



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:
228-320

Date of Issuance:
APR 16 1997

NOTICE OF PESTICIDE:
 x Registration
 Reregistration

Term of Issuance:
Conditional

Name of Pesticide Product:
Riverdale 638
Broadleaf Herbicide

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Riverdale Chemical Company
425 West 194th Street
Glenwood, IL 60425-1584

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c)(5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the following label changes before you release the product for shipment:

- a. Revise the EPA Registration Number to read, "EPA Reg. No. 228-320".
- b. Add eye protection to the PPE for "NON-WPS TURF USES" along with the following statement: "It is recommended that safety glasses include front, brow and temple protection."

3. Submit or cite an appropriate analytical method for the assay of active ingredients in the product (Guideline 62-3). The Agency acknowledges that you have submitted analytical method information which may satisfy this requirement. We will notify you once we make a determination on the acceptability of this information.

Signature of Approving Official:

Date:
APR 16 1997

2/16

page 2
EPA Reg. No. 228-320

4. Submit one copy of the revised final printed label for the record before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

The use of the subject product on reduced or no-tillage soybeans (pre-plant only) is conditionally accepted with an expiration date of December 31, 1998. Sale or distribution of the subject product bearing labeling for this use after December 31, 1998 will be illegal. The tolerance authorizing residues of the subject product on soybeans will also expire on December 31, 1998. After that date, sale or distribution of food in interstate commerce containing any residue of the subject product will be a violation of the Federal Food, Drug, and Cosmetic Act. If and when a permanent tolerance is established, EPA will entertain an application to amend the registration of the subject product without any special limitations on the duration of the amendment.

A stamped copy of the label is enclosed for your records.

Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505C)

Enclosure

RD:STANTON:PM Team 23:Rm. 235:CM-2:305-5218:Disk #5:228-GEN.REG

CONCURRENCES

| | | | | | | | |
|-----------|--------------|--|--|--|--|--|--|
| SYMBOL ▶ | 7505C | | | | | | |
| SURNAME ▶ | S. Stanton | | | | | | |
| DATE ▶ | Apr 14, 1997 | | | | | | |

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

Causes irreversible eye damage and skin irritation. Harmful if swallowed or absorbed through skin. Do not get in eyes, on skin or on clothing. Remove saturated clothing as soon as possible and shower. If this container is over one gallon and less than five gallons, then persons engaged in open pouring of this product must also wear coveralls or a chemical resistant apron. If this container is five gallons or more in capacity, do not open pour product from this container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal.

NON-WPS TURF USES: Applicators and other handlers who handle this pesticide for any use NOT covered by the Worker Protection Standard (40 CFR, Part 70) -- in general, only agricultural plant uses are covered by the WPS -- must wear: long pants, long-sleeved shirt, socks, shoes and chemical resistant gloves. After using this product, rinse gloves before removing, remove clothing and launder separately before reuse, and promptly and thoroughly wash hands and exposed skin with soap and water. The maximum number of broadcast applications to turf per treatment site is 2 per year.

NON-WPS INDUSTRIAL USES: When mixing, loading or applying this product or repairing or cleaning equipment used with this product, wear face shield, goggles or safety glasses and chemical-resistant gloves, long-sleeved shirt, long pants, socks and shoes. It is recommended that safety glasses include front, brow and temple protection. For aerial applicators in an enclosed cockpit and applicators applying this product from a tractor that has a completely enclosed cab, eye protection is not required. Wash hands, face and arms with soap and water as soon as possible after mixing, loading or applying this product. After work, remove all clothing and shower using soap and water. Do not reuse clothing worn during the previous day's mixing and loading or application of this product without cleaning first. Clothing must be kept and washed separately from other household laundry.

WPS USES: Personal Protective Equipment - Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Applicators and other handlers who handle this pesticide for any use covered by the Worker Protection Standard (40 CFR, Part 170) -- in general, agricultural plant uses are covered -- must wear: long-sleeved shirt and long pants; chemical-resistant gloves such as Barrier Laminate, Nitrile Rubber \geq 14 mils, Neoprene Rubber \geq 14 mils and Viton \geq 14 mils; shoes plus socks; and protective eyewear. Follow manufacturer's instructions for cleaning/maintaining Personal Protective Equipment (PPE). If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. After each day of use, clothing of PPE must not be reused until it has been cleaned. If this container is over one gallon and less than five gallons, mixers and loaders who do not use a mechanical system (such as a probe and pump or spigot) to transfer contents of this container must wear coveralls or a chemical resistant apron in addition to the other required PPE.

Engineering Controls Statements: If this container is five gallons or more in capacity, do not open pour product from this container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

5/16

USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Hold eyelid open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention, preferably an OPTHALMOLOGIST.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF SWALLOWED: Call a doctor or get medical attention. Do not induce vomiting. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage. May pose an aspiration pneumonia hazard.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and non-target plants. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Vapors from the product may injure susceptible plants in the immediate vicinity. Use care to avoid spray contact or drift to 2,4-D susceptible plants such as cotton, tomatoes, flowers, okra, grapes, fruit trees and ornamentals. Do not permit spray mist containing this product to drift onto them. Do not spray when the wind is blowing towards susceptible crops or ornamental plants. Use coarse sprays and/or low spray pressure to minimize spray drift. Do not apply with hollow cone type insecticide or other nozzles that produce fine spray droplets. Spray drift can be lessened by keeping the spray boom as low as possible, by spraying when wind velocity is low, by decreasing the pounds of pressure of the nozzle tips, and by stopping all spraying when wind exceeds 6 to 7 miles per hour. On cropland and along roadsides, do not exceed 20 psi pressure. Do not apply when a temperature air inversion exists. If questions exist pertaining to the existence of an inversion, consult with local weather services before making an application. Do not use the same spray equipment for applying other materials to 2,4-D susceptible crops as injury may result. It is best to use a separate sprayer for application of insecticides and fungicides. Clean and rinse spray equipment using soap or detergent and water or suitable chemical cleaner, and rinse thoroughly before reuse for other spraying. Do not contaminate water when disposing of equipment washwaters. Do not apply this product through any type of irrigation system. Do not contaminate domestic or irrigation water. However, treated water may be used for watering turf grasses immediately after application. Do not use in or near a greenhouse. Excessive amounts of this product in the soil may temporarily inhibit seed germination and plant growth.

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.

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.

Do not apply this product in a way that will contact workers or other persons either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard. Do not enter or allow entry into treated areas during the restricted-entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated such as plants, soil or water is: coveralls, chemical-resistant gloves such as Barrier Laminate, Nitrile Rubber \geq 14 mils, Neoprene Rubber \geq 14 mils, and Viton \geq 14 mils; shoes plus socks and protective eye wear.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

For turf uses, do not enter treatment areas until sprays have dried. Do not allow people (other than applicator) or pets on treatment area during application.

GENERAL INFORMATION

Riverdale 638 Broadleaf Herbicide is a special formulation containing 2,4-D acid. Riverdale 638 is more effective than 2,4-D amines for controlling hard-to-kill weeds such as field bindweed, Russian knapweed, Canada thistle, leafy spurge, cattails, tules and nutgrass.

Riverdale 638 Broadleaf Herbicide should be applied when daytime temperatures are lower than 80 to 85 degrees. Spraying when temperatures are higher may cause rapid foliar burn and decrease the effectiveness of Riverdale 638. Treatment at higher temperatures also increases the possibility of crop injury.

INJURY TO CROPS FROM THIS HERBICIDE MAY OCCUR. IF YOU ARE NOT PREPARED TO ACCEPT SOME DEGREE OF CROP INJURY, DO NOT USE THIS PRODUCT.

Crop varieties vary in response to 2,4-D and some are easily injured. Apply Riverdale 638 only to varieties known to be tolerant to 2,4-D. If you are uncertain concerning tolerant varieties or local use situations that may affect crop tolerance to 2,4-D, consult your seed company or State Agricultural Extension Service for advice.

MIXING INSTRUCTIONS

Add one-half the required amount of water to the spray tank, then add the Riverdale 638 with agitation, and finally, the balance of the water with continued agitation. Provide continuous agitation to insure uniform spray mixtures. Use spray mixture as soon as possible after mixing.

COMPATIBILITY

If Riverdale 638 is to be tank mixed with fertilizers or with other pesticides, compatibility should be tested prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1 quart) of spray, combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually will appear within 5 to 15 minutes after mixing. Read and follow the label of each tank-mix product used for precautionary statements, directions for use, geographic and other restrictions.

COMBINATION WITH LIQUID NITROGEN FERTILIZER

Use the recommended amount of Riverdale 638 Broadleaf Herbicide per acre for weeding and feeding corn, small grains, grasses for production or grass pastures as directed on this label. Use the fertilizer at rates recommended by supplier or Extension Service Specialist. Fill the spray tank about half full with the liquid fertilizer, then add the Riverdale 638 with vigorous agitation, and complete filling the tank. Apply immediately and continue agitation in the spray tank during application. Do not allow mixture to stand overnight. NOTE: Fertilizers can increase foliage contact burn of herbicides. Reducing the fertilizer rate and concentration will reduce the hazard of leaf burn.

GENERAL WEED LIST**ANNUAL AND BIENNIAL WEEDS**

| | |
|-----------------------------------|--------------------------------|
| annual yellow sweetclover | pepperweeds (except perennial) |
| *beggarticks | **pigweeds (Amaranthus spp.) |
| bull thistle | *prickly lettuce |
| coffeeweed | ragweed (common or giant) |
| *common broomweed | rough fleabane |
| common burdock | *Russian thistle |
| common cocklebur | *salsify (western or common) |
| common evening primrose | *smartweeds (annual species) |
| common lambsquarter | sowthistle (annual or spiny) |
| croton (Texas or wooly) | sunflower |
| galinsoga | velvetleaf |
| jimsonweed | *vervains |
| *knotweed | vetches |
| *mallow (venice or little) | *wild carrot |
| marshelder | wild lettuce |
| morningglory (common, ivy, wooly) | wild parsnip |
| *musk thistle*** | wild radish |
| mustards (except blue mustard) | |

PERENNIAL WEEDS

| | |
|---------------------------------------|-------------------------------|
| *alfalfa | *hoary cress |
| *Austrian fieldcress | Jerusalem-artichoke |
| *bindweed (hedge, field and European) | *many-flower aster |
| blue lettuce | *nettles (including stinging) |
| *Canada thistle | *orange hawkweed |
| catnip | plantains |
| chicory | sowthistle (perennial) |
| dandelion | *tansy ragwort |
| *docks | Texas blueweed |
| *dogbanes | *vervains |
| *goldenrod | *western ironweed |
| *ground ivy | *wild garlic |
| healall | *wild onion |

*These species may require repeat applications and/or use of higher rate recommended on this product label even under ideal conditions for application.

**Control of pigweeds in the High Plains area of Texas and Oklahoma may not be satisfactory with this product.

***Not registered for control of musk thistle in California.

8/16

**SPECIFIC USE DIRECTIONS
CEREAL GRAIN CROPS
WHEAT and BARLEY (not underseeded with legumes)**

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|--|----------------------------------|---|
| Postemergence Annual and biennial weeds Perennial broadleaf weeds | 13.6 ounces 27.4 ounces* | Apply after grain is fully tillered (usually about 4 to 8 inches high) but not forming joints in the stem. Apply when weeds are near bud stage. Do not spray grain in boot to dough stage. |
| Wild onion or garlic | 20.5 ounces to 27.4 ounces | Apply 20.5 ounces when grain is fully tillered and wild garlic or onion plants are small. Apply 27.4 ounces after harvest in the crop stubble. For control of new fall growth of wild onion or garlic, refer to FALLOWLAND use directions. |
| Emergency weed control in wheat Perennial broadleaf weeds | 41.0 ounces* | Apply when weeds are approaching bud stage, but do not spray grain during the boot to dough stage. The 41.0 ounces per acre application can produce injury to wheat. Balance the severity of your weed problem against the possibility of crop damage. Where perennial weeds are scattered, spot treatment is suggested to minimize the extent of crop injury. |
| Preharvest | 13.6 ounces to 27.4 ounces* | Apply when grains are in the hard dough stage to suppress large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to induce succulent weed growth. DO NOT USE IN CALIFORNIA. |

*Use the lower rate if small annual and biennial weeds are the major problem. Use the higher rate if perennial weeds or annual and biennial weeds are present which are in the hard-to-kill categories as determined by local experience. The higher rates increase the risk of grain injury and should be used only where weed control problems justify the risk of grain damage. Do not apply to grain in the seedling stage.

RESTRICTIONS AND LIMITATIONS FOR USE ON CEREAL GRAINS

For aerial application on grain apply Riverdale 638 in 2 or more gallons of water per acre. For ground application, a minimum of 10 to 15 gallons of water per acre is recommended for proper spray coverage. Do not mix with oil for crop uses.

Do not permit dairy animals or meat animals being finished for slaughter to forage treated grain fields within 2 weeks after treatment.

Do not feed treated straw to livestock if a preharvest treatment or emergency treatment as described above is applied.

FIELD CORN

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|---|----------------------------------|---|
| Preplant | 20.5 ounces to 34.2 ounces | To control emerged broadleaf weed seedlings or existing cover crops prior to planting corn, apply 7 to 14 days before planting. Do not use on light, sandy soil, or where soil moisture is inadequate for normal weed growth. Use high rate for control of less susceptible weeds or cover crops such as alfalfa. |
| Preemergence | 27.4 ounces to 41.0 ounces | To control broadleaf weeds, apply 3 to 5 days after planting but before corn emerges. Use high rate on soil high in organic matter. Do not use on light, sandy soil, or where soil moisture is inadequate for normal weed growth. DO NOT USE IN CALIFORNIA. |
| Postemergence Annual broadleaf weeds Perennial broadleaf weeds | 6.8 ounces 13.6 ounces | Avoid spraying just after the first corn leaves unfold, as injury may occur. Apply when weeds are small and corn is less than 8 inches tall (to top of canopy). If corn more than 8 inches tall must be sprayed, use drop pipes. Spray when weeds are in the bud to bloom stage. If corn is more than 8 inches tall, use drop pipes to keep spray off corn leaves. Do not spray in tassel to dent stage. 2,4-D may make corn brittle. Winds or cultivation may cause stalk breakage while brittle. |
| Preharvest | 20.5 ounces to 34.2 ounces | After the dent stage to suppress weeds that interfere with harvest, such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower, and velvetleaf, and to decrease production of weed seeds, spray with air or ground equipment. The high rate will be needed for weeds under stress. DO NOT USE IN CALIFORNIA. |

POPCORN*

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|-------------------|----------------------------------|---|
| Preharvest | 20.5 ounces to 34.2 ounces | After the dent stage to suppress weeds that interfere with harvest, such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower and velvetleaf, and to decrease production of weed seeds, spray with air or ground equipment. The high rate will be needed for weeds under stress. DO NOT USE IN CALIFORNIA. |

10/16

RESTRICTIONS AND LIMITATIONS FOR USE ON FIELD CORN AND POPCORN

A minimum application volume of 2 gallons per acre by air or 10 gallons per acre by ground is recommended.

Do not forage or feed corn fodder for 7 days following application.

GRAIN SORGHUM (milo)

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|---|----------------------------------|---|
| Annual broadleaf weeds Perennial broadleaf weeds | 13.6 ounces 20.5 ounces | Treat when sorghum is 6 to 15 inches tall. If sorghum is taller than 8 inches (to top of canopy), use drop nozzle to keep spray off crop foliage. Do not treat during the boot, flowering, or early dough stages. |

RESTRICTIONS AND LIMITATIONS FOR USE ON SORGHUM

A minimum application volume of 2 gallons per acre by air or 10 gallons per acre by ground is recommended.

Do not forage or feed Sorghum fodder for 7 days following application.

SOYBEANS (PREPLANT ONLY)

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|---------------|--|--|
| Preplant | 21.3 fluid ounces (0.5 lb. a.e./acre) | Apply not less than 7 days prior to planting soybeans, when weeds are small and actively growing. Use the higher rate on larger weeds and when perennials are present. Some weeds may require repeat treatment for adequate control (see GENERAL WEED LIST and below). |
| | 42.6 fluid ounces (1.0 lb. a.e./acre) | Apply not less than 30 days prior to planting soybeans when weeds are actively growing. Some weeds may require repeat treatment for adequate control (see GENERAL WEED LIST and below). |
| | | In addition to the weeds found on the GENERAL WEED LIST, Riverdale 638 will suppress or control the following broadleaf weeds frequently encountered in reduce tillage soybean production systems: bullnettle, smallflowered bittercress, Carolina geranium, smallflowered buttercup, common and rough cinquefoil, red clover*, horseweed or maretail, mousetail, wild mustard, field pennycress, cutleaf evening primrose, common purslane, speedwell and Virginia copperleaf. *These weeds are only partially controlled. |

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|---------------|----------------------------------|--|
| | | <p>Apply no more than 42.6 fluid ounces of Riverdale 638 in one season prior to planting soybeans. After applying, plant soybean seed as deep as practical or at least 1-1/2 to 2 inches deep. Adjust the planter press wheel, if necessary, to ensure that planted seed is completely covered.</p> <p>If desired, Riverdale 638 may be applied pre-plant to soybeans in tank mixtures with other herbicides such as Poast, Poast Plus, Roundup, Roundup D-Pak, Honcho, Gramoxone Extra, Prowl, Pursuit Plus, Scepter, Scepter 70 DG, Squadron and others that are registered for pre-plant soybean use.</p> |

APPLICATION RESTRICTIONS AND PRECAUTIONS: Important Notice - Unacceptable injury to soybeans planted in fields treated with Riverdale 638 may occur. Whether or not soybean injury occurs and the extent of the injury will depend on weather (temperature and rainfall) from herbicide applications until soybean emergence and agronomic factors such as the amount of weed vegetation and previous crop residue present. Injury is more likely under cool rainy conditions and where there is less weed vegetation and crop residue present.

Do not use on low organic sandy soils (<1.0%).

Apply a maximum of one application per growing season regardless of the treatment rate.

Livestock grazing restriction: Do not feed hay, forage or fodder. Restrict livestock from grazing treated fields. Livestock should be restricted from feeding/grazing of treated cover crops.

Do not apply Riverdale 638 prior to planting soybeans if you are not prepared to accept the results of soybean injury, including possible loss of stand and yield.

Do not replant fields treated with Riverdale 638 in the same growing season with crops other than those labeled for 2,4-D use.

GRASSES GROWN FOR SEED PRODUCTION

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|--|----------------------------------|--|
| Annual broadleaf weeds | 13.6 ounces to 20.5 ounces | Apply to established stands in the spring before the seed head comes into the boot stage. Do not spray in boot stage of growth. In seedling grasses, apply in the spring after the grass has tillered or has at least 5 leaves but before the boot stage. Use only the low rate on seedling grasses. DO NOT USE IN CALIFORNIA. |
| Perennial and biennial broadleaf weeds | 27.4 ounces to 41.0 ounces | |

**WEEDS AND BRUSH IN PASTURES, RANGELAND,
FALLOW LAND AND CONSERVATION RESERVE PROGRAM AREAS**

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|--|----------------------------------|---|
| Annual broadleaf weeds | 34.2 ounces | Apply in spring or fall when annual weeds such as knotweed or common chickweed are up but still small and in or near the seedling stage, and growing vigorously. Also controls cocklebur, galinsoga, lambsquarters, mustards, pigweed, ragweed and sunflower. |
| Perennial and biennial broadleaf weeds | 41.0 ounces to 85.3 ounces | To control dandelion, plantain, and most other common broadleaf weeds in turf, apply in spring or fall when these weeds are growing actively. Treat wild garlic or onion in three successive seasons (Example: Spring, Fall, Spring.) |

RESTRICTIONS AND LIMITATIONS FOR USE ON RANGELAND AND PASTURES

A minimum application volume of 2 gallons by air or 5 to 10 gallons by ground is recommended for pastures.

On pastures and rangeland, do not exceed 2 pounds a.e. per acre per application per site.

When using on Pastures and Rangeland Grasses, there is a (1) 7 day pre-grazing interval for dairy cattle; (2) 30 day preharvest interval for grass cut for hay; and (3) 3 day pre-slaughter interval for meat animals.

**ORNAMENTAL TURF (GOLF COURSES,
CEMETERIES, PARKS AND OTHER TURF AREAS)**

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|--|----------------------------------|---|
| Annual broadleaf weeds | 34.2 ounces | Apply in spring or fall when annual weeds such as knotweed or common chickweed are up but still small and in or near the seedling stage, and growing vigorously. Also controls cocklebur, galinsoga, lambsquarters, mustards, pigweed, ragweed and sunflower. |
| Perennial and biennial broadleaf weeds | 41.0 ounces to 85.3 ounces | To control dandelion, plantain, and most other common broadleaf weeds in turf, apply in spring or fall when these weeds are growing actively. Treat wild garlic or onion in three successive seasons. (Example: Spring, Fall, Spring.) |

RESTRICTIONS AND LIMITATIONS FOR USE ON ORNAMENTAL TURF AREAS

A minimum application volume of 25 gallons per acre is recommended for use on turf.

Do not apply to newly seeded areas until sod is formed and grass has been cut a few times. Do not use Riverdale 638 for susceptible southern grasses such as St. Augustine. Bentgrass and clover may be injured by this treatment.

Do not exceed 2 pounds a.e. per acre per application per site.

Do not apply more than 2 broadcast applications per year per treatment site. This does

13/16

not include spot treatment.

CONSERVATION RESERVE PROGRAM AREAS

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|--|--|--|
| Annual broadleaf weeds in young grasses | 9.1 to 18.2 ounces 9.1 to 36.5 ounces | Apply to actively growing annual broadleaf weeds. Use 9.1 ounces to 18.2 ounces when weeds are small; use higher rates on older weeds. Do not apply to young grasses with fewer than 6 leaves or prior to tillering, as excessive injury may result. Do not apply more than 18.2 ounces until grasses are well established as excessive injury may result. |
| Biennial and perennial broadleaf weeds in established grasses | 36.5 to 68.4 ounces 73.0 ounces | Treat when biennial weeds are in the seedling to rosette stage and before flower stalks become apparent. Treat perennial weeds in the bud to bloom stage. Apply to actively growing weeds. |

RESTRICTIONS AND LIMITATIONS FOR USE ON CONSERVATION RESERVE PROGRAM AREAS

Use at least 2 gallons of water per acre by air and 5 gallons of water per acre by ground.

Do not harvest or graze treated Conservation Reserve Program areas.

Do not apply to grasses in the boot to dough stage if grass seed production is desired.

FALLOW LAND AND CROP STUBBLE

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|----------------------------------|---|--|
| Annual broadleaf weeds | 18.2 ounces to 36.5 ounces | Use the lower rate when weeds are small (2 to 3 inches tall) and growing actively. Use the higher rate on older and drought-stressed plants, except as directed in the SPECIAL WEED PROBLEMS section of this label |
| Biennial broadleaf weeds | 36.5 ounces to 73.0 ounces | Spray while musk thistles or other biennial species are in the seedling to rosette stage, and before flower stalks become apparent. The lower rate can be used in spring during rosette stage. In fall or after flower stalks have developed, use the highest rate, except as directed in the SPECIAL WEED PROBLEMS section of this label. |
| Perennial broadleaf weeds | 41.1 ounces to 109.5 ounces | Spray weeds in bud to bloom stage, or in good vegetative growth. Do not disturb treated area for at least 2 weeks after treatment, or until weed tops are dead, except as directed in the SPECIAL WEED PROBLEMS section of this label. |

14/16

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|---------------------------------------|----------------------------------|--|
| Wild garlic and onion in crop stubble | 73.1 ounces to 109.5 ounces | Apply to new regrowth of wild onion or garlic which occurs in the fall following harvest of small grains, soybeans, corn or grain sorghum. |

RESTRICTIONS AND LIMITATIONS FOR USE ON FALLOWLAND AND CROP STUBBLE

A minimum spray volume of 2 gallons per acre by air or 10 to 15 gallons per acre by ground is recommended.

Do not plant treated fallow land until 3 months after treatment or until chemical has disappeared from soil.

Do not graze dairy animals on treated areas within 7 days of treatment.

**WEEDS AND BRUSH IN NON-CROP AREAS
FENCEROWS, ROADSIDES, VACANT LOTS, AIRFIELDS,
RAILROAD AND HIGHWAY AND UTILITY RIGHTS-OF-WAY,
AND OTHER NON-CROP AREAS**

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|--|----------------------------------|---|
| Annual broadleaf weeds | 36.4 ounces to 73.1 ounces | Apply when most weeds are still young and growing vigorously, except as directed in the SPECIAL WEED PROBLEMS section of this label. |
| Perennial and biennial broadleaf weeds | 54.8 ounces to 109.5 ounces | Apply when weeds are actively growing and near the bud stage, but before flowering. For best results on tansy ragwort and musk thistle, treat in rosette stage, before bolting. A second application is usually needed for best results on thistle, nettle, and bindweed. Treat wild onion or garlic in early spring and in fall when they are young and growing actively, except as directed in the SPECIAL WEED PROBLEMS section of this label. |

SMALL AREA APPLICATIONS FOR NON-CROP USE

For control of broadleaf weeds in small non-crop areas with hand-held or back-pack sprayers, mix 4.3 fluid ounces of Riverdale 638 per gallon of water. Thoroughly wet all weed foliage. Maintain agitation of mixture.

SPECIAL WEED PROBLEMS

DIRECTIONS FOR SPECIAL WEED PROBLEMS IN PASTURES, FALLOW LAND, NON-CROP AND CONSERVATION RESERVE PROGRAM, AND CONSERVATION RESERVE ACREAGE

To control the following special weed problems in fallow land, non-crop areas, or pastures, apply the rates indicated at the recommended application time in sufficient spray volume by air or ground to obtain thorough and uniform coverage. Thorough and uniform coverage may require high volume ground spraying at 50 gallons per acre or more or aerial spraying at 10 gallons per acre or more when weed growth is dense. Adequate soil moisture for weed growth is essential for good control.

| WEEDS IN CROP | AMOUNT OF RIVERDALE 638 PER ACRE | DIRECTIONS |
|---------------------------------------|----------------------------------|---|
| musk thistle | 41.1 to 54.8 ounces | rosette stage spring or fall; use higher rate in fall |
| field bindweed | 41.1 to 54.8 ounces | bud to full bloom |
| hoary cress | 54.8 ounces | bud to full bloom |
| leafy spurge, Russian knapweed | 54.8 ounces | full bloom |
| Canada thistle, camelthorn, lotus | 54.8 ounces | bud to early bloom |
| Canada thistle | 54.8 ounces | in spring or summer |
| Canada thistle | 41.1 to 68.4 ounces | 6 to 8 inches high in fall, prior to a killing frost with good soil moisture. Do not till treated area within 7 days of treatment |
| cattails, tule (hard-stem bulrush) | 82.1 ounces | late spring to early summer when 4 to 6 feet tall; repeat in fall and following spring. |
| tansy ragwort | 82.1 ounces | rosette stage to early bloom |
| nutgrass | 82.1 ounces | 6 to 8 inches high, before bloom; repeat when regrowth is 6 to 8 inches high |

Refer to the restrictions and limitations for use on these sites.

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. Containers should be opened in well ventilated areas. Do not contaminate water, food or feed by storage or disposal. Keep container tightly sealed when not in use. Do not stack cardboard cases more than two pallets high.

PESTICIDE DISPOSAL: Pesticide wastes are toxic. If container is damaged or if pesticide has leaked, contain all spillage. Absorb and clean up all spilled material with granules or sand. Place in a closed labeled container for proper disposal. 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: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other approved State and local procedures. Plastic containers are also disposable by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

Local conditions may affect the use of this chemical. Consult State Agricultural Extension or Experiment Station weed specialist for specific recommendations for local weed problems and for information on possible lower dosages.

WARRANTY

Follow directions carefully. Timing and method of application, weather and crop conditions, mixtures with other chemicals not specifically recommended, and other influencing factors in the use of this product are beyond the control of the seller. Buyer assumes all risk of use, storage or handling of this material not in strict accordance with directions given herewith.