

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (75-767)
WASHINGTON, DC 20460

EPA REGISTRATION NO.

5967-150

DATE OF ISSUANCE

FEB 18 1986

TERM OF ISSUANCE

NOTICE OF PESTICIDE: REGISTRATION
 REREGISTRATION
(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

NAME OF PESTICIDE PRODUCT

Moyer Diazinon 50W

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Moyer Chemical Company
P.O. Box 5434
Fresno, CA 93755

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data.
2. Make the labeling changes listed below before you release the product for shipment:
 - a. Add the phrase "EPA Registration No. 5967-150."
 - b. Supply the certified limits for your product formulation. State the upper and lower limits for each active and individually added inert ingredient.
 - c. At the next label printing delete the paragraph referring to the use of this product for formulating dilute dust products. We do not recommend the use of a end-use product for formulating purposes.
 - d. Add the following statement for seed treatment: "Treated seed must not be used for or mixed with food, or processed for oil. Seed commercially treated with Moyer Diazinon 50W must be labeled in accord with all applicable requirements of the Federal Seed Act."

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

2/18/86

3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 Enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

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

George T. LaRocca
Product Manager (15)
Insecticide-Rodenticide Branch
Registration Division (TS-767)

Enclosure

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

WARNING

May be fatal if swallowed. May be absorbed through skin. Do not breathe dust or spray mist. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling and before eating or smoking. Avoid contamination of food and feed. Keep out of reach of domestic animals. Do not use on humans or household pets. Do not permit children or pets to go onto sprayed areas until spray has completely dried.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds, and other wildlife. Birds feeding on treated areas may be killed. Shrimp and crab may be killed by runoff from application at label rates. Do not apply where these are important resources. Do not apply directly to water or wetlands. Do not apply when weather conditions favor drift from treated areas. Do not contaminate water by cleaning of equipment or disposal of wastes. 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 areas. Do not apply when bees are actively visiting the crop, cover crop, or weeds blooming in the treatment area. Applications 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.

RE-ENTRY

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.

The California Department of Agriculture has set a 5 day re-entry 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.

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. (Indicate specific oral warnings which inform workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated and appropriate actions to take in case of accidental exposure.) When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: **WARNING**, area treated with Diazinon 50WP on (date of application). Do not enter without appropriate protective clothing for 5 days.

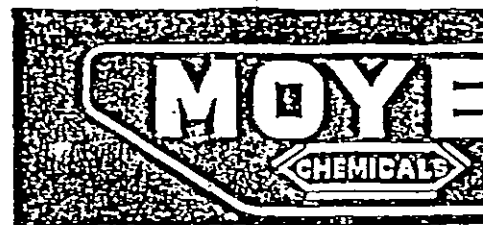
STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food or feed by storage, disposal or cleaning of equipment. Open dumping is prohibited. Do not reuse empty container.

STORAGE: Store in cool, dry place. Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Not for use or storage in or around the home. Do not store diluted spray.

CONTAINER DISPOSAL: Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of bags in a sanitary landfill or by incineration if allowed by State and local authorities. Keep out of smoke.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinseate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.



MOYER DIAZINON

FOR AGRICULTURAL USE ONLY

ACTIVE INGREDIENT:

Diazinon: 0,0-diethyl 0-(isopropyl-6-methyl-4-pyridyl phosphorothioate)

INERT INGREDIENTS

TOTAL

**KEEP OUT OF REACH OF CHILDREN
WARNING**

See Additional precautions on label

PRACTICAL TREATMENT: (FIRST AID)

IF SWALLOWED: Call a physician or Poison Control Center. Drink one or two glasses of water and induce vomiting of throat with finger. Repeat until vomit fluid induces vomiting or give anything by mouth to a physician.

IF INHALED: Remove victim to fresh air. Apply first aid as indicated.

IF ON SKIN: Remove contaminated clothing and wash thoroughly with soap and water.

IF IN EYES: Flush eyes with plenty of water. Contact a physician if irritation develops or persists.

NOTE TO PHYSICIAN: Product also contains a organophosphate insecticide. If symptoms of cholinesterase inhibition are present, atropine by injection is antidotal. 2-PAM is a specific antidote for organophosphate poisoning, but only in conjunction with atropine.

EPA REGISTRATION No. 5967-

AVISO

AL USUARIO: Si usted no lee ingles, no producto hasta que la etiqueta es haya explicado en español.

(TO THE USER: If you cannot read English, do not use this product until the label has been explained to you.)

**MANUFACTURED BY
MOYER CHEMICAL CO.**

P.O. BOX 5034, FRESNO, CALIFORNIA

3-84

NET WEIGHT 5

gals. of water per acre. If directions call for 1 lb. of product per 100 gals. of water, this amounts to 3 to 6 lbs. of Moyer Diazinon 50W per acre when applied as dilute ground spray volumes.

Almonds
Mites, Twig borers: Apply 1-1 1/2 lbs. Moyer Diazinon 50W per 100 gals. of water as infestations develop.

Scales (including San Jose, parlatoria, black, brown, apricot); Mite eggs (including European red mite, brown mite); Twig borers, Aphid eggs (including apple, black cherry, mealy plum); Mealybugs: Apply as a dormant spray 1-1 1/2 lbs. Moyer Diazinon 50W plus 2-3 gals of dormant oil or 1-1 1/2 gals. superior type oil per 100 gals. of water.

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.

Scales (including San Jose, parlatoria, black, brown, apricot); Mite eggs (including European red mite, brown mite); Twig borers; Aphid eggs (including apple, black cherry, mealy plum); Mealy bugs: Apply as a dormant or delayed-dormant spray 1 lb. of Moyer Diazinon 50W plus 2 gals. dormant oil or 1-1 1/2 gals. superior type oil per 100 gals. of water.

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.

Apple and Pears
Codling moth, Rosy apple aphid, Green apple aphid, Woolly apple aphid, Mites: Mix 1 lb. Moyer Diazinon 50W per 100 gals. of water. Make 3-8 cover spray applications, beginning with the first cover. Applications should be made according to insect infestations.

Apple maggot: Mix 1 lb. of Moyer Diazinon 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 Moyer Diazinon 50W is used in the regular cover spray program. Slight russeting may occur on some varieties of apples, such as Golden Delicious.

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

Apricots
Scales (including San Jose, parlatoria, black, brown, apricot, walnut); Mite eggs (including European red mite, brown mite); Twig borers; Aphid eggs (including apple, black cherry, mealy plum); Mealybugs: Apply as a dormant spray 1 lb. of Moyer Diazinon 50W plus 2 gals. of dormant oil or 1-1 1/2 gals. superior type oil per 100 gals. of water.

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 Moyer Diazinon 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.

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 the 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
Scales (including San Jose, parlatoria, black, brown, apricot); Mite eggs (including European red mite, brown mite); Twig borers; Aphid eggs (including apple, black cherry, mealy plum); Mealybugs: Apply as a dormant spray 1 1/4 lbs. Moyer Diazinon 50W plus 3 gals. dormant oil or 1-1 1/2 gals. superior type oil per 100 gals. of water.

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 adult 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. So not apply within 7 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 (Grapefruit, Lemons, Limes, Oranges, Tangelos, Tangerines, Citrus Citron, Kumquats, and hybrids of these)
Citrus aphid, Cottoncushion 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 thrips: Apply 1 lb. in 100 gals. of water (maximum 1000 gals. per acre) when thrips first appear.

Citrus snow scales: 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 leafhopper: 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.

Olive

Olive scale: Mix 3/4-1 lb. of Moyer Diazinon 50W plus 1 1/2 gal. 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

Scales (including San Jose, parlatoria, black, brown, apricot); Mite eggs (including European red mite, brown mite); Twig borers; Aphid eggs (including apple, black cherry, mealy plum); Mealybugs: Apply as a dormant spray 1 lb. Moyer Diazinon 50W plus 2-3 gals. dormant oil or 1-1 1/2 gals. superior type oil per 100 gals. of water.

Peach twig borer, Parlatoria scale: Mix 1 lb. Moyer Diazinon 50W plus 1 gal. of light medium summer 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 Moyer Diazinon 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 days 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

Scales (including San Jose, parlatoria, black, brown mite, pearleaf blister mite); Twig borers; Aphid eggs (including apple, black cherry, mealy plum); Mealybugs: Apply as a dormant spray 1 lb. of Moyer Diazinon 50W plus 2 gals. dormant oil or 1-1 1/2 gals. superior type oil per 100 gals. of water.

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 caterpillars: Apply 2-6 lbs. per acre as a foliage spray. Do not apply after husks crack.

Pineapple

Pineapple scale: Apply 10 lbs. Moyer Diazinon 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

Scales (including San Jose, parlatoria, black, brown, apricot); Mite eggs (including European red mite, brown mite, pearleaf blister mite); Twig borers; Aphid eggs (including apple, black cherry, mealy plum); Mealybugs: Apply as a dormant spray 1 lb. of Moyer Diazinon 50W plus 2-3 gals. dormant oil or 1-1 1/2 gals. superior type oil per 100 gals. of water. For late April or May applications, mix 1 lb. of Moyer Diazinon 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 assure 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 caterpillars: Apply 6 lbs. per acre.

Do not apply after husks open.

Vegetable Foliar Insects

Moyer Diazinon 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. Applications 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.

Brussels Sprouts

Aphids, Diamondback moth, Imported cabbageworm: Apply 1 lb. per acre. Applications 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 if 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 diazinon) 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 1/2-3/4 lb. per acre.

Banded cucumber beetle, leafhoppers, southern armyworm: Apply 3/4-1 lb. per acre.

Do not apply within 35 days of harvest.

Radishes, Parsnips, Turnips

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

Spinach and Beets

Aphids, Dipterous leafminer: Apply 1/2-1 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 2-2 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 3/4-1 lb. per acre.

Vinegar fly (*Drosophila* spp.): Apply 1/2-1 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

Moyer Diazinon 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
Brussels 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 (Centipede)

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

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
Brussels Sprouts	Kale	Radishes
Cabbage	Lettuce	Tomatoes
Cauliflower	Mustard	Turnips
Collards		

Broadcast 2 lbs. per acre when insects are present. Make application to plant beds of field 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, Brussels 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
Brussels 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

Moyer Diazinon 50 W 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, Clover and Trefoil

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 tiller 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 Moyer Diazinon 50W Per Acre
		Postemergence Basal Treatment
48"	10,890	24 - 28 oz.
42"	12,455	15 1/2 - 31 oz.
40"	13,068	16 - 32 oz. (1 1/2 lbs.)
38"	13,939	17 1/2 - 35 oz.
36"	14,250	18 - 36 oz.
30"	17,424	22 - 44 oz.
24"	21,780	27 1/2 - 55 oz.
20"	26,136	32 - 66 oz. (2 - 1 1/4 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.

Cotton
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.

Lcspedeza
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 lbs. 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.

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

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 below under Livestock Insects. Do not repeat application for 30 days.

Livestock Insects

Sheep "Ticks" (Keds), Lice

High gallonage, high pressure sprays: Mix 1/2 lbs. in 100 gals. of water, and apply at the rate of 1 gal. per animal.

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

Sprinkler Cans: 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 Moyer Diazinon 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, Leaf-hoppers, Obscure root weevils, Omnivorous leaf-tiers, Privet mites, Scale crawlers: (Cottony-cushion, Lecanium, Pine needle, San Jose, Soft scale), Thrips, Twospotted mites, Webworms, Whiteflies	1/2 oz.	1 lb.

Insects	Amount Moyer Diazinon 50W to Use	
	per 3 gals. water	per 100 gals. water
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.

Insects	Rate/1000 sq. ft. Moyer Diazinon 50W		Remarks
	Diazinon 50W	Water	
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.

Insects	Rate/1000 sq. ft. Moyer Diazinon 50W		Remarks
	Diazinon 50W	Water	
Brown dog ticks, Bermudagrass mites, Chiggers, Fleas, Leaf-hoppers	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 oz. 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 insects hide.

Dust Formulations Based Moyer Diazinon 50 W

Moyer Diazinon 50W is recommended for use in formulating dilute dust products. Formulators should contact the

Speciality Products Sales Department, Agricultural Division, for information regarding proper diluents and suggested formulae.

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 Moyer Diazinon 50W at rates indicated on fungicide with Moyer Diazinon 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.

Caution: Moyer Diazinon 50W treated grain cannot be used for feed for livestock, or for the preparation of products for human consumption.

Fly Control

Fly control in barns and animal 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 Moyer Diazinon 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 amount of Moyer Diazinon 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 the 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 applications as fly populations warrant.

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

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

