination noninjurious under your conditions of use. Follow precautionary statements and directions for all tank-mix products.

On all crops, use sufficient gallonage of water to obtain thorough and uniform coverage, but not cause runoff or excessive leaching. This will vary depending on equipment, pest problem and stage of crop growth. Application of more or less than optimal quantity of water may result in decreased chemical performance, crop injury or illegal pesticide residues.

Meter this product into the irrigation water uniformly during the period of operation. Do not overlap application. Follow recommended label rates, application timing, and other directions and precautions for crop being treated. Continuous mild agitation of pesticide mixture may be needed to assure a uniform application, particularly if the supply tank requires a number of hours to empty.

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

#### **CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS**

*Note: Helena Chemical Company does not encourage connecting chemigation systems to public water supplies. The following information is provided for users who have diligently considered all other application and water supply options before electing to make such a connection.*

Public water systems 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. 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 a 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, 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 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 AG500 needed to treat the acreage to be treated. Refer to the specific directions for use for the application rate and the amount of water per acre.
3. Add the pre-measured Diazinon AG500 to the chemigation system supply tank and dilute with water if needed. Proper agitation is needed if Diazinon AG500 is tank mixed with other pesticides registered for sprinkler chemigation application.
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.

### **FLOOD (BASIN) FURROW AND BORDER CHEMIGATION (SOIL DRENCH USES)**

Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.

Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:

- a) The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
- b) The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- c) 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 for the supply tank when the irrigation system is either automatically or manually shut down.
- d) The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- e) 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.
- f) 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.



## **DRIP (INCLUDING SURFACE AND SUBSURFACE) CHEMIGATION (SOIL DRENCH USES)**

The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pipe 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.

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

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.

## **SPRAY EQUIPMENT**

Applications of Diazinon AG500 using sufficient water volume to provide thorough and uniform coverage generally provide the most effective pest control.

To avoid spray drift, do not apply when conditions favor drift from beyond the target area. Avoid overlap because crop injury may occur.

Equip sprayers with nozzles that provide accurate and uniform application. Be certain that nozzles are the same size and uniformly spaced across the boom. Calibrate sprayer before use.

For more information on spray equipment and calibration, consult sprayer manufacturer's and state recommendations. For specific local directions and spray schedules, consult your local or state agricultural authorities.

## **MIXING PROCEDURES**

Thoroughly clean spray equipment before using this product. Prepare only the amount of spray mixture needed for the immediate application. Vigorous agitation is necessary for proper dispersal of this product. Maintain maximum agitation throughout the spraying operation. Do not let the spray mixture stand in the spray tank overnight. Flush the spray equipment thoroughly following each use.

### **1. Diazinon AG500 Alone:**

Add ½ of the required amount of water to the mix tank. With the agitator running, add the Diazinon AG500 to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after the Diazinon AG500 has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

### **2. Diazinon AG500 in Tank-Mixtures:**

**Note: Do not mix Diazinon AG500 with any formulation of Captan or Captec® because crop injury may occur.**

Diazinon is physically compatible with most insecticide and fungicide products; if you are not certain of the physical compatibility of Diazinon AG500 with other tank mix partners, please contact your local Helena Chemical Company sales representative. When using Diazinon AG500 in tank mixtures, observe all directions for use, crops/sites, use rates, dilution ratios, precautions, and limitations which appear on the tank mix products' labels. Confirm that the tank mixture is safe to the crop by spraying a small area first, and evaluating crop safety after an appropriate period. Do not treat larger areas until crop safety has been confirmed.

Add ½ of the required amount of water to the mix tank. Start the agitator running before adding any tank-mix partners. Add tank-mix partners in this order: all products in water-soluble packaging, wettable powders, wettable granules (dry flowables), liquid flowables, liquids, and emulsifiable concentrates. Always allow each tank-mix partner to fully disperse before adding the next product. Maintain sufficient agitation while adding the remainder of the water and until all of the mixture has been applied.

## FRUIT AND NUT CROPS

Diazinon AG500 may be applied using ground application equipment as specified in the following table. This table indicates the *minimum* amount of water that can be used for application. The rate of Diazinon AG500 for concentrated spray applied to fruit trees by ground equipment is based on a dilute full cover spray applied with conventional ground equipment at a rate of 300-400 gals. of water per acre. The specific amount of product to be used appears under the separate directions for use for each crop. If the rate calls for 1 pt. of Diazinon AG500 in 100 gals. of water, this amounts to 3-4 pts. of product per acre when applied at the usual dilute ground spray volumes of 300-400 gals. of water per acre. In no case should the amount of product used per acre exceed the maximum amount per acre per application that is specified in the **COMMENTS** section for individual crops.

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

Diazinon AG500 may be used during dormancy on deciduous trees and vines. When mixing with spray oils, follow oil manufacturer's use directions.

CROP	GROUND APPLICATION MINIMUM GALS./ACRE	
	Dilute	Concentrate
Almonds*	100	20
Apricots	100	20
Blackberries**	100	20
Blueberries	100	20
Boysenberries**	100	20
Caneberries****	100	20
Cherries	100	20
Cranberries	15	-
Dewberries**	100	20
Figs*	100	20
Filberts***	250	20
Loganberries**	100	20
Nectarines	100	20
Peaches	100	20
Plums	100	20
Prunes	100	20
Raspberries**	100	20
Strawberries	100	20

\*CA Only

\*\*CA, OR, WA Only

\*\*\*OR, WA Only

\*\*\*\*CA, OH, OR, WA Only

### FRUIT AND NUT CROPS

CROP	PEST	RATE	COMMENTS
<b>ALMONDS</b> (California 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 to 1.5 pints (0.5 – 0.75 lbs. a.i.) per 100 gals. water	Apply in 100 gals. water plus 2-3 gals. dormant oil or 1-1½ gals. superior type oil. Apply during the dormant season only.
	<ul style="list-style-type: none"> <li>Do not apply more than 6 pts. (3 lbs. a.i.) of product or 9 gals oil per acre.</li> <li>Do not apply more than 3 lbs. a.i. per acre per year.</li> <li>Make a maximum of one application per year during the dormant season only.</li> <li>Apply every other year unless pest infestations can be controlled only with consecutive annual treatments.</li> <li>The REI is 7 days</li> </ul>		
<b>APRICOTS</b>	San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite eggs, Brown Mite eggs, Twig Borer, Apple Aphid eggs, Black Cherry Aphid eggs, Mealy Plum Aphid eggs, Mealybugs	1 pt. (0.5 lbs. a.i.) per 100 gals. water	Apply as a dormant spray only once per year. When using spray oils, follow spray oil manufacturer's use directions.
	Aphids, Brown Mite (Clover Mite), Two-spotted Spider Mite, Olive Scale Crawler, San Jose Scale Crawler	1 pt. (0.5 lbs. a.i.) per 100 gals. water	Apply when infestation is noticed.
	Apricot Mealybug	1 pt. (0.5 lbs. a.i.) per 100 gals. water	Apply as a cover spray from petal fall to June.
	Olive Scale Crawler	½ pt. (0.25 lbs. a.i.) plus 1½ gals. of light medium horticultural oil per 100 gals. of water	Apply when crawlers are present.
	<ul style="list-style-type: none"> <li>Do not apply more than 4 pts. (2 lbs. a.i.) of product per acre per application.</li> <li>Do not apply more than 8 pts. (4 lbs. a.i.) per acre per year.</li> <li>A maximum of two applications are allowed per year: 1) a maximum of one as a dormant application and 2) a maximum of one as an in-season foliar application regardless of target pest.</li> <li>For in-season applications, apply every other year unless pest infestations can be controlled only with consecutive annual treatments.</li> <li>The MRI is 60 Days between Dormant Application and In-Season Application; 120 Days between Dormant Application and Post Harvest Application</li> <li>The REI is 4 days.</li> <li>The PHI is 21 days.</li> </ul>		

<b>BLUEBERRIES</b>	Cranberry Fruitworm, Cherry Fruitworm, Blueberry Maggot, Aphids, Thrips, Two-spotted Spider Mite	1 pint (0.5 lb. a.i.) per acre per 100 gals. water	Apply when infestation occurs.
	Fire Ants	1 pint (0.5 lb. a.i.) per acre per 100 gals. water	To aid in the control of fire ants, slowly apply 1 gal. of diluted mixture over and 6 inches around each 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. For best results, apply in cool weather (65-80°F) or in early morning or late evening hours.
	<ul style="list-style-type: none"> <li>Do not apply more than 2 pts. (1 lbs. a.i.) of product per acre per application.</li> <li>Do not apply more than 4 pts. (2 lbs. a.i.) of product per year.</li> <li>A maximum of two applications are allowed per year: 1) a maximum of one as an in-season foliar application regardless of target pest and 2) a maximum of one for control of fire ant.</li> <li>The Minimum Retreatment Interval is 30 days.</li> <li>The REI is 5 days.</li> <li>The PHI is 5 days.</li> </ul>		
<b>CANEBERRIES</b> (Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries) (California, Ohio, Oregon, and Washington Only)	Raspberry Fruitworm	1 qts. (1 lbs. a.i.) per acre	Apply when insects occur. Apply in a minimum of 100 gals. of water per acre (200 gals. per acre maximum). Make application when blossom buds separate.
	Raspberry Crown Borer (Raspberry Root Borer)	2 qts. (2 lbs. a.i.) per acre	Apply a single application in a minimum of 100 gals. of water per acre as a drench to the crown and lower canes in the spring before buds break.
	<ul style="list-style-type: none"> <li>Do not apply more than 2 qts. (2 lbs. a.i.) of product per acre per application.</li> <li>Do not apply more than 2 qts. (2 lbs. a.i.) of product per acre per year.</li> <li>Make a maximum of one application per year regardless of the target pest.</li> <li>The REI is 5 days.</li> <li>The PHI is 7 days.</li> </ul>		

<b>CHERRIES</b>	San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite eggs, Brown Mite eggs, Twig Borer, Apple Aphid eggs, Black Cherry Aphid eggs, Mealy Plum Aphid eggs, Mealybugs	1 pt. (0.5 lb. a.i.) per 100 gals. water	Apply as a dormant spray. When using spray oils, follow spray oil manufacturer's use directions. Apply only once during the dormant season.
	Eyespotted Bud Moth, Fruittree Leafroller, Leafhoppers, Black Cherry Aphid, San Jose Scale Crawler	1 pt. (0.5 lb. a.i.) per 100 gals. water	Apply when infestation occurs.
	Cherry Fruit Fly	½ - 1 pt. (0.25 – 0.5 lb. a.i.) per 100 gals. water	Apply when adult flies begin to emerge.
	Cherry Rust Mite		Apply to trees after harvest.
	<ul style="list-style-type: none"> <li>Do not apply more than 4 pts. (2 lbs. a.i.) of product per acre per application.</li> <li>Do not apply more than 8 pts. (4 lbs. a.i.) of product per acre per year.</li> <li>A maximum of two applications are allowed per year: 1) a maximum of one as a dormant application and 2) a maximum of one as an in-season foliar application regardless of target pest.</li> <li>For in-season applications, apply every other year unless pest infestations can be controlled only with consecutive annual treatments.</li> <li>The MRI is 30 Days between Dormant Application and In-Season Application; 90 Days between Dormant Application and Post Harvest Application</li> <li>The PHI is 21 days</li> <li>The REI is 4 days.</li> </ul>		
<b>CRANBERRIES</b>	Blackheaded Fireworm ( <i>Rhopobota naevana</i> )	2 qts. (2 lbs. a.i.) per acre	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 3 applications per season is permitted regardless of target pest.
	Cranberry Fruitworm	2 to 3 qts. (2-3 lbs. a.i.) 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 adviser. Repeat application after 14 days if necessary. A maximum of 3 applications per season is permitted regardless of target pest.
	Cranberry Tipworm	2 qts. (2 lbs. a.i.) per acre	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 3 applications per season is permitted regardless of target pest.
	<ul style="list-style-type: none"> <li>Do not make more than 3 applications per year regardless of the target pest.</li> <li>Do not apply more than 3 qts. (3 lbs. a.i.) of this product per acre per application.</li> <li>Do not apply more than 9 qts. (9 lbs. a.i.) of product per acre per year. .</li> <li>Do not use water from irrigated or flooded cranberry bed for drinking purposes or to irrigate crops other than those appearing on EPA-approved diazinon labels.</li> <li>The Minimum Retreatment Interval is 14 days.</li> <li>The REI is 5 days.</li> <li>The PHI is 7 days.</li> </ul>		

<b>FIGS</b> (California Only)	Vinegar flies- <i>Drosophila</i> spp., Dried fruit beetle	1 pt. (0.5 lb. a.i.) per 100 gals.	Apply 1 pt. per 100 gals. Water not to exceed 100 gallons of spray per acre. Apply when infestation occurs.
	<ul style="list-style-type: none"><li>Do not apply more than 1 pt. (0.5 lb. a.i.) of product per acre.</li><li>Do not apply more than 0.5 lbs. a.i. per acre per year.</li><li>Make a maximum of one application per year regardless of target pest.</li><li>The REI is 4 days.</li><li>The PHI is 21 days.</li></ul>		
<b>FILBERTS (HAZELNUTS)</b> (Oregon and Washington Only)	Filbert Leafroller, Aphids	1 pt. (0.5 lbs. a.i.) per acre	Apply as a thorough cover spray in 250 to 400 gals. of water per acre.
	<ul style="list-style-type: none"><li>Do not apply more than 1 pt. (0.5 lbs. a.i.) of product per acre.</li><li>Do not apply more than 1 pt. (0.5 lbs. a.i.) per acre per year.</li><li>Make a maximum of one application per year regardless of target pest.</li><li>The REI is 18 days.</li><li>The PHI is 21 days.</li></ul>		
<b>NECTARINES</b>	San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite eggs, Brown Mite eggs, Twig Borer, Apple Aphid eggs, Black Cherry Aphid eggs, Mealy Plum Aphid eggs, Mealybugs	1 pt. (0.5 lb. a.i.) per 100 gals. water	Apply as a dormant spray. When using spray oils, follow spray oil manufacturer's use directions. Apply only once during the dormant season.
	Oriental Fruit Moth, Aphids, Brown Mite (Clover Mite), Two-spotted Spider Mite, Olive Scale Crawler, San Jose Scale Crawler, Peach Twig Borer		Apply when infestation occurs. Do not apply more than 4 pts. of product or 4 gals. of summer oil per acre.
	<ul style="list-style-type: none"><li>Do not apply more than 4 pts. (2 lbs. a.i.) of product per acre per application.</li><li>Do not apply more than 4 lbs. a.i. per acre per year.</li><li>A maximum of two applications are allowed per year: 1) a maximum of one as a dormant application and 2) a maximum of one as an in-season foliar application regardless of target pest.</li><li>For in-season applications, apply every other year unless pest infestations can be controlled only with consecutive annual treatments.</li><li>The MRI is 60 Days between Dormant Application and In-Season Application</li><li>The PHI is 21 days</li><li>The REI is 4 days.</li></ul>		



<b>PEACHES</b>	San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite eggs, Brown Mite eggs, Twig Borer, Apple Aphid eggs, Black Cherry Aphid eggs, Mealy Plum Aphid eggs, Mealybugs	1 pt. (0.5 lb.ai.) per 100 gals. water	Apply as a dormant spray. When using spray oils, follow spray oil manufacturer's use directions. Do not apply more than 4 pts. of product or 6 gals. of oil per acre. Apply only once during the dormant season.
	Brown Mite (Clover Mite), Two-spotted Spider Mite, Olive Scale Crawler, San Jose Scale Crawler		Apply when infestation occurs.
	Peach Twig Borer, Parlatoria Scale		Apply when infestation occurs.
	Oriental Fruit Moth		Apply at 100% petal fall.
	Leafhoppers		Apply when infestation occurs.
	White Peach Scale	1 ½ - 2 pts. (0.75 – 1 lb. a.i.) per 100 gals. water	Apply post-harvest timed to coincide with peak crawler and immature scale activity. Do not apply before fruit is harvested.
<ul style="list-style-type: none"> <li>Do not apply more than 4 pts (2 lbs. a.i.) of product per application.</li> <li>Do not apply more than 8 pts. (4 lbs. a.i.) of product per acre per year.</li> <li>A maximum of two applications are allowed per year: 1) a maximum of one as a dormant application and 2) a maximum of one as an in-season foliar application regardless of target pest.</li> <li>For in-season applications, apply every other year unless pest infestations can be controlled only with consecutive annual treatments.</li> <li>The MRI is 60 Days between Dormant Application and In-Season Application; 120 Days between Dormant Application and Post Harvest Application</li> <li>The PHI is 21 days</li> <li>The REI is 4 days.</li> </ul>			
<b>PLUMS</b>	San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite eggs, Brown Mite eggs, Twig Borer, Apple Aphid eggs, Black Cherry Aphid eggs, Mealy Plum Aphid eggs, Mealybugs	1 pt. (0.5 lb. a.i.) per 100 gals. water	Apply as a dormant spray. When using spray oils, follow spray oil manufacturer's use directions. Apply only once during the dormant season.
	Brown Mite (Clover Mite), European Red Mite, Leafcurl Plum Aphid, Mealy Plum Aphid, Thistle Aphid		Apply when infestation occurs.
	Leafcurl Plum Aphid, Mealy	½ to 1 pt. per 100 gallons water	Apply when infestation occurs
<ul style="list-style-type: none"> <li>Do not apply more than 4 pts. (2 lbs. a.i.) of product per acre per application.</li> <li>Do not apply more than 8 pts. (4 lbs. a.i.) of product per acre per year.</li> <li>A maximum of two applications are allowed per year: 1) a maximum of one as a dormant application and 2) a maximum of one as an in-season foliar application regardless of target pest.</li> <li>For in-season applications, apply every other year unless pest infestations can be controlled only with consecutive annual treatments.</li> <li>The MRI is 60 Days between Dormant Application and In-Season Application; 120 Days between Dormant Application and Post Harvest Application</li> <li>The REI is 4 days.</li> <li>The PHI is 21 days.</li> </ul>			

<b>PRUNES</b>	San Jose Scale, Parlatoria Scale, Black Scale, Brown Scale, Apricot Scale, European Red Mite eggs, Brown Mite eggs, Twig Borer, Apple Aphid eggs, Black Cherry Aphid eggs, Mealy Plum Aphid eggs, Mealybugs	1 pt. (0.5 lb. a.i.) per 100 gals. water	Apply as a dormant spray. When using spray oils, follow spray oil manufacturer's use directions. Apply only once during the dormant season.
	Brown Mite (Clover Mite), European Red Mite		Apply when infestation occurs.
	Leafcurl Plum Aphid, Mealy Plum Aphid, Thistle Aphid	½ - 1 pt. (0.25 – 0.5 lb a. i.) per 100 gals. water	Apply when infestation occurs.
	<ul style="list-style-type: none"> <li>Do not apply more than 4 pts. (2 lbs. a.i.) of product per acre per application.</li> <li>Do not apply more than 8 pts. (4 lbs. a.i.) of product per acre per year.</li> <li>A maximum of two applications are allowed per year: 1) a maximum of one as a dormant application and 2) a maximum of one as an in-season foliar application regardless of target pest.</li> <li>For in-season applications, apply every other year unless pest infestations can be controlled only with consecutive annual treatments.</li> <li>The MRI is 60 Days between Dormant Application and In-Season Application; 120 Days between Dormant Application and Post Harvest Application</li> <li>The PHI is 21 days</li> <li>The REI is 4 days.</li> </ul>		
<b>STRAWBERRIES</b>	Aphids, Two-spotted Spider Mite,	1 pt. (0.5 lb. a.i.) per 100 gals. water per acre.	Apply when pest occurs.
	Cyclamen Mite	1 qt. (1 lb. a.i.) per 100 gals water per acre.	Direct spray to the plant crown. Plants should be sufficiently agitated to assure thorough coverage of the foliage.
	Mole Crickets	1 qt. (1 lb. a.i.) per acre	Broadcast in sufficient water to obtain even coverage when insects are present. Apply 1-2 days before transplanting and immediately incorporate into the top 1-2 inches of soil.
	Strawberry Leafroller	0.75 – 1 pint per 100 gals water	Apply 200 gallons of spray per acre when blossoms show color.
	<ul style="list-style-type: none"> <li>Do not apply more than 1 qt. (1 lb. a.i.) of product per acre per application.</li> <li>Do not apply more than 2 qts. (2 lbs. a.i.) of product per acre per year.</li> <li>Make a maximum of one foliar application per crop and a maximum of one soil application per crop.</li> <li>The Minimum Retreatment Interval is 30 days.</li> <li>The REI is 3 days.</li> <li>The PHI is 5 days.</li> </ul>		

### VEGETABLE CROPS

For foliar or soil applications, Diazinon AG500 should always be applied as a spray in sufficient water to assure thorough coverage of the foliage or soil. Diazinon AG500 may be applied using ground or aerial (lettuce only) application equipment as specified in the following table. Aerial application is prohibited except as allowed on the label for use on lettuce. This table indicates the minimum amount of water that can be used for application. The specific amount of product to be used appears under the separate directions for use for each crop.

CROP	GROUND APPLICATION MIN. GPA	MIN. GALS./ 1000 SQ. FT. (GROUND)	AERIAL APPLICATION MIN. GPA
Beans, Succulent	10	2	-
Beets, Red (Table)	10	2	-
Broccoli	10	2	-
Brussels Sprouts	10	2	-
Cabbage	10	2	-
Cantaloupes	5	1	-
Carrots	10	2	-
Casaba Melons	5	1	-
Cauliflower	10	2	-
Collards	10	2	-
Crenshaw Melons	5	1	-
Endive (Escarole)	10	2	-
Ginseng	10	2	-
Honeydew Melons	5	1	-
Kale	10	2	-
Lettuce, Head	10	2	5
Lettuce, Leaf	10	2	5
Muskmelons	5	1	-
Mustard Greens	10	2	-
Onions (Bulb and Green)	10	2	-
Peas, Succulent	10	2	-
Persian Melons	5	1	-
Radishes	10	2	-
Rutabagas	10	2	-
Spinach	10	2	-
Tomatoes	10	2	-
Watermelons	5	1	-

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

NOTES: (1) Soil Incorporation: Following application of this product to control vegetable soil insects, immediately incorporate the product into the soil to the recommended depth (see directions for individual crops) 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) Diazinon will not control organophosphate-resistant leafminers.

**VEGETABLE CROPS**

<b>CROP</b>	<b>PEST</b>	<b>RATE/ ACRE</b>	<b>COMMENTS</b>
<b>BEANS, SUCCULENT</b>	Cutworms	2-4 qts. (2-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 3 days.</li> <li>The PHI is 45 days.</li> </ul>		
<b>BEETS, RED (Table)</b>	Cutworms	2-4 qts. (2-4 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 3 days.</li> </ul>		
<b>BROCCOLI, BROCCOLINI</b>	Root Maggots	2-3 qts. (2-3 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 3-4 inches of soil.
		4-8 oz. (0.25-0.5 lbs. ai.) per 50 gals. water	Apply in transplant water as a drench application when 200-300 gals of water are used per acre. Apply recommended rate 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	2-4 qts. (2-4 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts (4 lbs. a.i.) per acre per application.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 4 days</li> </ul>		

<b>BRUSSELS SPROUTS</b>	Root Maggots	2-3 qts. (2-3 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 3-4 inches of soil.
		4-8 oz. (0.25 – 0.5 lbs. ai.) per 50 gals. water	Apply in transplant water as a drench application when 200-300 gals of water are used per acre. Apply recommended rate 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	2-4 qts. (2-4 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 4 days.</li> </ul>		
<b>CABBAGE</b>	Root Maggots	2-3 qts. (2-3 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 3-4 inches of soil.
		4-8 oz. (0.25 – 0.5 lbs. ai.) per 50 gals. water	Apply in transplant water as a drench application when 200-300 gals of water are used per acre. Apply recommended rate 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	2-4 qts. (2-4 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1 - 2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 4 days.</li> </ul>		
<b>CARROTS</b>	Cutworms	<u>4 qts.</u> <u>(4 lb. a.i.)</u>	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	<u>1 qt.</u> <u>(1 lb. a.i.)</u>	One to two days before planting, broadcast and immediately incorporate into the top 1 - 2 inches of soil.
	Wireworms	<u>3-4 qts.</u> <u>(3-4 lbs. a.i.)</u>	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>The REI is 3 days.</li> </ul>		

<b>CAULIFLOWER, BROCCOFLOWER</b>	Root Maggots	2-3 qts. (2-3 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 3-4 inches of soil.
		4-8 oz. (0.25 – 0.5 lbs. ai.) per 50 gals. water	Apply in transplant water as a drench application when 200-300 gals of water are used per acre. Apply recommended rate 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	2-4 qts. (2-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>The REI is 4 days.</li> </ul>		
<b>COLLARDS</b>	Cutworms	4 qts. (4 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>Do not apply more than 4 qts (4 lbs. a.i.) per acre per application.</li> <li>The REI is 4 days.</li> </ul>		
<b>ENDIVE</b> (Escarole)	Cutworms	1 qts. (1 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	1 qts. (1 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 2 pts. (1 lbs. a.i.) per acre per year.</li> <li>Do not apply more than 2 pts. (1 lbs. a.i.) per acre per application.</li> <li>The REI is 4 days.</li> </ul>		



<b>GINSENG</b>	Leafhoppers, Aphids, Lygus Bugs, Flea Beetles, Jumping Plant Lice	¾ - 1 pint	Spray when insects first appear. For heavy insect infestations, use 1 pt. per acre. Apply by ground equipment using 10-100 gals. of water per acre.
	<ul style="list-style-type: none"> <li>Do not apply more than one application per year.</li> <li>Do not apply during flowering of three- or four-year old crops.</li> <li>Do not apply more than 1 pint (0.5 lb. a.i.) per acre per year.</li> <li>Do not apply more than 1 pint (0.5 lb. a.i.) per acre per application</li> <li>Do not graze treated areas or feed treated forage to livestock.</li> <li>The PHI is 30 days</li> <li>The REI is 3 days.</li> </ul>		
<b>KALE</b>	Cutworms	2-4 qts. (2-4 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 4 days.</li> </ul>		
<b>LETTUCE</b> (Head and Leaf)	Cutworms	2 qts. (2 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	2 qts. (2 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	Aphids, Dipterous Leafminer	1 pt. (0.5 lb. a.i.)	Apply when insects occur.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per crop regardless of target pest.</li> <li>Do not make more than one foliar application per crop regardless of target pest.</li> <li>Do not apply more than 2 qts. (2 lbs. a.i.) per acre per application.</li> <li>Allow at least 30 days between applications.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>Aerial application is permitted on lettuce.</li> <li>EXCEPTION: Applicators applying to lettuce are permitted to use open-cab equipment provided they are wearing chemical-resistant headgear AND the personal protective equipment specified in this labeling for handlers not using engineering controls.</li> <li>The PHI is 14 days.</li> <li>The REI is 3 days.</li> </ul>		
<b>MELONS</b> (Cantaloupes, Casabas, Crenshaws, Muskmelons, Persians and hybrids of these) and <b>WATERMELONS</b>	Cutworms	2-4 qts (2-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Wireworms	3-4 qts (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>The PHI is 3 days.</li> <li>The REI is 3 days.</li> </ul>		

<b>HONEYDEW MELONS</b>	Aphids, Dipterous Leafminer, Thrips, Striped Cucumber Beetle, Melonworms, Leafhoppers, Spider Mites	½-1½ pt. (0.25 – 0.75 lb. a.i.)	Apply when infestation occurs.
	<ul style="list-style-type: none"> <li>Do not make more than one soil and one foliar application per year regardless of target pest.</li> <li>For soil application, do not apply more than 8 pts (4 lbs. a.i.) of this product per acre per year.</li> <li>Do not apply more than 8 pts (4 lbs. a.i.) of this product per acre per application.</li> <li>For foliar application, do not apply more than 1.6 pints (0.8 lb. a.i.) of this product per acre per application.</li> <li>Do not apply more than 1.6 pints (0.8 lb. a.i.) of this product per acre per year.</li> <li>Minimum retreatment interval is 30 days.</li> <li>The REI is 3 days.</li> <li>The PHI is 3 days.</li> </ul>		
<b>MUSTARD GREENS</b>	Cutworms	2-4 qts. (2-4 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 4 days.</li> </ul>		
<b>ONIONS (Bulb and Green), GARLIC, LEEKS, SPRING ONIONS OR SCALLIONS, JAPANESE BUNCHING ONIONS, GREEN SHALLOTS, GREEN ESCHALOTS</b>	Onion Maggots	2-4 qts. (2-4 lb. a.i.)	Broadcast just before planting and mix into the top 3-4 inches of soil. Note: Diazinon will not control organophosphate-resistant onion maggots.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 3 days.</li> </ul>		
<b>RADISHES</b>	Cutworms	2-4 qts. (2-4 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See SOIL INCORPORATION note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 3 days.</li> </ul>		
<b>RUTABAGAS</b>	Cabbage Maggot	2-4 qts. (2-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the soil to a depth of 4 inches.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 4 days.</li> </ul>		

<b>SPINACH</b>	Cutworms	2-4 qts. (2-4 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 3 days.</li> </ul>		
<b>TOMATOES</b>	Cutworms	2-4 qts. (2-4 lb. a.i.)	Broadcast just before planting and immediately incorporate into the soil. See Soil Incorporation note.
	Mole Crickets	1 qt. (1 lb. a.i.)	One to two days before planting, broadcast and immediately incorporate into the top 1-2 inches of soil.
	Wireworms	3-4 qts. (3-4 lbs. a.i.)	Broadcast just before planting and immediately incorporate into the top 4-8 inches of soil.
	<ul style="list-style-type: none"> <li>Do not make more than one soil application per year regardless of target pest.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per application.</li> <li>Do not apply more than 4 qts. (4 lbs. a.i.) per acre per year.</li> <li>The REI is 2 days.</li> </ul>		

### ORNAMENTAL STATEMENT

Before treating a large number of ornamental plants with Diazinon AG500 alone or as a tank mixture with any other material, make a test application on a few plants and observe for 7 to 10 days prior to treating large areas to reduce the possibility of plant injury.

#### INSECT CONTROL ON ORNAMENTALS GROWN OUTDOORS IN NURSERIES

CROP	PEST	RATE	COMMENTS
<b>ARBORVITAE, AZALEA, BIRCH, BOXWOOD, CAMELLIA, CARNATION, CHRYSANTHEMUM, CRABAPPLE, DOGWOOD, DOUGLAS FIR, ELM, EUONYMUS, 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</b>	Aphids, Bagworms, Carnation Bud Mite, Carnation Shoot Mite, Clover Mite, Cyclamen Mite, Dipterous Leafminer, European Pine Shoot Moth, European Red Mite, Flea Beetles, Holly Bud Moth, Leafhoppers, Obscure Root Weevil, Omnivorous Leaf-tier, Privet Mite, Scale Crawlers (Cottony-cushion, Lecanium, Pine Needle, San Jose, Soft), Thrips, Two-spotted Spider Mite, Juniper Webworm, Whiteflies	½ fl. oz. per 3 gals. water or 1 pt. per 100 gals. of water	Apply the recommended rates. Spray when listed pests first appear. Try to spray underside of leaves and penetrate dense foliage.
	Apple-and-Thorn Skeletonizer, Cotonest Webworm, European Pine Sawfly, Fall Webworm, Hemlock Chermes, Oak Looper, Obliquebanded Leafroller, Pear Slug, Tent Caterpillar	1½ fl. oz. per 3 gals. of water or 2 pts. per 100 gals. of water	
	Mimosa Webworm	½ fl. oz. in 3 gals. of water or 1 pt. in 100 gals. of water	Apply as a thorough foliar spray when adults first appear. Try to spray underside of leaves and penetrate dense foliage.
	<ul style="list-style-type: none"> <li>Do not use on Ferns, Poinsettia, Hibiscus, Papaya, Pilea, and Gardenia, since injury to the plants may occur.</li> <li><b>Note:</b> 1 fl. oz. = 2 tablespoons; 16 fl. oz. = 1 pint</li> <li>The maximum application rate on all ornamentals is 2 pts. (1.0 lbs. a.i.) per acre.</li> <li>Make a maximum of one application per crop cycle.</li> <li>The REI is 7 days for flowers and other commercial ornamentals grown for cutting.</li> <li>The REI is 2 days for all other commercial ornamentals.</li> <li>Application is permitted only on commercial ornamentals grown outdoors in nurseries.</li> </ul>		

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

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

The directions on this label are believed to be reliable and should be followed carefully. Insufficient control of pests and/or injury to the crop to which the product is applied may result from the occurrence of extraordinary or unusual weather conditions or the failure to follow the label directions or good application practices, all of which are beyond the control of Helena Chemical Company (the "Company") or seller. In addition, failure to follow label directions may cause injury to crops, animals, man or the environment. The Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purpose referred to in the directions for use subject to the factors noted above which are beyond the control of the Company. The Company makes no other warranties or representations of any kind, express or implied, concerning the product, including no implied warranty of merchantability or fitness for any particular purpose, and no such warranty shall be implied by law.

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

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

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

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