

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (WH-567)
WASHINGTON, D.C. 20460

EPA REGISTRATION NO.

DATE OF ISSUANCE

10163-100

TERM OF ISSUANCE

Until Reregistration

NAME OF PESTICIDE PRODUCT

Green Dizinon 41

NOTICE OF PESTICIDE: REGISTRATION
 REREGISTRATION

(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Green Company
P.O. Box 5006
Yuma, AZ 85344

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 Section 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 Reg. No. 10163-100."

(b) Add as a second footnote under the ingredients statement:

Contains xylene range aromatic solvent.

(c) Expand the Note to Physician to read as follows:

Note to Physician - Contains diazinon, a cholinesterase inhibitor. If symptoms of cholinesterase inhibition are present, atropine by injection is antidotal. 2-PAM is also antidotal and may be administered, but only in conjunction with atropine. Solvent may present aspiration hazard. Gastric lavage may be indicated if product was taken internally.

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

- (d) Revise the "PRECAUCION AL USUARIO" to appear as follows:

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicado ampliamente.

- (e) Revise the the ENVIRONMENTAL HAZARDS text to appear as follows:

This product is toxic to fish, birds, and other wildlife. Birds feeding on treated areas may be killed. Do not apply directly to water or wetlands. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where shrimp, crab, or other aquatic life are important resources. This product must not be used in areas where impact on threatened endangered species is likely. Contact you State Fish and Game Agency for information pertaining to areas having threatened endangered species. 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 area. 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.

- (f) Add the subheading "RE-ENTRY" over the paragraph beginning: "Do not enter treated areas ...". Add as the second sentence: "Protective clothing means, at least, a hat or other suitable head covering, a long sleeved shirt and long legged trousers or a coverall type garment (all of closely woven fabric covering the body, including the arms and legs), socks, and shoes.

- (g) Revise the front panel referral statement to read:

See SIDE PANEL for additional precautionary statements.

- (h) Revise the user group limitation from "FOR AGRICULTURAL USE ONLY" to "RECOMMENDED FOR AGRICULTURAL OR COMMERCIAL USE".

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 and minimum type size requirements for certain label elements.

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-767C)

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

May be fatal if swallowed or absorbed through skin. Do not breathe spray mist. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling. Use only with adequate ventilation. Do not contaminate food or feed products.

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.

ENVIRONMENTAL HAZARDS

This product is toxic to fish, birds and other wildlife. Birds feeding on treated areas may be killed. Do not apply directly to water. Do not apply when weather conditions favor drift from area treated. 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 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. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

PHYSICAL AND CHEMICAL HAZARDS

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

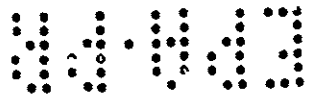
DIRECTIONS FOR USE

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

Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive re-entry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

NOTE: The California Department of Agriculture has set a 5-day re-entry period 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 longest 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. 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 and oral 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 for 5 days on citrus, grapes, peaches and nectarines in California. In case of accidental exposure, follow instructions under Statement of Practical Treatment section.



GOWAN

DIAZINON 4 E

Active Ingredient:	% By Wt.
Diazinon (O,O-Diethyl O-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate)	48.00%
Inert Ingredients:	52.00%
	Total . . . 100.00%

Contains 4 lbs. diazinon per gallon

FOR AGRICULTURAL USE ONLY

KEEP OUT OF REACH OF CHILDREN

WARNING—AVISO

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que le etiqueta haya sido explicado ampliamente.

See SIDE PANELS for STATEMENT OF PRACTICAL TREATMENT Section and Additional Precautionary Statements.

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED, call a physician or Poison Control Center immediately. **DO NOT INDUCE VOMITING UNLESS NO OTHER TREATMENT IS AVAILABLE.** Vomiting may cause aspiration pneumonia. If it is necessary to induce vomiting, give victim one or two glasses of water and touch back of throat with finger. 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, wash promptly with soap and water. Rinse thoroughly. IF IN EYES, flush with plenty of water and call a physician immediately.

NOTE TO PHYSICIAN: Gastric lavage is indicated. Atropine sulfate and 2-PAM are specific antidotes.

Net Contents _____ Gals.

Gowan Company

AGRICULTURAL CHEMICALS

P.O. Box 5696
12300 E. County 8th Street
(602) 783-8844
Yuma, AZ 85364

EPA Reg. No. 10163-
EPA Est. No. 10163-AZ-1

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See attache
DIAZINON

Gowan Diazinon
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General Information

[REDACTED] is an emulsifiable solution which, when diluted with water according to directions, is intended for the control of insect pests of agricultural crops. Do not use in barns or dwellings. Do not use on livestock.

In the directions for use which follow, best control is obtained when application is made at the first sign of insects. Application should be repeated as necessary to maintain control.

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, the interval shall be prolonged by adding to the longest applicable interval an additional 50% of that interval.

Directions for Use

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

Fruit and Nut Crops

Note: Unless otherwise stated, the following rates should be applied as a dilute full cover spray.

Almonds

Mites, Twig Borers: Apply 1 - 1½ pts. per 100 gals. of water.

Parlatoria Scales, San Jose Scales: Mix 1-1½ pts. [REDACTED] plus 2-3 gals. dormant oil per 100 gals. of water and apply as a dormant spray.

Almond hulls may be used for feed for livestock

Apricots

Aphids, Brown Mites (Clover Mites), Twospotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers: Mix 1 pt. per 100 gals. of water. Apply when aphids, mites, and scale crawlers first appear.

Olive Scale Crawlers: Mix ½ pt. of [REDACTED] plus 1½ gals. of light medium horticultural oil per 100 gals. of water. Apply when scale crawlers are present

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

Do not apply within 10 days of harvest.

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Dryberry Mites. Apply 1-2 qts. per acre in a minimum of 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

Do not apply within 7 days of harvest.

Raspberry Crown Borers (Raspberry Root Borers): Apply 2 qts. per acre in a minimum of 100 gals. of water 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

Cherries

Eyepotted Bud Moths, Fruitree Leafrollers: Mix 1 pt. per 100 gals. of water. Apply in cover sprays as necessary beginning with petal fall.

Cherry Fruit Flies: Mix ½ - 1 pt. per 100 gals. of water. Make 3 or 4 applications, beginning when adult cherry fruit flies begin to emerge and repeat at 10-day intervals

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

Black Cherry Aphids: Mix 1 pt. per 100 gals. of water. Apply as a cover spray when aphids appear and repeat after 10 days.

San Jose Scale Crawlers: Mix 1 pt. per 100 gals. of water. Apply during the pre-pink stage or when crawlers first appear

Do not apply within 10 days of harvest

Cherry Rust Mites: Mix ½ - 1 pt. per 100 gals. of water. Apply as a supplemental spray after harvest.

Citrus Fruits

Grapefruit, Lemons, Limes, Oranges, Tangelos, Tangerines, Citrus Citron, Kumquats, and hybrids of these

Citrus Aphids, Fruitree Leafrollers, Cottony Cushion Scale Crawlers, Soft Scale Crawlers: Apply ½ - 1 pt. per 100 gals. of water (maximum 1,000 gals. per acre) as a thorough cover spray when aphids and crawler stages of scale insects first appear.

Fruitree Leafrollers: Use ½ - 1 pt. per 100 gals. of spray (maximum 1,000 gals. per acre) when an average of 50 percent of eggs in egg masses have hatched in the spring.

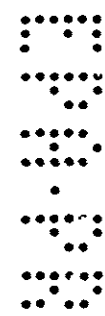
Citrus Thrips: Apply 1 pt. in 100 gals. of water (maximum 1,000 gals. per acre) when thrips first appear

Citrus Snow Scales: Apply 1 - 2 pts. per 100 gals. of water (maximum 1,000 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 trunks, limbs, and twigs is essential.

Do not apply during bloom. Do not apply to citrus within 21 days of harvest. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where these are important resources.

Cranberries

Blackheaded Fireworms (*Rhopobota naevana*): Apply 2 qts. in 400 gals. of water per acre.



Cranberry Fruitworms Apply 3 qts. in 400 gals. of water per acre

Do not apply within 7 days of harvest

Figs

Vinegar Flies (*Drasophila* spp.), Dried Fruit Beetles: Apply 1 pt. per 100 gals. of water. Do not apply within 5 days of harvest

Filberts

Filbert Leafrollers, Aphids: Apply 1 - 2 qts. in 250 - 400 gals. of water per acre as a thorough cover spray.

Grapes

Pacific Spider Mites, Leafhoppers, Grape Berry Moths, Grape Leafrollers: Apply 1 - 2 pts. per acre in a minimum of 100 gals. of water as a thorough cover spray. Do not apply within 18 days of harvest

Drasophila spp.: Apply 12-18 fl. oz. per acre in a minimum of 100 gals. of water as a thorough cover spray, or apply when insects first appear. Make additional applications at weekly intervals as necessary.

Do not apply within 7 days of harvest.

Olives

Olive Scales: Mix $\frac{1}{2}$ - 1 pt. of ~~_____~~ plus $1\frac{1}{2}$ 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, Nectarines

Aphids, Brown Mites (Clover Mites), Twospotted Spider Mites, Olive Scale Crawlers, San Jose Scale Crawlers: Mix 1 pt. per 100 gals. of water. Apply when aphids, mites, and scale crawlers first appear.

Olive Scale Crawlers: Mix $\frac{1}{2}$ pt. of ~~_____~~ plus $1\frac{1}{2}$ gals. of light medium horticultural oil per 100 gals. of water. Apply when scale crawlers are present.

Oriental Fruit Moths: Mix 1 pt. 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 Borers: Mix 1 pt. per 100 gals. of water and apply to peaches in May and June.

Leafhoppers (Peaches only): Apply 1 pt. 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 post-harvest spray apply $1\frac{1}{2}$ - 2 pts. per 100 gals. of water timed to coincide with peak crawler and immature scale activity. Under conditions of heavy infestations, two applications may be necessary.

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

Pecans

Aphids, Mites, Pecan Nut Casebearers, Walnut Caterpillars: Apply 1 - 3 qts. per acre as a foliage spray in a minimum of 100 gals. of water. Do not apply after husks crack.

Pineapple Scales: Apply 5 qts. of ~~_____~~ plus 2 gals. of light medium horticultural oil in 500 gals. of water per acre to the vegetative slips on the plants following harvest of pineapple

Mealybugs: Apply 2 qts. per acre in a minimum of 100 gals. of water. May be applied on day of harvest.

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

Plums, Prunes

Brown Mites (Clover Mites), European Red Mites: Apply 1 pt. per 100 gals. of water

Leafcurl Plum Aphids, Mealy Plum Aphids, Thistle Aphids: Apply $\frac{1}{2}$ - 1 pt. per 100 gals. of water.

Do not apply within 10 days of harvest

Strawberries

Aphids, Twospotted Spider Mites: Apply 1 pt. per 100 gals. of water per acre.

Cyclamen Mites: Apply 1 qt. per 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 Crickets: Broadcast 1 qt. per acre when insects are present. Apply 1 - 2 days before transplanting and immediately mix into the top 1 - 2 inches of soil.

Strawberry Leafrollers: Mix $\frac{1}{4}$ - 1 pt. per 100 gals. of water. Apply 200 gals. of spray per acre when blossoms show color.

Do not apply within 5 days of harvest.

Walnuts

Aphids, Mites: Apply 1 qt. per acre as a foliage spray in a minimum of 100 gals. of water.

Codling Moths, Scale Crawlers, Walnut Caterpillars: Apply 3 qts. per acre as a foliage spray in a minimum of 100 gals. of water.

Do not apply after the husks open.

Vegetable Foliar Insects

Unless otherwise stated, foliar applications of ~~_____~~ should always be applied to vegetable crops as a spray in a minimum of 2 gals. of water per acre for aerial applications and a minimum of 10 gals. of water per acre for ground applications.

Beans

Pole Beans, Snap Beans, Lima Beans

Black Bean Aphids, Mexican Bean Beetles, Leafminers: Apply 1 - $1\frac{1}{2}$ pts. per acre.

Cucumber Beetles: Apply $\frac{1}{4}$ pt. 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 Leafminers, Leafhoppers, Mites: Apply 1 pt. per acre. Do not apply within 7 days of 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 Moths, Imported Cabbageworms: Apply $\frac{1}{2}$ - 1 pt. 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 Moths, Imported Cabbageworms: Apply 1 pt. per acre. Generally, applications at 7 - 10 day intervals will be required. Do not apply to brussels sprouts within 7 days of harvest.

Carrots

Aphids: Apply 1 pt. per acre. Do not apply within 10 days of harvest.

Celery

Aphids, Flea Beetles: Apply 1 pt. in 100 gals. of water per acre. 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.

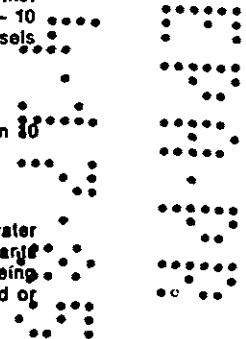
Collards, Kale, Swiss Chard, Turnip Tops

Aphids, Imported Cabbageworms, Diamondback Moths, Harlequin Cabbage Bugs: Apply $\frac{1}{2}$ - 1 pt. per acre. Do not apply to collards, kale, or turnip tops within 10 days, or to Swiss chard within 12 days, of harvest.

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Cucumbers

Aphids, Serpentine Leafminers, Thrips Apply 1 pt per acre. Do not apply within 7 days of harvest.

Lettuce, Endive

Aphids, Dipterous Leafminers Apply 1/2 - 1 pt. per acre. Do not apply within 10 days of harvest

Melons, Squash

Cantaloupes, Caszbas, 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 pts per acre

Serpentine Leafminers, Thrips Apply 1/2 - 1 pt per acre

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

Mushroom Houses

Mushroom Flies (Phorids and Sciarids): Mix 1/2 - 1 gal. 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 pt. in 6 gals. of water and apply with a brush.

Do not treat compost.

Onions

Onion Thrips: Apply 1 pt. per acre. Do not apply within 10 days of harvest.

Peas

Aphids, Leafminers. Apply 1/4 - 1 pt. 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 Leafminers: Apply 1/2 pt. per acre. Do not apply within 5 days of harvest.

Potatoes

Aphids, Flea Beetles, Colorado Potato Beetles, Dipterous Leafminers: Apply at the rate of 1/2 - 1/4 pt. per acre.

Banded Cucumber Beetles, Leafhoppers, Southern Armyworms: Apply 1/4 - 1 pt. per acre.

Do not apply within 35 days of harvest.

Radishes, Parsnips, Turnips

Aphids, Flea Beetles, Dipterous Leafminers: Apply 1/2 - 1 pt. per acre. Do not apply within 10 days of harvest.

Spinach, Beets

Aphids, Dipterous Leafminers: Apply 1/2 - 1 pt. 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 Earworms: Apply 1 - 1 1/4 qts 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 Foliar Insects and Field and Forage Soil Insects.

Tomatoes

Aphids, Dipterous Leafminers: Apply 1/2 pt. per acre. To control leafminers, weekly applications are usually required.

Banded Cucumber Beetles, Fall Armyworms, Southern Armyworms: Apply 1/4 - 1 pt. per acre.

Vinegar Flies (*Drosophila* spp): Apply 1/2 - 1 1/2 pts. per acre. Weekly applications are usually required.

Do not apply within 1 day of harvest.

Watercress (Hawaii only)

Cyclamen Mites: Mix 1 pt. per 100 gals. of water and apply to one acre as a thorough cover spray. Spray should be directed into the 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

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Unless otherwise stated, soil applications of [redacted] should always be applied to vegetable crops as a spray in a minimum of 5 gals. of water per acre for ground applications.

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 2 - 4 qts 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	Peas	Snap Beans
Carrots	Pole Beans	Tomatoes
Corn	Radishes	Turnips
Lettuce	Red Beets	

Broadcast 10 qts per acre just prior to planting. Immediately work into soil 4-8 inches. This preplant treatment will also control other soil insects: cutworms (surface and subterranean), mole crickets, root maggots, and wireworms

Mole Crickets

Broccoli	Endive(Escarole)	Radishes
Brussels Sprouts	Kale	Tomatoes
Cabbage	Lettuce	Turnips
Cauliflower	Mustard	
Collards	Peppers	

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

Onion Maggots

Onions
Furrow Application Apply 1 qt. per acre in sufficient water to drench the seed furrow at planting time.

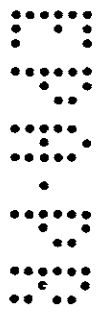
Broadcast Application: Broadcast 2 - 4 qts. per acre just prior to planting. Immediately work into soil 3 - 4 inches.

Root Maggots

Broccoli, Brussels Sprouts, Cabbage, Cauliflower:
Broadcast Application: Broadcast 2 - 3 qts. per acre and immediately work into the soil 3 - 4 inches, before seeding, either in the seedbed or in the field, or before transplanting

Transplant Water (Drench) Application Mix 1/4 - 1/2 pt. 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 1 qt in 50 gals. of water. Apply 80 - 100 gals per acre (1 - 1 1/2 gals per 1,000 linear feet of row) in the seed furrow at planting time.



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

Broadcast 3 - 4 qts per acre prior to planting and immediately work into soil 4 - 8 inches

Potatoes Broadcast 3 - 6 qts per acre prior to planting immediately disk or harrow into soil 4 - 8 inches

Southern Potato Wireworms (Southeastern U S)
Potatoes

For use to control southern potato wireworms in potatoes grown on mineral soils in the Southeast, apply 2-4 qts per acre as a soil treatment prior to planting, and immediately mix thoroughly by disking, or other suitable means into the top 3-6 inches of soil, depending on location of wireworms

Field and Forage Foliar Insects

Unless otherwise stated, foliar applications of **Gowan Diazinon HE** should always be applied to field and forage crops as a spray in a minimum of 2 gals. of water per acre for aerial applications and a minimum of 10 gals. of water per acre for ground applications.

Alfalfa, Clover
Spotted Alfalfa Aphids, Yellow Clover Aphids, Pea Aphids, Leafhoppers, Plant Bug Nymphs, Mites: Apply 1/4-1 pt. per acre.

Grasshoppers Apply 1 pt. per acre.

Following the above applications, 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 pts. 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 with either air or ground equipment. Do not treat during bloom to avoid injury to pollinating insects.

Clover
Striped Ground Crickets: Broadcast 1-2 pts. per acre following seeding in the fall but prior to clover emergence.

Corn
Use a minimum of 1 gal. of water for aerial applications and 5 gals. of water for ground applications.

Corn Rootworm Adults: Apply 1/2-1 pt. per acre.

Corn Leaf Aphids: Apply 1-2 pts. per acre. Complete coverage of the upper portions of the plants is essential. Repeat applications as necessary.

Mites: Apply 1 pt. per acre when infestations first appear. Repeat applications as necessary.

Flea Beetles: Apply 1 pt. per acre when insects first appear. Repeat applications as necessary.

Grasshoppers: Apply 1 pt. per acre.

Sap Beetles: Apply 2-2 1/2 pts. per acre. Add 1-2 gals. of soluble mineral oil per acre to the spray mixture. Consult State Agricultural Experiment Stations or State Extension Service Specialists 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 Bugs, Cotton Leafworms, Cotton Leafperforators: Apply 1-2 pts. 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 waste to livestock.

Guar (Texas and Oklahoma only)
Midge: Apply 1/2-1 pt. per acre in a minimum of 10 gals. of water for ground application or 2 gals. of water for aerial application when 15% of the blooms are infested. Should the infestation warrant repeat applications should be made in 5-6 days.

Do not make more than 3 applications to the same crop. Do not apply within 12 weeks of harvest.

Do not graze or feed treated forage to livestock within 12 weeks of harvest.

Hops
Aphids, Mites: Apply 1 qt. per acre. Do not apply within 14 days of harvest.

Sorghum
Use a minimum of 1 gal. of water for aerial applications and 5 gals. of water for ground applications.

Sorghum Midge: Apply 1/2-1 pt. per acre when 90% of heads have emerged from the boot. Repeat application within 4 days.

Mites: Apply 1 pt. per acre when infestation first appears and repeat applications as necessary.

Greenbug: Apply at the rates indicated below when infestation first appears and repeat as necessary.

Texas and Oklahoma--Apply 1/2-1 pt. per acre.
All Other Areas--Apply 1 pt. per acre

Crop may be fed to livestock immediately following treatment. Do not apply within 7 days of harvesting for grain.

Sugar Beets
Beet Leafhoppers, Dipterous Leafminers, Aphids: Apply 1/2 - 1 pt. per acre.
Grasshoppers: Apply 1 pt. per acre.
Tops may be fed to beef and dairy animals.

Sugarcane
Aphids: Apply 1/2-1 pt. per acre. Allow 1 day between last application and harvest. Bagasse and forage may be fed to livestock.

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

Grasshoppers: Apply 1 pt. per acre. Do not apply within 14 days of harvest.

Field and Forage Soil Insects

Unless otherwise stated, soil applications of **Gowan Diazinon HE** should always be applied to field and forage crops as a spray in a minimum of 5 gals. of water per acre for ground applications.

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

Corn
Corn Rootworm Larvae:
Postemergence Basal Treatment: Apply 1 1/4-2 1/2 oz. per 1,000 linear feet of corn row in sufficient water to thoroughly wet base of corn plant and a narrow band of soil next to the plant. Refer to the 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, but not later than June 24 in the Middle Corn Belt, or July 1 in the Northern Corn Belt.

Gowan Diazinon HE

**Suggested Rates According to Row Spacing
for Corn Rootworm Larvae Control**

Row Spacing	Linear Feet of Corn Row/Acre	Postemergence Basal Treatment (Fl. oz.)
48"	10,890	14-28
42"	12,455	15.5-31
40"	13,068	16-32 (1/2-1 qt.)
38"	13,939	17.5-35
36"	14,250	18-36
30"	17,424	22-44
24"	21,780	27.5-55
20"	26,136	32-64 (1-2 qts.)
15"	34,848	44-88

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

Seedcorn Maggots: Broadcast 2-4 qts. per acre just prior to planting. Work immediately into soil 2 inches.

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

For subterranean cutworms apply just prior to planting and immediately work into soil 3-6 inches.

Wireworms: Apply 3-4 qts. per acre prior to planting and immediately work into the soil 4-8 inches.

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

Cowpeas

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

Lespedeza

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

Peanuts

Cutworms: Apply 2 qts. per acre in a 12-inch band over the row. Thorough coverage of the foliage is essential. Begin application when small larvae appear. Two or three additional applications at three-week intervals may be necessary. Do not apply within 21 days of peanut harvest.

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

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

Soybeans

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

Sugar Beets

Wireworms: Broadcast 3-4 qts. per acre just prior to planting, and immediately work into soil 4-8 inches.

Tops may be fed to beef and dairy animals.

Sugarcane

Wireworms: Apply 1 gal. per acre in a 12-inch band centered over the furrow. Make application directly to seed pieces in open furrow at covering time.

Tobacco

Cutworms: Broadcast 2-3 qts. per acre before transplanting and immediately work into the soil 2-4 inches.

Green June Beetle Larvae: Mix 1/4 pt. in 50 gals. of water and apply as a trench (100 gals. per 100 sq. yds.) to uprooted areas of plant beds with sprinkling can.

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

Seedcorn Maggots: Broadcast 3 pts. per acre, 3-4 weeks before transplanting. Immediately work into soil 2 inches.

Wireworms: Broadcast 2-3 qts. per acre, 3-4 weeks before transplanting. Immediately work into soil 6-8 inches.

Range, Pasture and Grassland Insects

(DOWAN DIZION 4E)

Unless otherwise stated, should always be applied as a spray in a minimum of 1 gal. of water per acre for aerial applications and a minimum of 5 gals. of water per acre for ground applications.

Bermudagrass and Forage Grasses (other than Range and Pasture Grasses)

Thrips, Whiteflies, Grasshoppers: Apply 1 pt. per acre.

Dairy and beef cattle and sheep (1) may be grazed immediately following application, (2) may be fed green forage immediately following cutting. Forage grasses may be cut for hay 7 days following treatment. Do not repeat application for 30 days.

Rangeland, Pasture, Ditch Banks, Roadsides, Wasteland, Noncrop Areas, Barrier Strips

Grasshoppers: Apply 1/4-1 pt. per acre in water or oil (minimum of 1 gal. of oil per acre) when insects first appear, preferably in the nymphal stage. Thorough coverage of the foliage is essential.

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. Do not repeat application for 30 days.

Ornamental Insect Control

To control certain insects on Arborvitae, Azalea, Birch, Boxwood, Camellia, 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	Rate per 3 gals. water	Rate per 100 gals. water
Aphids, Bagworms, Carnation Bud Mites, Carnation Shoot Mites, Clover Mites, Cyclamen Mites, Dipterous Leafminers, European Pine Shoot Moths, European Red Mites, Flea Beetles, Holly Bud Moths, Leafhoppers, Obscure Root Weevils, Omnivorous Leafhoppers, Privet Mites, Scaff Crawlers (Cottony Cushion), Lecanium, Pine Needle, San Jose, Soft Scale, Thrips, Twospotted Mites, Webworms, Whiteflies	1/2 fl. oz.*	1 pt.**
Apple-and-Thorn Skeletonizers, Coloneaster Webworms, Fall Webworms, Hemlock Chermes, Oak Loopers, Oblique-banded Leafrollers, Pear Slugs, Tent Caterpillars	1 1/2 fl. oz.*	3 pts.**

*1 fl. oz. = 2 tablespoons **16 fl. oz. = 1 pint

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

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

Lawn Insect Control

To control insects listed below, apply recommended rates. For control of 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.

Gowan
Diazinon
4E

Insects	Rate 1,000 sq ft	Water	Remarks
Lawn Chinch Bugs	2-3 fl oz or 3-6 fl 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, Fruit Flies, Lawn Billbugs, Sod Webworms (Lawn Moths), Sowbugs	4 fl oz	3 gals	Spot spray ant hills and wasp ground nest openings For lawn billbugs, irrigate the lawn thoroughly immediately after treatment For fruit flies, mow grass and water well before treatment but delay application until grass is dry. Do not water again until necessary
Brown Dog Ticks, Bermudagrass Mites, Chiggers, Fleas, Leafhoppers	1 1/4 fl oz	3 gals	Do not apply to animals. For brown dog ticks, spray grass and under shrubbery, particularly near house
Millipedes	8 fl oz	3 gals	
Rhodesgrass Scales	5 fl oz	25 gals*	Apply when crawlers first emerge

*Or make application in 3 gals. of water per 1,000 sq ft and thoroughly water immediately following application.

Boxelder bugs: Spray bugs outside the home with 1 1/4 - 2 1/2 fl. oz (2 1/2 - 5 tablespoons) in 1 gal. water. At the same time, thoroughly spray around foundation, windows, doors, tree trunks, and into cracks and other places where the insects hide.

Billbugs, White Grubs (such as Japanese Beetle Larvae, European Chafer, Southern Chafer): Apply 4 fl. oz. per 1,000 sq. ft. of lawn. Water grass thoroughly after application. For grub control make application any time between late July and early October. For billbug control apply when activity is first observed or when chewed or brown grass is present, indicating damage from this insect.

Hyperodes Weevil (New York only): Apply 3 fl. oz per 1,000 sq ft. of grass. Water grass thoroughly after application. Treat problem areas in mid-April and again in mid-May.

Forest Insects

Pine (Seed Orchards, Plantations, Forests)
Arkansas Sawfly (Loblolly Sawfly): Apply 1/2 pt. per acre over the tree canopy. Application should be made at or near the completion of egg hatch. Aerial applications should be made with a minimum of 2 gals. of spray per acre, in swaths not more than 90 ft. wide. Repeat application as needed.

