



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

MAR 23 1994

A. Eimanis  
MAKHTESHIM-AGAN OF NORTH AMERICA INC.  
551 Fifth Avenue  
New York, NY 10176

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 09/22/93 in Response to PR Notice 93-7  
EPA Reg. No. 66222-10  
DIASOL 50W

Dear Registrant:

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

**WHAT THIS ACCEPTANCE MEANS:**

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

**WHAT YOU NEED TO DO NEXT:**

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

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



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

Page 2

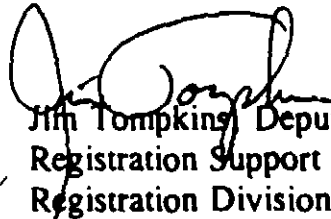
Submit the final printed labeling via the U.S. Postal Service to:

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

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

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

Sincerely,

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

Attachment

3 7 27

ACCEPTED  
with COMMENTS  
In EPA Letter Dated  
MAR 23 1994

Directions for use in Bottom Fold of Bag

# DIASOL 50W

A Wettable Powder Insecticide

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended, for the pesticide  
registered under EPA Reg. No.  
66222-10

For control of certain insects on fruits, vegetables, nuts, field crops, ornamentals and turf.

This product must not be used on golf courses and sod farms.

## FOR AGRICULTURE AND COMMERCIAL USE ONLY

### ACTIVE INGREDIENT:

Diazinon [O,O-diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate] . . . . . 50%

INERT INGREDIENTS: . . . . . 50%

Total . . . . . 100%

### KEEP OUT OF REACH OF CHILDREN

### WARNING AVISO

~~Precaucion Al Usuario: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicada ampliamente. 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.~~

### STATEMENT OF PRACTICAL TREATMENT

#### Organophosphate

If swallowed, call a physician or Poison Control Center immediately. Drink one or two glasses of water and induce vomiting by touching the back of throat with a finger. Repeat until vomit fluid is clear. Do not induce vomiting or give anything by mouth to an unconscious or convulsing person.

If inhaled, remove victim to fresh air and apply artificial respiration if indicated.

If on skin, ~~remove contaminated clothing and~~ wash affected areas immediately with soap and water.

If in eyes, rinse eyes for at least 15 minutes with water and call a physician immediately.

NOTE TO PHYSICIAN: Product contains an organophosphate insecticide. If symptoms of cholinesterase inhibition are present, atropine by injection is antidotal. 2-PAM is also antidotal, and may be administered in conjunction with atropine.

See left side panel for precautionary statement

## WARRANTY STATEMENT

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purpose on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instruction, or under abnormal conditions, or under conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

EPA Reg. No. 66222-10

NET WT. \_\_\_\_\_

EPA Est. No. \_\_\_\_\_

Manufactured by:

Makhteshim-Agan of North America Inc.  
551 Fifth Avenue, Suite 1100  
New York, NY 10176

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### WARNING

May be fatal if swallowed. May be absorbed through skin. Do not breath dust or spray mist. Do not get in eyes, on skin, or on clothing. ~~Wash thoroughly after handling and before eating or smoking.~~ Avoid contamination of food. Do not use on humans. ~~or permit children to go into treated areas until spray has completely dried.~~

Keep out of reach of domestic animals. Do not contaminate feed or use on household pets or livestock. Do not permit pets to go on treated areas until spray has completely dried.

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear: 1) Long-sleeved shirt and long pants, 2) waterproof gloves, and 3) shoes plus socks.

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

#### ENGINEERING CONTROLS STATEMENT

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

## USER SAFETY RECOMMENDATIONS

Users should:

- 1) Wash hand before eating, drinking, chewing gum, using tobacco or using the toilet.
- 2) Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- 3) 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 toxic to fish, birds and other wildlife. Birds and other wildlife feeding on treated areas may be killed. Keep out of lakes, streams, ponds, tidal marshes, and estuaries (except for effluence from treated watercress beds). Do not apply to water that will be used for recreational purposes and human and livestock consumption. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab and other aquatic life are important resources. This product must not be used in areas where impact on threatened endangered species is likely. Contact your State Fish and Game Agency for information pertaining to areas having threatened endangered species. Apply this product only as specified on this label.

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

## DIRECTIONS FOR USE

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

Do not apply this product through any type of irrigation system.

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) of 12 hours. 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: 1) coveralls, 2) waterproof gloves, and 3) shoes plus socks.

~~Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.~~

~~Do not enter treated areas without protective clothing until sprays have dried.~~

~~Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.~~

~~Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be in a language customarily understood by the workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by the workers.~~

~~Written warnings must include the following information: WARNING. Area treated with Diazinon on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure to pesticide spray or dust, wash the skin thoroughly with soap and water. Remove contaminated clothing and wash before re-use. If in eyes, flush with plenty of water. If inhaled, go to an area where the pesticide has not been applied. Get medical attention if needed.~~

#### STORAGE AND DISPOSAL

Storage: Do not contaminate water, food, or feed by storage or disposal. Store in a dry place.

Container Disposal: 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. If burned, stay out of smoke.

Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

In case of minor spills, follow all precautions indicated above and cleanup immediately. Sweep up and dispose of wastes and broken or empty containers in a landfill approved for pesticide use.

#### GENERAL INFORMATION

Diasol 50W 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 insects. Application should be repeated as necessary to maintain control.

Since Diasol 50W is a wettable powder formulation, constant agitation is necessary during the application.

**NOTE:** The California Department of Agriculture has set a 5-day reentry for diazinon on citrus, 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 organic phosphate pesticides is applied in combination, the interval should be prolonged by adding to the largest applicable interval an additional 50% of that interval.

(See back panel)

**Directions for the following uses are in the bottom fold of the bag. Read and follow Directions given in leaflet.**

See side panel for Storage and Disposal and General Information

### **FRUIT AND NUT INSECTS**

For control of many insects on the following fruit and nut crops:

Almond, Apples, Apricots, Blueberries, Caneberries (Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries, Cherries, Cranberries, Figs, Filberts and Citrus Fruits (Grapefruit, Lemons, Limes, Kumquats and hybrids of these), Grapes, Olives, Peaches and Nectarines, Pears, Pecans, Pineapple, Plums and Prunes, Strawberries, Walnuts

### **VEGETABLE FOLIAR INSECTS**

For control of many insects on the following vegetable crops:

Beans (Pole Beans, Snap Beans, Lima Beans), Lima Beans, Broccoli, Cabbage, Cauliflower, Brussel Sprouts, Carrots, Celery, Collards, Kale, Swiss Chard, Turnip Tops, Cucumbers, Lettuce and Endive, Melons and Squash (Cantaloupes, Casabas, Crenshaws, Honeydew Melons, Muskmelons, Persian Melons and hybrids of these: Watermelons and their hybrids; Summer and Winter Squash), Mushroom Houses, Onions, Peas, Peppers, Potatoes, Radishes, Parsnips, Turnips, Spinach and Beets, Squash (Summer and Winter), Sweet Corn, Tomatoes and Watercress (Hawaii only).

### **ORNAMENTALS INSECTS**

For control of certain insects on ornamentals such as:

Arborvitae, Azalea, Birch, Boxwood, Camelia, Carnation, Chrysanthemum, Douglas fir, Elm, Gladioli, Hawthorn, Holly, Juniper, Lilac, Locust, Maple, Oak, Pine, Plum, Poplar, Rhododendron, Rose, Spruce and Willow. **FOR CONTROL OF 34 INSECTS.**

### **LAWN INSECTS**

For control of certain insects such as:

Ants, Armyworms, Bermuda mites, Boxelder bugs, Brown dog ticks, Chiggers, Clover Mites, Crickets, Cutworms, Digger wasps, Earwigs, Fleas, Frit flies, Lawn Billbugs, Leafhoppers, Millipedes, Sod webworms, Lawn Moths, Snowbugs, Springtails (Collembola), Rhodesgrass scales.

## **SEED TREATMENT - PLANTER-BOX TREATMENT**

Corn, Corn, Peas Soybeans, and Beans (Lima, Snap, White, and Kidney)

## **FLY CONTROL**

In farms and animal sleeping quarters (except dairy farm, milk room, and poultry houses):

Residual sprays and Bait sprays.

## **VEGETABLE SOIL INSECTS**

For control of the following insects in many crops:

Carrot rust fly, Cutworm (Surface and Subterranean), Garden symphylans (Centipedes), Mole crickets, Onion maggots, Root maggots, Wireworms, Southern Potato wireworm.

## **FIELD AND FORAGE INSECTS**

For control of many insects of the following crops:

Alfalfa and clover, Corn, Cotton, Cowpeas, Hops, Lespedeza, Peanuts, Sorghum, Soybeans, Sugar Beets, Sugarcane and Tobacco.

## **RANGE, PASTURE, AND GRASSLAND INSECTS**

For control of Bermudagrass insects. For control of insects in the following areas: Rangeland, Pasture, Grass Forage, Ditch Banks, Roadsides, Wasteland, Noncrop Areas, Barrier Strips.

## **LIVESTOCK INSECTS**

Sheep "Ticks" (Keds), Lice



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See left side panel for precautionary statement

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EPA Reg. No. 66222-10

NET WT. \_\_\_\_\_

EPA Est. No. \_\_\_\_\_

Manufactured by:

Makhteshim-Agan of North America Inc.  
551 Fifth Avenue, Suite 1100  
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~~Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.~~

~~Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be in a language customarily understood by the workers.~~

~~Written warnings must include the following information: WARNING. Area treated with Diazinon on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure to pesticide spray or dust, wash the skin thoroughly with soap and water. Remove contaminated clothing and wash before re use. If in eyes, flush with plenty of water. If inhaled, go to an area where the pesticide has not been applied. Get medical attention if needed.~~

#### STORAGE AND DISPOSAL

**Storage:** Do not contaminate water, food, or feed by storage or disposal. Store in a dry place.

**Container Disposal:** 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. If burned, stay out of smoke.

Wastes resulting from the use of this product may be disposed of on site or at approved waste disposal facility.

In case of minor spills, follow all precautions indicated above and cleanup immediately. Sweep up and dispose of wastes and broken or empty containers in a landfill approved for pesticide use.

#### GENERAL INFORMATION

Diasol 50W 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 insects. Application should be repeated as necessary to maintain control.

Since Diasol 50W is a wettable powder formulation, constant agitation is necessary during the application.

**NOTE:** The California Department of Agriculture has set a 5-day reentry for diazinon on citrus, 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 organic phosphate pesticides is applied in combination, the interval should be prolonged by adding to the largest applicable interval an additional 50% of that interval.

## FRUIT AND NUT INSECTS

**Almonds-** Mites, Twig borers: Apply 1-1 1/2 lbs. per 100 gals. of water.

**Parlatoria scale, San Jose scale:** Mix 1-1 1/2 lbs. Diasol 50W plus 2-3 gals. dormant oil per 100 gals. of water and apply as a dormant spray.

Almond hulls may be fed to livestock.

**Apples -** Leafhoppers: Apply 1 lb. per 100 gals. of water in 3-5 applications beginning at petal fall and continuing through the growing season, or apply as infestations develop.

**San Jose scale, Mealybug, Apple aphid eggs, European red mite eggs, brown mite eggs:** Mix 1 lb. of Diasol 50W plus 1 gal. of superior type oil or 2 gals. of dormant oil per 100 gals. of water. Apply as a dormant or delayed-dormant spray.

**Eyespotted bud moth, Fruittree leafroller, Mealybug:** Mix 1 lb. per 100 gals. of water. Make 3-8 cover spray applications, beginning in the pink stage. Do not apply within 14 days of harvest.

**Apples and Pears-** Codling moth, Rosy apple aphid, Green apple aphid, Wooly apple apt. ♀, mites: Mix 1 lb. Diasol 50W per 100 gals. of water. Make 3-8 cover spray applications, beginning with the first cover. Applications should be timed according to insect infestations.

**Apple Maggot:** Mix 1 lb. of Diasol 50W per 100 gals. of water. Make at least 3 cover spray applications when flies are active and laying eggs.

**San Jose scale crawlers, Forbes scale crawlers:** Mix 1 lb. per 100 gals. of water. Apply early in the season when crawlers first appear. If infestation warrants, make a second application 7-10 days later.

**Note:** Mites will be suppressed if Diasol 50W is used in the regular cover spray program. Slight russetting may occur on some varieties of apples, such as Golden Delicious.

Do not apply to apples or pears within 14 days of harvest.

**Apricots-** San Jose scale, Brown apricot scale, Walnut scale, Apricot mealybug: Mix 1 lb. of Diasol 50W plus 2 gals. of dormant oil per 100 gals. of water. Apply as a dormant spray.

**Aphids, Brown mites (Clover mite), Twospotted spider mite, Olive scale crawlers, San Jose scale crawlers:** Mix 1 lb. per 100 gals. of water. Apply when aphids, mites, and scale crawlers first appear.

**Olive scale crawlers:** Mix 1/2 lb. Diasol 50W plus 1 1/2 gals. of light medium horticultural oil per 100 gals. of water. Apply when scale crawlers are present.

**Apricot mealybug:** Mix 1 lb. per 100 gals. of water. Apply as a cover spray from petal fall to June.

Do not apply within 10 days of harvest.

**Blueberries-** Cranberry fruitworm, Cherry fruitworm, Blueberry maggot, Aphid Thrips, Twospotted mite: Mix 1 lb. per 100 gals. of water. Apply up to 200 gals. of spray per acre, or apply 2 lbs. per acre in sufficient water for thorough coverage. Do not apply within 7 days of harvest.

**Caneberries (Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries)-** Leafhoppers, Thrips, Aphids, Twospotted mite, Raspberry sawfly: Mix 1 lb. per 100 gals. of water and apply up to 200 gals. of spray per acre, or apply 2 lbs. per acre in sufficient water for thorough coverage.

**Raspberry fruitworm:** Apply at the above rates when blossom buds separate and repeat application immediately before blossoms open.

**Dryberry mite:** Mix 2 lbs. per 100 gals. of water. Apply as a dormant spray in 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 borer (Raspberry root borer):** Mix 4 lbs. per 100-200 gals. of water and apply as a drench to the crown area and to the lower canes. Apply either in the spring before berries begin to form, or in the fall after harvest.

Do not apply within 7 days of harvest.

**Cherries-** Brown apricot scale, San Jose scale, Black scale, Black cherry aphid eggs, Brown mite eggs: Mix 1 1/4 lbs. of Diasol 50W plus 3 gals. of dormant oil per 100 gals. of water. Apply as a dormant spray.

**Eyespotted bud moth, Fruittree leafroller:** Mix 1 lb. per 100 gals. of water. Apply in cover sprays as necessary, beginning with petal fall.

**Leafhoppers:** Apply 1 lb. per 100 gals. of water in 3-5 applications beginning at petal fall and continuing through the growing season, or apply as infestations develop.

**Cherry fruit fly:** Mix 1/2- 1 lb. per 100 gals. of water. Make 3 or 4 applications, beginning when adults flies begin to emerge and repeating at 10-day intervals.

**Black cherry aphid:** Mix 1 lb. per 100 gals. of water. Apply as a cover spray when aphids appear and repeat after 10 days.

**San Jose scale crawler:** Mix 1 lb. per 100 gals. of water. Apply during the pre-pink stage or when crawlers first appear.

**Cherry rust mite:** Mix 1/2 - 1 lb. per 100 gals. of water. Apply as a supplemental spray after harvest.

Do not apply within 10 days of harvest.

**Cranberries-** Blackheaded fireworm, *Rhopobota naevana*: Apply 4 lbs. in 400 gals. of water per acre.

**Cranberry fruitworm:** Apply 6 lbs. in 400 gals. of water per acre.

Do not apply within 7 days of harvest.

**Figs- Vinegar fly (*Drosophila* spp.)** Dried fruit beetle: Apply 1 lb. per 100 gals. of water. Do not apply within 5 days of harvest.

**Filberts- Filbert leafroller, Aphids:** Apply 2-4 lbs. in 250-400 gals. of water per acre, as a thorough cover spray.

**Citrus Fruits (Grapefruits, Lemons, Limes, Oranges, Tangelos, Tangerines, Citrus Citron, Kumquats, and hybrids of these)- Citrus aphid, Cottonycushion scale crawlers, and Soft scale crawlers:** Apply 1/2-1 lb. per 100 gals. of water (maximum 1000 gals. per acre) as a thorough cover spray when aphids and crawler stages of scale insects first appear.

**Fruittree leafroller:** Mix 1/2 - 1 lb. per 100 gals. of spray (maximum 1000 gals. per acre) when an average of 50 percent of eggs in egg masses have hatched in the spring.

**Citrus thrip:** Apply 1 lb. in 100 gals. of water (maximum 1000 gals. per acre) when thrips first appear.

**Citrus snow scale:** Apply 1-2 lbs. per 100 gals. of water (maximum 1000 gals. per acre) as a postbloom spray and again as a summer spray. For heavy snow scale infestations, use the higher dosage rate. Thorough coverage of tree trunk, limbs, and twigs is essential.

Do not apply during bloom. Do not apply to citrus within 21 days of harvest.

**Grapes- Pacific spider mite, Leafhoppers, Grape berry moth, Grape leafroller:** Mix 1 lb. per 100 gals. of water and apply as a thorough cover spray, or apply 2 lbs. per acre in sufficient water for thorough coverage. Do not apply within 18 days of harvest.

***Drosophila* spp.:** Mix 6 oz. per 100 gals. of water and apply as a thorough cover spray, or apply a maximum of 18 oz. per acre in sufficient water for thorough coverage when insects first appear. Make additional applications at weekly intervals as necessary. Do not apply within 7 days of harvest. If a spreader-sticker is used, do not apply within 18 days of harvest.

**Olives- Olive scale:** Mix 3/4 - 1 lb. Diasol 50W plus 1 1/2 gals. of light medium summer horticultural oil per 100 gals. of water. Apply as a cover spray in June or July. Do not apply during bloom to avoid injury to pollinating insects or within 75 days of harvest.

**Peaches and Nectarines- S. Jose scale, Brown apricot scale, Walnut scale, Apricot mealybug:** Mix 1 lb. of Diasol 50W plus 2 gals. of dormant oil per 100 gals. of water. Apply as a dormant spray.

**Peach twig borer, Parlatoria scale:** Mix 1 lb. Diasol 50W plus 1 gal. of light medium horticultural oil per 100 gals. of water. Apply at petal fall.

**Aphids, Brown mite (Clover mite), Twospotted spider mite, Olive scale crawlers, San Jose scale crawlers:** Mix 1 lb. per 100 gals. of water. Apply when aphids, mites, and scale crawlers first appear.

**Olive scale crawlers:** Mix 1/2 lb. of Diasol 50W plus 1 1/2 gals. light medium horticultural oil per 100 gals. of water. Apply when scale crawlers are present.

**Oriental fruit moth:** Mix 1 lb. per 100 gals. of water and apply at 100% petal fall. Make 2 additional applications at 10-15 day intervals. Time the last application to peak adult Oriental fruit moth flight, if possible.

**Peach twig borer:** Mix 1 lb. per 100 gals. of water and apply to peaches in May and June.

**Leafhoppers (Peaches only):** Apply 1 lb. per 100 gals. of water in 3-5 applications beginning at petal fall and continuing through the growing season, or apply as infestations develop.

**White peach scale (Peaches only):** As a postharvest spray apply 1 1/2- 2 lbs. per 100 gals. of water timed to coincide with peak crawler and immature scale activity. Under conditions of heavy infestations, 2 applications may be necessary.

Do not apply to peaches within 20 days, or to nectarines within 10 days of harvest.

**Pears-** Pear leaf blister mite, Mealybug, San Jose scale. Brown apricot scale: Mix 1 lb. of Diasol 50W plus 2 gals. of dormant oil per 100 gals. of water. Apply as a dormant spray.

**Pear psylla:** Mix 1/2- 1 lb. per 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.

**Tentiform leafminer, Mealybug:** Mix 1 lb. per 100 gals. of water. Apply in 3 cover sprays, beginning in April.

Refer also to the Apples section.

Do not apply within 14 days of harvest.

**Pecans-** Aphids, Mites, Pecan nut casebearer, Walnut caterpillar: Apply 2-6 lbs. per acre as a foliage spray. Do not apply after husks crack.

**Pineapple-** Pineapple scale: Apply 10 lbs. Diasol 50W plus 2 gals. of light medium horticultural oil in 500 gals. of water per acre to the vegetative slips on the plant following harvest of the pineapple.

**Pineapple mealybug:** Apply 4 lbs. per acre. May be applied on day of harvest.

Pineapple forage and refuse may be fed to livestock 7 days following last application.

**Plums and Prunes-** Peach twig borer, Mealy plum aphid eggs, San Jose scale, Parlatoria scale Brown almond mite: Mix 1 lb. of Diasol 50W plus 2 1/2 gals. of dormant oil per 100 gals. of water. Apply as a dormant spray. For late April or May applications, mix 1 lb. of Diasol 50W plus 1 gal. of light medium summer horticultural oil per 100 gals. of water.

**Brown mite (Clover mite), European red mite:** Apply 1 lb. in 100 gals. of water.

**Leafcurl plum aphid, Mealy plum aphid, Thistle aphid:** Apply 1/2 - 1 lb. per 100 gals. of water.

Do not apply within 10 days of harvest.

**Strawberries-** Aphids, Twospotted spider mite: Apply 1 lb. in 100 gals. of water per acre.

**Cyclamen mite:** Apply 2 lbs. in 100 gals. of water per acre, directing spray to plant crowns. Plants should be sufficiently agitated to assume thorough coverage of the foliage. Make additional applications, if necessary, after harvest.



**Mole cricket:** Broadcast 2 lbs. per acre when insects are present. Apply 1-2 days before transplanting and mix into the top 1-2 inches of soil immediately.

**Strawberry leafroller:** Mix 3/4- 1 lb. per 100 gals. of water. Apply 200 gals. spray per acre when blossoms show color.

Do not apply within 5 days of harvest.

**Walnuts- Aphids, Mites:** Apply 2 lbs. per acre as a foliage spray.

**Codling moth, Scale crawlers, Walnut caterpillar:** Apply 6 lbs. per acre.

Do not apply after the husks open.

### VEGETABLE FOLIAR INSECTS

**Diasol 50W** should always be applied as a spray in sufficient water to assure thorough coverage of the foliage.

**Beans (Pole Beans, Snap Beans, Lima Beans)- Black bean aphid, Mexican bean beetle, Leafminers:** Apply 1- 1 1/2 lbs. per acre.

**Cucumber beetle:** Apply 1/2 - 3/4 lb. in 100 gals. of water per acre.

Do not apply within 7 days of bean harvest. Bean forage or bean hay may be fed to dairy and beef cattle and sheep. Wait 4 days following treatment if forage is to be cut for hay.

**Lima beans- Dipterous leafminer, Leafhoppers, Mites:** Apply 1 lb. per acre. Do not apply within 7 days of bean harvest. Bean forage or bean hay may be fed to dairy and beef cattle and sheep. Wait 4 days following treatment if forage is to be cut for hay.

**Broccoli, Cabbage, Cauliflower- Aphids, Diamondback moth, Imported cabbageworm, dipterous leafminer:** Apply 1/2 - 1 lb. per acre. Application at 7-10 day intervals will usually be required. Do not apply to broccoli or cauliflower within 5 days, or to cabbage within 7 days, of harvest.

**Brussel Sprouts- Aphids, Diamondback moth, Imported cabbageworm:** Apply 1 lb. per acre. Application at 7-10 day intervals will usually be required. Do not apply to brussels sprouts within 7 days of harvest.

**Carrots- Aphids:** Apply 1 lb. per acre. Do not apply within 10 days of harvest.

**Celery- Aphids, Flea beetles:** Apply 1 lb. in 100 gals. of water per acre.

**Dipterous leafminer:** Apply 1/2 - 1 lb. per acre in sufficient water to achieve thorough coverage when infestations first appear. Repeat as necessary.

Do not apply within 10 days of harvest. Plants should be market trimmed (tops removed) before being shipped or used. Tops should not be used for feed or food.

**Collards, Kale, Swiss Chard, Turnip Tops-** Aphids, Imported cabbageworm, Diamondback moth, Harlequin cabbage bug, Corn earworm: Apply 1/2 - 1 lb. per acre. Do not apply to collards, kale, or turnip tops within 10 days, or to swiss chard within 12 days, of harvest.

**Cucumbers-** Aphids, Serpentine leafminer, Thrips: Apply 1 lb. per acre. Do not apply within 7 days of harvest.

**Lettuce and Endive-** Aphids, Dipterous leafminer: Apply 1/2 - 1 lb. per acre. Do not apply within 10 days of harvest.

**Melons and Squash (Cantaloupes, Casabas, Crenshaws, Honeydew Melons, Muskmelons, Persian Melons, and hybrids of these; Watermelons and their hybrids; (Summer and Winter Squash):** Aphids, Leafhoppers, Mites: Apply 1- 1 1/2 lbs. per acre.

Serpentine leafminer, Thrips: Apply 1/2- 1 lb. per acre.

Do not apply to melons or winter squash within 3 days, or to summer squash within 7 days, of harvest.

**Mushroom Houses-** Mushroom flies (Phorids and Sciarids): Mix 4-8 lbs. in 50 gals. of water (0.5% to 1.0% actual Diasol 50W) and spray on outside and inside walls and ventilators of mushroom houses, after compost in beds has been pasteurized by heating. Do not spray compost in beds or after spawning.

To treat wooden sides of beds, posts, doors, and door frames after pasteurizing, mix 1/2 lb. in 6 gals. of water and apply with a brush.

Do not treat compost.

**Onions-** Onion thrips: Apply 1 lb. per acre. Do not apply within 10 days of harvest.

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

**Peppers-** Aphids, Serpentine leafminer: Apply 1/2 lb. per acre. Do not apply within 5 days of harvest.

**Potatoes-** Aphids, Flea beetles, Colorado potato beetle, Dipterous leafminer: Apply 1/2 to 3/4 lb. per acre. Do not apply within 35 days of harvest.

Banded cucumber beetle, Leafhoppers, Southern armyworms: Apply 3/4 - 1 lb. per acre.

**Radishes, Parsnips, Turnips-** Aphids, Flea beetles, Dipterous leafminer: Apply 1/2 to 1 lb. per acre. Do not apply within 10 days of harvest.

**Spinach and Beets-** Aphids, Dipterous leafminer: Apply 1/2 to 1 lb. per acre. Do not apply to spinach within 10 days, or to beets within 14 days of harvest.

**Squash (Summer and Winter)-** See Melons and Squash section.

**Sweet Corn-** Corn earworm: Apply 2 to 2 1/2 lbs. per acre when silks first appear. Two or three repeat applications at 2-3 day intervals will usually be necessary. Corn may be picked immediately following last application. Corn forage may be fed to dairy and beef cattle and sheep.

Refer also to Corn under Field and Forage insects.

**Tomatoes-** Aphids, Dipterous leafminer: Apply 1/2 lb. per acre. To control leafminers weekly applications are usually required.

Banded cucumber beetle, Fall armyworm, Southern armyworm: Apply 3/4 to 1 lb. per acre.

Vinegar fly (*Drosophila* spp.): Apply 1/2 per 1 1/2 lbs. per acre. Weekly applications are usually required.

Do not apply within 1 day of harvest.

**Watercress (Hawaii only)-** Cyclamen mite: Apply 1 lb. in 100 gals. of water per acre. Direct spray to crowns and growing tips of plants. If infestation is heavy, make a second application no later than 10 days after the first application. Repeat applications as necessary. Do not apply within 5 days of harvest.

### VEGETABLE SOIL INSECTS

Diasol 50W should always be applied as a spray in sufficient water to assure thorough coverage of the soil.

#### Carrot rust fly

Carrots: Apply 4 lbs. per acre as a drench to the seed furrow at planting time.

#### Cutworms (Surface and Subterranean)

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

Broadcast 4-8 lbs. per acre just prior to planting. Work into the soil immediately, 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.

#### Garden symphylans (Centipedes)

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

Broadcast 20 lbs. per acre just prior to planting. Work into soil 4-8 inches immediately. This preplant treatment will also control other soil insects: cutworms (surface and subterranean), mole crickets, root maggots, and wireworms.

#### **Mole crickets**

Broccoli	Endive (escarole)	Peppers
Brussel Sprouts	Kale	Radishes
Cabbage	Lettuce	Tomatoes
Cauliflower	Mustard	Turnips
Collards		

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

#### **Onion maggots**

Onions: Furrow application. Apply 2 lbs. per acre in sufficient water to drench the seed furrow at planting time.

Broadcast Application: Broadcast 4-8 lbs. per acre just prior to planting. Work into soil 3-4 inches immediately.

#### **Root maggots**

**Broccoli, Brussel sprouts, Cabbage, and Cauliflower:** (1) Broadcast Application: Broadcast 4-6 lbs. per acre and immediately work into the soil 3-4 inches before seeding, either in the seedbed or in the field or before transplanting. (2) Transplant Water (Drench) Application: Mix 1/4-1/2 lb. in 50 gals. of transplant water, when 200-300 gals. of water are used per acre. May be applied at the rate of 1/2 -1 cupful per plant, either by hand or by tractor-mounted sprayer equipped with drop nozzles to direct spray to the base of the plant. Transplant water treatments may result in stand reduction due to plant stress at time of transplanting.

**Radishes:** Mix 2 lbs. in 50 gals. of water. Apply 80-100 gals. per acre. (1- 1 1/3 gals. per 1000 linear feet of row) in the seed furrow at planting time.

#### **Wireworms**

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

Broadcast 6-8 lbs. per acre prior to planting, and work into soil 4-8 inches immediately.

Potatoes: Broadcast 6-12 lbs. per acre prior to planting. Immediately disk or harrow into soil 4-8 inches.

### **Southern potato wireworm**

Potatoes (Southeastern U.S.): For potatoes on mineral soils, broadcast 4-8 lbs. per acre prior to planting, and immediately work into soil 3-6 inches depending on location of wireworms.

## **FIELD AND FORAGE INSECTS**

Diasol 50W should always be applied as a spray in sufficient water to assure thorough coverage of the foliage or soil, depending on the type of application.

**Alfalfa and Clover-** Spotted alfalfa aphid, Yellow clover aphid, Pea aphid, Leafhoppers; Plant bug nymphs, Mites: Apply 3/4 - 1 lb. per acre.

Grasshoppers: Apply 1 lb. per acre.

Cutworms (Surface and Subterranean): Broadcast 4-8 lbs. per acre just prior to planting. Work into the soil immediately, 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.

Dairy and beef cattle and sheep (1) may be grazed immediately following application, (2) may be fed green alfalfa or clover immediately following cutting, and (3) may be fed hay provided alfalfa or clover is not cut for hay for 7 days following treatment.

Alfalfa weevil larvae: For control in the spring, apply 2-3 lbs. per acre when feeding damage to growing tips becomes evident. Repeat application, if necessary. If damage is already extensive, cut the hay and make application to the stubble. Do not graze dairy and beef animals or sheep for 2 days. Do not cut for hay for 10 days following treatment.

Do not spray livestock directly except as indicated below under Livestock Insects, with either air or ground equipment. Do not treat during bloom to avoid injury to pollinating insects.

**Corn-** Corn rootworm larvae- (Postemergence Basal Treatment): Apply 1 1/4 - 2 1/2 oz. per 1000 linear feet of corn row in sufficient water to wet base of corn plant and a narrow band of soil next to the plant. Refer to row spacing chart for amounts recommended per acre. Cover treated band with 2-3 inches of soil using a disk hiller or cultivator immediately after spraying. Application should be made at the first sign of corn rootworm larvae. Application should not be made later than June 24 in the Middle Corn Belt or July in the Northern Corn Belt.

**SUGGESTED RATES ACCORDING TO ROW  
SPACING FOR CORN ROOTWORM  
LARVAE CONTROL**

Spacing	Linear Feet of Corn Row/ Acre	Amount of Diasol 50W per Acre
		Postemergence Basal Treatment
48"	10,890	14-28 oz.
42"	12,455	15 1/2 - 31 oz.
40"	13,068	16-32 oz. (1-2 lbs.)
38"	13,939	17 1/2 - 35 oz.
36"	14,250	18 - 36 oz.
30"	17,424	22-44 oz. (1 1/2 - 2 3/4 lbs.)
24"	21,780	27 1/2 - 55 oz.
20"	26,136	32-64 oz. (2-4 lbs.)
15"	34,848	44-88 oz.

Note: For row spacings not listed, calculate the appropriate dosage rates based on the 40-inch row figures.

Seedcorn maggot: Broadcast 4-8 lbs. per acre just prior to planting. Work into 2 inches of soil immediately.

Cutworms (Surface and subterranean): Broadcast 4-8 lbs. per acre. For surface cutworms apply just prior to planting or when larvae first appear and work into 1-2 inches of soil immediately. Do not apply later than lay-by. For subterranean cutworms, apply just prior to planting and work into 3-6 inches of soil immediately.

Wireworms: Apply 6-8 lbs. per acre prior to planting and work into 4-8 inches of soil immediately.

Corn leaf aphid: Apply 1-2 lbs. per acre in sufficient water to provide complete coverage of the upper portions of plants. Repeat application as necessary.

Grasshoppers: Apply 1 lb. per acre.

Sap beetle: Apply 2 - 2 1/2 lbs. per acre. Add 1-2 gals. of soluble mineral oil per acre to the spray mixture. Consult local agricultural authorities for proper timing of sprays.

Corn may be picked immediately following last application. Corn forage may be fed to dairy and beef cattle, and sheep.

Cotton- Spider mites, Aphids, Leafhoppers, Lygus bug, Cotton leafworm, Cotton leafperforator: Apply 1-2 lbs. in 5-25 gals. of water per acre. Repeat as infestation warrants.

Do not apply within 14 days of harvest. Do not graze treated cotton plants, or feed gin wastes to livestock.

**Cowpeas-** Cutworms (Surface and Subterranean): Broadcast 4-8 lbs. per acre, just prior to planting. Work into 2-3 inches of soil for surface cutworms, 3-6 inches for subterranean cutworms.

**Hops-** Aphids, Mites: Apply 2 lbs. per acre. Do not apply within 14 days of harvest.

**Lespedeza-** Cutworms (Surface and Subterranean): Broadcast 4-8 lbs. per acre just prior to planting. Work into 2-3 inches of soil immediately for surface cutworms, 3-6 inches for subterranean cutworms.

**Peanuts-** Cutworms: Apply 4 lbs. per acre in a 12-inch band over the row. Use sufficient water to achieve thorough coverage. Begin application when small larvae appear. Two or three additional applications at 3-week intervals may be necessary. Do not apply within 21 days of peanut harvest.

**Note:** Livestock (1) may be fed peanut hulls, (2) may be fed peanut forage 7 days following treatment, and (3) may be fed peanut hay 21 days following treatment.

**Sorghum-** Sorghum midge: Apply 1/2 - 1 lb. per acre when 90% of the heads have emerged from the boot. Repeat application within 4 days. Crop may be fed to livestock immediately following treatment. Do not apply within 7 days of harvesting for grain.

Cutworms (Surface and Subterranean): Broadcast 4-8 lbs. per acre just prior to planting. Work into 2-3 inches of soil immediately for surface cutworms, 3-6 inches for subterranean cutworms.

**Soybeans-** Cutworms (Surface and Subterranean): Broadcast 4-8 lbs. per acre just prior to planting. Work into 2-3 inches of soil immediately for surface cutworms, 3-6 inches for subterranean cutworms.

**Sugar Beets-** Beet leafhopper, Dipterous leafminer, Aphids: Apply 3/4 - 1 lb. per acre.

Grasshoppers: Apply 1 lb. per acre.

Wireworms: Broadcast 6-8 lbs. per acre just prior to planting, and work into 4-8 inches of soil immediately. Tops may be fed to beef and dairy animals.

**Sugarcane-** Aphids: Apply 1/2 - 1 lb. per acre.

**Note:** Allow 1 day between last application and harvest. Bagasse and forage may be fed to livestock.

Wireworms: Apply 8 lbs. per acre on a 12-inch band centered over the furrow in sufficient water to obtain thorough coverage. Make application directly to seed pieces in open furrow at covering time.

**Tobacco-** Aphids, Flea beetles: Apply 1/2 - 3/4 lb. per acre. Do not apply within 3 days of harvest.

Cutworms: Broadcast 4-6 lbs. per acre before transplanting and work into 2-4 inches of soil immediately.

Green June beetle larvae: Mix 1/4 lb. in 50 gals. of water and apply as a drench (100 gals per 100 sq. yds.) to uprooted areas of plant beds with sprinkling can.

Mole cricket: Broadcast 2 lbs. per acre, when insects are present. Make application to beds or fields 1-2 days prior to sowing seed or transplanting, and work into 1-2 inches of soil immediately.

Seedcorn maggot: Broadcast Application: Broadcast 3 lbs. per acre, 3-4 weeks before transplanting. Work into 2 inches of soil immediately.

Transplant Water Application: Mix 1 1/2 - 3 oz. in 50 gals. of transplant water.

Wireworms: Broadcast Application: Broadcast 4-6 lbs. per acre, 3-4 weeks before transplanting. Work into 6-9 inches of soil immediately.

### **RANGE, PASTURE, AND GRASSLAND INSECTS**

Bermudagrass- Thrips, Whiteflies, Grasshoppers: Apply 1 lb. per acre.

Rangeland, Pasture, Grass Forage, 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.

Dairy and beef cattle, and sheep (1) may be grazed immediately following application, (2) may be fed green forage immediately following cutting, and (3) may be fed hay, provided grass is not cut for hay for 21 days if the spray is a water solution, or for 30 days if the spray is an oil solution. Do not spray livestock directly with either air or ground equipment except as indicated under Livestock Insects. Do not repeat application for 30 days.

### **LIVESTOCK INSECTS**

Sheep "Ticks" (Keds), Lice - High gallonage, high pressure spray: Mix 1/2 lb. in 100 gals. of water, and apply at the rate of 1 gal. per animal.

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

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

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



### ORNAMENTAL INSECTS

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

Insects	Amount Diasol 50W to use	
	per 3 gals. water	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 leaf tiers, Privet mites, Scale crawlers (Cottonycushion, lecanium, Pine needle, San Jose, Soft scale), Thrips, Twospotted mites, Webworms, Whiteflies	1/2 oz.	1 lb.
Apple-and-thorn skeletonizers, Cotoneaster webworms, Fall webworms, Hemlock chermes, Oak loopers, Obliquebanded leafrollers, Pear slugs, Tent caterpillars	1 1/2 oz.	3 lbs.

Do not use on Ferns, Poinsettia, Hibiscus, Papaya, Pilea, 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.

### LAWN INSECTS

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

Rate/1000 sq. ft.

<u>Insects</u>	<u>Diasol 50W</u>	<u>Water</u>	<u>Remarks</u>
Lawn chinch bugs	2-3 oz. or 3-6 oz.	25 gals.*	Use higher rate for longer residual control and in lawns of dense growth, such as St. Augustine lawns.
Ants, Armyworms, clover mites, Springtails (Collembola), Crickets, Cutworms, Digger wasps, Earwigs, Frit flies, Lawn Billbugs, Sod webworms (Lawn moths), Sowbugs	4 oz.	3 gals.	Spot spray ant hills and wasp ground nest openings.  For lawn billbugs, irrigate the lawn thoroughly immediately after treatment. For frit flies, mow grass and water well before treatment, but delay application until grass is dry. Do not water again until necessary.
Brown dog ticks, Bermuda mites, Chiggers, Fleas, Leafhoppers	1 1/4 oz.	3 gals.	Do not apply to animals.  For brown dog ticks, spray grass and under shrubbery, particularly near house.
Millipedes	8 oz.	3 gals.	
Rhodesgrass scales	5 oz.	25 gals.*	Apply when crawlers first emerge.

\* Application can be made in 3 gals of water per 1000 sq. ft. Thoroughly water treated area immediately following application.

Boxelder bugs: Spray bugs outside the home with 1 1/2 -2 1/2 oz. in 1 gal. of water. At the same time, spray thoroughly around foundation, windows, doors, tree trunks, and into cracks and other places where the insects hide.

## SEED TREATMENT - PLANTER-BOX TREATMENT

**Corn:** Seedcorn beetle: Mix 3 oz. per bushel of seed as a dry mixture in the planter box as a seed treatment prior to planting.

**Corn, Peas, Soybeans, and Beans (Lima, Snap, White and Kidney):** Seedcorn maggot: Mix 1/2 oz. per bushel of seed as a dry mixture in the planter box as a seed treatment prior to planting.

**Planter-box Mixing Instructions:** Stir seed slightly using a mixing stick. Additional mixing will result from the operation of the planter. **DO NOT MIX WITH BARE HANDS.**

**Note:** If seed has not been treated with a fungicide, use Captan or Thiram in combination with Diasol 50W at rates indicated on fungicide package. Failure to use a fungicide with Diasol 50W may result in injury to the seed. 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 of seed should be added as a drill lubricant. Adjust the planter to give the required rate of seed delivery with the treated seed.

**Warning:** Treated seed must not be used for or mixed with food or animal feed, or processed for oil. Treat only those seeds needed for immediate use, minimizing the interval between treatment and planting. Do not store excess treated seeds beyond planting time. Exposed treated seeds may be hazardous to birds and other wildlife. Dispose of all excess treated seeds by burial away from bodies of water.

## FLY CONTROL

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

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

**Bait Sprays:** Mix the appropriate amounts of Diasol 50W with 1 lb. of sugar (or 2 cups of syrup or molasses) for the desired application.

For knapsack or similar type sprayer, mix 1/2 lb. with sugar in 2 1/2 gals. of water and spot treat areas frequented by flies including cracks, crevices, doorways, around windows, or other areas where flies congregate. Repeat application as fly populations warrant.

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

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

WPS draft based upon 3MAY88