



LINITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

344 78 m

OFFICE OF NEVENTION, PESTICIDES AND

GLENDA HAAGE RIVERSIDE/TERRA CORP. **600 FOURTH STREET** SIOUX CITY, IA 51101

Subject:

Label Amendment Submission of 09/21/93 In Response to PR Notice 93-7

EPA Reg. No. 9779-257 RIVERSIDE 2,4-D LV4

IMPORTANT NO FICE: This Letter Requires You to Submit a Notification to the Office

of Compliance Monitoring within 20 Days.

Dear Registrant:

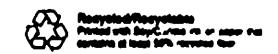
The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments listed on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

SERIOUS ERROR(S) ON SUBMITTED LABELING:

EPA has determined that one or more of the errors on the labeling you submitted to the Agency is categorized as "serious" as defined in PR Notice 93-11. In general, serious errors are those that may create a potential for harm to workers, handlers, other persons, or the environment; or those that prevent the achievement of the basic goals of the Worker Protection Standard (WPS) or FIFRA.

YOU MUST NOT SELL OR DISTRIBUTE (INCLUDING RELEASE FOR SHIPMENT) ANY PRODUCT BEARING THE SUBMITTED LABELING. Sale of distribution of any product with the incorrect labeling is a violation of FIFRA that could result in initiation of an action for civil penalties and/or cancellation of your product. This matter has been referred to the Office of Compliance Monitoring (OCM) for further action.

YOU MUST SUBMIT A NOTIFICATION TO THE OFFICE OF COMPLIANCE MONITORING WITHIN 20 DAYS OF THE DATE OF THIS LETTER.



Page 2

Each notification must include the following information:

- 1. Registrant's name and address.
- 2. EPA Registration number of the product for which the labeling was submitted.
- 3. Whether any product already has been sold or distributed (this includes released for shipment) bearing the submitted labeling.

In addition, the notification must include the following information, IF you have already sold or distributed any product bearing the submitted labeling:

- 1. Quantity of the product that has been sold or distributed.
- 2. EPA Producing Establishment number.
- 3. Location of the product, if known.
- 4. Proposed plan for assuring that product with the incorrect labeling in your control, as well as that in the hands of dealers/distributors/users, will be corrected. The plan must include your proposal for assuring that the labeling is corrected as soon as possible.

Submit the notification to:

Michael Wood, Director
Compliance Division, (7203)
Worker Protection Notification
Office of Compliance Monitoring
U.S. Environmental Protection Agency
401 M Street SW
Washington, DC 20460

Failure to submit a notification also may result in initiation of an action under FIFRA for civil penalties, if you sold or distributed (this includes released for shipment) product bearing the incorrect labeling.

Page 3

IN ADDITION, YOU SHOULD CONTACT IMMEDIATELY THE PERSONS TO WHOM YOU SOLD OR DISTRIBUTED YOUR PRODUCT AND INFORM THEM NOT TO SELL OR DISTRIBUTE ANY PRODUCT WITH THE INCORRECT LABELING.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the WPS labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have neither been reviewed nor accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

Submit the required notification. Then by the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

■ BEFORE selling or distributing any product bearing the final printed labeling as amended

AND

WITHIN one year from date of this acceptance.

Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,

Jin Tomplins, Deputy Chief Registration Support Branch Registration Division (7505W)

Attachment

cc: Office of Compliance Monitoring

R*

2.4-D LV4

Selective herbicide for control of many broadleaf weeds

ACTIVE INGREDIENT

Isooctyl ester of 2,4-dichloro-

phenoxyacetic acid*...... 63.7% INERT INGREDIENTS...... 36,3%

TOTAL

100.0%

*. 4-dichlorophenoxyacetic acid equivalent: 42.3% or 3.88 lbs./gal. Isomer specific by AOAC Method No. 6.288-6.292 (14th Ed.)

STOP READ LABEL BEFORE USING

KEEP OUT OF REACH OF CHILDREN

CAUTION

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Drink one or two glasses of water and induce vomiting by touching back of throat with finger. Get medical attention. Do not give anything by mouth to an unconscious person.

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

IF IN EYES: Flush with plenty of water for 15 minutes. Get medical attention.

See additional PRECAUTIONARY STATEMENTS on side panel.

EPA Reg. No. 9779-257

EPA Est. Nos. 42545-MO-1^G; 42750-IA-1^I Lot nos, denote establishment.

Manufactured for TERRA CORP. P.O. Box 6000, Sioux City, Iowa 51102 Riverside Serves Agriculture. Agriculture Serves Everyone.

NET CONTENTS

GALS.

PRECAUTIONARY STATEMENTS CAUTION HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed, absorbed through skin or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Remove contaminated elething and wash before rouse. Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

When mixing, leading, or applying this product or repairing or cleaning equipment used with this product, wear eye protection (face shield or safety glasses), chemical resistant gloves (nitrile), long sleeved shirt, long pants, socks and shees. For acrial applicators in enclosed cookpits 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 scap and water as soon as possible after mixing, leading, or applying this product. Wash hands, face and arms with scap and water before using toilet. After work, remove all clothing and shower using scap and water. Do not rouse clothing worn during the provious day's mixing and leading or application of this product without cleaning first. Clothing must be kept and washed separately from other household laundry. Remove saturated clothing as soon as possible and shower:

If container contains over 1 gallon and less than 5 gallons, persons or gaged in open pouring this product must also wear severalls or chemical resistant apron.

If this container contains 5 gallons or more in capacity, a mechanical system (probe and pump) must be used for transferring the contents of this container. If the contents of non-refillable posticide container are emptied, the probe must be rinsed before removal.

Applicators and other handlers must wear long-sleeved shirt and long pants, waterproof gloves, and shoes plus socks.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering controls statement:

if the capacity of this container is 1 gallon to 5 gallons, mixers and loaders who do not use a closed mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical resistant apron in addition to the other required PPE.

If the depecity of this container is 5 difficus or more a closed mechanical system (probe and pump) 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. The must be selected as the requirements listed in the Worker Protection Standard (WPS) for egricultural pesticides [40 CFR 170.240 (d) 4)]. The handler PPE requirements may bwe reduced or modified as specified in the WPS.

When handlers use closed systems, anclosed cabs, or sircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural posticides [40 CFR 170.240 (d) [4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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.

ENVIRONMENTAL HAZARDS

This product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water or wetlands (swamps, bogs, marshes, and potholes). 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 when weather conditions favor drift from target area, as this product may injure cotton, beans, other vegetables, certain legumes and ornamentals.

PHYSICAL OR CHEMICAL HAZARDS

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

DIRECTIONS FOR USE

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

Do not apply this product through any type of irrigation system.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Unity presents handled 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 worker entry into treated areas during the restricted entry interval (REI) of __12_ 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, waterproof gloves, and shoes plus socks.

NON-AGRICULTURAL US REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard 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.

Keep unprotected persons or pets out of treated ares until sprays have dried

AGRICULTURAL USE REQUIREMENTS

Do not onter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. 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.

Re-Entry-for-Turf-Sites-(excluding and forms): De-not-allow-people (other than applicator) or pate on treatment area during application. De-not enter treatment areas

until spray has dried.

For early entry to treated areas that is permitted under the Worker Protection (and that involves contact with anything that has been treated, such as plants water, wear: eye protection (face shield or safety glasses), chemical resistant gloves (nitrile), long slooved shirt, long pants, socks, and

NOTICE TO CROP OWNERS: Written or oral warnings must be given to work are expected to be in a treated area or in an area about to be treated with this When oral warnings are given, warnings shall be given in a language out understood by workers. Oral warnings must be given if there is a reason to bel written warnings cannot be understood by workers. Oral and written warning include the following information: "CAUTION. Area treated with 2,4 D LV4 of application). Do not enter without appropriate protective elething. In accidental exposure, wash exposed area with plenty of water and get medical a For further information see PRECAUTIONARY STATEMENTS on the label."

STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISF

STORAGE

Store in a dry location away from children, animals, foods, feeds, seeds, agricultural chemicals. Keep container closed when not using. Do not allow we container as this will cause deterioration of product. Handle in accordance information given under PRECAUTIONARY STATEMENTS. Keep storage are when not in use. In the event of spillage or leakage, soak up the material absorbent clay, sand, sawdust, or other absorbent material. Scrape up and did in accordance with information given under PESTICIDE DISPOSAL. Repactively useable product in a sound container. In case of fire or other emergence at once by toll-free telephone to 800-424-9300.

DISPOSAL

PESTICIDE DISPOSAL: Pesticide wastes are toxic. Improper disposal of pesticide, spray mixture or rinsate is a violation of Federal law and may congroundwater. If these wastes cannot be disposed of by use according instructions, contact your State pesticide or Environmental Control Agency hazardous waste representative at the nearest EPA Regional Office for guidal CONTAINER DISPOSAL: Plastic Containers-Triple rinse (or equivalent). Then recycling or reconditioning, or puncture and dispose of in a sanitary la incineration, or, if allowed by state and local authorities, by burning. If burned, of smoke. Metal Containers-Triple rinse (or equivalent). Then offer for reconditioning, or puncture and dispose of in a sanitary landfill, or by other presentation of state and local authorities.

GENERAL INFORMATION

2,4-D LV4 is a selective herbicide recommended for the control of many broadleaved weeds in crops, along fence rows, around farm buildings and similar areas. The following is a partial list of weeds controlled:

| Beggartick | Dogfennel | Nettle, stinging | Sumac |
|-----------------|---------------|--------------------|---------------|
| Bindweed | Elderberry | Pennycress | Sunflower |
| Bitterweed | Galinsoga | Pennywort | Tansy mustard |
| Blueweed, Texas | Goldenrod | Peppergrass | Tansy ragwort |
| Broomweed | Henbit | Pigweed | Tumbleweed |
| Buckbrush | Jimsonweed | Plantain | Velvetleaf |
| Burdock | Knotweed | Poorjoe | Vervain |
| Canada thistle | Kochia | Puncturevine | Vetch |
| Carpetweed | Lambsquarters | Pusley, Florida | Wild carrot |
| Chicory | Mallow | Ragweed | Wild garlic |
| Cocklebur | Marshelder | Russian thistle | Wild hemp |
| Coffeeweed | Milkvetch | Sherperdspurse | Wild onion |
| Coyotebrush | Morningglory | Sicklepod | Wild radish |
| Dandelion | Musk thistle | Smartweed | Willow |
| Dock | Mustards | Sowthistle, annual | Witchweed |
| | | | Yellow rocket |

Note: Local conditions, crop varieties and application regulations vary and may affect use of this herbicide. Consult your local Agricultural Experiment Station or Extension Service weed specialists and state regulatory agencies for recommendations in your area.

Apply during warm weather when weeds or brush are actively growing. Application under drought conditions often will give poor results. Use low spray pressure to minimize drift. On cropland and along roadsides, do not exceed 20 psi pressure. Apply enough spray volume to provide uniform coverage of weeds and brush, usually 5 to 20 gal. per acre by ground equipment and 3 to 5 gallons by aircraft. Higher gallonages may be used if desired to improve spray coverage. Generally, the lower dosages recommended on this label will be satisfactory for young succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed. For crop uses, do not mix with oil or other adjuvants unless specifically recommended on this label. Deep-rooted perennial weeds such as Canada thistle and field bindweed and many woody plants require repeated applications for maximum control. Do not apply where spray drift may contact nearby susceptible crops or other desirable plants or may contaminate water for irrigation or domestic use. Read and follow all Use Precautions given on this label.

Note: If there are uncertainties concerning special local use situations or specific crop

variety tolerances to 2,4-D, consult your State Agricultural Experiment Station or local Extension Service weed specialists for advice.

USE PRECAUTIONS

Avoid contact with 2,4-D susceptible crops and other desirable broadleaf plants. 2,4-D LV4 herbicide is injurious to most broadleaf plants. Therefore, do not apply directly to or otherwise permit even minute amounts to contact cotton, grapes, tobacco, fruit trees, vegetables, flowers, ornamentals or other desirable plants susceptible to 2,4-D. Do not use in or near a greenhouse.

Do not apply in the vicinity of cotton, grapes, tobacco, tomatoes or other desirable 2,4-D susceptible crops or ornamental plants. Do not spray when wind is blowing towards susceptible crops or ornamental plants.

Avoid spray drift. Applications should be made only when there is no hazard from spray drift since very small quantities of the spray, which may not be visible, may severely injure susceptible crops during both growing and dormant periods. Use coarse sprays to minimize drift since, under adverse weather conditions, fine spray droplets may drift a mile or more.

Ground Equipment: With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible; by applying 20 gal. or more of spray per acre; by using no more than 20 pounds spraying pressure with large droplet producing nozzle tips; by spraying when wind velocity is low; and by stopping all spraying when wind exceeds 6 to 7 mph. Do not apply with hollow cone-type insecticide or other nozzles that produce a fine-droplet spray.

Aerial Application: With aircraft, drift can be lessened by applying a coarse spray; by using no more than 20 pounds spray pressure at the nozzles; by using straight stream nozzles directed straight back; by using a spray boom no longer than 3/4 the wing span of the aircraft; and by spraying only when wind is locity is less than 6 mph.

Do not apply by aircraft when an air temperature inversion exists. Such a condition is characterized by little or no wind and with air temperature lower near the ground than at higher levels. The use of a continuous smoke column at or near site of application is suggested to indicate direction and velocity of air movement, and to indicate a temperature inversion by layering of the smoke.

Violent windstorms may move soil particles. If 2,4-D is on soil particles and they are blown onto susceptible plants, visible symptoms may appear. Serious injury is unlikely. The hazard of movement of 2,4-D on dust is reduced if treated fields are irrigated or if rain occurs shortly after application.

At high temperatures vapors from this product may injure susceptible plants growing nearby. Do not use in a greenhouse. Excessive amounts of this herbicide in the soil may temporarily inhibit seed germination or plant growth.

TO PREPARE A SPRAY WITH WATER: Add one half the required amount of water to the spray tank; then add this product with agitation, and finally the balance of the water with continued agitation. Note: This material forms an emulsion in water, not a solution. This tends to separate on standing. Provide agitation to prevent such separation and insure uniform spray mixtures.

TO PREPARE A SPRAY WITH LIQUID NITROGEN SOLUTIONS: Fill spray tank half full with liquid nitrogen. Start agitator. Add 2,4-D LV4 in the quantity for the numbers of acres full tank will cover. Continue agitation of spray solution and complete filling of tank with fertilizer. Continue agitation until tank is empty. Mix only one tank at a time and apply immediately. Do not spray during or immediately following cold weather. Use spray equipment designed to handle corrosive liquid nitrogen solutions. After spraying, remove any remaining solution and rinse spray rig thoroughly with water.

WEED CONTROL IN NON-CROP AREAS SUCH AS LAWNS, GOLF COURSES, CEMETERIES, PARKS, A!RFIELDS, ROADSIDES, VACANT LOTS, DRAINAGE DITCH BANKS: Apply 1 to 3 quarts per acre in the amount of water needed for uniform application. Usually 2 quarts per acre provides good weed control under average conditions. Treat when weeds are young and growing well. Do not use on golf greens, nor on dichondra or other broadleaf herbaceous ground covers. Do not use on creeping grasses such as bent and St. Augustine except for spot treating, nor on newly seeded turf until grass is well-established. Reseeding of treated areas should be delayed following treatment. With spring application, reseed in the fall; with fall application, reseed in the spring. Legumes are usually damaged or killed so do not treat areas where legumes are desired. Deep-rooted perennial weeds may require repeated treatments in the same season or in subsequent years.

With nitrogen solutions: Follow local recommended per acre rates of 2,4-D and nitrogen solutions.

NOTES FOR ALL TURF SITES (EXCLUDING SOD FARMS):

Do not allow people (other than applicator) or pets on treatment area during application. Do not enter treatment areas until spray has dried:

The maximum number of broadcast applications per treatment site is 2 per year.

When using this product; wear long sleeved shirt, long pants; seeks, shees, and chemical resistant gloves.

After using this product, rinso gloves before removing, remove clothing and launder separately before reuse, and promptly and thoroughly wash hands and exposed skin with seap and water. Remove saturated clothing as soon as possible and shower.

WEED CONTROL IN SMALL GRAINS NOT UNDERSEEDED WITH A LEGUME

SPRING WHEAT AND BARLEY: Apply 1/2 to 1 pint per acre. Spray when grain is in full tiller stage (usually 4 to 8 inches tall) but before the boot stage and when weeds are small. Do not apply before the tiller stage nor from early boot to the dough stage. Higher rates, up to 2 pints per acre, may be needed to handle difficult weed problems in certain areas such as under dry conditions especially in western areas. However,

do not use unless possible crop injury will be acceptable.

WINTER WHEAT AND RYE: Apply 1/2 to 3/4 pint per acre in the spring at the full tiller stage but before the early boot stage. For improved control of difficult weeds including wild garlic and wild onion, apply 1 to 2 pints per acre. Since these rates may injure the crop, do not use unless possible crop injury will be acceptable. For the high rates on spring wheat and barley as well as winter wheat and rye, consult your State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

SPRING SEEDED OATS: Apply 1/2 pint per acre at the full tiller stage but before the early boot stage. Oats are less tolerant to 2,4-D than wheat or barley and are more liable to suffer some injury.

FALL SEEDED OATS (SOUTHERN) GROWN FOR GRAIN: Apply 3/4 to 1% pints per acre after full tillering but before the early boot stage. Maximum control of hard-to-kill weeds may not be achieved at these rates. Do not spray during or immediately following cold weather.

Preharvest Treatment: Apply 1 to 2 pints per acre when grains are in the hard dough stage to control large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to cause succulent weed growth.

Note: Do not feed treated straw to livestock.

With Nitrogen Solutions: Follow local recommended per acre rates for 2,4-D and nitrogen solutions.

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

CORN: Use one of the following three programs. Preemergence: Apply 1 to 2 quarts per acre to soil anytime after planting, but before corn emerges. Do not use on light sandy soil. Emergence: Apply 1 pint per acre just as corn plants are breaking ground. Postemergence: After emergence of corn, use 1/2 pint per acre. Application of 3/4 to 1 pint per acre may be needed for maximum control of some weeds but such rates are more liable to injure the corn. If corn is over 8 inches high, use drop nozzles to keep the spray off the corn foliage as much as possible. Do not apply from the tasseling to dough stage. Do not use with oil, atrazine or other adjuvants. Crop injury is more liable to occur if corn is growing rapidly under high temperature and high soil moisture conditions. To reduce breakage of stalks from temporary brittleness caused by 2,4-D, delay cultivation for 8 to 10 days after treatment. Do not forage or feed corn fodder for 7 days following application.

Note: Hybrids vary in response to 2,4-D and some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Contact your Agricultural Experiment Station or Extension Service weed specialists for this information.

With nitrogen solutions: For late season control of young smartweeds, cocklebur, annual morningglory, and other annual broadleaf weeds less than 1 inch high. Fields should be as clean as possible and corn 20 to 30 inches high. Direct the spray to

lower 3" to 4" of corn stalk. For each acre, mix 5/8 to 1 pint (consult local recommendations) with 80 to 120 pounds of nitrogen. Apply immediately with continuous agitation.

Preharvest corn treatment: After the hard dough or denting stage, apply 1 to 2 pints per acre by air or ground equipment to suppress perennial weeds, decrease weed seed production, and control high weeds such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower, velvetleaf and vines that interfere with harvesting. Do not forage or feed corn fodder for 7 days following application.

Control of wild garlic in stubble grain fields: Following the harvest of small grain or corn, wild garlic often produces new fall growth. This should be sprayed with 2 to 3 quarts per acre of 2,4-D LV4. This is a useful practice as one part of a wild garlic control problem. Do not forage for 7 days following application. Do not plant any crop until 3 months after treatment or until 2,4-D has disappeared from the soil.

SORGHUM (MIl O): Apply 1/2 pint per acre when sorghum is 5 to 15 inches high. A higher rate of 3/4 to 1 pint may be needed to control some weeds, but the chance for crop injury is likewise increased. Do not use with oil. Do not treat before sorghum is 5 inches high, nor during boot, flowering or early dough stages. If sorghum is higher than 8 inches, use drop nozzles to keep the spray off the foliage as much as possible. Temporary crop injury may occur under conditions of high soil moisture and high air temperatures. Varieties vary in tolerance to 2,4-D and some hybrids are quite sensitive. Spray only varieties known to be tolerant to 2,4-D. Contact your Agricultural Experiment Station or Extension Service weed specialists for this information.

RANGELAND AND GRASS PASTURES: To control bitterweed, broomweed, croton, docks, kochia, marshelder, musk thistle and other broadleaf weeds, use 2 quarts per acre in the amount of water needed for uniform application. If the weeds are young and growing actively, 1 quart per acre will provide control of some species. Deeprooted perennial weeds may require repeated treatments in the same year or in subsequent years.

To control wild garlic and wild onion, apply 2 to 3 quarts per acre, making three applications (fall-spring-fall or spring-fall-spring) starting in late fall or early spring.

For weed control in newly sprigged coastal bermudagrass, apply 1 to 2 quarts per acre preemergence and/or postemergence.

For control of sand shinnery oak, use 1 quart in 5 gallons of oil or in 4 gallons of water plus 1 gallon of oil per acre. Apply by aircraft between May 15 and June 15. For control of sagebrush, use 1 quart in 3 gallons of oil per acre and apply by aircraft when foliage is fully expanded and the brush is actively growing.

To control big sagebrush and rabbitbrush, use 2 to 3 quarts per acre in 2 to 3 gallons of oil or in 3 to 5 gallons of oil-water emulsion spray. For rabbitbrush, the 3 quart rate is usually required. Brush should be leafed out and growing actively when sprayed. Retreatment may be needed.

With nitrogen solutions: Follow local recommended per acre rates for 2,4-D and nitrogen solutions.

Note: Do not use on bent grass, alfalfa, clover, or other legumes. Do not use on newly seeded areas until grass is well established. Do not use from early boot to milk stage where grass seed production is desired.

Do not apply later than 30 days prior to cutting grass for hay. Do not graze meat animals on treated areas later than 3 days prior to slaughter. Do not graze dairy animals within 7 days after application.

GRASS SEED CROPS: Use 1 to 1½ pints per acre in the amount of water required for uniform application by air or ground equipment. Apply to established stands in spring from the tiller to early boot stage. Do not spray in boot stage. New spring seedlings may be treated with the lower rate after the grasses have at least five leaves. Perennial weed regrowth may be treated in the fall.

WCODY PLANT CONTROL IN NON-CROP AREAS: To control species susceptible to 2,4-D in rights-of-way, fencerows, roadsides, and along drainage ditchbanks, spray brush up to 5 to 8 feet high after spring foliage is well developed, using 3 to 4 quarts in 100 gallons of water and wetting all parts of the brush including foliage, stems and bark. This may require up to 400 gallons of spray per acre for adequate coverage of solid stands of brush. Make applications in such a way as to prevent drift of the spray from the area being treated. Spraying can be effective at any time up to 3 weeks before frost as long as soil moisture is sufficient for active growth of the brush. Control will be less effective in midsummer during hot dry weather when soil moisture is deficient and plants are not actively growing. Oil or a wetting agent may be added to the spray, if needed, for increased effectiveness.

FOREST CONIFER RELEASE: After northern conifers, jack pine, red pine, black spruce, and white spruce cease growth and harden off in late summer, a spray of 1½ to 3 quarts in 8 to 25 gallons of water per acre may be applied by air to control certain competing hardwood species such as alder, aspen, birch, hazel and willow. Since this treatment may cause occasional conifer injury, do not use if such injury cannot be tolerated. Consult your regional or extension forester or state herbicide specialist for recommendations to fit local conditions.

SPOT TREATMENT: To control broadleaf weeds in small noncropland areas with a hand sprayer, use 1/4 pint in 3 gallons of viater and spray to thoroughly wet all weed foliage. Keep spray mixture agitated to prevent caparation.

NOTICE: Seller warrants that the product 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, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller, and Buyer assumes the risk of any such use.