

JUL 19 1990

Mr. R. E. Broyles  
Purina Mills, Inc.  
800 Chouteau Avenue  
St. Louis, MO 63164

Subject: Amendment - Revise per Diazinon Registration Standard  
and the Agency's May 1, 1990 Data Call-In letter  
to reflect only those uses supported by Ciba-Geigy  
Purina Diazinon Insecticide 25E  
EPA Reg. No. 602-240  
Your submission received June 6, 1990

Dear Mr. Broyles:

The amendment referred to above, submitted in connection with a registration under the Federal Insecticide, Fungicide, and Rodenticide Act, is acceptable provided the following revision is made prior to release for shipment under the amended labeling:

For the container label:

- 1) In the Environmental Hazards, add a comma in the second sentence, such that it reads: "Birds, especially waterfowl, feeding or drinking on treated areas may be killed."

For the "Insert" label:

- 1) In the newly revised directions for "Nuisance Pests in Outside Areas", delete "and ceilings" from "porch and patio walls and ceilings." Such use, especially if applied to runoff, could result in pesticide "raining" down on the applicator and into the eyes (even behind the recommended safety glasses), an especially inadvisable situation for a pesticide which can cause "substantial but temporary eye damage".
- 2) In the "Insects" listing for the site "Trees & Shrubs", correct the spelling of "Euonymus" in the scale crawlers listing.
- 3) In the "Insects" listing for the site "Roses & Flowers", correct the spelling of "Euonymus Scale".

- 4) For the crop "Caneberries", revise "Twospotted Mites" to "Two-spotted Spider Mites" ["Twospotted Spider Mites", as the name appears in other locations on your label, is an apparent carryover of a Ciba-Geigy typo. Please correct this in all locations where it appears.]
- 5) For the crop "Strawberries", revise "Two-spotted Mites" to "Two-spotted Spider Mites".
- 6) In the "Pre-Harvest Intervals" table on page 13, align "Watermelons".
- 7) For the crop "Beans", revise the pest name "Mites" to "Spider Mites".
- 8) In the Statement of Practical Treatment, in the "If swallowed" advice relocate "induce" to the correct paragraph location and merge the rest of the text to that point.
- 9) In the Environmental Hazards, add a comma in the second sentence, such that it reads: "Birds, especially waterfowl, feeding or drinking on treated areas may be killed."

[NOTE: Do not print the quotation marks appearing in this letter on text items to be added or revised on your labeling.]

A stamped copy of the label is enclosed for your records. Please submit five (5) copies of the revised amended label prior to release for shipment under the amended label. Please refer to the Diazinon Registration Standard, as amended, for release for shipment and channels of trade dates for diazinon products bearing appropriately amended labels.

Sincerely yours,

George T. LaRocca  
Product Manager (15)  
Insecticide-Rodenticide Branch  
Registration Division (H7505C)

Reason For Issue: For submission to EPA.

Date Issued: 5/28/90 (Green)  
Prev. Date Issued: 12/14/88  
Document Name: DIAZ5E.1PT

3923

PURINA®  
BRAND

DIAZINON\* INSECTICIDE-25E

Lawn and Garden Insect Control

(Must be printed at top of front panel)  
**THIS PRODUCT MUST NOT BE USED ON GOLF COURSES AND SOD FARMS.**

EPA Reg. No. 602-240  
EPA EST. No. 602-MO-1  
(3-Row Checkerband®)

PROTECTS

- Lawns
- Vegetables
- Fruits & Nuts
- Roses
- Flowers
- Trees
- Shrubs

CONTROLS

- Ants, Aphids
- Chinch Bugs
- Cutworms +
- Fire Ants
- Flea Beetles
- Grubs, Mites
- Sod Webworms
- and many others

+ Aids in control.

ACTIVE INGREDIENT:

Diazinon: 0,0-Diethyl 0-(2-isopropyl-6-methyl-4-pyrimidinyl) phosphorothioate . . . . .	25.0%
INERT INGREDIENTS** . . . . .	75.0%
TOTAL	100.0%

\*\*Contains xylene range aromatic solvent.

Spray concentrate. Contains diazinon insecticide

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KEEP OUT OF REACH OF CHILDREN  
WARNING  
SEE ADDITIONAL PRECAUTIONARY STATEMENTS ON BACK PANEL

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NET 16 FL OZ (1 PT)

G-2654

(9-Square Logo)

Manufactured By  
PURINA MILLS, INC.  
P.O. Box 66812  
St. Louis, Missouri 63166-6812 U.S.A.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated:  
JUL 19 1990

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

602-240



## ENVIRONMENTAL HAZARDS

This product is highly toxic to birds, fish, and other wildlife. Birds, especially waterfowl feeding or drinking on treated areas may be killed. Because of the migratory habits of certain Atlantic Coast waterfowl, do not apply this product to lawns in Nassau County, New York, between November 1 and May 20. Do not exceed maximum permitted label rates. Application rates above those recommended significantly increase potential hazards to birds and waterfowl. Avoid overlapping of sprays. Where irrigation (watering) is recommended in the directions, or if waterfowl, i.e., ducks or geese can be expected in the treated area after treatment (except spot treatment), apply a minimum of 1/4 inch of water immediately after applying this product. Stop irrigation before puddling occurs. Keep out of lakes, streams, ponds, tidal marshes and estuaries. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Runoff may be hazardous to aquatic organisms in neighboring areas. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab, and other aquatic life are important resources. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters.

This pesticide is highly toxic to bees exposed to direct treatment or to residues on blooming crops or weeds. Do not apply this pesticide or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

## PHYSICAL OR CHEMICAL HAZARDS

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

STORAGE AND DISPOSAL

Storage: Do not store near heat or open flame. Store in original container in an area inaccessible to children and pets. USE CONTENTS WITHIN 6 MONTHS AFTER OPENING.

Disposal: Do not reuse empty container. Thoroughly rinse container, securely wrap it in several layers of newspaper and discard in trash. If disposal of a partially full container is necessary, make sure cap is tightly closed, securely wrap the container in several layers of newspaper and discard in trash.

NOTE: See Directions For Use on Insert

QUALITY CONTROLLED BY PURINA RESEARCH

6723

INSERT COPY

(9-Square logo)

PURINA®  
BRAND

DIAZINON\*INSECTICIDE-25E

Lawn and Garden Insect Control

EPA Reg. No. 602-240

EPA EST. No. 602-MO-1

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

PROTECTS

Lawns  
Vegetables  
Fruits & Nuts  
Roses  
Flowers  
Trees  
Shrubs

CONTROLS

Ants, Aphids  
Chinch Bugs  
Cutworms +  
Fire Ants  
Flea Beetles  
Grubs, Mites  
Sod Webworms  
and many others

+Aids in control.

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KEEP OUT OF REACH OF CHILDREN  
WARNING  
SEE LABEL FOR PRECAUTIONARY STATEMENTS

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Manufactured By  
PURINA MILLS, INC.  
P.O. Box 66812  
St. Louis, Missouri 63166-6812 U.S.A.

7923

**DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY**

**IMPORTANT** : Read the entire **Directions for Use** and the **Conditions of Sale and Warranty** before using this product. If terms are not acceptable, return unopened product container at once.

**Conditions of Sale and Warranty**

The **Directions for Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of PURINA MILLS, INC. or the Seller. All such risks shall be assumed by the Buyer.

PURINA MILLS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions for Use** subject to the inherent risks referred to above. PURINA MILLS, INC. makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall PURINA MILLS, INC. or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. PURINA MILLS, INC. and the Seller offer this product, and the Buyer and user accept it, subject to the foregoing **Conditions of Sale and Warranty**, which may be varied only by agreement in writing signed by a duly authorized representative of PURINA MILLS, INC.

**DIRECTIONS FOR USE**

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

**General Information**

Purina Diazinon Insecticide-25E is an emulsifiable concentrate product which must be diluted with water before application. Refer to the section "How to Mix and Apply." This product kills many outdoor insects which damage lawns, roses, flowers, trees, shrubs, vegetables, fruits and nuts, and insects which annoy pets and people. Contains diazinon insecticide which provides positive control of many "hard-to-kill" sucking and chewing insects. Purina Diazinon Insecticide-25E works fast and applications should be repeated only as directed to maintain control.

Notes: (1) USE CONTENTS WITHIN 6 MONTHS AFTER OPENING. SEE "STORAGE AND DISPOSAL," DIRECTIONS. (2) Do not use in the home. (3) Do not use on ferns, poinsettia, hibiscus, papaya, pilea, gardenia or orchids since injury may occur. (4) Do not use on commercially-grown potatoes which will be hand-harvested. (5) Use this product on succulent peas and beans only. Do not use on dried pea or bean varieties.

Precautions: 1) Wear a long-sleeved shirt and long-legged pants when spraying. 2) Spray with the wind to your back. 3) Do not spray on windy days. 4) If clothing becomes wet from spray during use, remove clothing after spraying, wash affected body areas thoroughly with soap and water, and launder clothing before wearing again.

## How to Mix and Apply:

Step #1: Determine size of spraying job. For lawns and vegetables, measure the area to be sprayed. For all other applications, apply as a thorough cover spray. Make applications when insects first appear. Applications should be repeated only as directed to maintain control.

Step #2: Use clean sprayer. Carefully measure and mix the amount of Purina Diazinon Insecticide-25E and water as suggested in the rate chart.

Step #3: Spray as directed in rate chart. Thorough coverage is important. Flush sprayer with clean water after each use.

See chart for complete insect list. Use rates shown unless otherwise indicated.

1 tablespoon = 3 teaspoons

1 fl. oz. = 6 teaspoons or 2 tablespoons

6 fl. oz. = 3/4 cup

2 tablespoons in 3 gals. of water = 2 teaspoons in 1 gal. of water or 6 oz. in

18 gals. of water.

Lawn Pest Control

Use on Bent, Bermuda, Bluegrass, Dichondra, Fescue, Merion and St. Augustine grass.

Precautions: Birds, especially waterfowl, feeding or drinking on treated areas may be killed. Apply this product only as specified on this label. Because of the migratory habits of certain waterfowl, do not apply in Nassau County, New York, between November 1 and May 20. Do not exceed maximum permitted label rates, since rates above those recommended significantly increase potential hazards to birds. Avoid overlapping of sprays. When irrigation is recommended in the directions or if waterfowl, i.e., ducks, geese can be expected in the treated area after treatment (except spot treatments), water lawn with at least 1/4 inch water immediately after spraying this product. However, stop watering before puddling occurs.

Pests	Rate		Remarks
	Purina Diazinon Insecticide-25E	Water	
Lawn Chinch Bugs	1-1/2 tablespoons per 125 sq. ft. or 6 fl. ozs. per 1,000 sq. ft.	3 gals.  24 gals.	Thoroughly wet down grass, a few hours before applying.  In the North, the Chinch Bugs are the only problem, a lower rate of application can be used: 3 teaspoons in 3 gals. of water covers 125 sq. ft. or 4 fl. ozs. in 24 gals. of water per 1,000 sq. ft.

Pests	Rate		Remarks
	Purina Diazinon Insecticide-25E	Water	
Ants, Armyworms, Bermuda Grass Mites, Clover Mites, Spring- tails, (Collembola), Crickets, Cutworms, Digger Wasps, Earwigs, Frit Flies, Lawn Billbugs, Leaf- hoppers, Sod Webworms (Lawn Moths), Sowbugs (Pillbugs)	1-1/2 tablespoons per 125 sq. ft. or 6 fl. ozs. per 1,000 sq. ft.	3 gals.  24 gals.	Thoroughly wet down grass, a few hours before applying.  For ants and digger wasps spot spray ant hills and wasp ground nest openings. For digger wasps, apply at dusk when wasps are not active.  For frit flies, mow grass and water well before treatment, but delay application until grass is dry.  Billbug control: Apply when activity is first observed or when chewed or brown grass is present indicating damage from the insect.
Brown Dog Ticks, Chiggers, Fleas,	1-1/2 tablespoons per 125 sq. ft. or 6 fl. ozs. per 1,000 sq. ft.	3 gals.  24 gals.	Note: Do not apply to animals.  For brown dog ticks, spray grass and under shrubbery, particularly near house.
Millipedes	1-1/2 tablespoons per 125 sq. ft. or 6 fl. ozs. per 1,000 sq. ft.	3 gals.  24 gals.	Thoroughly wet grass a few hours before applying.
Rhodesgrass Scales	1-1/2 tablespoons per 125 sq. ft. or 6 fl. ozs. per 1,000 sq. ft.	3 gals.  24 gals.	Apply when crawlers first emerge.
White Grubs of Japanese Beetle, European Chafer, Southern Chafer	1-1/2 tablespoons per 125 sq. ft. or 6 fl. ozs. per 1,000 sq. ft.	3 gals.  24 gals.	Water grass thoroughly after application. Grub control: Apply any time between late July and early October.
Hyperodes Weevil	1-1/2 tablespoons per 125 sq. ft. or 6 fl. ozs. per 1,000 sq. ft.	3 gals.  24 gals.	Water grass thoroughly after application. Treat problem areas in mid-April and again in mid-May.

Nuisance Pests in Outside Areas

Ants, Boxelder Bugs Brown Dog Ticks,  
Chiggers, Clover mites, Cockroaches,  
Crickets, Earwigs, Fleas, Flies,  
Millipedes, Sowbugs (pillbugs),  
Spiders, Springtails (Collembola)

Mix 6 fl. ozs. in 3 gals. of water and thoroughly spray window and door screens, sills, foundations, porch and patio walls and ceilings, entranceways, walks, garbage cans, tree trunks, and into cracks and other places where insects can hide.

Do not treat animals. Do not treat plants other than tree trunks at this nuisance pest rate.

To prevent entry into houses, spray a five-foot band of soil around the house next to the foundation and spray the foundation of the house to a height of 2-3 feet. Repeat application as necessary.

## ) Fire Ants

To aid in the control of fire ants in lawns and other recreational areas, apply 2 tablespoons in a minimum of 1 gal. of water as a drench. Apply over and 6 inches around each mound. Apply gently to avoid disturbing ants. Reapply as necessary. Larger quantities of solution can be prepared for multiple mound treatments. Use equipment capable of delivering the diluted product as a gentle rain at the rate of 1 gal. per mound. High pressure sprays may disturb the ants and cause migration, reducing product effectiveness.

Note: For best results, apply in cool weather, 65-80°F, or in early morning or late evening hours. Treat new mounds as they appear.

## Insect Control on Trees, Shrubs and Flowers

Trees & Shrubs	Insects	Rate per 3 gals. of water	Timing/Special Directions
Arborvitae, Azalea, Birch, Boxwood, Camellia, Douglas Fir, Elm, Hawthorn, Holly, Juniper, Lilac, Locust, Maple, Mimosa, Oak, Pine, Ornamental Plum, Poplar, Rhododendron, Spruce, Willow	Aphids, Bagworms European Pine Shoot Moths, Holly Bud Moths, Dipterous Leaf- miners (Arborvitae, Azalea, Birch, Boxwood, Holly, Oak), Leafhoppers, Mealybugs, Mites (Clover, Cyclamen, European Red, Privet, Twospotted Spider), Obscure Root Weevils, Omnivorous Leaf- tiers, Scale Crawlers, (Cottonycushion, Eynonymous, Lecanium, Pine Needle, Pit Scale San Jose, Soft)	2 tablespoons	Apply as a thorough foliar spray. Wet leaves and branches to the dripping point. Try to penetrate dense foliage with spray.
	Webworms (Juniper, Mimosa), Whiteflies	2 tablespoons	Apply as a thorough foliar spray. Mimosa Webworms: Apply as a thorough foliar spray when adults first appear. Make two additional applications at 4-5 week intervals.
	Apple and Thorn Skeletonizers, Hemlock Chermes, Oak Loopers, Obliquebanded Leafrollers, Pear Slugs, Tent Caterpillars, Webworms (Cotoneaster, Fall)	2 tablespoons	Apply as a thorough foliar spray.
<u>Roses and Flowers</u>			
Azaleas, Camellias, Chrysanthemums, Carnations, Gladioli, Lilac, Rhododendron, Roses	Aphids, Eunonymus Scale Crawlers, Flea Beetles, Dipterous Leaf- miners, Leaf- hoppers, Mealybugs, Mites (Carnation Bud, Carnation Shoot, Cyclamen, European Red, Two- Spotted Spider), Thrips, Whiteflies	2 tablespoons	Apply as a thorough foliar spray. Try to spray underside of leaves and penetrate dense foliage.

Fruits and Nuts

Start spraying after blooming. Applications should be made according to infestation or when aphids, mites, and crawler stages of scale insects are first noted.

Observe stated time intervals between last application and harvest of the crop, as well as intervals between applications and total number of applications that can be made per season.

Crop	PHI*
Almonds	45
Apricots	10
Blackberries	7
Boysenberries	7
Cherries	10
Dewberries	7
Grapes	18
Loganberries	7
Nectarines	10
Peaches	20
Plums	10
Prunes	10
Raspberries	7
Strawberries	5
Walnuts	45

\*PHI = Pre-Harvest Interval, or the number of days between the last application and harvest.

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

Crop	Pest	Rate	Timing/Special Directions
Almonds (CA only)	Aphids, San Jose Scale, Parlatoria Scale, Spider Mites, Twig Borers	2 tablespoons in 3 gals. of water	Apply as a full cover spray. Do not apply more than 6 gallons per 500 sq. ft. of orchard. Do not make more than 3 applications per season 14 days apart. Do not apply after husks open or split. Do not apply within 45 days of harvest.  This product may be used on almonds only in California.

Crop	Pest	Rate	Timing/Special Directions
Apricots	Aphids, Apricot Mealybugs, Mites (Clover [brown], Twospotted Spider), Scale Crawlers, (Olive, San Jose)	2 tablespoons in 3 gals. of water	Apply as a full cover spray. Do not apply more than 6 gallons per 500 sq. ft. of orchard. Do not make more than 5 applications per season a minimum of 14 days apart. Do not apply within 10 days of harvest.
Caneberries (WA, OR, CA only) Blackberries, Boysenberries, Dewberries, Loganberries, Raspberries	Aphids, Leafhoppers, Raspberry Fruitworms, Twospotted Mites, Thrips	2 tablespoons in 3 gals. of water	Apply as a full cover spray. Do not apply more than 5 gallons per 500 sq. ft. of field. Do not make more than 5 applications per season a minimum of 14 days apart. Do not apply within 7 days of harvest.  This product may be used on caneberries only in California, Oregon and Washington. Do not use this product on can berries grown in other states.
Cherries	Black Cherry Aphids, Cherry Fruitflies, Cherry Fruitworms, (Maggots), Fruit-tree Leafrollers, Mites (Cherry Rust), Scale Crawlers (San Jose)	2 tablespoons in 3 gals. of water	Apply as a full cover spray. Do not apply more than 6 gallons per 500 sq. ft. of orchard. Do not make more than 5 applications per season a minimum of 7 days apart. Do not apply within 10 days of harvest.
Grapes	Aphids, Leafhoppers, Grape Berry Moths, Grape Leaf-folders	2 tablespoons in 3 gals. of water	Apply as a full cover spray. Do not apply more than 3 gallons per 500 sq. ft. of vineyard. Do not make more than 5 applications per season a minimum of 7 days apart. Do not apply within 18 days of harvest.
Nectarines	Aphids, Mites (Clover [brown], Twospotted Spider) Scale Crawlers (Olive, San Jose)	2 tablespoons in 3 gals. of water	Apply as a full cover spray. Do not apply more than 6 gallons per 500 sq. ft. of orchard. Do not make more than 5 applications per season a minimum of 14 days apart. Do not apply within 10 days of harvest.
Peaches	Aphids, Mites (Clover [brown], Twospotted Spider) Scale Crawlers (Olive, San Jose)	2 tablespoons in 3 gals. of water	Apply as a full cover spray. Do not apply more than 6 gallons per 500 sq. ft. of orchard. Do not make more than 5 applications per season a minimum of 14 days apart. Do not apply within 20 days of harvest.

Crop	Pest	Rate	Timing/Special Directions
Plums and Prunes	Aphids (Leafcurl Plum, Mealy Plum, Thistle), Mites (Clover [brown], European Red)	2 tablespoons in 3 gals. of water	Apply as a full cover spray. Do not apply more than 6 gallons per 500 sq. ft. of orchard. Do not make more than 5 applications per season a minimum of 7 days apart. Do not apply within 10 days of harvest.
Strawberries	Aphids, Two-spotted Mites, Strawberry Leafrollers	2 tablespoons in 3 gals. of water	Apply as a full cover spray. Do not apply more than 3 gallons per 500 sq. ft. of field. Do not make more than 3 applications per season a minimum of 7 days apart. Do not apply within 5 days of harvest.
Walnuts (CA only)	Aphids, Scale Crawlers (Walnut, Italian pear, frosted), Spider Mites, Twig Borers	2 tablespoons in 3 gals. of water	Apply as a full cover spray. Do not apply more than 6 gallons per 500 sq. ft. of orchard. Do not make more than 3 applications per season 14 days apart. Do not apply after husks open or split. Do not apply within 45 days of harvest.  This product may be used on walnuts only in California. Do not use this product on walnuts grown in other states.

Vegetable Crops

For foliar or soil applications, Purina Diazinon Insecticide-25E lawn and garden insect control should be applied in the volume of water recommended in the table below to assure thorough coverage of the foliage or soil.

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

Pre-Harvest Intervals (PHI*) for Foliar Applications	
Crop	PHI*
Beans, Lima	7
Pole & Snap <sup>1</sup>	
Beets, Red (Table)	14
Broccoli	5
Cabbage	7
Cantaloupes	3
Carrots	10
Casabas	3
Cauliflower	5
Celery	10
Chinese Broccoli	10
Chinese Cabbage	10
Collards	10
Crenshaws	3
Cucumbers	7
Endive (Escarole)	10
Honeydew Melons	3
Kale	10
Lettuce	10
Muskmelons	3
Onions, Bulb & Green	10
Parsnips	10
Peas <sup>1</sup>	0
Peppers	5
Potatoes (Irish) <sup>2</sup>	35
Radishes	10
Spinach	7
Squash, summer	7
Squash, winter	3
Sweet Corn	0
Tomatoes	1
Turnips	10
Watermelons	3

\*PHI = Pre-Harvest Interval, or the number of days between the last application and harvest.

<sup>1</sup>Do not use this product on dried pea or black-eyed bean varieties such as pinto beans, dried limas, or dried black-eyed peas.

<sup>2</sup>Do not use this product on commercially-grown potatoes which will be hand-harvested.

Vegetable Crops

For application to the foliage, thoroughly spray all plant parts. Application to the soil should be mixed into the soil immediately after application.

Crop	Pest	Rate	Timing/Special Directions
Beans, Lima Pole and Snap (succulent varieties only)	Aphids, Cucumber beetles, Grass-hoppers, Leaf-hoppers, Mexican Bean Beetles, Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 5 days up to 3 applications per season. Do not apply within 7 days of harvest.
	Cutworms (surface, subterranean)	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Mole Crickets	2 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil 1-2 days before planting. Immediately work into soil 1-2 inches.
	Wireworms	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 4-8 inches.

Note: To protect bees, do not apply bean foliage treatments if the beans or weeds in the treatment area are in bloom.

Crop	Pest	Rate	Timing/Special Directions
Beets, Red (Table)	Cutworms (surface, subterranean)	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Mole Crickets	2 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil 1-2 days before planting. Immediately work into soil 1-2 inches.
Broccoli	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbage-worms, Dipterous Leafminers	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 5 days of harvest.

Crop	Pest	Rate	Timing/Special Directions
Cabbage	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbage worms, Dipterous Leafminers	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 7 days of harvest.
	Cutworms (surface, subterranean)	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Root Maggots	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 3-4 inches.
	Wireworms	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 4-8 inches.
Carrots	Aphids, Flea Beetles, Leafhoppers, Dipterous Leafminers, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat applications every 7 days up to 5 applications per season. Do not apply within 10 days of harvest.
	Cutworms (surface, subterranean)	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Mole Crickets	2 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil 1-2 days before planting. Immediately work into soil 1-2 inches.
	Wireworms	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 4-8 inches.
Cauliflower	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbage worms, Dipterous Leafminers	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 5 days of harvest.

Crop	Pest	Rate	Timing/Special Directions
Celery	Aphids, Flea Beetles, Leaf-hoppers, Dipterous Leafminers, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 10 days of harvest.
Chinese Broccoli	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbage-worms, Dipterous Leafminers	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 10 days of harvest.
Chinese Cabbage (Bok Choy and Napa)	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbage-worms, Dipterous Leafminers	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 10 days of harvest.
Collards	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbage-worms, Dipterous Leafminers	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 10 days of harvest.
Corn (see sweet corn)			
Cucumbers	Aphids, Thrips, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 7 days of harvest.
Endive (Escarole)	Aphids, Flea Beetles, Leaf-hoppers, Dipterous Leafminers, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 10 days of harvest.
Kale	Aphids, Diamondback Moths, Flea Beetles, Imported Cabbage-worms, Dipterous Leafminers	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 10 days of harvest.

Crop	Pest	Rate	Timing/Special Directions
Lettuce	Aphids, Flea Beetles, Leafhoppers, Dipterous Leafminers, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 10 days of harvest.
	Cutworms (surface, subterranean)	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Wireworms	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 4-8 inches.
Melons (Cantaloupes, Casabas, Crenshaws, Honeydews, Muskmelons, Persians and Hybrids of these) and Watermelons	Aphids, Thrips, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 3 days of harvest.
Onions, Green & Bulb	Onion Thrips	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 3 applications per season. Do not apply within 10 days of harvest.
Parsnips	Aphids, Flea Beetles, Leafhoppers, Dipterous Leafminers, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat applications every 7 days up to 5 applications per season. Do not apply within 10 days of harvest.
Peas (succulent only)	Aphids, Cucumber Beetles, Grasshoppers, Leafhoppers, Mexican Bean Beetles, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 5 days up to 3 applications per season. Peas may be picked immediately after application.
	Cutworms (surface, subterranean)	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to soil just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Mole Crickets	2 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil 1-2 days before planting. Immediately work into soil 1-2 inches.

Crop	Pest	Rate	Timing/Special Directions
Peas (succulent only)	Wireworms	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediate- ly work into soil 4-8 inches.

- Notes: 1) Do not apply this product to dried pea varieties such as split peas.  
2) To protect bees, do not apply to pea foliage during the pollen shed period.

Crop	Pest	Rate	Timing/Special Directions
Peppers	Aphids, Colorado Potato Beetles, Flea Beetles, Leafhoppers	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days to 5 applica- tions per season. Do not apply within 5 days of harvest.
Potatoes	Aphids, Flea Beetles, Leaf- hoppers, Colorado Potato Beetles, Southern Army- worms, Dipterous Leafminers	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat applications every 7 days up to 5 appli- cations per season. Do not apply within 35 days of harvest  Note: Do not use commercially-grown potatoes which will be hand- harvested.
Radishes	Aphids, Flea Beetles, Leaf hoppers, Imported Cabbage Worm, Dipterous Leaf- miners  Cutworms (surface, subterranean)	2 tablespoons in 3 gals of water to cover 1,000 sq. ft. of garden  6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Thoroughly spray all plant parts. Repeat applications every 7 days up to 5 appli- cations per season. Do not apply within 10 days of harvest.  Broadcast to the soil just before planting. Immediate- work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
Spinach	Aphids, Flea Beetles, Leaf- hoppers, Dipterous Leaf- miners, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days to 5 appli- cations per season. Do not apply within 10 days of harvest.
Squash, Summer	Aphids, Thrips, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 appli- cations per season. Do not apply within 7 days of harvest.

Crop	Pest	Rate	Timing/Special Directions
Squash, Winter	Aphids, Thrips, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days up to 5 applications per season. Do not apply within 3 days of harvest.
Sweet Corn	Aphids, Flea Beetles, Grasshoppers, Spider Mites	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat applications every 7 days up to 5 applications per season. Corn may be picked immediately following last application.
	Cutworms (surface, subterranean)	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Mole Crickets	2 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil 1-2 days before planting. Immediately work into soil 1-2 inches.
	Wireworms	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water.	Broadcast to the soil just before planting. Immediately work into soil 4-8 inches.

Note: To protect bees do not apply to corn foliage during the pollen shed period.

Crop	Pest	Rate	Timing/Special Directions
Tomatoes	Aphids, Colorado Potato Beetles, Fall Armyworms, Flea Beetles, Leafhoppers, Southern Armyworms, Vinegar Flies ( <i>Drosophila</i> spp.)	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat application every 7 days to 5 applications per season. Do not apply within 1 day of harvest.
	Cutworms (surface subterranean)	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.
	Wireworms	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 4-8 inches.

Crop	Pest	Rate	Timing/Special Directions
Turnips and Turnip Tops	Aphids, Flea Beetles, Leafhoppers, Imported Cabbage Worm, Dipterous Leafminers	2 tablespoons in 3 gals. of water to cover 1,000 sq. ft. of garden	Thoroughly spray all plant parts. Repeat applications every 7 days up to 5 applications per season. Do not apply within 10 days of harvest.
	Cutworms (surface subterranean)	6 tablespoons per 500 sq. ft. in a minimum of 1-1/2 gals. of water	Broadcast to the soil just before planting. Immediately work into soil 2-3 inches for surface cutworms, 3-6 inches for subterranean cutworms.

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

May be fatal if swallowed or absorbed through skin. Avoid breathing spray mist. Causes substantial but temporary eye damage. Do not get into eyes, on skin or clothing. Wear goggles or safety glasses. Avoid contact with eyes and skin. Wash thoroughly if on skin and after handling. Do not use in the home. Avoid contamination of feed and foodstuffs. Do not use on household pets or humans. Do not permit children or pets to go onto treated area, such as grass or soil until the spray has dried. Do not contaminate ornamental fish ponds. Food utensils such as spoons and measuring cups must not be used for food purposes after use in measuring pesticides.

**STATEMENT OF PRACTICAL TREATMENT**

- If swallowed** - Call a physician 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 insert finger in back of throat. Do not induce vomiting or give anything by mouth if person is unconscious or convulsing.
- 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** - Rinse eyes with plenty of water and call a physician immediately.
- Note to Physician** - This product is an organophosphate insecticide. If symptoms of cholinesterase inhibition are present, atropine sulfate by injection is antidotal. 2-PAM is also antidotal and may be administered, but only in conjunction with atropine. This product contains a xylene range aromatic solvent which may present an aspiration hazard. Gastric lavage may be indicated if product was taken internally.

Continued

This product is highly toxic to birds, fish, and other wildlife. Birds, especially waterfowl feeding or drinking on treated areas may be killed. Because of the migratory habits of certain Atlantic Coast waterfowl, do not apply this product to lawns in Nassau County, New York, between November 1 and May 20. Do not exceed maximum permitted label rates. Application rates above those recommended significantly increase potential hazards to birds and waterfowl. Avoid overlapping of sprays. Where irrigation (watering) is recommended in the directions, or if waterfowl, i.e., ducks or geese can be expected in the treated area after treatment (except spot treatment), apply a minimum of 1/4 inch of water immediately after applying this product. Stop irrigation before puddling occurs. Keep out of lakes, streams, ponds, tidal marshes and estuaries. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Runoff may be hazardous to aquatic organisms in neighboring areas. Shrimp and crab may be killed at application rates recommended on this label. Do not apply where fish, shrimp, crab, and other aquatic life are important resources. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters.

This pesticide is highly toxic to bees exposed to direct treatment or to residues on blooming crops or weeds. Do not apply this pesticide or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. Applications should be timed to provide the maximum possible interval between treatment and the next period of bee activity.

#### PHYSICAL OR CHEMICAL HAZARDS

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

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#### STORAGE AND DISPOSAL

Storage : Do not store near heat or open flame. Store in original container in an area inaccessible to children and pets. USE CONTENTS WITHIN 6 MONTHS AFTER OPENING.

Disposal : Do not reuse empty container. Thoroughly rinse container, securely wrap it in several layers of newspaper and discard in trash. If disposal of a partially full container is necessary, make sure cap is tightly closed, securely wrap the container in several layers of newspaper and discard in trash.

QUALITY CONTROLLED BY PURINA RESEARCH