

LO-VOL 4

SOLVENTLESS HERBICIDE

TENKÖZ®
SERVING AGRICULTURE

ACTIVE INGREDIENT:

2-ethylhexyl ester of 2,4-dichlorophenoxyacetic acid* 61.74%

OTHER INGREDIENTS 38.26%

TOTAL 100.00%

*Equivalent to 40.9% of 2,4 isomer of 2,4-D or 3.76 pounds of the 2,4 isomer of 2,4-D per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

NET CONTENTS:

1½ GAL.

EPA Reg. No. 42750-22-55467

EPA Est. No. 42750-MO-1

Manufactured for:

TENKÖZ® Inc.

100 North Point Center E.

Suite 330

Alpharetta, GA 30202

40107TK0022

AD092408

FIRST AID	
IF SWALLOWED:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF IN EYES:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 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.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.	
See inside booklet for additional PRECAUTIONARY STATEMENTS.	

FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE, CALL CHEMTREC (800) 424-9300

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Causes eye irritation. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are butyl rubber, natural rubber, neoprene or nitrile rubber. If you want more options, follow the instructions for Category A on an EPA chemical-resistance category selection chart.

All mixers, loaders, applicators, flaggers, and other handlers must wear:

1. Long-sleeved shirt and long pants
2. Shoes and socks
3. Chemical-resistant gloves
4. Chemical resistant apron when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

If this container contains over 1 gallon and less than 5 gallons, mixers and loaders who do not use a 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.

See engineering controls for additional requirements.

Follow 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. After each day of use, clothing or PPE must not be reused until it has been cleaned.

ENGINEERING CONTROLS STATEMENTS

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

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

USER SAFETY RECOMMENDATIONS

Users should:

1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
2. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
3. 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 pesticide may be toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Do not contaminate water when disposing of equipment washwaters or rinsate. Apply this product only as directed on label.

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

DIRECTIONS FOR USE

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

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

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

Use of this product in certain portions of California, Oregon, and Washington is subject to the January 22, 2004 Order for injunctive relief in Washington Toxics Coalition, et. Al. v. EP, C01-132C, (W.D. WA) For further information, please refer to <http://www.epa.gov/espp/wtc>.

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:

1. Coveralls
2. Chemical-resistant gloves made of any waterproof material.
3. Shoes plus socks, and
4. Protective eyewear.

NON-AGRICULTURAL USE REQUIREMENTS

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

Do not allow people (or pets) to enter the treated area until sprays have dried.

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides or fungicides. Do not store near heat or open flame. Re-close all partially used containers by thoroughly tightening screw cap. Absorb any spill with a suitable clay absorbent and dispose of as indicated under "Pesticide Disposal."

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

CONTAINER DISPOSAL:

Non-refillable containers (1, 2.5, 30 & 55 gallon): Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

(non-refillable <5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

(non-refillable >5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use for disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable container (250 gallon & bulk): Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

GENERAL INFORMATION

Performance of LO-VOL 4 may be affected by local conditions, crop varieties, and application method. User should consult local extension service, agricultural experiment or university weed specialists, and state regulatory agencies for recommendations in your area.

Best results are obtained when product is applied to young succulent weeds that are actively growing. Application rates lower than recommended 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 should be used. When LO-VOL 4 is used for weed control in crops, the growth stage of the crop must be considered.

Some plants and weeds, especially woody varieties, are difficult to control and may require repeat applications. Application rates should be 2 to 5 gallons of total spray by air or 5 to 25 gallons by ground equipment unless otherwise directed. In either case, use the same amount of LO-VOL 4 recommended per acre. For crop uses, do not mix with oil, surfactants, or other adjuvants unless specifically recommended. To do so may reduce herbicide's selectivity and could result in crop damage.

Aerial application 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 LO-VOL 4 is a low volatile formulation, at temperatures above 90°F vapors may damage susceptible plants nearby.

Product should not be used in greenhouses. Excessive amounts of 2,4-D in the soil may temporarily inhibit seed germination and all plant growth.

Users should note that herbicide treatment of public water requires a permit from appropriate state agencies in most states. Your state Conservation Department, or Game and Fish Commission will aid you in securing a permit in your state. If stored below freezing, warm this product to 40°F and agitate before using. This does not affect the efficiency of the product.

Spray equipment used to apply 2,4-D should not be used for any other purpose until thoroughly cleaned with a suitable chemical cleaner.

Spray Preparation: Add the recommended amount of product to approximately one-half the volume of water to be used for spraying. Agitate well, then add the remainder of the water. Continue agitation during application until spray tank is empty.

USE IN LIQUID NITROGEN FERTILIZER: LO-VOL 4 is specially formulated to be combined with liquid nitrogen fertilizer suitable for foliar application on corn, grass, pastures, or small grains in one operation. Use LO-VOL 4 according to directions on this label for those crops. Use liquid fertilizer at rates recommended by supplier or extension service specialist. Mix LO-VOL 4 and fertilizer according to the following instructions:

Fill the spray tank approximately 1/2 full with the liquid fertilizer. Add LO-VOL 4 while agitating the tank. Add the remainder of the liquid fertilizer while continuing to agitate. Application should be made immediately, maintaining agitation until tank is empty. **DO NOT APPLY DURING COLD (NEAR FREEZING) WEATHER.** Spray mixture may not be stored.

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

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and 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.

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.

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

For aerial equipment, 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 in a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

For ground boom application, do not apply with a nozzle height greater than 4 feet above the crop canopy.

APPLICATION INSTRUCTIONS

Spray volume: Apply with calibrated air or ground equipment using sufficient spray volume to provide adequate coverage of target weeds or as otherwise directed in specific use directions. For broadcast application, apply the recommended rate of this product in a spray volume of 2 or more gallons per acre by air and 10 or more gallons per acre for ground equipment. Use low-pressure sprays to minimize drift. Where states have regulations, that specify minimum spray volumes, they should be observed. In general, spray volume should be increased as crop canopy, height and weed density increase in order to obtain adequate spray coverage.

Application Rates: Generally, lower rates in recommended rate ranges will be satisfactory for more sensitive weeds species, when weeds are small, and when environmental conditions are favorable for rapid growth. Use higher rates in the recommended rate range for less sensitive species and under less favorable growing conditions. For crop uses, do not mix with emulsifiable 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 usually require repeated applications for effective control.

Spot Treatments

To prevent misapplication, spot treatments should be applied with a calibrated boom or with hand sprayers using a fixed spray volume per 1,000 sq ft as indicated below.

Hand-Held Sprayers: Hand-held sprayers may be used for spot applications of LO-VOL 4. Care should be taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based on the application rate for an area of 1,000 sq ft. Mix the amount of LO-VOL 4 (fl oz or ml) corresponding to the desired broadcast rate in 1 to 3 gallons of spray. To calculate the amount of LO-VOL 4 required for larger areas, multiply the table value (fl oz or ml) by the thousands of sq ft to be treated. An area of 1,000 sq ft is approximately 10.5 x 10.5 yards (strides) in size.

Rate Conversion Table for Spot Treatment:

Label Broadcast Rate (pt/acre)							
1/2	2/3	3/4	1	2	3	4	8
Equivalent Amount of LO-VOL 4 per 1,000 sq ft							
1/5 fl oz† (5.5 ml)	1/4 fl oz (7.3 ml)	1/3 fl oz (8.3 ml)	3/8 fl oz (11 ml)	3/4 fl oz (22 ml)	1 fl oz (33 ml)	1-1/2 fl oz (44 ml)	3 fl oz (88 ml)

† Conversion factors: 1 pt. = 16 fl. oz.; 1 fl. oz. = 29.6 (30) ml

Band Application: LO-VOL 4 may be applied as a band treatment. Use the formulas below to determine the appropriate rate and volume per treated acre.

$$\begin{array}{l} \frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast rate per acre} = \text{Band rate per treated acre} \\ \frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast volume per acre} = \text{Band volume per treated acre} \end{array}$$

WHERE TO USE

LO-VOL 4 is used to control broad-leaved weeds in cereal crops, corn, sorghum, weeds and brush in rangeland, pastures, rights-of-way, ornamental turf, grass seed crops, fallow land, forest management and similar non-crop uses.

WEEDS CONTROLLED

Annual or Biennial Weeds

beggarticks ⁽¹⁾ bittercress, smallflowered ⁽²⁾ bitterweed broomweed, common ⁽¹⁾ burdock, common buttercup, smallflowered ⁽¹⁾⁽²⁾ carpetweed cinquefoil, common ⁽²⁾ cinquefoil, rough ⁽²⁾ cocklebur, common coffeeweed copperleaf, Virginia ⁽²⁾ croton, Texas croton, woolly fixweed galinsoga geranium, Carolina ⁽²⁾	hemp, wild horseweed (marestail) ⁽²⁾ jewelweed jimsonweed knotweed ⁽¹⁾ Kochia lambsquarter, common lettuce, prickly ⁽¹⁾⁽²⁾ lettuce, wild lupine mallow, little ⁽¹⁾ mallow, Venice ⁽¹⁾ marshelder morningglory, annual morningglory, ivy morningglory, woolly mousetail ⁽²⁾	mustards (except blue mustard) parsnip, wild pennycress (fanweed) pepperweeds (<i>Lepidium spp.</i>) ⁽¹⁾⁽²⁾ pigweeds (<i>Amaranthus spp.</i>) ⁽¹⁾ poorjoe primrose, common purslane, common ⁽²⁾ pusley, Florida radish, wild ragweed, common ragweed, giant rape, wild rocket, yellow salsify, common ⁽¹⁾ salsify, western ⁽¹⁾ shepherdspurse	sicklepod smartweed (annual species) ⁽¹⁾⁽²⁾ sneezeweed, bitter sowthistle, annual sowthistle, spiny spanishneedles sunflower sweetclover tansymustard thistle, bull thistle, musk ⁽¹⁾ thistle, Russian (tumbleweed) ⁽¹⁾ velvetleaf vetches
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Perennial Weeds

Alfalfa ⁽¹⁾⁽²⁾	bullnettle ⁽¹⁾⁽²⁾	dogbanes ⁽¹⁾	onion, wild ⁽¹⁾
artichoke, Jerusalem ⁽¹⁾	carrot, wild ⁽¹⁾	eveningprimrose, cutleaf ⁽²⁾	pennywort
aster, many-flower ⁽¹⁾	catnip	garlic, wild	plantains
Austrian fieldcress ⁽¹⁾	chicory	goldenrod	ragwort, tansy ⁽¹⁾
bindweed (hedge, field and European) ⁽¹⁾⁽²⁾	clover, red ⁽¹⁾⁽²⁾	hawkweed, orange ⁽¹⁾	sowthistle, perennial
blue lettuce	coffeedweed	healall	thistle, Canada ⁽¹⁾⁽²⁾
blueweed, Texas	cross, hoary ⁽¹⁾	ironweed, western ⁽²⁾	vervains ⁽¹⁾
broomweed	dandelion	ivy, ground ⁽¹⁾	wormwood
	docks ⁽¹⁾	nettles (including stinging) ⁽¹⁾	

⁽¹⁾Difficult-to-Control Weeds: These weeds are only partially controlled and may require repeat applications and/or use of the higher recommended rate of this product even under ideal conditions of application.

⁽²⁾This product may not be used to control this weed species in the state of California.

CROPS

CEREAL GRAINS

(Wheat, Barley, Millet, Oats, Rye) (Not underseeded with Legumes)

Crop/Application Timing	LO-VOL 4 (pt/acre)	Specific Use Directions
Wheat, Barley, Millet Rye Annual and biennial & Broadleaf weeds	1/2 to 2 †	Apply after crop is fully tillered, but before boot stage of growth (usually 4 to 8 inches tall) and weeds are small. Do not apply before tillering or from early boot through the milk stage of growth.
Perennial broadleaf weeds	1 to 2 †	
Oats (Spring Seeded)	1/2	Apply after crop is fully tillered, but before boot stage of growth (usually 4 to 8 inches tall) and weeds are small. Do not apply before tillering or from early boot through the milk stage of growth. Do not apply during or immediately following cold weather.
(Fall Seeded Southern)	3/4 to 1-1/4 †	
Preharvest application (all cereals)	1	Apply using air or ground equipment to control weeds that could interfere with harvest, or to suppress perennial weeds. Apply when grain is in dough stage. Do not apply from early boot through the milk stage of growth.

† Use the lower rate in the rate range if small annual or biennial weeds are the major problem. Use the higher rate if perennial weeds or biennial weeds are present that are considered to be hard-to-kill as determined by local experience. Higher rates increase the risk of crop injury and should be used only where weed control justifies such risk. Do not apply LO-VOL 4 at the crop seedling stage of growth. Consult state agricultural experiment station or extension service weed specialists for recommendations or suggestions to fit local conditions.

CEREAL GRAIN RESTRICTIONS:

• Postemergence:

- Make no more than one application per crop cycle.
- Do not apply more than 2-2/3 pints per acre per application.

• Preharvest:

- Make no more than one application per crop cycle.
- Do not apply more than 1 pint per acre per application.
- Pre-Harvest Interval is 14 days.
- Do not graze lactating dairy cattle in treated areas for 14 days after application. Remove meat animals from freshly treated areas 7 days before slaughter.
- Do not harvest hay from treated grain fields.

LO-VOL 4 contains 0.47 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 1.75 pounds of a.e. per acre per year.

CORN

(Field Corn, Popcorn and Sweet Corn)

Application Timing/ Stage of Growth	LO-VOL 4 (pt/acre)	Specific Use Directions
Preplant (Burndown) Preemergence (Field corn, popcorn, and sweet corn)	1 to 2	General: For best results, growth conditions should be favorable for active weed growth. Use high rate in rate range for less susceptible weeds, cover crops such as alfalfa, weeds in advanced stages of development, or under less favorable growth conditions. Preplant: Apply 7 to 14 days before planting corn to control emerged broadleaf weed seedlings or existing cover crops. Preemergence: Apply any time after planting, but before corn emergence to control broadleaf weed seedlings or existing cover crops. Do not use on light sandy soils.
Postemergence (Field corn, popcorn, and sweet corn) Annual broadleaf weeds Crop up to 8 inches tall Crop 8 inches tall to tasseling (directed spray only) Perennial broadleaf weeds	1/2 to 1 1 1	Apply when weeds are small and corn is less than 8 inches tall (to top of canopy). If corn is more than 8 inches tall, use drop nozzles to keep spray off foliage. Treat perennial weeds when they are in bud to bloom stage. Do not apply from tasseling to hard dough stage. Note: Corn treated with 2,4-D may become temporarily brittle. Wind or cultivation may cause stem breakage during the period of time that corn is brittle. Sweet corn: To minimize potential for crop injury, use only lowest rate in rate range.
Preharvest (Field corn and popcorn only)	Up to 3	Apply after corn is in hard dough (or denting) stage. Do not make preharvest applications to sweet corn.

CORN RESTRICTIONS (FIELD and POP):

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

• Preplant or Preemergence:

- Do not make more than one application per crop cycle.
- Do not apply more than 2 pints per acre per application.

• Postemergence:

- Do not make more than one application per crop cycle.
- Do not apply more than 2 pints per acre per application.

• Preharvest:

- Do not make more than one application per crop cycle.
- Do not apply more than 3 pints per acre per application.
- Minimum spray interval between applications is 30 days.
- Pre-Harvest interval is 7 days

LO-VOL 4 contains 0.47 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 3.0 pounds of a.e. per acre per year.

CORN RESTRICTIONS (SWEET):

- Do not use treated crop as fodder for 7 days following application.
- The preharvest interval (PHI) is 45 days.
- Minimum of 21 days between applications.
- Maximum of 3 pints per acre per crop cycle.

• Preplant or Preemergence:

- Limited to one preplant or preemergence application per crop cycle.
- Maximum of 2 pints per acre per application.

• Postemergence:

- Limited to one postemergence application per crop cycle.
- Maximum of 1 pint per acre per application.

SORGHUM (Grain Sorghum [Milo] and Forage Sorghum)

Application Timing/ Stage of Growth	LO-VOL 4 (pt/acre)	Specific Use Directions
Postemergence† Crop 6 – 8 inches tall	1/2 to 1†	Apply when sorghum is 6 to 15 inches tall. If sorghum is more than 8 inches tall (top of canopy), use drop nozzles to keep spray off of foliage. Do not use with oil or other adjuvants. Do not treat during boot, flowering or dough stage.
Crop 8 – 15 inches tall (directed spray only)	3/4 to 1	

†Temporary crop injury can be expected under conditions of high soil moisture and high air temperatures. If it is necessary to apply LO-VOL 4 under these conditions, use no more than 2/3 pint per acre.

SORGHUM RESTRICTIONS:

- **Postemergence:**
 - Do not make more than one application per crop cycle.
 - Do not apply more than 1 pint per acre per application.
- Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application.
- Preharvest Interval is 30 days.

LO-VOL 4 contains 0.47 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 0.5 pounds of a.e. derived from ester forms of 2,4-D per acre per year.

SOYBEANS – For Use in Crop Residue Management Systems (Pre-plant Burndown Application Only)

Application Timing	LO-VOL 4 (pt/acre)	Specific Use Directions
Preplant (Burndown)	3/4 to 1	Apply not less than 7 days before planting soybeans. See Use Precautions and Restrictions below.
	1 to 2	Apply not less than 15 days before planting soybeans. See Use Precautions and Restrictions below.

General Use Directions: LO-VOL 4 to control emerged broadleaf weeds or existing cover crops. For best results, apply when weeds are small and actively growing. Use the higher rate in the respective rate range for larger weeds and when perennials are present. Compatible crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may be added to spray mixtures to increase the herbicidal effectiveness on certain weeds. Read and follow all directions and precautions on this label and on the label of each product added to the spray mixture.

RESTRICTIONS AND LIMITATIONS FOR USE IN SOYBEANS

- Do not apply this product prior to planting soybeans if you are not prepared to accept the results of soybean injury including possible loss of stand and yield.
- Do not use on low organic sandy soils (less than 1.0%).
- Do not apply this product when weather conditions such as temperature, air inversions, or wind favor drift from treated areas to susceptible plants.
- Do not mow or cultivate weeds prior to treating with this product as poor control may result.
- Do not feed treated hay, forage, or fodder or graze treated soybeans to livestock. Do not feed or graze treated cover crops to livestock.
- Do not replant fields treated with this product in the same growing season with crops other than those labeled for 2,4-D use.
- Do not exceed 2 pints per acre per crop cycle.
- The 1 pint rate is limited to 2 applications per crop cycle, and the 2 pint rate is limited to 1 application per crop cycle.
- Pre-plant (2 application option):
 - Do not apply more than 1 pint per acre per preplant application.
 - Do not apply within 7 days of planting soybeans.
- Pre-plant (single application option):
 - Do not apply more than 2 pints per acre.
 - Do not apply within 15 days of planting soybeans.

LO-VOL 4 contains 0.47 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 1.0 pound of a.e. per acre per year.

ORNAMENTAL TURF

(Excluding Grasses Grown For Seed or Sod Farms) (Includes lawns, golf courses, cemeteries and parks, airfields, roadsides, vacant lots, drainage ditch banks)

Use Requirements for Ornamental Turf Areas: When this product is applied to ornamental turn areas, follow PPE and reentry instructions in the “Non-Agricultural Use Requirements” section of this label.

Treatment Site (Application Timing)	LO-VOL 4 (pt/acre)	Specific Use Directions
Ornamental Turf (Postemergence) Seedling grass (five-leaf stage or later)	3/4 to 1	Apply when weeds are small and actively growing. For best results, apply when soil moisture is adequate for active weed growth. Deep-rooted perennial weeds such as bindweed and Canada thistle may require repeat applications.
Well-established grasses	2 to 3	Do not apply to newly seeded grasses until well established (five-leaf stage or later) and then use a maximum of 1 pt/acre. Cool season grasses are tolerant of higher rates.
Biennial and perennial broadleaf weeds	3	

ORNAMENTAL TURF RESTRICTIONS:

- Do not apply more than 3 pints per acre per application.
- Do not exceed a total of 3.0 pounds a.e. per acre per year, excluding spot treatments.

LO-VOL 4 contains 0.47 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.e. per acre per year excluding spot treatments.

GRASSES GROWN FOR SEED OR SOD FARMS

Agricultural Use Requirements: When used in grass grown for seed or sod farms, follow PPE and reentry instructions in the “Agricultural Use Requirement” section of this label.

Treatment Site (Application Timing)	LO-VOL 4 (pt/acre)	Specific Use Directions
Grasses Grown for Seed (Postemergence Use) Seedling grass (five-leaf stage or later)	3/4 to 1	Apply when weeds are small and actively growing. For best results, apply when soil moisture is adequate for active weed growth. Do not apply to newly seeded grasses until well established (five-leaf stage or later) and then use a maximum of 1 pt./acre. Cool season grasses are tolerant of higher rates.
Well-established grasses	1 to 4	Do not apply to grass in the early boot through milk stage if seed production is desired.
Sod Farms (Postemergence)	2 to 4	When grass is well established, higher rates of up to 4 pints/acre may be applied for control of hard-to-kill annual or perennial weeds. Deep-rooted perennials such as bindweed and Canada thistle may require repeat applications. Avoid mowing sod farms for 1 to 2 days before or after application. Delay irrigation until the day following application.

GRASS SEED CROP RESTRICTIONS:

- Do not graze dairy cattle within 7 days of application. Do not apply this product within 30 days of cutting grass for hay. Remove meat animals from treated areas 7 days prior to slaughter.
- Do not apply more than 4 pints per acre per application.
- Do not make more than 2 applications per year.
- Minimum spray interval between applications is 30 days.
- Do not apply more than 8 pints per acre per year.
- If grass is to be cut for hay, Agricultural Use requirements for the Worker Protection Standard are applicable.

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FALLOWLAND AND CROP STUBBLE
Fallowland is idle cropland, postharvest to crops or between crops.

Type of Weeds	LO-VOL 4 (pt/acre)	Specific Use Directions
Annual broadleaf weeds	1 to 2	Use a lower rate in the rate range when weeds are small (2 to 3 inches tall) and actively growing. Use a higher rate in the rate range when weeds are larger and under less favorable growth conditions.
Biennial broadleaf weeds	2 to 4	Apply when musk thistles or other biennial species are in the seedling to rosette stage and before development of flower stalks. The lower rate can be used in the spring during the rosette stage. Use the highest rate in the fall or after flower stalks have developed.
Perennial broadleaf weeds	2 to 4	Apply when perennial weeds are in bud to early bloom stage or while in good vegetative growth.
Wild garlic and onion in crop stubble	4	Apply to new regrowth of wild garlic or onion that occurs in the fall after harvest of other crops.

FALLOW LAND RESTRICTIONS:

- Only labeled crops can be planted within 30 days of application.
- Do not apply more than 4 pints per acre per application.
- Do not make more than 2 applications per year.
- Minimum spray interval between applications is 30 days.

LO-VOL 4 contains 0.47 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 4.0 pounds of a.e. per acre per year.

RANGELAND, ESTABLISHED GRASS PASTURES
(Including Perennial Grasslands Not In Agricultural Production
Such As Conservation Reserve Program Acres)

Target Weeds or Woody Plants	LO-VOL 4 (pt/acre)	Specific Use Directions
Annual broadleaf weeds	2	For best results, apply when weeds are small and growing actively before the bud stage. Apply when musk thistles or other biennial species are in the seedling to rosette stage and before flower stalks appear. Refer to the "Weeds Controlled" section for a listing of susceptible weed species and weeds that may be only partially controlled and require repeat applications and/or use of higher recommended rates, even under ideal conditions of application.
Biennial and perennial broadleaf weeds	2 to 4	
Spot Treatment to control broadleaf weeds	See Instructions for "Spot Treatment" under "Application Instructions"	Note: To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the recommended broadcast rate and spray to thoroughly wet all foliage. See rate conversion table and instructions for "Spot Treatment" and use of hand-held sprayers under "Application Instructions".
Tree Injection Application		See instructions for tree injection application in "Forestry Uses" section.
Wild garlic and wild onion	4	Make three applications (fall-spring-fall or spring-fall-spring) starting in late fall or early spring.
Broadleaf weed control in newly sprigged coastal bermudagrass	2 to 4	Applications may be made either preemergence or postemergence. Follow "Specific Use Directions" for annual, biennial and perennial broadleaf weed control, above.
Southern wild rose Broadcast application	Up to 4	Broadcast: Apply in spray volume of 5 or more gallons per acre by aircraft or 10 or more gallons per acre by ground equipment. Spot treatment: Apply when foliage is well developed. Thorough coverage is required. Use 8 pints of LO-VOL 4 plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gallons of water. Two or more treatments may be required. Do not exceed 4 pts per acre per application.
Spot treatment	8 pints/100 gal of spray	
CRP Acres – For program lands such as CRP, 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.		

PASTURE AND RANGELAND RESTRICTIONS:

- For susceptible annual and biennial broadleaf weeds do not exceed 2 pints per acre per application. For moderately susceptible biennial and perennial broadleaf weeds and woody plants, do not exceed 4 pints per acre per application.
- Do not apply more than 2 pints per acre per application for spot treatments.
- Do not make more than 2 applications per year.
- Minimum spray interval between applications is 30 days.
- Pre-Harvest Interval for cut forage for hay is 7 days.
- If grass is to be cut for hay, Agricultural Use requirements for the Worker Protection Standard are applicable.

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NON-CROPLAND AREAS

(Such as fencerows, hedgerows, roadsides, drainage ditches, rights-of-way, utility power lines, railroads, airports, and other non-crop areas)

Treatment Site Method of Application	LO-VOL 4 (pt/acre)	Specific Use Directions
Annual broadleaf weeds	2 to 4	Apply when annual weeds are small and growing actively before the bud stage. Biennial and perennial weeds should be rosette to bud stage, but not flowering at the time of application. For difficult-to-control perennial broadleaf weeds and woody species, tank mix up to 4 qts of LO-VOL 4 plus 1 to 8 pints of Triclopyr 3A herbicide per acre. For ground application: (high volume) apply a total spray volume of 100 to 400 gallons per acre; (low volume) apply a total spray volume of 10 to 100 gallons per acre. For helicopter: Apply a total spray volume of 5 to 30 gallons per acre.
Biennial and perennial broadleaf weeds and susceptible woody plants	4 to 8	
Spot Treatment to control Broadleaf weeds	See Instructions for "Spot Treatment" under "Application Instructions"	Note: To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the recommended broadcast rate and spray to thoroughly wet all foliage. See rate conversion table and instructions for "Spot Treatment" and use of hand-held sprayers under "Application Instructions".
Tree Injection Application		See instructions for tree injection application in "Forestry Uses" section.
Southern wild rose Broadleaf application	Up to 4	Broadcast: Apply in a spray volume of 5 or more gallons per acre by aircraft or 10 or more gallons per acre by ground equipment. Apply when foliage is well developed. Thorough coverage is required. Use 8 pints of LO-VOL 4 plus 4 to 8 fluid ounces of an agricultural surfactant per 100 gallons of water. Two or more treatments may be required.
Spot treatment	8 pints/100 gal of spray	

GENERAL WEED CONTROL RESTRICTIONS:

- **Postemergence (annual & perennial weeds):**

- Do not make more than 2 applications per year.
- Do not apply more than 4 pints per acre per application.
- Minimum spray interval between applications is 30 days.

- **Postemergence (woody plants):**

- Do not make more than 1 application per year.
- Do not apply more than 8 pints per acre per application.
- 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.

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FORESTRY USES

Forest site preparation, forest roadsides, brush control, established conifer release (including Christmas trees and reforestation areas)

Treatment Site Method of Application	LO-VOL 4	Specific Use Directions
Annual Weeds Biennial and perennial broadleaf weeds and susceptible woody plants	2 to 4 pts/acre 4 to 8 pts/acre	Apply when weeds are small and growing actively before the bud stage. Apply when biennial and perennial species are in the seedling to rosette stage and before flower stalks appear. For difficult-to-control perennial broadleaf weeds and woody species, use up to 4 qts of LO-VOL 4 and 1 to 4 qts of Triclopyr herbicide per acre. For conifer release, make application in early spring before budbreak of conifers when weeds are small and actively growing.
Spot Treatment to control broadleaf weeds	See Instructions for "Spot Treatment" under "Application Instructions"	Note: To control broadleaf weeds in small areas with a hand sprayer, use an application rate equivalent to the recommended broadcast rate and spray to thoroughly wet all foliage. See rate conversion table and instructions for "Spot Treatment" and use of hand-held sprayers under "Application Instructions".
Conifer Release: Species Such as white pine, ponderosa pine, jack pine, red pine, black spruce, white spruce, red spruce, and balsam fir	3 to 6 pts/acre	To control competing hardwood species such as alder, aspen, birch, hazel, and willow, apply from mid to late summer when growth of conifer trees has hardened off and woody plants are still actively growing. Apply with ground or air equipment, using sufficient spray volume to ensure complete coverage. Because this treatment may cause occasional conifer injury, do not apply if such injury cannot be tolerated.
Directed Spray: Conifer Plantations including pine	8 pts/100 gal	Apply when brush or weeds are actively growing by directing the spray so as to avoid contact with conifer foliage and injurious amounts of spray. Apply in water carrier in a spray volume of 10 to 100 gallons per acre.
Surface of Cut Stumps (May also be used in rangeland, pastures, and noncropland)	1.75 fl oz/gal of water	Apply as soon as possible after cutting trees. Thoroughly soak the entire stump with 2,4-D mixture including cut surface, bark and exposed roots.
Frill and Girdle (May also be used in rangeland, pastures, and noncropland)		Cut frills (overlapping V-shaped notches cut downward through the bark in a continuous ring around the base of the tree) using an axe or other suitable tool. Saturate the freshly cut frills with the 2,4-D mixture.
Tree Injection Application (May also be used in rangeland, pastures, and noncropland)	(1 to 2 ml per injection site)	To control and prevent resprouting of unwanted hardwood trees such as elm, hickory, oak, and sweetgum in forests and other non-crop areas, apply by injecting at a rate of 1 ml of undiluted LO-VOL 4 per inch of trunk diameter as measured at breast height (DBH), approximately 4-1/2 ft above the ground. Injection sites, however, should be as close to the root collar as possible and the injection bit must penetrate the inner bark. Applications may be made throughout the year, but for best results apply between May 15 and October 15. Maples should not be treated during the spring sap flow. For hard-to-control species such as ash, maple, and dogwood, use 2 ml of undiluted LO-VOL 4 per injection site or double the number of 1 ml injections. Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is directly injected into agricultural plants.

FOREST MANAGEMENT RESTRICTIONS:

- **Broadcast Application:**
 - Do not make more than 1 application per year.
 - Do not apply more than 8 pints per acre per application.
- **Injection Application:**
 - Do not make more than 1 application per year.
 - Do not apply more than 2 ml per injection site.

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CONDITIONS OF SALE AND WARRANTY

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of ALBAUGH, INC., its Supplemental Distributors or the Seller. All such risks shall be assumed by the Buyer.

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