

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Reg # 228-61

PM-23

196

DEC 14 1990

Mr. Russell F. Sawyer
 Riverdale Chemical Company
 425 West 194th Street
 Glenwood, IL 60425-1584

Dear Mr. Sawyer:

Subject: Label Amendment- Add sentence for watering turf grasses
 Riverdale 2,4-D Granules
 EPA Registration Number 228-61
 Your Submissions Dated June 14, 1990

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, is acceptable provided you add the following:

1. Clarify the statement on page one by adding, "treated as directed under Aquatic Use", so the statement reads "However, treated water (treated as directed under Aquatic Use) may be used for watering turf grasses immediately after application".

2. Clarify the statement on page three, "Do not use treated waters for domestic or irrigation purposes," by adding "except for watering turf grasses". The statement should read "Do not use treated waters for domestic or irrigation purposes, except for watering turf grasses."

3. The Statement of Practical Treatment, pursuant to the Agency's letter dated June 25, 1976, should read "In case of contact, wash skin with soap and water; for eyes flush with water for 15 minutes and get medical attention".

4. The Protective Clothing statement "When handling this product, wear chemical resistant gloves." pursuant to the February 7, 1970 Amendment to the Registration Standard for 2,4-D.

5. The wording "Drift or" under Environmental Hazard, so it reads "Drift or runoff may adversely affect aquatic...". Even though this is a granular product the Agency is still concerned with the possibility of drift.

CONCURRENCES

BEST AVAILABLE COPY

SYMBOL	H7505C						
SURNAME	Robbins						
DATE	12/13/90						

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[2]

Stamped copy is enclosed for your records. Please submit three (3) copies of your final printed labeling incorporating the above changes prior to releasing the product for shipment.

Sincerely yours,

Joanne I. Miller
Acting Product Manager (231)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

BEST AVAILABLE COPY

CONCURRENCES

SYMBOL	H7505C							
SURNAME	Robbins							
DATE	12/13/90							

ACCEPTED
with COMMENTS
EPA Letter Date:

DEC 14 1990

RIVERDALE

Before 396

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

2,4-D GRANULES

A SELECTIVE WEED KILLER

228-61

For control on broadleaf weeds and certain seedling grasses. Also for use
in lakes and ponds for the control of certain aquatic weeds.

ACTIVE INGREDIENT:

Isooctyl Ester of 2,4-Dichlorophenoxyacetic Acid* 28.9%

INERT INGREDIENTS: 71.1%

TOTAL 100.0%

Isomer Specific AOAC Method, Equivalent to: 2,4-Dichlorophenoxyacetic Acid ... 19.18%

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed. Avoid inhalation and contact with eyes, skin and clothing.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Runoff may adversely affect
aquatic invertebrates and nontarget plants. Do not apply directly to water except
as specified on this label. Do not contaminate water when disposing of equipment
washwaters.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D
have been associated with mixing/loading and disposal sites. Caution should be
exercised when handling 2,4-D pesticides at such sites to prevent contamination of
groundwater supplies. Use of closed systems for mixing or transferring this
pesticide will reduce the probability of spills. Placement of the mixing/loading
equipment on an impervious pad to contain spills will help prevent groundwater
contamination.

Do not apply at rates higher than recommended. Excessive amounts in the soil may
temporarily stop seed germination or plant growth. Do not use on light, sandy
soils. If regular insecticide spreader is used to apply Riverdale 2,4-D
Granules, be sure to clean equipment thoroughly before other use.

Riverdale 2,4-D Granules will injure vegetables, flowers, grapes, fruit plants,
ornamentals, cotton, soybean, and other desirable plants. Make application on
cornland in such a way that run off water from rain or irrigation will not come in
contact with these plants. Do not contaminate irrigation ditches or water used
for domestic purposes. However, treated water may be used for watering turf
grasses immediately after application. At higher temperatures, vapors may cause

injury to sensitive plants growing nearby. Use of this product for water weed control may cause decaying vegetation to deplete the supply of oxygen, causing suffocation of fish. Follow directions carefully when using for aquatic purposes.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. READ ENTIRE LABEL BEFORE USING THIS PRODUCT. USE STRICTLY IN ACCORDANCE WITH LABEL PRECAUTIONARY STATEMENTS AND DIRECTIONS

CROPS AND TURF

IN MIDWESTERN CORN BELT: For pre-emergence application to aid control of annual grasses such as large and small Foxtail (Pigeon grass), Crabgrass, Barnyardgrass; broadleaved weeds such as Smartweed, Sunflower, Wild Mustard, Cocklebur, Bindweed, Dandelion, Morningglory, Pigweed, Tarweed, Ragweed, Wild radish, Pennyworts, Plantains, Healall, Chicory, Yellow star thistle, Lambsquarters, and Watergrass.

2,4-D Granules should be applied preferably at corn planting time. It may, however, also be applied just before corn emerges through the soil. Plant corn at least 2 inches deep when using pre-emergence 2,4-D applications. This will aid in preventing injury from leaching of weed killer. With this treatment, one should not expect season-long control. It is intended to control grasses for 3-4 weeks so that the corn seedlings can get started without competition. It has very little effect on established broadleaf weeds over 6 inches tall; and none at all on grassy weeds once they have germinated.

Use 10 pounds, 2,4-D Granules per acre applying to soil from time of planting up to 2 days before corn seedlings emerge. This application is on a broadcast basis equivalent to 2 pounds of actual 2,4-D (Acid) equivalent. For band or row application approximately 14 inches wide, apply 3½ pounds 2,4-D Granules per acre on 40 inch rows.

IN CRANBERRIES: For pre-emergence application to control annual broadleaved weeds in bearing cranberry marshes, apply at a rate of 10-20 lbs. per acre (2 to 4 lbs. 2,4-D equivalent per acre). Application should be made broadcast in the spring after removal of the winter flood from the dormant vines. Weeds controlled are Common Ragweed, Sticktight, Tearthumb, Smartweed, Northern Saint Johnswort, and common species of Annual Smartweed. Careful distribution of granules is necessary if adequate control is to be obtained. (For Wisconsin area granules may also be distributed on ice over plants prior to Spring thaw.)

ORNAMENTAL TURF: (such as lawns, golf courses, cemeteries, and parkways). To control Wild onion and broadleaved weeds such as Dandelion, Plantain, Ivy Bitterweed, and Dogfennel, apply 10 to 15 lbs. of granules per acre in early spring when shoots are young and actively growing, using a mechanical spreader. Repeat application in one month to control skipped spots.

DO NOT USE on Bentgrass, St Augustinegrass, Dichondra, Carpetgrass, or newly plugged or seeded turf.

AQUATICS

IN LAKES AND PONDS: 2,4-D Granules are recommended for control of certain specified water weeds listed below. Best results with 2,4-D are likely to be obtained where

water conditions are acid and there is no flow and little or no water movement. In ponds and lakes with excessive movement, it may be possible to draw down the water for a few days just before and after treatment.

RATE OF APPLICATION (100 pounds per acre is equivalent to 1 pound per 430 square feet)

WEEDS	RATE PER ACRE
Arrowhead (<i>Sagittaria</i> spp)	200 lbs.
Bladderwort (<i>Utricularia</i> spp)	100-150 lbs.
Bulrush (<i>Scirpus</i> spp.)	200 lbs.
Coontail or Hornwort (<i>Ceratophyllum demersum</i>)	200 lbs.
Creeping Waterprimrose (<i>Jussiaea repens</i>)	200 lbs.
Pickerelweed (<i>Pontederia</i> spp.)	200 lbs.
Spatdock, Cow Lily, Yellow Water Lily (<i>Nuphar</i> spp.)	150 lbs.
Burread (<i>Sparganium</i> spp.)	200 lbs.
Waterweed (<i>Elodea</i> or <i>Anacharis</i>)	100 lbs.
Waterchestnut (<i>Trapa natans</i>)	100 lbs.
Watermilfoil (<i>Myriophyllum</i> spp.)	100-150 lbs.
Water Smartweed (<i>Polygonum</i> spp.)	200 lbs.
White Waterlily (<i>Nymphaea</i> spp.)	150 lbs.
Naiad (<i>najas flexilis</i>)	200 lbs.
Pondweed (<i>Potamogeton</i> spp.)*	200 lbs.
Watershield (<i>Brasenia</i> spp.)	150-200 lbs.

*Check with state weed control service as results depend much on species and environment.

Begin treatment along the shore and proceed outwards because this leaves untreated areas into which fish will migrate. These untreated areas may be treated after the vegetation in the originally treated areas has thoroughly decayed, approximately 2-3 months. Distribute the granules evenly over the quiet water surface infested with weeds, either by hand or using a mechanical spreader attached to a boat. The granules settle to the water bottom around the roots and stems. Effects on water weeds will be evidenced in 4 to 10 weeks depending on water temperature and other factors. Control can be obtained for approximately 1 to 3 years. Easy applications can be made on ice surfaces just before Spring thaw occurs. Early spring when aquatic growth is most active give best results.

SPECIAL PRECAUTIONS: Always check with State Agricultural Experiment Station or Extension Service specialist so as to comply with existing regulations regarding the introduction of chemicals into water for aquatic weed control, and also to check on local variations of rates required. If a pond or lake is very weedy and the entire area requires treatment, do only one-half at a time and wait until weeds are dead and well rotted before treating the other half. This avoids excessive weed decomposition which would reduce oxygen levels in the water to a point harmful to fish life. Do not allow chemical to be applied to adjacent desirable shoreline vegetation. Observe other handling and storage precautions listed elsewhere on label. Do not use treated waters for domestic or irrigation purposes, or for making up spray to be applied to crops and desirable plants, 2,4-D may cause off flavor in fish for some days after application, therefore, apply before fishing season begins.

For aquatic use, consult you State Fish and Game Agency before applying this product.

STORAGE AND DISPOSAL

STORAGE: Always use original container to store pesticides in a secured warehouse or storage building. Do not store near seeds, fertilizers, insecticides or fungicides. Do not stack more than two pallets high. Do not contaminate water, food or feed by storage or disposal.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. If container is damaged or if pesticide has leaked, clean up all spilled material.

Improper disposal of excess pesticide, spray mixtures or rinsate is a violation of Federal law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay away from smoke.

WARRANTY AND LIMITATION OF DAMAGES

Seller warrants that this material conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use and Buyer assumes all risk of any use contrary to such directions. SELLER MAKES NO OTHER WARRANTY EXPRESSED OR IMPLIED AS TO FITNESS OR MERCHANTABILITY, AND NO AGENT OF SELLER IS AUTHORIZED TO DO SO EXCEPT IN WRITING WITH SPECIFIC REFERENCE TO THIS WARRANTY. In no event shall Seller's liability for any breach of warranty exceed the purchase price of the material as to which a claim is made. (RS 030191)

NET WEIGHT LBS.

EPA REG. NO. 228-61

EPA EST. NO. 228-IL-1

MANUFACTURED BY

RIVERDALE CHEMICAL COMPANY

GLENWOOD, ILLINOIS 60425-1584

