

DEC - 4 1990

CERTIFIED MAIL

Ms. Carolyn Bussey
Ciba-Geigy Corporation
P.O. Box 18300
Greensboro, NC 27419-8300

Dear Ms. Bussey:

Subject: Amendment - Delete all remaining post-emergence uses:
beans/lesser cornstalk borers; radishes, root maggots;
sweet potatoes (Southeast U.S.)/wireworms, flea beetles;
and sugar beets/ sugar beet root weevil (except preplant)
Agency review of product-specific toxicology data
D.z.n diazinon 14G

~~EPA Reg. No. 100-469~~

Your submission dated November 13, 1990

The labeling referred to above, submitted in connection with a registration under the Federal Insecticide, Fungicide, and Rodenticide Act is acceptable and a stamped copy of the label is enclosed for your records. The following revisions should be made to the booklet when preparing the actual finished labeling:

- 1) On page 4, in the "Note: Soil Incorporation", the product name includes a capital "D" for "diazinon" while every other citation of the product name on the label shows this as a lower case "d".
- 2) You had indicated by telephone that the listing of bean types was now supposed to be alphabetical. Accordingly, the entry would appear as: "Beans (Lima, Pole, and Snap) (succulent varieties only)".
- 3) In the "Crop" entry for "Melons", add a comma after "Persians" to clarify that "Hybrids of these" pertains to all melons.
- 4) For the crop "Onions", delete "by disking, harrowing, or other suitable means", since this same information appears in the general directions for all crops that appears on page 3, in the third paragraph under the heading "Directions For Use".
- 5) You had indicated by telephone that the listing of onion types was now supposed to be alphabetical. Accordingly, the entry would appear as: "Onions (Bulb and Green)".

The Agency has completed its review of the toxicology data (MRID Numbers 41407201 through 41407208) submitted for the subject product in response to the Diazinon Registration Standard. Please refer to the attached copy of the Agency's review. In summary, the CAUTION signal word is acceptable based on the following results:

<u>Toxicology Test</u>	<u>Guideline</u>	<u>Tox. Category</u>	<u>Classification</u>
Acute Oral	81-1	III	Guideline
Acute Dermal	81-2	III	Guideline
Acute Inhalation	81-3	N/A (IV*)	N/A*
Eye Irritation	81-4	III	Guideline
Skin Irritation	81-5	IV	Guideline
Skin Sensitization	81-6	not a sensitizer	Guideline

* Reducing particles to respirable size by using standard equipment was not achieved. Registrant must submit a waiver request for acute inhalation study based on these findings.

Based on the above results, the signal word CAUTION is ~~acceptable, the precautionary statements are acceptable, and the~~ Statement of Practical Treatment is acceptable except for the "If on Skin" advice, which should be revised as follows:

If on Skin: Wash promptly with plenty of soap and water.
Rinse thoroughly. Get medical attention.

As noted above, the acute inhalation study is designated as Toxicity Category IV, contingent upon your submitting a waiver request based on the results of your study demonstrating inability to reduce particles to aerosol size by using standard grinding equipment. Please respond to this letter within 30 days regarding an acute inhalation study waiver for this product.

Sincerely yours,

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

3901

RESTRICTED USE PESTICIDE
 Due to Avian and Aquatic Toxicity

For retail sale to and use only by Certified
 Applicators or persons under their direct
 supervision and only for those uses covered by
 the Certified Applicator's Certification.

D·z·n® diazinon 14G

Granular Insecticide

For control of certain soil insects
including wireworms, cutworms, and
other crop pests.

50 Pounds
Net Weight

ACCEPTED
with COMMENTS
 to EPA Letter Dated:
DEC - 4 1990

Under the Federal Insecticide,
 Fungicide, and Rodenticide Act as
 amended, for the pesticide
 registered under EPA Reg. No.
100-469

Active Ingredient:

Diazinon: O,O-Diethyl O-(2-isopropyl-6-	
methy1-4-pyrimidinyl) phosphorothioate	14.3%
<u>Inert Ingredients:</u>	<u>85.7%</u>
Total:	100.0%

EPA Reg. No. 100-469

D·z·n diazinon 14G is a
granular insecticide

KEEP OUT OF REACH OF CHILDREN.

CAUTION

See additional precautionary statements
on back of bag.

Control No. 06850

See directions for use on back of
bag.

50 Pounds
Net Weight

CIBA-GEIGY

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 the 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 CIBA-GEIGY or the Seller. All such risks shall be assumed by the Buyer.

CIBA-GEIGY 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. CIBA-GEIGY makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall CIBA-GEIGY or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. CIBA-GEIGY 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 CIBA-GEIGY.

Directions for Use

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

FAILURE TO FOLLOW ALL PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

Unless directions under "Timing/Special Directions" state otherwise, applications to the soil should be worked into the top few inches immediately after application with a rotary hoe, cultivator, disk, harrow, or other suitable means for greatest effectiveness.

Work Safety Rules

REPEATED EXPOSURES TO CHOLINESTERASE INHIBITORS SUCH AS ARE CONTAINED IN THIS PRODUCT MAY, WITHOUT WARNING, CAUSE PROLONGED SUSCEPTIBILITY TO VERY SMALL DOSES OF ANY CHOLINESTERASE INHIBITOR.

When handling D·z·n diazinon 14G, do not rub eyes or mouth with hands. If you feel sick in any way, STOP work and get help right away. See Practical Treatment section of this label. When handling this product, wear the personal protective equipment listed in the following section.

PERSONAL PROTECTIVE EQUIPMENT:

Long-sleeved shirt, long-legged pants, shoes and socks, and chemical-resistant gloves.

Do not apply this product in a way that will contact unprotected workers, either directly or through drift. Only protected handlers may be in the area during application.

Reentry Statement

Twenty-four hours must elapse between the time of application and the time a worker enters or is allowed to enter the treated area unless the person entering the treated area is wearing the personal protective equipment listed above.

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

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must be given which inform workers of areas or fields that may not be entered without specific personal protective equipment for 24 hours after application and appropriate actions to take as described under Precautionary Statements at the end of this label. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: "CAUTION. Area treated with D·z·n diazinon 14G on (date of application). Do not enter without appropriate personal protective equipment for 24 hours after application. In case of accidental exposure, flush eyes or skin with plenty of water. Call a physician if irritation persists. Remove and wash contaminated clothing before reuse."

For application by ground equipment only.

Vegetable Crops

D·z·n diazinon 14G should be applied uniformly as directed for each crop. When a range of rates is given, use the higher rate for heavy infestations.

Do not apply this product to food crops grown in greenhouses.

Note: Soil Incorporation - Unless directions under "Timing/Special Directions" state otherwise, for control of pests listed below D·z·n Diazinon 14G should be incorporated into the soil during or immediately after application.

<u>Insect</u>	<u>Depth of Incorporation</u>
Surface cutworms*	2-3 inches
Subterranean cutworms*	3-6 inches
Mole crickets	1-2 inches
Root maggots	3-4 inches
Wireworms	4-8 inches

*If cutworms cannot be identified, incorporate 4-6 inches.

CROP	PEST	RATE	TIMING/SPECIAL DIRECTIONS
Beans (Pole Lima , Snap or Dole Lima) (succulent varieties only)	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Beets, Red (Table)	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Broccoli	Root Maggots	14-21 lbs. per acre	Broadcast and incorporate into the soil just before planting or transplanting.
	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.

CROP	PEST	RATE	TIMING/SPECIAL DIRECTIONS
Broccoli (Cont'd)	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Brussels Sprouts	Root Maggots	14-21 lbs. per acre	Broadcast and incorporate into the soil just before planting or transplanting.
	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of <u>seed or transplanting.</u>
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Cabbage	Root Maggots	14-21 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.

CRCP	PEST	RATE	TIMING/SPECIAL DIRECTIONS
Carrots	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Cauliflower	Root Maggots	14-21 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
Celery	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.

CROP	PEST	RATE	TIMING/SPECIAL DIRECTIONS
Collards	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Cucumber	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Endive (Escarole)	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.

CROP	PEST	RATE	TIMING/SPECIAL DIRECTIONS
Ginseng	Cutworms, Climbing cutworms, Wireworms, White grubs	14-28 lbs. per acre	In new beds, broadcast just before planting and incorporate into the top 4-8 inches of soil by tilling with hand-held or powered ground equipment.
		21 lbs. per acre	When soil insect damage appears in established beds, broadcast in the Spring or late Summer through early Fall. Incorporate mechanically with 1/2 inch of irrigation.
NOTE: Do not apply more than once per growing season. Do not apply within 12 months of harvest.			
Kale	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
Lettuce	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.

CROP	PEST	RATE	TIMING/SPECIAL DIRECTIONS
Lettuce (Continued)	Wireworms	21-28 lbs. per	Broadcast and incorporate into the soil just before planting.
Melons (Canta- loupes, Casabas, Crenshaws, Honeydew, Muskmelons, Persians and Hybrids of these) and water- melons	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Mustard	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
Onions (Green and Bulb)	Onion Maggots	14-28 lbs. per acre	Broadcast just before planting and incorporate into the top 3-4 inches of soil by disking, harrow- ing, or other suitable means. NOTE: Diazinon may not control organophosphate- resistant onion maggots.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.

CROP	PEST	RATE	TIMING/SPECIAL DIRECTIONS
Parsl. "	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Peas (succulent varieties only)	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Peppers	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Potatoes	Cutworms (Surface & Subterranean)	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
NOTE: Do not use on commercially grown potatoes, which will be hand-harvested.			

CROP	PEST	RATE	TIMING/SPECIAL DIRECTIONS
Radishes	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
Spinach	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Squash, Summer and Winter	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Sweet Corn	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Seed Corn Maggots	14-28 lbs. per acre	Broadcast just before planting and incorporate into the soil 2 inches.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Sweet Potatoes	Wireworms, Flea Beetles	21 lbs. per acre	Broadcast and incorporate into the soil just before planting.

CROP	PEST	RATE	TIMING/SPECIAL DIRECTIONS
Swiss Chard	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Tomatoes	Cutworms	14-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.
Turnips	Mole Crickets	7 lbs. per acre	Broadcast and incorporate into plant beds or fields 1-2 days before sowing of seed or transplanting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil just before planting.

Field Crops

D·z·n diazinon 14G should be applied uniformly as directed for each crop. Observe stated time intervals between applications and maximum number of applications per season.

CROP	PEST	RATE	TIMING/SPECIAL DIRECTIONS
Sugar Beets	Sugar Beet Root Maggots	7-14 lbs. per acre or 4.7- 9.4 oz. per 1,000 linear ft. of row.	Apply in a 5-7 inch band (based on 22" row spacing) incorporated 2-3 inches at planting.
	Wireworms	21-28 lbs. per acre	Broadcast and incorporate into the soil 4-8 inches just before planting.
	Note: Do not apply more than 28 lbs. of D.z.n diazinon 14G per acre to the soil per season.		
Sugarcane (FL only)	Wireworms	28 lbs. per acre	At planting, apply in a 12-inch band over the open furrow, directly to seed pieces.

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Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal. Store in a cool, dry, well-ventilated area away from food or feed.

Pesticide: Pesticide or equipment rinsate that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.

Container: Completely empty bag by shaking and tapping sides and bottom to loosen clinging particles into application equipment. Then dispose of empty bag in a sanitary landfill or incinerate, or burn if allowed by state and local authorities. Stay out of smoke during burning. Do not reuse container.

For minor spill, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup and disposal of wastes. In the event of a major spill, fire or other emergency, call 1-800-888-8372 day or night.

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed, inhaled or absorbed through the skin. Avoid breathing dust and contact with eyes, skin or clothing. Wash thoroughly after handling and before eating or smoking. Do not store near food or feed products. Do not contaminate ornamental fish ponds.

Statement of Practical Treatment:

If swallowed: Call a physician immediately. Drink one or two glasses of water and induce vomiting by touching the back of the throat with finger. Repeat until vomit fluid is clear. 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.

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. Do not exceed maximum permitted label rates. Application rates above those recommended significantly increase potential hazards to birds and waterfowl. Avoid overlapping granules. Collect or incorporate granules that are spilled during loading or are visible on soil surface in turn areas. ~~Keep out of~~ lakes, streams, ponds, tidal marshes and estuaries. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). Drift and 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 washwaters.

D.z.n® trademark of CIBA-GEIGY

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419

CGA 1L60CC

[GANNONC.LABELD]
DZN14GDRAFT
10/23/90

Revised - April 26, 1988
Deleted golf courses and
sod farms, added do not
use on golf courses and
sod farms to front
panel, deleted End.

spp., revised Env. Hazards to delete golf course/sod farm restrictions.

Revised - Sept. 12, 1988 Crops not supported under May 1, 1987 EPA Data Call-In, added spill statement, changed chemical name.

Revised May 25, 1989 specified sweet corn only for all corn dfu's except post application. Added "Do not use on commercially grown potatoes which will be hand-harvested, revised Precautionary Statements, Env. Hazards, statement of practical treatment added, Recommended for agricult. or commercial use only, revised warranty statement, reentry statement, deleted lawn directions for use to reduce potential avian hazard. See EPA letter of 11/30/88.

Revised 8/7/89 per EPA letters of 6/19 and 7/10/89. Made rates consistent, added incorporation depth table, deleted garden symphy-lans. Changed emergency number.

Revised 9/14/89 - Reg. Standard changes, other minor changes.

Revised 11/22/89 per EPA letter of 10/26/89 - Reg. Std. changes

Revised 12/11/89 per EPA letter of 12/6/89.

Revised 1/4/90 - Final format revisions per EPA letter of 12/12/89 - Reg. Standard Changes finalized.

Revised 5/90 - Deleted

corn postemergence dfu's
CGA 1L60 BB 050
Revised 10/17/90 -
Deleted radish in furrow
dfu's, beans
postemergence app.,
sugar beets
postemergence
application.

[GANNONC.LABELD]
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10/23/90