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MAR 17 1992

Mr. Michael W. Melichar
DowElanco
Quad IV--9002 Purdue Road
Indianapolis, Indiana 46268-1189

Subject: Revised Labeling
Dursban 1/2G Granular Insecticide
EPA Registration Number 62719-14
Your Submission Dated July 26, 1991

Dear Mr. Melichar:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, is acceptable. A stamped copy is enclosed for your records.

Sincerely yours,

DHE

Dennis H. Edwards, Jr.
Product Manager (19)
Insecticide-Rodenticide Branch
Registration Division (H7505C)

Enclosure

(LOGO) DowElanco

Dursban* 1/2G Granular Insecticide

Controls various insects (and other arthropods) infesting lawns and other ornamental turf areas, flower beds, under shrubbery, buildings, and certain vegetable crops.

Active Ingredient(s):

Chlorpyrifos [O,O-diethyl O-(3,5,6-trichloro-2-pyridinyl) phosphorothioate].....	0.5%
Inert Ingredients.....	99.5%

**Keep Out of Reach of Children
Caution**

Notice: Read and understand the entire label before using. Use only according to label directions.

Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" elsewhere on this label. If terms are not acceptable, return unopened package at once to seller for full refund of purchase price paid. Otherwise, use by the buyer or any other constitutes acceptance of the terms under **Warranty Disclaimer and Limitation of Remedies**.

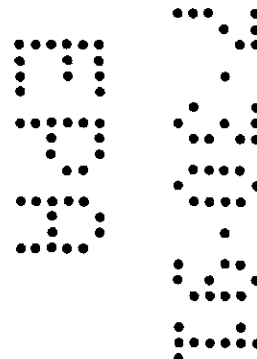
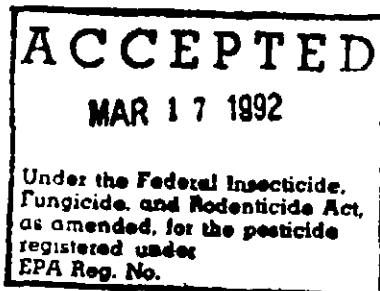
E.P.A. Registration No. 62719-14

* Trademark of DowElanco

DowElanco
Quad IV, 9002 Purdue Road
Indianapolis, Indiana 46268-1189, U.S.A.

Insecticide

Net Contents - __



Precautionary Statements

**Keep Out of Reach of Children
Hazards to Humans and Domestic Animals**

**May Be Harmful If Swallowed * Do Not Take Internally * Avoid Inhaling Dust *
Avoid Contact With Eyes**

**Flush contaminated eyes with plenty of water, and get medical attention if
irritation persists. Wash thoroughly after handling. Wash contaminated clothing
before reuse. Keep away from food, feedstuffs, and domestic water supplies.**

First Aid:

- * **If swallowed:** call a physician or poison control center. Drink one or two glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.
- * **If Inhaled:** remove victim to fresh air if symptoms of cholinesterase inhibition appear and get medical attention immediately.
- * **If on Skin:** wash thoroughly with soap and water.
- * **If in Eyes:** Flush with plenty of water. Get medical attention.

Note to Physicians: Active ingredient is a cholinesterase inhibitor. Treat symptomatically. Atropine, by injection only, is antidotal.

Environmental Hazards: This product is toxic to fish, birds, and other wildlife. Keep out of any body of water. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not feed treated grass clippings to livestock. Apply this product only as specified on this label.

Directions for Use

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

Do Not Use This Product Indoors

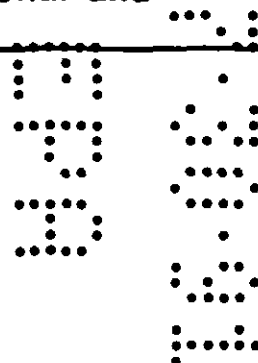
STORAGE AND DISPOSAL

- * Do not contaminate water, food or feed by storage or disposal.
- * **Storage:** Store in original container out of the reach of children and pets. Do not store above 100°F for extended periods of time. If container is damaged or spill occurs, use product immediately or dispose of product and damaged container as indicated below.
- * **PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.
- * **CONTAINER DISPOSAL:** Completely empty bag into application equipment. Then dispose of bag in a sanitary landfill or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Insect Control for Home Lawns and Other Recreational and Ornamental Turf Areas

Insects Controlled Include

Chinch Bugs	Sod Webworms (lawn moths)
Fleas	Chiggers
Ants	(1) Fire Ants
Crickets	Amyworms
Sowbugs (pillbugs)	Earwigs
Billbugs	(2) Hyperodes (turfgrass) Weevils
Cutworms	(3) European Crane Fly Larvae



Grasshoppers
 Boxelder Bugs
 Clover Mites

* (4) White Grubs
 (5) Ticks (including deer ticks)

* Indicates that watering in of Dursban 1/2G will increase effectiveness.

(#) Numbers in parentheses refer to Specific Directions.

Dosage Rates

Area To Be Treated	Pounds of Dursban 1/2G
1,000 sq. ft.	5 pounds
2,500 sq. ft.	12.5 pounds
4,000 sq. ft.	20 pounds
5,000 sq. ft.	25 pounds
10,000 sq. ft.	50 pounds

To help obtain uniform distribution, apply one-half the required amount of product in one direction, then apply the remainder at right angles.

Spreader Settings

Application rate (Lbs. per 1,000 sq. ft.)	Lilly/Miller	Central	Scotts	Ortho Drop
5	6.0	6.75	6.0	5.5
7	7.5	7.25	7.5	6.5
10	8.0	7.75	8.0	7.5
20	11.5	9.5	11.5	9.0

Applications (To Turf): Apply Dursban 1/2G uniformly to home lawns at the rate of 5 pounds per 1,000 sq. ft. Consult the table above to determine the amounts of Dursban 1/2G needed for larger-sized areas. Use any hand or power-operated gravity or rotary type spreader designed for application of granular materials. To help obtain uniform distribution of Dursban 1/2G on the lawn, apply one-half of the required amount of product in one direction; then apply the balance at a right angle.

Specific Directions

- 1. Fire Ant Control (for individual fire ant mounds):** Apply Dursban 1/2G at a rate of 4 ounces (8 tablespoons) per active mound. Sprinkle granules gently and evenly over surface of mound and out approximately two feet surrounding the mound. Avoid disturbing ants. For best results, apply when ants are least active: in cool weather, 65°F to 80°F, or in early morning or late evening hours. Treat new mounds as they appear.
- 2. Turfgrass Weevil Control (larvae of Hyperodes weevil):** Apply 10 pounds of Dursban 1/2G per 1,000 sq. ft. (twice the rate in application table above). Apply the granules uniformly over the area to be treated. For best results, treat when grubs are young and actively feeding near the the soil surface. Consult your local Agricultural Extension Service specialist for proper time to treat in your geographic area.
- 3. European Crane Fly Larvae Control:** Apply Dursban 1/2G at a rate of 7 pounds per 1,000 sq. ft. using any granular application equipment as described above. For increased effectiveness, follow the granule application with a thorough watering to move the insecticide into the soil; apply the equivalent of 1/2 to 1 inch of water by using a sprinkler or other means of applying water to turf. Consult your local Agricultural Extension Service specialist for timing of application in your geographic area.

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4. White Grub Control (such as: larvae of Japanese Beetle, Black Turfgrass ataeenius, European chafer, and Southern Masked chafer): Apply Dursban 1/2G at 10 to 20 pounds per 1,000 sq. ft. (two to four times the amounts of Dursban 1/2G shown in the table above). Apply the granules uniformly over the area to be treated. For increased effectiveness, follow the granule application with a thorough watering to move the insecticide into the soil: apply the equivalent of 1/2 to 1 inch of water by using a sprinkler or other means of applying water to turf. For best results, treat when grubs are young and actively feeding near the the soil surface. Consult your local Agricultural Extension Service specialist for proper time to treat in your geographic area.

5. Tick Control: For control of ticks infesting areas around houses and in yard areas, tuck pants legs into socks to avoid tick bites. An insect repellent sprayed onto lower legs and socks should give additional protection from possible bites. Wearing light colored pants and socks will aid in spotting ticks that may attach during treatment.

Treat perimeter of house and yard by applying under shrubbery, in and around ground cover, and around and under patios. Treat edges or perimeter of yard area where grass and other ground cover plants exist and other areas that appear likely to serve as harborage sites for ticks that have removed themselves from their host. Prior to and following treatment, weeds and high grasses should be kept trimmed to reduce tick harborage sites. Rodents can serve as hosts for ticks. Rock piles, wood piles, and other rodent habitats should be removed or reduced. Key months for deer tick control are April through November in most parts of the country. For specific timing of application in your geographic area, contact your local extension service.

To Help Prevent Infestation of Buildings By Insects

Insects Controlled Include

Ants	Crickets
Earwigs	Fleas
Sowbugs (pillbugs)	Clover Mites
Ticks	Boxelder Bugs
Spiders	

Applications: Treat a band of soil 6 to 10 feet around and adjacent to the perimeter of the building where pests are active and may find entrance. Use the same dosage recommended (5 pounds per 1,000 sq. ft.) for control of these pests on turf found in the application chart.

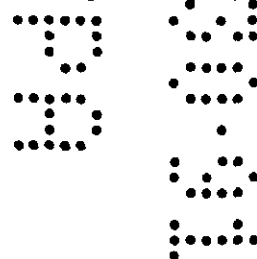
Insect Control In Flower Gardens and Under and Around Shrubby

Insects Controlled Include

Ants	Fire Ants
Crickets	Cutworms
Sowbugs (pillbugs)	Grasshoppers
Earwig	Armyworms
Ticks	

Applications: Apply Dursban 1/2G evenly over soil within flower beds and under shrubbery. Use the same dosage recommended for control of these pests on turf found in the application chart. Treat individual fire ant mounds as instructed above by adding 4 oz. (8 Tablespoons) of Dursban 1/2G gently and evenly to the surface and surrounding two feet of active fire ant mounds during early morning or late evening: when ants are least active.

Note: 1 oz. = 6 teaspsons = 2 tabelspoons = 1/8 cup



Insect Control In Certain Vegetable Crops

Onions

Pests Controlled Include

Onion Maggots

Applications: Apply 11 1/4 oz (22 1/2 Tablespoons) of Dursban 1/2G per 100 feet of row by placing granules in the furrow at planting time. Cover Dursban 1/2G and onion sets with suitable soil.

Restrictions: Do Not Make More Than One Application Per Year (i.e. One Application Per Year; Only At Planting Time)

Peanuts

Pests Controlled Include

Cutworms
Wireworms

Lesser Cornstalk Borer
Southern Corn Rootworm Larvae

At-Plant Application: Apply 22 1/2 (2 3/4 cups) to 45 ounces (5 3/4 cups) of Dursban 1/2G per 100 feet of row by placing granules in a 6 to 12 inch wide band over the row after the seeds have been placed in the planting furrow and covered. Lightly incorporate the Dursban 1/2G into the surface of the soil.

Post-Plant Application: Apply 22 1/2 (2 3/4 cups) to 45 ounces (5 3/4 cups) of Dursban 1/2G per 100 feet of row at early flowering stage in a 6 to 12 inch band over the row; or during early pegging in a 10 to 18 inch band over the fruiting zone. Use the 22 1/2 ounce rate only if the 22 1/2 ounce rate was applied at plant. Irrigation or rain following application will enhance activity.

Restrictions: Do not apply more than a total of 45 ounces of Dursban 1/2G per 100 feet of row per season. Do not harvest within 21 days of last treatment. Do not feed peanut forage or hay to meat or dairy animals.

Sunflowers

Pests Controlled Include

Cutworms

At-Plant Application: Apply 25 ounces (3 1/8 cup) of Dursban 1/2G per 100 feet of row by placing granules in a 7 inch wide band over the row after the seeds have been placed in the planting furrow and covered. Lightly incorporate the Dursban 1/2G into the top 1 inch of soil.

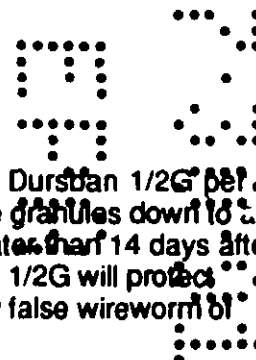
Restrictions: Do not make more than one application per season.

Sweet Potatoes

Pests Controlled Include

Wireworms
Flea Beetles
Sweet Potato Beetle

Pre-Plant Broadcast Application: Evenly broadcast 8 3/4 pounds of Dursban 1/2G per 1,000 sq. ft. of planting area over the soil surface and then incorporate the granules down to a depth of 4 to 6 inches. Plant the sweet potatoes in the usual manner no later than 14 days after treatment (any delay in planting will reduce the length of time that Dursban 1/2G will protect against feeding damage by the listed pests). Dursban 1/2G will not control false wireworm or whitefringed beetle and certain other grubs that attack sweet potatoes.



Restrictions: Do not make more than one application per season. Do not harvest within 125 days of treatment.

Vegetables

- Broccoli
- Brussels Sprouts
- Cabbage
- Cauliflower
- Chinese Cabbage
- Collards
- Kale
- Kohlrabi
- Rutabagas
- Turnips

Pests Controlled Include

Root Maggots

At-Plant Application: Apply 15 ounces (1 7/8 cups) to 27 1/2 ounces (3 1/2 cups) of Dursban 1/2G per 100 feet of row by placing granules in a 4 inch wide band over the row after the seeds have been placed in the planting furrow and covered. Lightly incorporate the Dursban 1/2G into the top 1/4 to 1/2 inch of soil.

Restrictions: Do not make more than one application per season. Do not use rutabaga tops for food or feed purposes.

Radishes

Pests Controlled Include

Root Maggots

At-Plant Application: Apply 10 ounces (1 1/4 cups) of Dursban 1/2G per 100 feet of row by placing granules in the furrow at planting time. Cover Dursban 1/2G and seeds with suitable soil.

Restrictions: Do not apply more than one application per season.

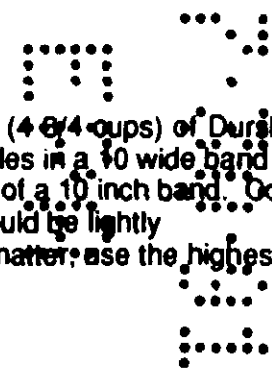
Sweet Corn and Popcorn

Pests Controlled Include

- | | |
|-------------------|-------------------------------------------|
| Wireworms | Northern and Western Corn Rootworm Larvae |
| Seed Corn Maggots | Southern Corn Rootworm Larvae |
| Root Maggots | Lesser Cornstalk Borer |
| Seed Corn Beetle | Flea Beetle Larvae |
| Symphylans | European and Southwestern Corn Borer |
| Cutworms | Chinch Bug |
| Fire Ants | Grubs |
| Billbugs | |

At-Plant Application: Apply 25 ounces (3 1/8 cups) to 37 3/4 ounces (4 6/4 cups) of Dursban 1/2G per 100 feet of row. With seed still uncovered in furrow apply granules in a 10 inch wide band over seed in furrow at the same time applying along side furrow for a total of a 10 inch band. Cover seed with treated soil. Any remaining granules after seed is covered should be lightly incorporated into the top 1/2 to 1 inch of soil. In soils over 10% organic matter, use the highest rate given (37 3/4 ounces per 100 feet of row).

Restrictions: Do not make more than one application per season.



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Warranty Disclaimer: DowElanco warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. DowElanco Makes No Other Express or Implied Warranty of Merchantability or Fitness for a Particular Purpose or Any Other Express or Implied Warranty.

Inherent Risks of Use: It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of DowElanco or the seller. All such risks shall be assumed by Buyer.

Limitation of Remedies: The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at DowElanco's election, one of the following:

- (1) Refund of purchase price by buyer or user for product bought, or
- (2) Replacement of amount of product used.

DowElanco shall not be liable for losses or damages resulting from handling or use of this product unless DowElanco is promptly notified of such loss or damage in writing. In no case shall DowElanco be liable for consequential or incidental damages or losses.

The terms of this Warranty Disclaimer above and this Limitation of Remedies cannot be varied by any written or verbal statements or agreements. No employee or sales agent of DowElanco or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

