

# U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7505P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460

PA	Reg.	Number:	Date

Date of Issuance:

2935-511

1 4 JAN 2009

NOTICE OF PESTICIDE:

\_ Registration

x Reregistration (under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

LV4

Name and Address of Registrant (include ZIP Code):

Wilbur-Ellis Company

P.O. Box 1286

Fresno, CA 93715

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 reregistered in accordance with FIFRA section 4(g)(2)(C) provided you:

- 1. Submit and/or cite all data required for registration/reregistration review of your product when the Agency requires all registrants of similar products to submit data. .
- 2. A "Note to Physician" must be added to the label which reads "Contains petroleum distillate. May pose an aspiration pneumonia hazard."
- 3. Per the acute toxicity review, the Hazards to Humans and Domestic Animals must be revised to include the statement "Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals."
- 4. Per the acute toxicity review, revise the chemical-resistant glove bullet under the PPE section to read as follows:

anne J. Miller

"chemical-resistant gloves (barrier laminate, nitrile rubber, neoprene rubber or viton)"

5. The mechanical transfer text under the Engineering Control section is not required for 2,4-D.

Signature of Approving Official:

Joanne I. Miller Product Manager 23 Herbicide Branch

Registration Division (7505P)

Date:

1 4 JAN 2009

EPA Form 8570-6

6. The text in bold type must be added to the User Safety Recommendation text currently on the label:

"Remove clothing/PPE immediately if pesticide gets inside."

- 7. Since this label does not have aquatic uses, delete the last paragraph under the Environmental Hazards section currently on the label.
- 8. Under the Non-Agricultural Use Requirements, delete the text "Reentry statement for residential and other turf sites excluding sod farms."
- 9. Add the following text under the Spray Drift Management section:
  - "2,-4-D esters may volatilize during conditions of low humidity and high temperatures. Do not apply during conditions of low humidity and high temperatures."
- 10. Under the **Sweet Corn** section, delete all references to pre-harvest applications, since the PHI is 45 days (and the pre-harvest rates on the label exceed the postemergence limits).

Under the **Small Grains** section, add the text "Maximum of 2.6 pints per acre for postemergence application. Maximum of 1 pint per acre for pre-harvest application."

<u>Note to RD</u>: This label has a section for "Emergency Control in Wheat" which includes a rate in excess of the RED limits.

Under the Control of Wild Garlic in Stubble Grain and Corn Fields section, revise the sentence starting with "Plant only labeled crops..." with the following:

"Only labeled crops can be planted within 30 days of application."

Under the Fall Seeded Oats section, specify that the limitations (second paragraph) apply to all oats (not just fall seeded). In addition, add the following limitations to this section:

"Do not exceed 1 pint /acre per application for pre-harvest applications. Limited to 3.6 pints per crop cycle."

Under the **Grass Seed Crops** section, add the text "Limited to 2 applications per year. Minimum of 21 days between applications."

Under the Grasses in Conservation Reserve Program Areas section, add the following:

"Do not exceed 4 pints /acre per application
Maximum of 2 applications per year
Minimum of 30 days between applications
Do not cut forage for hay within 7 days of application.
If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection

Standard are applicable.

For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed."

Under the **Red Potatoes** section, revise the text "make a second application about 10 to 14 days later" to read "make a second application after a minimum of 10 days, and up to 14 days later."

Under the **Soybeans** section, revise the table to read "Not Less Than 15 Days" prior to planting soybeans for the 1 to 2 pint rate.

Under the **Fallowland** section, revise the sentence starting with "Plant only labeled crops..." with the following:

"Only labeled crops can be planted within 30 days of application."

Under the **General Weed Control** section, add the statement "Applications to non-cropland areas are not applicable to treatment of commercial timber or other plants being grown for sale or other commercial use, or for commercial seed production, or for research purposes."

- 11. Under Storage and Disposal, change first bullet to read "Pesticide Storage".
- 12. Add the following statements to the labeling:

Use of this product in certain protions of California, Oregon and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et al. v. EPA, C01-0132C, (W.D. WA). For further information, please refer to EPA Web Site: http://www.epa.gov/espp.

A stamped copy of your labeling is enclosed for your records. 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.



LV 4

ACCEPTED

with COMMENTS

In EPA Letter Dates:
1 4 JAN 2009
Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.

IDEAS TO GEOW WITH

# A SELECTIVE LOW VOLATILE HERBICIDE

FOR CONTROL OR SUPPRESSION OF MANY BROADLEAF WEEDS AND BRUSH CONTROL IN CORN, SMALL GRAINS, SOYBEAN (PREPLANT ONLY) AND OTHER LISTED CROPS AND IN NON-CROP AREAS SUCH AS LAWNS, PASTURES, RANGELANDS, FENCE ROWS, RIGHTS-OF-WAY.

See Label for Tank Mixes in Both Crop and Non-Crop Areas

	:		
Isomer Specific by AO *2,4-Dichlorophenoxy 3.8 lbs./gal. Contains Petroleum D	acetic Acid		
EPA REG. NO. 2935-5	11 EPA EST, NO. 71368-MO-1		
KEEF	OUT OF REACH OF CHILDREN		
CAUTION - CAUCION  Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  (If you do not understand the label, find someone to explain it to you in detail.)  FIRST AID			

IF SWALLOWED:	Call poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by a poison control center or doctor. Do NOT give any liquid to the person. Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice.
IF IN EYES:	Hold eye open and rinse slowly and gently with water for 15 to 20 minutes     Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.     Call a poison control center or doctor for treatment advice.

in Case of Emergency, Call Chemtrec: (800) 424-9300

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION - CAUCION

Causes eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin eyes or clothing.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

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.

All mixers, loaders, applicators, flaggers, and other handlers must wear long-sleeved shirt and long pants, shoes and socks, plus

- chemical-resistant gloves Category A, such as butyl rubber ≥ 14 mils, or natural rubber ≥ 14 mils, or neoprene rubber ≥ 14 mils, or nitrile rubber ≥ 14 mils, when applying postharvest dips or sprays to citrus, applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate
- chemical resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. After each day of use, clothing or PPE must not be reused until it is has been cleaned.

See Engineering Controls for additional requirements.

Engineering controts statements: If this container is over one gallon and less than five gallons, mixers and loaders who do not use a chemical system (probe and pump) to transfer contents of this container must wear coveralis or a chemical-resistant apron in addition to the other required PPE. If this container is five 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 a nonrefillable pesticide container are emptied, the probe must be finsed 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) (4-8)], the handler 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 fisted in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-8)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Pilots must use an enclosed cockplit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)[6)]

## USER SAFETY RECOMMENDATIONS

USERS SHOULD: Wash hands before eating, drinking, chewing ǧuʿm, uʿsing tobacco or using the toilet. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water. 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.

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

#### **ENVIRONMENTAL HAZARDS**

This pesticide may be toxic to fish and aquatic invertebrates. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark except as noted on appropriate labels. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Application around a cistem or well may result in contamination of drinking water or groundwater.

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 product will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

Fish breathe dissolved oxygen in the water and decaying weeds also use oxygen. When treating continuous, dense weed masses, it may be appropriate to treat only part of the infestation at a time. For example, apply the product in lanes separated by untreated strips that can be treated after vegetation in treated lanes has disintegrated. During the growing season, weeds decompose in a 2 to 3 week period following treatment. Begin treatment along the shore and proceed outwards in bands to allow fish to move into untreated areas. Waters having limited and less dense weed infestations may not require partial treatments.

## **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 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 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, chemical-resistant gloves made of any waterproof material and shoes plus socks. No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

## **NONAGRICULTURAL USE 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.

Reentry statement for residential and other turf sites excluding sod farms: Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

## **NET CONTENTS**

#### **GENERAL INFORMATION**

This product is a low volatile ester especially prepared for use on crops and weeds where a susceptible crop in the near vicinity may be injured by a more volatile product. It is recommended for control of numerous broadleaf weeds and certain 2,4-D susceptible woody plants without injury to most established grasses. In cropland, 2,4-D Ester is more effective than amines for controlling hard-to-control weeds such as Bindweed, Thistle, Wild garlic, Curly dock, Tansy ragwort and Wild onions. For best results, apply this product as a water or oil spray during warm weather when young succulent weeds or brush are actively growing. Application under drought conditions often will give poor results. The lower recommended rates will be satisfactory on susceptible annual weeds. For perennial weeds and conditions such as the very dry areas of the Western states where control is difficult, the higher recommended rates can be used, but some crop injury may occur. Deep-rooted perennial weeds such as Canada thistle and field bindweed and many woody plants usually require repeated applications for maximum control.

Generally the lower dosages given will be satisfactory for young, succulent growth of sensitive weed species. To gain satisfactory weed control for less sensitive species and under conditions where control is more difficult, the higher dosages will be needed or the use of an approved tank mix combination. Apply LV 4 during warm weather when weeds are young and growing actively. If band treatment is used, base the dosage rate on the actual area to be sprayed. Although water quantities may vary due to different types of application equipment, sufficient water must be used to provide for complete and uniform coverage. Higher water gallonage may be used if desired to improve spray coverage. In all cases, use the same recommended amount of 2,4-D per acre. When product is used for weed control in crops, the growth stage of the crop must be considered. For crop uses, do not mix with oil, or other adjuvants unless specifically recommended on label. To do so may reduce herbicide's selectively and could result in crop damage. If you are not prepared to accept some degree of crop injury, do not use this product.

Unless otherwise specified make aerial applications in 2 to 10 gallons of spray volume per acre and ground applications in 5 to 25 gallons of spray volume per acre.

Crop varieties vary in response to 2,4-D and some are easily injured. Apply this product 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, State Agricultural Extension Service or qualified crop consultant for advice.

Aerial Applications should be used only when there is no danger of drift to susceptible crops. Many states have regulations concerning aerial application of 2,4-D formulations. Consult local regulatory authorities before making applications. Although this product is a low-volatile formulation, at temperatures above 90°F vapors may damage susceptible crops growing nearby. Read and follow all directions and precautions on this label and on the labels of any products for which a tank mixture is being considered. Wilbur-Ellis Company recommends the use of a drift retardant agent such as IN-PLACE® where physical drift is a concern.

COMPATIBILITY: If LV 4 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 qt.) 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.

TO PREPARE THE SPRAY: (1) Fill the spray tank about half full with water. Then add the required amount of this product with agitation, and finally, the rest of the water. NOTE: This product in water forms an emulsion which tends to separate unless the mixture is kept agitated. Continue agitation during application until spray tank is empty (2) If oil is added, first mix this product and the oil and then add this mixture to the water. However, with adequate agitation the oil can be added after the product is mixed in water. (3) If straight oil is used, a solution is formed and separation does not occur. Do not allow any water to get into the oil-herbicide mixture to avoid formation of an invert emulsion.

LV 4 will control or suppress the following weeds in addition to many other noxious plants susceptible to 2,4-D.

Alder, Alfalfa, American lotus, Artichoke, Aster, Austrian fieldcress, Beggarticks, Biden, Bindweed, Bitterweed, Bitter wintercress, Blackeyed Susan, Blessed thistle, Blue lettuce, Box elder, Broomweed, Buckbrush, Buckhorn, Bull thistle, Bur ragweed, Burdock, Burhead, Buttercup, Canada thistle, Carpetweed, Catnip, Charnise, Cherokee rose, Chickweed, Chicory, Cinquefoil, Coastal redstem sage, Cocklebur, Coffee bean, Coffee weed, Common sowthistle, Cornflower, Coyotebrush, Creeping Jenny, Croton, Curly Indigo, Dandelion, Devil's claw, Dock, Dog-bane, Dogfennel, Elderberry, Fanweed, Fiddle neck, Flea bane (Daisy), Fixweed, Florida pusley, Frenchweed, Galinsoga, Goatsbeard, Goldenrod, Goosefoot, Ground vy, Gumweed, Halogeton, Hawkweed, Healall, Hemp, Henbit, Hoary cress, Honeysuckle, Horsetail, Indiana mallow, Indigo, Ironweed, Jerusalem artichoke, Jewelweed, Jimsonweed, Klamathweed, Knotweed, Lambsquarter, Locoweed, Lupines, Mallow, Marxanta, Marijuana, Many flowered aster, Marshelder, Mexican weed, Milkvetch, Morningglory, Musk thistle, Mustards, Nettles, Nutgrass, Orange hawkweed, Parsnip, Pennycress, Pennywort, Peppergrass, Pepperweed, Pigweed, Plantain, Poison hemlock, Poison ivy, Pokeweed, Poorjoe, Povertyweed, Prickly lettuce, Primrose, Puncture vine, Purslane, Rabbitbrush, Ragweed, Redstem, Rush, Russian thistle, Sagebrush, Salsify, Sand shinnery oak, Shepardspurse, Sicklepod, Sneezeweed, Southern wild rose, Sowthistle, Spanishneedles, Spatterdock, St. Johnswort, Starthistle, Stinging nettle, Stinkweed, Surnac, Sunflower, Sweet clover, Tansyrnustard, Tansy ragwort, Tanweed, Tarweed, Texas blueweed, Thistle, Toadflax, Tumbleweed, Velvetleaf, Vervain, Vetch, Virginia creeper, Wild carrot, Wild garlic, Wild lettuce, Wild buckweat, Wild onion, Wild radish, Wild rape, Wild strawberry, Wild sweet potato, Wilchweed, Wormseed, Wormwood, Yellow rocket, Yellow starthistle and other broadleaf weeds which may be listed elsewhere on this label.

Some of these species may require repeat applications and/or use of higher rate recommended on this product label even under ideal conditions for applications. Control of pigweeds in the High Plains area of Texas and Oklahoma may not be satisfactory with this product.

USE IN LIQUID NITROGEN FERTILIZER: This product may be combined with liquid nitrogen fertifizer suitable for foliage application on corn, grass, pastures or small grains in one operation. Use product according to directions on this label for those crops. Use liquid nitrogen fertilizer at rates recommended by supplier or Extension Service Specialist. Mix the product and fertilizer according to the following instructions:

Fill the spray tank approximately half full with the liquid nitrogen fertilizer. Add the product while agitating the tank. Add the remainder of the fertilizer while continuing to agitate. Apply immediately maintaining agitation during application until tank is empty. Do not apply during cold (near freezing) weather. Spray mixture must be used immediately and may not be stored. Do not allow mixture to stand overnight.

NOTE: If good continuous agitation is not maintained, separation of the spray mixture and/or clogging of the nozzles is likely to occur. Fertilizers can increase foliage contact burn of herbicides. Reducing the fertilizer rate and concentrate will reduce the hazard of leaf burn.

ADJUVANT USE: An agricultural surfactant, such as R-11<sup>e</sup> Spreader-Activator may be added at

0.25% by volume (1 qt. per 100 gallons of spray solution) to help increase the control of large or difficult weeds.

EQUIPMENT CLEANUP: Sprayers and equipment should be washed thoroughly after use. Neutral-Cleani tank cleaner will aid in cleaning equipment. Do not let wash water accumulate on the ground. Pesticide residue must be captured and disposed of according to state, local and Federal regulations.

## SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

#### Droplet Size

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

#### Wind Speed

On not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swath unsprayed at the downwind edge of the treated field.

#### Temperature inversions

If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

#### Susceptible Plants

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that might not be visible may injure susceptible broadleaf plants.

#### Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2.4-D herbicides. Where states have more stringent regulations, they must be observed.

#### Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

#### Additional requirements for aerial applications:

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

Additional requirements for ground boom application:

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

## **SELECTIVE WEEDING IN CROPS**

CORN (Field and Popcorn):

Preplant or preemergent -- 1 to 2 pints or Post-emergent -- Average Conditions -- 1/2 pint Dry Conditions\* -- 1/2 to 3/4 pint

Pre-harvest -- 1 to 2 pints

\*For Western states -- Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming

Use with recommended amounts of water to make per acre applications. Use lower rates of product for easily-controlled weeds, on inbreds and when corn is growing rapidly. Do not cultivate for about 2 weeks after treatment while corn is brittle.

Apply only one preplant or preemergent application per crop. Do not apply more than one posternergent application per crop. Do not apply more than one preharvest application per crop. Do not exceed a total of 6 pints of UV-4 per acre per crop. The preharvest interval (PHI) is 7 days. Do not use treated crop as fodder for 7 days following application. Do not allow livestock to forage or graze treated fields within 14 days after treatment.

PREPLANT: 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.

PREEMERGENT: Apply product to emerged weeds from 3 to 5 days after planting but before corn emerges. Do not use on very light, sandy soils. Use the higher rates on heavy soils. Plant corn as deep as practical, Product will not control weeds which have not emerged.

POST-EMERGENT: Best results are usually obtained when weeds are small and corn is 4 to 18 inches tail. As soon as corn is over 8 inches tail, use drop nozzles to keep spray off corn foliage as much as possible; direct spray over tops of weeds but not over the corn. Do not apply from tasseling to dough stage. If corn is growing rapidly and temperature and soil moisture is high, use 1/3 pint per acre to reduce possibility of crop damage. Delay cultivation for 8 to 10 days to prevent stalk breakage due to temporary brittleness caused by 2,4-D. Application rates of up to 1 pint per acre may be used to control some hard-to-control weeds. However, the possibility of injury to the corn is increased.

Do not use with atrazine, oil or other adjuvants. Since the tolerance to 2,4-D of individual hybrids varies, consult your seed supplier, local Extension Service, Agricultural Experiment Station or University Weed Specialist for information.

PRE-HARVEST: After the hard dough or denting stage, apply 1 to 2 pints in 1 to 5 gallons of water per acre by air or 5 to 30 gallons of water by ground equipment to suppress perennial weeds, decrease weed seed production and control tall weeds such as Bindweed, Cocklebur, Dogbane, Jimsonweed, Ragweed, Sunflower, Velvetleaf and vines that interfere with harvesting. The high rate will be needed for tough weeds under stress.

NO-TILL APPLICATION: LV 4 may be used in the broadcast method with a normal boomor with direct pipes set 12 inches apart in 36 inch rows. When using this product, apply at a rate of 1/3 to 1/2 fl. oz. in 10 gallons of water per acre. Maintain uniform pressure and speed when applying.

LV 4, page 3 of 5

CORN (Sweet):

Preplant or preemergent -- 1 to 2 pints Post-emergent -- Average Conditions -- 1/2 pint Dry Conditions\* -- 1/2 to 3/4 pint

Pre-harvest -- 1 to 2 pints

\*For Western states -- Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming,

Use with recommended amounts of water to make per acre applications. Use lower rates of product for easily-controlled weeds, on inbreds and when com is growing rapidly. Do not cultivate for about 2 weeks after treatment while corn is brittle.

Apply only one preplant or preemergent application per crop. Do not apply more than one posternergent application per crop. Do not apply more than one preharvest application per-crop. Do not exceed a total of 3 pints of LV-4 per acre per crop. Allow a minimum of 21 days between applications. The preharvest interval (PHI) is 45 days. Do not use treated crop as fodder for 7 days following application. Do not allow livestock to forage or graze treated fields within 14 days after

PREPLANT: 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.

PREEMERGENT: Apply product to emerged weeds from 3 to 5 days after planting but before corn emerges. Do not use on very light, sandy soils. Use the higher rates on heavy soils. Plant corn as deep as practical. Product will not control weeds which have not emerged.

POST-EMERGENT: Best results are usually obtained when weeds are small and corn is 4 to 18 inches tall. As soon as corn is over 8 inches tall, use drop nozzles to keep spray off corn foliage as much as possible; direct spray over tops of weeds but not over the corn. Do not apply from tasseling to dough stage. If corn is growing rapidly and temperature and soil moisture is high, use 1/3 pint per acre to reduce possibility of crop damage. Delay cultivation for 8 to 10 days to prevent stalk breakage due to temporary brittleness caused by 2,4-D. Application rates of up to 1 pint per acre may be used to control some hard-to-control weeds. However, the possibility of injury to the corn is increased.

Do not use with atrazine, oil or other adjuvants. Since the tolerance to 2,4-D of individual hybrids varies, consult your seed supplier, local Extension Service, Agricultural Experiment Station or University Weed Specialist for information.

PRE-HARVEST: After the hard dough or denting stage, apply 1 to 2 pints in 1 to 5 gallons of water per acre by air or 5 to 30 gallons of water by ground equipment to suppress perennial weeds decrease weed seed production and control tall weeds such as Bindweed, Cocklebur, Dogbane, Jimsonweed, Ragweed, Sunflower, Velvetleaf and vines that interfere with harvesting. The high rate will be needed for tough weeds under stress.

NO-TILL APPLICATION: LV 4 may be used in the broadcast method with a normal boom or with direct pipes set 12 inches apart in 36 inch rows. When using this product, apply at a rate of 1/3 to 1/2 fl. oz. in 10 gallons of water per acre. Maintain uniform pressure and speed when applying.

SMALL GRAINS (Barley, Oats, Wheat, Rye), not underseeded with a legume:

Wheat, Barley, Rye -- Annual weeds -- Average Conditions -- 1/2 to 1 pint; Dry Conditions\* -- 1 to 2 pints

Average Conditions -- 1 pint Perennial weeds -Dry Conditions\* -- 1-1/4 to 2 pints

Pre-harvest --1 pint

\* For Western states - Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington and Wyoming.

Do not make more than one postemergent application per crop. Do not make more than one preharvest application per crop. The preharvest interval is 14 days.

For aerial application on grain, it is suggested to use this product in 1 to 5 gallons of water per acre, total spray volume of at least two gallons per acre, and for ground application, use 3 to 25 gallons of water per acre.

Make application in the Spring when weeds are small after grain begins tillering but before boot state (usually about 4 to 8 inches high). Do not spray before the tiller stage or from early boot through milk stage.

Use lower rate of product for easily-controlled seedling weeds, and higher rate for older and more tolerant weeds. Do not treat grains underseeded with legumes, and do not spray Winter grains in the Fall. To control large weeds that will interfere with harvest or to suppress perennial weeds, pre-harvest treatment can be applied when grain is in the dough stage. Higher rates 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. For the high rates on Spring wheat and barley as well as Winter wheat and rye, consult State Agricultural Experiment Station or Extension Service Weed Specialists for recommendations or suggestions to fit local conditions.

Small grains: Do not allow livestock to forage or graze treated fields within 14 days after treatment. Do not feed treated straw to livestock

FOR EMERGENCY WEED CONTROL IN WHEAT: Perennial broadleaf weeds -- apply 3 pints per acre when weeds are approaching bud stage. Do not spray grain in the boot to dough stage. The 3 pint 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. Use 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-control categories as determined by local experience. The higher rates increase the risk of grain injury and should be used only where the weed control problem justifies the grain damage risk. Do not apply to grain in the seedling stage. For aerial application on grain, apply this product in 1 to 5 gallons of water per acre. Total spray volume of at least two gallons per acre. For ground application, use 3 to 25 gallons water per acre.

PRE-HARVEST TREATMENT: Apply 1 pint with recommended amount of water 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.

Do not exceed a total of 3.5 pints per acre per crop.

CONTROL OF WILD GARLIC AND WILD ONION: For improved control of difficult weeds including Wild garlic and Wild onion, apply 1 to 2 pints of product per acre. Since these rates may injure the crop, do not use unless possible crop damage is acceptable. For the higher rates on Spring wheat and barley, consult your local State Agricultural Experiment Station or Extension Service Weed specialist for recommendations or suggestions to fit local conditions.

CONTROL OF WILD GARLIC IN STUBBLE GRAIN AND CORN FIELDS: Following the harvest of small grains and corn, Wild garlic often produces new Fall growth. This field should be sprayed with 4 pints of product in 10 to 40 gallons of water per acre. This is a useful practice as one part of Wild garlic control program. Do not make more than 2 applications per year. Do not exceed 4 pints per acre per application. Allow a minimum of 30 days between applications. Plant only labeled crops within 29 days following application. Do not plant non-labeled crops for three months after application

SPRING SEEDED OATS: Use 1/2 pint per acre with recommended amount of water to give good coverage. Apply after the fully tillered stage, except during the boot to dough stage

FALL SEEDED OATS (Southern): Apply 1/4 to 1-1/4 pints per acre with recommended amount of water after full tillering but before early boot stage. Some difficult weeds may require the higher rates of 3/4 to 1-1/4 pints per acre for maximum control but injury may result. Do not spray during or immediately following cold weather.

Do not make more than one postemergent application per crop. Do not make more than one preharvest application per crop. The preharvest interval is 14 days.

NOTE: Oats are less tolerant to 2,4-D than wheat or barley and more likely to be injured.

GRASS SEED CROPS: Apply 1 to 4 pints of product in up to 30 gallons of water per acre by air or ground equipment in the Spring or Fall to control broadleaf weeds in grass being grown for seed. Do not apply from early boot to milk stage. Spray seedling grass only after the five-leaf stage, using 3/4 to 1 pint per acre to control small seedling weeds. After the grass is well established, higher rates of up to 4 pints can be used to control hard-to-control annual or perennial weeds. For best results, apply when soil moisture is adequate for good growth. Do not use on Bentgrass unless injury can be tolerated.

Grass Seed Crops: Do not graze dairy animals within 7 days after treatment,

GRASSES IN CONSERVATION RESERVE PROGRAM AREAS: To control or suppress annual broadleaf weeds, apply when weeds are actively growing. Use 1/2 to 1 pint per acre when weeds are small; use higher rates on older weeds. Excessive injury may result if applied to young grasses with fewer than 6 leaves or prior to grasses being well established. To control or suppress biennial and perennial broadleaf weeds in established grasses, apply at a rate of 2 to 4 pints per acre. Apply to actively growing weeds. 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.

NOTE: Suggest 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.

RED POTATOES (Grown for fresh market): Properly timed applications of this product generally enhance red color, aid in storage retention of red color, improve skin appearance, increase tuber set, and improve tuber size uniformity (fewer jumbos). Crop response may vary depending on variety, stress factors and local conditions. Consult with Agricultural Extension Service and other qualified crop advisors for local recommendations. Varieties with naturally dark red color generally benefit less from treatment. Apply 2.3 ft. ozs. of this product per acre in 5 to 25 gallons of water using ground or aerial equipment. The specific spray volume selected should be sufficient for good coverage of plants. Make the first application when potatoes are in the pre-bud stage (about 7 to 10 inches high) and make a second application about 10 to 14 days later. Do not exceed two applications per crop. Do not harvest within 45 days of application. Uneven application, or mixture with other pesticides and additives may increase the risk of crop injury.

SOYBEANS: FOR USE IN CROP RESIDUE MANAGEMENT SYSTEMS IN SOYBEANS (Preplant only).

GENERAL INFORMATION: LV 4 is a herbicide that provides control of many emerged susceptible annual and perennial broadleaf weeds. It may be applied prior to planting soybeans to provide foliar burndown control of susceptible annual and perennial broadleaf weeds and certain broadleaf cover crops such as those listed on this label. This product should only be applied preplant to soybeans in situations such as reduced tillage production systems, where emerged weeds are present. Apply only according to the application instructions given below. Do not use any tillage operations between application of LV 4 and planting soybeans

MIXING INSTRUCTIONS: Compatible crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may increase the herbicidal effectiveness of 2,4-D on certain weeds and may be added to the spray tank. Read and follow all directions and precautions on this label and on all labels of adjuvants or fertilizers mixed with this product.

APPLICATION PROCEDURES: Apply using air or ground equipment in sufficient gallonage to obtain adequate coverage of weeds. Use 2 or more gallons of water per acre in aerial equipment and 10 or more gallons of water per acre in ground equipment

#### APPLICATION TIMING AND USE RATES:

2,4-D Formulation Used	Maxiumum Rate (per acre)	When to apply (days prior to planting soybeans)
LV 4	3/4 to 1 pint (12 to 16 fl. oz.)	NOT LESS THAN 7 DAYS
	1 to 2 pints (16 to 32 fl. oz.)	NOT LESS THAN 7 DAYS

WEEDS CONTROLLED: Alfalfa\*, Bindweed\*, Bittercress-small-flowered, Bullnettle, Buttercup-smallflowered, Carolina geranium, Cinquefoin-common and rough, Clover-red\*, Cocklebur-common, Dandelion\*, Evening primrose-cutleaf, Garlic-wild\*, Horseweed or marestail, Ironweed, Lambsquarterscommon, Lettuce-prickly, Morningglory-annual, Mousetail, Mustard-wild, Onion-wild', Pennycress-field, Peppergrass\*, Purslane-common, Ragweed-common, Ragweed-giant, Shepherdspurse, Sowthistleannual, Speedwell, Thistle-Canada\*, Thistle-bull, Velvetleaf, Vetch-hairy\*, and Virginia copperleaf.

'These species are only partially controlled.

For best weed control at time of treatment, weeds should be small, actively growing and free of stress caused by extremes in climatic conditions, diseases, or insect damage. The response of individual weed species to LV 4 is variable. Consult your local County or State Agricultural Extension Service or crop consultant for advice

APPLICATION RESTRICTIONS AND PRECAUTIONS: Important Notice - Unacceptable injury to soybeans planted in fields treated with LV 4 may occur. Whether or not soybean injury occurs and the extent of the injury will depend on weather (temperature and rainfall) from herbicide application 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 is present.

Do not use on low organic sandy soil (<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 corps

In fields treated with LV 4, plant soybean seed as deep as practical or at least 1-1/2 to 2 inches deep. Adjust the planter, if necessary, to ensure that the planted seed is completely covered.

LV 4, page 4 of 5

If desired, this product may be applied preplant to soybeans in tank mixtures with other herbicides that are registered for preplant soybean use. Observe all precautions on other product labels when used with LV 4.

Do not apply LV 4 prior to planting soybeans, if you are not prepared to accept the result of soybean injury, including possible loss of stand and yield.

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

Compatible crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may increase the herbicidal activity of 2,4-D on certain weeds and may be added to the spray tank. Read and follow all directions and precautions on this label and on all labels of adjuvants or fertilizers mixed with this product.

SORGHUM (Milo): For Post-emergent control in average conditions, use 1/2 pint; dry conditions (Western states) use 1/2 to 3/4 pint with suggested volume of 5 gallons of water by air or 5 to 20 gallons with ground equipment to make per acre applications. Apply to sorghum when crop is 5 to 15 inches high to top of canopy with secondary roots well established. If sorghum is taller than 8 inches, use drop nozzles to keep the spray off the foliage as much as possible. Do not apply during boot, flowering or early dough stage. Rates of up to 1 pint per acre may be used to control some hard-to-control weeds. However, the chance of crop injury is increased with the higher rates. Do not use with oil. Because temporary injury may occur if conditions of high temperature and high soil moisture exist, use lower rate. Varieties vary in tolerance to 2,4-D. Contact seed company or your Agricultural Experiment Station or Extension Service weed specialists for this information.

The preharvest interval (PHI) is 30 days. Do not apply more than one application per crop. Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application.

#### SELECTIVE WEEDING IN NON-CROP AREAS

ORNAMENTAL TÜRF such as Lawns, Golf Courses (Fairways, Aprons, Tees and Roughs), Sod Farms, Cemeteries and Parks: Use 2 to 3 pints of product in a minimum of 10 gallons of water to give good coverage to one acre on established stands of perennial grasses. On turf, apply a maximum of 3 pints of this product per acre per application per site. Treat when weeds are young and actively growing. Do not apply to newly seeded grasses until well established. Use higher rate for hard-to-control weeds. Use higher rate when using higher volume of water per acre. Do not exceed specified application dosages for any area. Deep-rooted perennial weeds may require repeated treatments in the same season or in subsequent years. Spray when air temperature is between 50° and 85°F. Avoid applying during excessively dry or not periods unless irrigation (watering) is used before treatment. Reseed no sooner than 3 to 4 weeks after application of this product. Adding oil, wetting agent, or other surfactant to the spray may be used to increase effectiveness on weeds but doing so may reduce selectivity to turf resulting in turf damage. Maximum control of weeds will be obtained by applying in Spring and early Fall when weeds are actively growing. Do not use on golf greens or on dichondra or other broadleaf herbaceous ground covers. Do not use on creeping grasses such as bent and St. Augustine except for spot treating, or on newly seeded turf until grass is well established.

Do not exceed 6 pints per treatment site per year. Do not make more than 2 applications per treatment site per year.

FALLOWLAND: Use 1 to 4 pints of this product in 1 to 5 gallons of water by air or 3 to 25 gallons of water per acre for ground application on annual broadleaf weeds. Use lower rate when annual weeds are small (2" to 3" tall) and growing actively. Use the higher rate on older and drought-stressed plants. Spray Musk thistles and other biennial species while in seedling to rosette stage and before flower stalks are initiated. The lower rate can be used in Spring during rosette stage.

In Fall or after flower stalks have developed, use highest rate. Spray perennial weed 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. Do not plant any crop for 3 months after treatment or until chemical has disappeared from soil.

Do not make more than 2 applications per year. Do not exceed 4 pints per acre per application. Allow a minimum of 30 days between applications. Plant only labeled crops within 29 days following application. Do not plant non-labeled crops for three months after application.

GRASSES IN ESTABLISHED PASTURES AND RANGELANDS: The rate of applications are per acre per application per site. Use 1 to 4 pints of product in sufficient water to give good coverage to one acre depending on type of weeds and stage of growth. Use only on established stands of perennial grasses. Do not use on bentgrass, 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 when grass seed production is desired. Do not apply more than 2 applications per year. Allow a minimum of 30 days between applications. If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable. Pastures and Rangeland Grasses -- there is (a) 7 day pre-grazing interval for dairy cattle; (b) 30 day pre-harvest interval for grass cut for hay, and (c) 3 day pre-slaughter interval for meat animals.

BITTERWEED, BROOMWEED, CROTON, DOCKS, KOCHIA, MARSHELDER, MUSK, THISTLE AND OTHER BROADLEAF WEEDS: Use 4 to 4.2 pints of this product in sufficient water per acre. If weeds are young and growing actively, 2 pints per acre will provide control of some species. Deep-rooted perennial weeds may require repeated treatments in the same year or in subsequent years.

NEWLY SPRIGGED COASTAL BERMUDA GRASS: Apply 2 to 4 pints of this product in 20 to 100 gallons of water per acre preemergence and/or postemergence.

WILD GARLIC AND WILD ONION CONTROL: Apply 4 to 4.2 pints of this product per acre making three applications, Fall-Spring-Fall or Spring-Fall-Spring, starting in the late Fall or early Spring.

CONTROL OF SOUTHERN WILD ROSE: Apply a maximum of 4 pints of LV 4 per acre per application site.

GENERAL WEED CONTROL (Airfields, Roadsides, Vacant Lots, Fance rows, Industrial Sites, Rights-of-Way, and similar areas): Use 2 to 4 pints of product per acre. Do not apply more than 2 applications per year. Allow a minimum of 30 days between applications. Apply when most annual broadleaf weeds are still young and growing vigorously. Apply when perennial and biennial weeds are actively growing and near the bud stage, but before flowering. 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. The addition of a wetting such as R-11<sup>®</sup> is suggested. Do not use on herbaceous ground covers or creeping grass such as Bent. Legumes will usually be damaged or killed. Deep-rooted perennials may require repeat applications. Do not use on freshly seeded turf until grass is well established. Delay reseeding for 30 days.

Control of Southern Wild Rose: For roadsides and fencerows, use 1 gallon of LV 4 plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gallons of water and spray thoroughly as soon as foliage is well developed. Do not apply more than one application per year.

SPOT TREATMENT IN NON-CROP AREAS: To control broadleaf weeds in small areas with a hand or back pack sprayer, use 4 fluid ounces (8 Tablespoons) of this product per 1,000 square feet; mix 1 to 3 gallons and apply uniformly over 1,000 square feet.

#### **BRUSH CONTROL**

WOODY PLANT CONTROL: To control woody plants susceptible to 2,4-D such as Alder, Buckbrush, Elderberry, Sumac, Cherokee rose, Japanese honeysuckle, Virginia creeper and Wild grape on non-crop areas such as rights-of-way, fence rose and roadsides, use 2 to 4 quarts of product per acre in 30 to 100 gallons of water. Lower volume of water can be used unless applying through such equipment as Directa-Spra<sup>TM</sup>, Wobbler<sup>TM</sup>, Mini Wobbler<sup>TM</sup>, Spirometer<sup>TM</sup>. Spray brush 5 to 6 feet tall after Spring foliage is well developed. Wet all parts of the plants thoroughly, including stem and foliage, to the point of runoff. Higher volumes of up to 300 to 500 gallons of spray per acre may be necessary where the brush is very dense and over 6 to 8 feet high.

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 mid-summer during hot dry weather when soil moisture is deficient and plants are not actively growing. Oil or wetting agent may be added to the spray, if needed for increased effectiveness. Hard-to-control species may require re-treatment next season. In general, it is better to cut tall woody plants and spray sucker growth when 2 to 4 feet tall.

Do not make more than one application per year.

SAND SHINNERY OAK AND SAND SAGEBRUSH: On the cak, use 2 pints of this product 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. On the sagebrush, use 2 pints in 3 gallons of oil per acre and apply by aircraft when foliage is fully expanded and the brush is actively growing.

BIG SAGEBRUSH AND RABBITBRUSH: Use 2 to 6 pints in 2 to 3 gallons of oil or in 3 to 5 gallons of oil-water emulsion spray. For rabbitbrush, the 6 pint rate is usually required. Brush should be leafed out and growing actively when treated. Re-treatment may be needed. See page 2 for use with an adjuvant.

Chamise, Manzanita, Buckbrush, Coastal sage, Coyotebrush and certain other Chaparral Species: Use 2 to 6 pints per acre in 5 to 10 gallons of water. One gallon of fuel oil may be included in the spray mixture for added effectiveness. Make applications by aircraft or ground equipment to obtain uniform spray coverage. For effective control, the brush must be fully leaved out and growing actively when sprayed. Re-treatment may be needed. Consult State or local brush control specialists for most effective rate, volume and timing of spray application.

# **USES IN FOREST MANAGEMENT**

Conifer Release: For control of Alder, apply 1-1/2 to 3 quarts of product per acre in 8 to 25 gallons of water, and apply as a foliage spray. Treat when 3/4 of the brush foliage has attained full size leaves and before new conifer growth reaches 2 inches in length. This is usually between early May and mid-June. Adjust treatment date depending on stage of growth and brush species. This may cause leader deformation on exposed firs, but they should overcome this during the second year after spraying. To control susceptible brush species such as ceanothus spp, chinquapin, madrone, manzanita, oak and tanoak and to release Douglas fir, hemlock, Sitka spruce or grand fir, apply 2 quarts of product

per acre before new growth on Douglas fir is 2 inches long. To control manzanita and ceanothus in Ponderosa pine, apply 3 quarts of LV 4 before pine growth begins in Spring.

To increase performance, add 2 to 4 quarts of diesel, fuel oil, kerosene, or a suitable approved agricultural surfactant at recommended label rate.

After Northern conifers, Jack pine, red pine, black spruce and white spruce cease growth and "harden off" (usually in mid-July), a spray of 1-1/2 to 3 quarts of product in 8 to 25 gallons of water per acre may be applied by air to control certain competing hardwood species such as Alder, Aspen and Birch. 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. Do not make more than 1 application per year.

Tree injections (Pine Release): To control hardwoods, such as Oak, Hickory, Maple, Pecan, Elm, Sumac, Sweetgum and Hawthorn in forest and other non-crop areas, apply this product undiluted in a concentrate tree injector calibrated to apply 1 to 2 ml. per injection. Space injections 2 inches apart, edge to edge, completely around the tree and close to the base. The injector bit must penetrate the inner bark. On hard-to-control species such as Hickory, Dogwood, Red maple, Blue beech and Ash make injections 1 to 1-1/2 inches apart, edge to edge. Treatment may be made at any time of the year. For best results, injections should be made during growing season, May 15 to October 15. For dilute injections, mix. 1 gallon of LV 4 in 19 gallons of water. Do not make more than 1 application per year.

Dormant Application (other than pine): For the control of susceptible deciduous brush species such as alder, cascara, cherry poplar and serviceberry, apply up to 3 quarts of product per acre in sufficient diesel, fuel oil or kerosene for good coverage. Application may be made by ground or air and should be made before conifer bud break. Do not make more than 1 application per year.

Pine Only: Make application while pine buds are still dormant. Apply 2 quarts of product per acre in sufficient water for good coverage by air or ground equipment. Do not use this application unless some pine injury is acceptable. Use of diesel, kerosene or other oil, or addition of surfactants to spray mix may cause unacceptable pine injury. Do not make more than 1 application per year.

Herbaceous Weed Control: To control overwintering susceptible weeds such as False dandelion, Klamath weed, Plantain, Tansy ragwort, apply 1 to 3 quarts of product in sufficient water for good coverage. Make application at rates and timing indicated above if pines are present. For control of hazel brush and similar species in the Lake States area, apply 2 quarts of product per acre in 8 to 25 gallons of water, when new shoot growth of Hazel is complete (usually mid-July). Do not make more than 1 application per year.

Site Preparation: (As Budbreak Spray) -- For control of Ålder prior to planting seedlings, apply 2 to 4 quarts of product per acre in 8 to 25 gallons of water, after Alder budbreak but before foliage is 1/4 full size. Application may be made by air or ground. If desired, diesel, fuel oil or kerosene may be substituted for water as diluent (as Foliage Spray). For control of Alder prior to planting seedlings, apply 2 to 4 quarts of product per acre in 8 to 25 gallons of water after most Alder leaves are full size. To increase penetration, 2 to 4 quarts per acre of diesel, fuel oil, kerosene, or a suitable approved agricultural surfactant at recommended label rates, may be added to the spray mixture.

The maximum application rate for forestry site preparation is 1 gallon 6 ounces per acre per application per site. Do not make more than 1 application per year.

## TANK MIXES

Read and follow the label of each tank mix product used for precautionary statements, directions for use, geographic and other restrictions.

Using LV 4 and Buctril<sup>®</sup> for weed control on cereal grains (wheat, barley and rye): Buctril Broadleaf Herbicide will control some annual weeds that are resistant to 2,4-D and may be tank mixed with LV 4 for broader spectrum weed control on small grains. In cereal areas except Washington, Oregon and Idaho, use 1/2 to 1 pint of LV 4 plus 3/4 to 1 pint Buctril per acre. First mix the LV 4 in water then add the Buctril. Use the higher rates for larger weeds or where weed growth is slow due to dry or cold weather. Apply before weeds are 6 inches high. Use 10 to 20 gallons total spray volume per acre with ground equipment or 5 to 10 gallons total spray volume with air application. Use higher volume on larger weeds. Do not make more than 1 application per crop.

Using LV 4 with Banvel® (or Banvel® SGF) and Ally® (or Express®) and Amber® to provide more complete Kochia control. Offers quick burndown. Provides residual activity with Ally to control later weed flushes making harvesting easier and reducing post-harvest weed control needs. Controls broader weed spectrum while offering better control of Russian thistle, Mustards, Fixweed and Wild buckwheat. Controls large weeds. Allows for early treatment. Apply 8 ounces of this product with 0.1 ounce of Ally plus either 2 to 3 ounces of Banvel or 4 to 6 ounces of Banvel SGF per acre. The tank mix can be applied to Winter wheat from the four-leaf stage (tillering) to prior to joint. It can be applied to Spring wheat from the four-leaf stage through the five-leaf stage. Growers who want to rotate to a sensitive crop following wheat and are concerned about carryover from Ally can substitute Express in the tank mix which allows crop rotation 80 days after application. The recommended rate of Express is 1/6 ounce per acre. Do not make more than 1 application per crop.

When using Amber® consult your local Syngenta representative.

Using LV 4 and Sencor® as knockdown herbicides for no-till: LV 4 with Senor DF alone or in combination with Dual®, Lasso®, Surllan® or Prowl® may be applied as an early preplant surface application for the control of certain broadleaf weeds and grasses in soybeans in minimum or no-till applications. Application is recommended 30 days prior to planting. Apply at rate of 2 pints LV 4 (1 lb. A.I.) per acre with labeled rates of Sencor. Where grass herbicide is used in tank mix, apply at the rates specified on that product's label. Do not make more than 1 application per crop.

Using LV 4 with Aatrex® for weed control in forest and Christmas tree plantings: A tank mix of these two products can be used to control weeds and thus aid in establishment of young transplants of Douglas fir, Grand fir, Nobel fir, White fir, Austrian pine, Bishop pine, Jeffrey pine, Knobcone pine, Loblolly pine, Lodgepole pine, Monterey pine, Ponderosa pine, Scotch pine, Stash pine, Blue sprüce and Sitka sprüce.

The mix should be applied between Fall and early Spring, preferably in February or March, while trees are still dormant, or soon after transplanting. Weeds should not be more than 1-1/2 inches high. It can be applied with either ground or air equipment. Helicopters have been highly effective for reforestation applications on steep terrain. Uniform application is the key to good weed control. Use 20 to 40 gallons of water per acre for ground application. A minimum of five gallons of water when applying by air.

Be sure equipment is properly calibrated. All screens in the spray system - nozzles, and in-line with suction strainers -- should be 15 mesh or coarser. Use a pump with capacity to maintain a nozzle pressure of 35 to 40 psi, and sufficient agitation to keep the mixture in suspension in the spray tank.

If a nurse tank is used, keep the mixture agitated while awaiting transfer to the spray tank. Mix 2 to 4 quarts Aatrex 4 L or 2-172 to 5 pounds Aatrex 80W with 1 to 3 quarts of LV 4. The actual rate of Aatrex used should depend on the soil type. Soils high in organic matter require higher rates than light to medium soils. Band application to Christmas Trees -- Calculate the amount to be applied per acre. The band width in inches, divided by the rows spacing in inches, times the rate per acre for broadcast treatment will equal the amount needed per acre for band treatment. For example, when treating a 4-foot band over trees planted in rows 8-feet apart, apply 1-1/4 to 2-1/4 pounds of Aatrex per acre. Please read Aatrex label(s) for additional instructions. Do not make more than 1 application per year.

Using LV 4 and Turbo® 8EC in reduced-tillage of no-till systems: LV 4 may be applied in combination with Turbo 8EC for the control of annual grasses and broadleaf weeds and the suppression of emerged perennial weeds when soybeans are directly seeded into a state seedbed, cover crop or in previous crop residues. Special precautions: poor weed control and/or crop injury may result if directions are not followed. Do not use a rib-type press wheel on the no-till planter or crop injury may result. Apply at a rate of 2 pints LV 4 (1 lb. A.I.) per acre with labeled rates of Turbo 8EC. Application is recommended 30 days prior to planting. Do not make more than 1 application per crop.

Using LV 4 and Poast<sup>9</sup> as a burndown prior to planting soybeans: for broad spectrum post-emergence weed control, a tank mix application of LV 4 with Poast may be made for control of emerged broadleaf and grass weeds before planting soybeans. Apply at a rate of 1 pint LV 4 (1/2 lb. A.I.) per acre with labeled rates of Poast. Do not make more than 2 applications per crop.

Using LV 4 with Scepter®, Scepter® 70 DG or Squadron® in preplant applications in no-till soybeans: For broad spectrum post emergence weed control, a tank mix application of LV 4 with Scepter, Scepter 70 DG or Squadron herbicides may be made for the control of emerged broadleaf and grass weeds before planting soybeans. Apply at a rate of 1 pint LV 4 (1/2 lb. A.I.) per acre up to 7 days prior to planting, with labeled rates of Scepter, Scepter 70 DG or Squadron herbicides. When using the 1 pint rate, do not make more than two applications per crop. When using the 2 pint rate, do not make more than 1 application per crop.

Using LV 4 with Garlon® 4 or Garlon 3A Tank Mixtures for Non-Crop Areas: Broadleaf Weed Control: Use 2 to 4 pints LV 4 plus 2 to 6 pints Garlon 4 (or 3 to 8 pints Garlon 3A) per acre. For wider spectrum control of broadleaf weeds and woody plants, apply as a broadcast spray in enough water to deliver 20 to 100 gallons total spray per acre. Apply when broadleaf weeds are actively growing. Woody Plant Control Broadcast Foliar Spray: Use 1 gallon LV 4 plus 1-1/2 to 3 quarts Garlon 4 (or 2 to 4 quarts Garlon 3A) per acre. Apply as a broadcast spray in enough water to deliver 20 to 100 gallons total spray per acre. Apply when woody plants are actively growing. Woody Plant Control High Volume Leaf-Stem Treatment with Ground Equipment: Use 1 to 4 quarts LV 4 plus 1-1/2 to 12 pints Garlon 4 (or 2 to 16 pints Garlon 3A) per acre. Mix 2/3 to 2 quarts LV 4 plus 1-1/2 to 3 pints Garlon 4 (or 2 to 4 pints 5 are actively growing). Woody Plant Control High Volume Leaf-Stem Treatment with Ground Equipment: Use 1 to 4 quarts LV 4 plus 1-1/2 to 10 pints Garlon 4 (or 2 to 4 pints Garlon 3A) in enough water to make 100 gallons spray. Apply at a volume of 100 to 400 gallons of total spray per acre depending on size and density of woody plants. Thoroughly wet all leaves, stems and root collais of plants to be controlled. Woody Plant Control Aerial Application (Helicopter only): Use 1 gallon LV 4 plus 3 to 4 quarts Garlon 4 (or 4 to 6 quarts Garlon 3A) per acre. Apply in a total spray volume of 10 to 30 gallons per acre using drift control equipment such as Microfoil Boom or an effective drift control agent such as IN-PLACE®spray Additive. Use the higher rates and volumes when plants are dense or under drought conditions. Total spray volume of at least two gallons per acre. Do not make more than 1 application per year.

Using LV 4 and Banvel® Herbicide tank mixtures for Non-Crop Areas: Annual Broadleaf weeds: Use 2 to 4 pints LV 4 plus 1/2 to 1-1/2 pints Banvel. For wider spectrum control of broadleaf weeds and woody plants, apply as a broadcast spray in enough water to deliver 20 to 100 gallons total spray per acre. Apply when broadleaf weeds are actively growing. Use the higher rates when freating dense or tall vegetative growth. Perennial and Biennial Broadleaf Weeds: Use 3 to 6 pints LV 4 plus 1/2 to 6 pints Banvel. Apply as a broadcast spray in enough water to deliver 20 to 100 gallons total spray per acre. Apply when broadleaf weeds are actively growing but prior to flowering. Use the lower rates for biennials less than 3 inches rosette diameter. Use the higher rate for perennial weeds or for biennial weeds past the 3 inch rosette stage. Woody Plant Control Broadcast, High Volume, Stem Foliage or Aerial Application. Use 1 gallon LV 4 plus 2 to 8 quarts Banvel. Apply as a broadcast spray in enough water to deliver 20 to 100 gallons total spray per acre or apply as a high volume stem foliage spray in enough volume to thoroughly wet leaves, stems and root collars (100 to 400 gallons per acre) or apply aerially in enough water to deliver total spray volume of 10 to 30 gallons per acre using drift control equipment such as Microtoli® Boom or an effective drift control agent such as PLPLACE® Spray Additive. Use the higher rates and volumes when plants are dense or under drought conditions. Total spray volume of at least two gallons per acre. Do not make more than 1 application per year.

Using LV 4 and Escort®, Oust® and Telar®. To improve control of some target species, this product may also be tank mixed with Escort, Oust and Telar herbicides for post emergent weed control. Tank mixes have shown improved control where resistant biotypes are present.

NOTE: All intended tank mix combinations should be used only in recommended areas on the same broadleaf weed species found on both labels. For application methods and other use specifications, use the most restricted limitations from labeling of both products.

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.

#### STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or 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. Keep container tightly sealed when not in use. Do not slack cardboard cases more than two patlets 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 ground water. 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.

Conditions of Sale and Limitation of Warranty and Liability:

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using the product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

ALL STATEMENTS MADE HEREIN ARE SUBJECT TO APPLICABLE LAW, AND TO THE EXTENT THERE IS ANY INCONSISTENCY OR CONTENTION, APPLICABLE LAW SHALL GOVERN.

The Directions for Use of the product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of many different factors including, without limitation, manner of use or application, weather, combination with other products, or crop conditions. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Manufacturer and Seller harmless from any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label. EXCEPT FOR THIS WARRANTY, THE PRODUCT IS FURNISHED "AS-IS," AND NEITHER SELLER NOR MANUFACTURER MAKES ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, WITH RESPECT TO THE SELECTION, PURCHASE OR USE OF THIS PRODUCT; SELLER AND MANUFACTURER SPECIFICALLY DISCLAIM ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE BEYOND WHAT IS STATED ON THE LABEL. Buyer and User accept all risks arising from any use of this product, including without limitation, uses contrary to label instructions, or under conditions not reasonably foreseeable to (or beyond the control of) Seller or Manufacturer.

Neither Manufacturer nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. THE EXCLUSIVE REMEDY OF THE BUYER OR USER, AND THE EXCLUSIVE LIABILITY OF MANUFACTURER AND SELLER, FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BETHE RETURN OF THE PURCHASE PRICE OF THIS PRODUCT, OR, AT THE ELECTION OF MANUFACTURER OR SELLER, THE REPLACEMENT OF THE PRODUCT.

These Conditions of Sale and Limitation of Warranty and Liability shall be interpreted, unless otherwise required by the law of the state of purchase, in accordance with the laws of the State of California, excluding its conflicts of laws rules, and may not be amended by any oral or written agreement.

Directa-Sprath, Wobbleth, Mini Wobbleth, Spirometerh, Buctrills, Sencorh, and Turbot are registered trademarks of Bayer CropScience

Garlon® and Surflan® are trademarks of Dow AgroSciences.

Escort<sup>o</sup>, Ally<sup>b</sup>, Express<sup>b</sup>, Oust<sup>b</sup> and Telar<sup>b</sup> are trademarks of E.I. duPont de Nemours & Co. (Inc.) Aatrex<sup>b</sup> and Dual<sup>b</sup> are trademarks of Syngenta Crop Protection.

Lasso\* is a trademark of Monsanto Co.

Banvel® Poast®, Prowf®, Scepter® and Squadron® are trademarks of BASF corp.

Placement<sup>6</sup> is a registered trademark of Agriliance

WILBUR-ELLIS Logo®, IDEAS TO GROW WITH®, R-11® and IN-PLACE® are registered trademarks of WILBUR-ELLIS Company

#### **NET CONTENTS:**

F-108

IN CASE OF EMERGENCY, CALL CHEMTREC: (800) 424-9300

Manufactured in the U.S.A for

