

34704-124

01/09/2009

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U.S. ENVIRONMENTAL PROTECTION AGENCY

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

EPA Reg. Number:

34704-124

Date of Issuance:

JAN 9 2009

NOTICE OF PESTICIDE:

- Registration
[x] Reregistration
(under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

Clean Crop Low Vol 4 Ester
Weed Killer

Name and Address of Registrant (include ZIP Code):

Loveland Products, Inc.
P.O. Box 1286
Greeley, CO 80632-1286

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 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.
a. Per the acute toxicity review, a footnote that reads "Contains Petroleum Distillates" must be added to the ingredient statement.
b. Per the acute toxicity review, the text "Have person sip a glass of water if able to swallow" appearing in the 'IF SWALLOWED' First Aid statement must be revised to read "Do not give any liquid to the person."

Continued on Page 2

Signature of Approving Official:

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

Handwritten signature of Joanne I. Miller

Date:

JAN 9 2009

c. Per the acute toxicity review, a Note to Physician that reads "Aspiration pneumonia hazard, Contains petroleum distillate" must be added to the label.

d. Per the acute toxicity review, the Hazards to Humans and Domestic Animals must be revised to read:
"CAUTION
Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals."

e. Per the acute toxicity review and the RED, the handler PPE section must be revised to read:
"Some materials that are chemical-resistant to this product are made of waterproof material. 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:
Long-sleeved shirt and long pants, shoes and socks, chemical-resistant gloves (except for pilots), chemical-resistant apron for mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements."

f. The mechanical transfer engineering control text is no longer needed and may be deleted from the label.

g. The User Safety Requirements text ("Follow manufacturer's instructions for cleaning/maintaining PPE...Keep and wash PPE separately from other laundry") must be removed from the User Safety Recommendations box and should be placed directly below the handler PPE text.

h. The text "Use Requirements for Pastures, Perennial Grasslands, Rangeland, and Non-Crop Areas... follow Agricultural Use Requirements on this label" appearing in the Non-Agricultural Use Requirements box must be deleted and replaced with the text "Do not enter or allow people or pets to enter the treated areas until sprays have dried" as required in the RED.
Additionally, the Non-Agricultural Use Requirements box should be placed directly below the Agricultural Use Requirements.

i. The following revisions must be made to the directions for use:
Because the maximum application rate for ornamental turf (1.5 lbs ae per acre per application) differs from the maximum application rate for non-crop sites (2.0 lbs ae per acre per application to control annual and perennial weeds and 4.0 lbs ae per acre to control woody plants), per the RED the turf and non-crop use directions on Page 4 must be separated and must clearly specified the restrictions below and any conflicting text must be deleted.

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“Ornamental Turf:

Limited to 2 applications per year.

Maximum of 1.5 lbs ae per acre per application.

The maximum seasonal rate is 3.0 lbs ae per acre, excluding spot treatments.”

“Non-Crop Site:

Postemergence (annual and perennial weeds):

Limited to 2 applications per year.

Maximum of 2.0 lbs ae per acre per application.

Minimum of 30 days between applications.

Postemergence (woody plants):

Limited to 1 application per year.

Maximum of 4.0 lbs ae per acre per year.”

- j. There is a discrepancy between the old and proposed Application and Timing Use Rates Tables. The old table indicates that application should not be less than 30 days prior to planting soybeans, while the new table indicates only 15 days prior. This needs explanation.
- k. Submit the missing miscibility study.
- l. Add the following statements to the labeling:
“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. EPA, C01-0132C, (W.D. WA). For further information, please refer to EPA Web site: <http://www.epa.gov/espp>.”
- m. Assure that the required acid equivalents per acre (lbs ae/A) restrictions are expressed as product volume or product weight per unit area that are in the same units as the registered application rate already on the label. Assure that the revised maximum application restrictions do not exceed the highest currently registered rate for each appropriate application site.

A stamped copy of your labeling is enclosed for your records. Submit one (1) 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.

Enclosure



LOW VOL 4 ESTER WEED KILLER

ACCEPTED
with **COMMENTS**
In EPA Letter Dated:

JAN 2009

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

34704-124

Low-volatile emulsifiable formulation for control
of broadleaf weeds in corn, wheat, barley, rye,
oats, sorghum, and non-crop areas.

ACTIVE INGREDIENT:	
Isocetyl (2-ethylhexyl) ester of 2,4-Dichlorophenoxyacetic acid	65.5%*
INERT INGREDIENTS	34.5%
TOTAL	100.0%

*Isomer specific by AOAC Method No. 6.275-6.279 (13th Ed.)
*Equivalent to 43.4% 2,4-D acid or 3.8 pounds per gallon.

KEEP OUT OF REACH OF CHILDREN CAUTION

(See Below For Additional Precautionary Statements)

EPA REG. NO. 34704-124
EPA EST. NO. 37507-MT-1 (Lot No. begins 04)
NET CONTENTS 2½ GALLONS (9.46 L)

IHT EXP 12/07

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS

Harmful if swallowed, absorbed through skin, or inhaled. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Personal Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on the 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, 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 applying postharvest dips or sprays to citrus, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See engineering controls for additional requirements.

Engineering Controls

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

For containers over 1 gallon and less than 5 gallons in capacity: 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 other required PPE.

For containers of 5 gallons or more in capacity: A mechanical system (probe and pump) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

Users should:
Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
Remove clothing/PPE 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 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.

FIRST AID

if swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have a person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the 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.
if inhaled:	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.

**FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL:
1-800-301-7976:**

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

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.

Groundwater Contamination: 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.

PHYSICAL OR CHEMICAL HAZARDS

COMBUSTABLE: Do not use or store near heat or open flame.

DIRECTIONS FOR USE

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

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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.

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Although this product is much less volatile than butyl or isopropyl esters, at high temperatures (above 95°F.) vapors from this product may injure susceptible plants growing nearby. **Do not** use in a greenhouse. Flush sprayer out on suitable non-crop area after use. **Do not** use the same spray equipment for applying other materials to 2,4-D susceptible crops as injury may result.

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 water-proof material, shoes plus socks.

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, air-blast, 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 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.

General Precautions: 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.

GENERAL INFORMATION

LOW VOL 4 is recommended for control of numerous broadleaf weeds and certain 2,4-D susceptible woody plants without injury to most established grasses. Species controlled include the following, plus many others:

beggarticks
bitterweed
blueweed, Texas
broomweed
buckbrush
burdock
burhead
carpetweed
catnip
chamise
chicory
cocklebur
coffeeweed
cornflower
coyote brush
croton
dandelion
docks
dogfennel
elderberry
fanweed
galinsoga
garlic, wild
goatsbeard
hemp, wild
jewelweed

jimsonweed
lambquarter
loco, bigbend
mallow, Venice
manzanita
marshelder
milkvetch
morningglory,
annual
mustards
nettles
onion, wild
pennycress
pepperweed, field
pigweed
plantains
poorjoe
rabbitbrush
radish, wild
ragweed
rape, wild
redstem
sage, coastal
sagebrush, big
sagebrush, sand
salsify

sand shinneryoak
shepherdspurs
sicklepod
smartweed
sneezeweed, bitter
sowthistle, annual
spanishneedles
sumac
sunflower
sweetclover
tansymustard
tansyragwort
thistle, bull
thistle, musk
thistle, Russian
tumbleweed
velvetleaf
vervain
vetch
water plantain
willow
witchweed
wormwood
yellow rocket
yellow starthistle

NOTE: Local conditions, crop varieties and application regulations vary and may affect use of this herbicide. Consult local agricultural experiment station or extension service weed specialists and state regulatory agencies for recommendations in your area.

Aerial applications may be of use for control of weeds on certain crops where there would be no danger of drift to susceptible crops. Applications should only be made by applicators experienced in the use of 2,4-D formulations. Regulations governing aerial application of herbicides are in effect in many states. Consult local regulatory agencies concerning requirements before making applications.

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

Treating Small Areas: Two tablespoonfuls of LOW VOL 4 in 1½ gallons of water is about equal to 1½ quarts in 100 gallons.

TO PREPARE THE SPRAY: (1) Fill the spray tank about half full with water, then add the required amount of LOW VOL 4 with agitation, and finally the rest of the water. NOTE: LOW VOL 4 in water forms an emulsion which tends to separate unless the mixture is kept agitated. (2) If oil is added, first mix the LOW VOL 4 and the oil and then add this mixture to the water. However, with adequate agitation, the oil can be added after the LOW VOL 4 is mixed in the 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.

TIME OF APPLICATION: Best results are obtained when LOW VOL 4 is used on young weeds that are actively growing. Applications of lower recommended rates to susceptible annual weeds usually will be satisfactory, but for perennial weeds and other conditions, such as in very dry areas where kill is difficult, use higher recommended rates. When used as a selective spray on crops, the stage of growth of the crop must be considered. Some woody plants and weeds are hard to kill and repeat applications may be necessary.

SMALL GRAINS

General Restrictions:

The preharvest interval (PHI) is 14 days. Limited to 1.75 lbs ae/acre per crop cycle. **Postemergence:** Limited to one postemergence application per crop cycle. Do not exceed a maximum of 1.25 lbs ae/acre per application.

Preharvest: Limited to one preharvest application per crop cycle. Do not exceed a maximum of 0.5 lbs ae/acre per application.

Spring Wheat and Barley: Apply ½ to 1 pint per acre (.2 to .47 lb ae/A). Spray when grain is in full tiller stage (usually 4 to 8 inches tall) but before the boot stage and when weeds are small. Do not apply before the tiller stage nor from early boot to the dough stage. Higher rates, up to 2 pints per acre (.95 lb ae/A), may be needed to handle difficult weed problems in certain areas such as under dry conditions especially in western areas. **However, do not use unless possible crop injury will be acceptable.**

Winter Wheat and Rye: Apply ½ to 1 pint per acre (.2 to .47 lb ae/A) in the spring at full tiller stage but before the early boot stage.

Spring Seeded Oats: Apply ½ pint per acre (.2 lb ae/A) at the full tiller stage but before the early boot stage. Oats are less tolerant to 2,4-D than wheat or barley and are more likely to suffer some injury.

Fall Seeded Oats (Southern) Grown for Grain: Apply ¾ to 1½ pints per acre (.35 to .7 lb ae/A) after full tillering but before the early boot stage. Some difficult weeds may require higher rates for maximum control but crop injury may result. Do not spray during or immediately following cold weather.

NOTE: Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 7 days after treatment.

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Preharvest Treatment: Apply 1 to 2 pints per acre (.47 to .95 lb ae/A) when grains are in the hard dough stage to control large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to cause succulent weed growth. **NOTE:** Do not feed treated straw to livestock.

CORN FIELD, SWEET AND POP

General restrictions

Field and pop:

Do not use treated crop as fodder for 7 days following application. The preharvest interval (PHI) is 7 days. Do not exceed a maximum of 3 lbs ae/acre per crop cycle.

Preplant or preemergence: Limited to one preplant or preemergence application per crop cycle. Maximum of 1.0 lb ae/acre per application.

Postemergence: Limited to one postemergence application per crop cycle. Maximum of 0.5 lb ae/acre per application.

Preharvest: Limited to one preharvest application per crop cycle. Maximum of 1.5 lbs ae/acre per application.

Sweet Corn:

Do not use treated crop as fodder for 7 days following application.

The preharvest interval (PHI) is 45 days.

Observe a minimum of 21 days between applications.

Do not exceed a maximum of 1.5 lbs ae/acre per crop cycle.

Preplant or preemergence:

Limited to one preplant or preemergence application per crop cycle.

Maximum of 1.0 lb ae/acre per application.

Postemergence: Limited to one postemergence application per crop cycle.

Maximum of 0.5 lb ae/acre per application.

Preemergence: Use LOW VOL 4 in sufficient water for uniform coverage. Best results are obtained when applied 3 to 5 days after planting, but before corn emerges. Do not apply to light, sandy soils.

Postemergence: Apply LOW VOL 4 from emergence to tasseling. When spraying corn above 10 inches in height, use nozzle extensions ("corn drops"), directing the spray at base of the corn plant to keep the spray off the leaves as much as possible. Do not apply from tassal emergence to dough stage. Crop injury is more likely to occur if corn is growing rapidly under high temperature and high soil moisture conditions. Under such conditions, use the lowest recommended rates. Delay cultivation for 8 to 10 days after application to reduce stalk breakage resulting from temporary brittleness caused by 2,4-D. Hybrids vary in tolerance to 2,4-D. Consult local agricultural experiment station or extension service weed specialists regarding the use of 2,4-D on your specific hybrid. See chart for recommended rates.

Amount of LOW VOL 4 Per Acre

Crop (See Detailed Directions Above)	Amount of LOW VOL 4 Per Acre	
	For Average Conditions	For Dry Conditions as in Western States*
Corn**		
Preemergence	2 pints (.95 lb ae)	
Postemergence	½ pint (.23 lb ae)	½ to ¾ pint (.23 to .35 lb ae)

* Arizona, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming, Kansas, Colorado & Western Nebraska

** If only rows or bands are treated, leaving middles unsprayed, reduce dosage rate per crop acre proportionate to the ground area actually sprayed.

SORGHUM (MILO)

General Restrictions: The preharvest interval (PHI) is 30 days. Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application.

Postemergence: Limited to 1 application per crop cycle. Do not exceed a maximum of 0.5 lb ae/acre per application.

Apply ½ pint per acre (.23 lb ae/A) when sorghum is 5 to 15 inches tall. A higher rate of ¾ to 1 pint per acre (.35 to .47 lb ae/A) may be needed to control some weeds but the chance for crop injury is likewise increased. Do not use with oil. Do not treat before the sorghum is 5 inches tall nor during the boot, flowering or early dough stages.

If sorghum is taller than 8 inches, use drop nozzles to keep the spray off the foliage as much as possible. Temporary crop injury may occur under conditions of high soil moisture and high air temperatures. Varieties vary in tolerance to 2,4-D and some hybrids are quite sensitive. Spray only varieties known to be tolerant to 2,4-D. Contact seed company and Extension Service authorities for this information.

Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application.

FOR USE IN CROP RESIDUE MANAGEMENT SYSTEMS IN SOYBEANS

(Preplant only)

General Restrictions: The maximum rate per crop cycle is 1.0 lb ae/acre.

Preplant: Limited to 2 preplant applications per crop cycle. Maximum of 0.5 lb ae/acre per preplant application. Apply not less than 7 days prior to planting soybeans.

or

Preplant: Limited to 1 application per crop cycle. Maximum of 1.0 lb ae/acre per preplant application.

Apply not less than 15 days prior to planting soybeans.

General Information

LOW VOL 4 is a phenoxy-type herbicide that provides postemergence control of many susceptible annual and perennial broadleaf weeds. LOW VOL 4 may be applied prior to planting soybeans to provide foliar burn-down control of susceptible annual and perennial broadleaf weeds and certain broadleaf cover crops such as those listed on this label. LOW VOL 4 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 LOW VOL 4 and planting of soybeans.

Mixing Instructions

Compatible crop oil concentrates, agricultural surfactants and fluid fertilizers approved for use on growing crops may increase the herbicidal effectiveness of LOW VOL 4 on certain weeds and may be added to the spray tank. Read and follow all directions and precautions on this label and on the label of each product added to the spray mixture.

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 spray mixture per acre for ground equipment.

Application Timing And Use Rates

Maximum Rate Per Acre	When to Apply (Days prior to planting soybeans)
1 pint (.47 lb ae)	NOT LESS THAN 7 DAYS
2 pints (.95 lb ae)	NOT LESS THAN 15 DAYS

Weeds Controlled

alfalfa*	garlic, wild*	purslane, common
bindweed*	horseweed or mare's tail	ragweed, common
bullnettle	ironweed	ragweed, giant
bittercress, smallflowered	lambsquarters, common	shepherdspurse
buttercup, smallflowered	lettuce, prickly	smartweed, Pennsylvania*
Carolina geranium	morningglory, annual	sowthistle, annual
cinquefoil, common	mousetail	speedwell
and rough	mustard, wild	thistle, Canada*
clover, red*	onion, wild*	thistle, bull
cocklebur, common	pennycress, field	velvetleaf
dandelion*	peppergrass*	vetch, hairy*
dock, curly*	plantains	Virginia copperleaf
eveningprimrose, cutleaf		

*These species are only partially controlled.

In general, weeds should be small, actively growing and free of stress caused by extremes in climatic conditions, diseases, or insect damage at the time of treatment. The response of individual weeds species to LOW VOL 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 previously treated with LOW VOL 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 present at the time of application. Do not apply LOW VOL 4 as described on this label unless you are prepared to accept soybean injury, including loss of stand and yield.

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

Do not use on sandy soils with less than 1% organic matter.

Do not replant fields treated with LOW VOL 4 in the same growing season with crops other than those labeled for use with LOW VOL 4.

Do not apply LOW VOL 4 when weather conditions such as temperature air inversions or wind favor drift from treated areas to susceptible plants.

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

In fields previously treated with LOW VOL 4, plant soybean seed as deep as practical or at least 1 inch deep. Adjust the planter, if necessary, to ensure that planted seed is completely covered.

GRASS SEED CROPS

General Restrictions: Limited to 2 applications per year. Maximum of 2.0 lbs ae/acre per application. Minimum of 21 days between applications.

Use 1 to 1½ pints per acre (.47 to .71 lb ae/A) in the amount of water required for uniform applications by air or ground equipment. Apply to established stands in

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spring from the tiller to early boot stage. Do not spray in boot stage. New spring seedlings may be treated with the lower rate after the grasses have at least five leaves. Perennial weed regrowth may be treated in the fall. Do not graze dairy animals on treated areas within 7 days after application. Do not graze meat animals on treated areas within 3 days before slaughter. Do not cut treated grass for hay within 30 days after application.

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.

USE REQUIREMENTS FOR PASTURE, RANGELAND AND NON-CROP AREAS OTHER THAN TURF: Do not enter treatment areas until spray has dried or dust has settled. For early entry to treatment areas, wear eye protection, chemical resistant gloves, long sleeved shirt, long pants, socks and shoes.

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

NOTE: For application to turf being grown for sale or other commercial use as sod, or for commercial seed production, or for research purposes, follow AGRICULTURAL USE REQUIREMENTS on this label.

RANGELAND AND GRASS PASTURES

General Restrictions:

Postemergence: For susceptible annual and biennial broadleaf weeds: Use 1.0 lbs. ae/acre per application. For moderately susceptible biennial and perennial broadleaf weeds: Use 1.0 to 2.0 lbs ae/acre per application.

For difficult to control weeds and woody plants: Use 2.0 lbs ae/acre per application.

Spot treatment: Use 2.0 lbs ae/acre.

Maximum of two applications per year. Maximum of 4.0 lbs ae/acre per year.

Wait 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.

NOTE: Do not graze meat or dairy animals on treated areas within 7 days after application. Do not cut treated grass for hay within 30 days after application. Do not use on bentgrasses, alfalfa, clover or other legumes or on newly seeded pastures. Do not apply after heading begins or when grass is in the boot to milk stage where grass seed production is desired.

Bitterweed, Broomweed, Croton, Docks, Marshelder, Muskthistle and Other Broadleaf Weeds: Use 4 pints (1.9 lb ae) of LOW VOL 4 per acre in the amount of water needed for uniform application. If the 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.

Wild Garlic and Wild Onion: Apply 4 pints per acre (1.9 lb ae/A), making three applications (fall-spring-fall or spring-fall-spring) starting in late fall or early spring.

Weed Control in Newly Sprigged Coastal Bermudagrass: Apply 2 to 4 pints per acre preemergence and/or postemergence.

Sand Shinnery Oak and Sand Sagebrush: On the oak, use 2 pints 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 4 pints per acre (1.9 lb ae) in 2 to 3 gallons of oil or in 3 to 5 gallons of oil-water emulsion spray. Brush should be leaved out and growing actively when treated. Retreatment may be needed.

Chamise, Manzanita, Buckbrush, Coastal Sage, Coyotebrush and Certain Other Chaparral Species: Use 4 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. Retreatment may be needed.

WOODY PLANT CONTROL

General Restrictions: Broadcast application. Limited to 1 broadcast application per year.

Maximum of 4.0 lbs ae/acre per broadcast application.

To control 2,4-D susceptible woody plants such as alder, buckbrush, elderberry, sumac and willow on non-crop land use 2 to 3 quarts (1.9 to 2.8 lb ae) LOW VOL 4 in 100 gallons of water. Wet thoroughly all parts of the plants including foliage and stems to the point of run-off. Higher volumes are necessary where the brush is very dense and over 6 to 8 feet high. Applications are more effective when applied to actively growing plants. Do not treat during periods of severe drought or in early fall when leaves have lost their healthy green color. Hard-to-kill species may need retreatment the following season.

NON-CROP AREAS SUCH AS ORNAMENTAL TURF, GOLF COURSES, CEMETERIES, PARKS, ROADSIDES, VACANT LOTS

General Restrictions: Limited to 2 applications per year. Maximum of 2.0 lbs ae/acre per application. Minimum of 21 days between applications.

Apply 2 to 4 pints (.95 to 1.4 lb ae) of LOW VOL 4 per acre in the amount of water needed for uniform application. Treat when weeds are young and growing well. Do not use on creeping grasses such as bent and St. Augustine except for spot treating, nor on newly seeded turf until grass is well established. Reseeding of treated areas should be delayed following treatment. With spring application, reseed in the fall; with fall application, reseed in the spring. Legumes are usually damaged or killed so do not treat areas where the legumes are desired. Deep-rooted perennial weeds may require repeated treatments in the same season or in subsequent years. For turf, the maximum number of broadcast applications per treatment site is 2 per year.

GENERAL WEED CONTROL

General Restrictions: Postemergence (annual and perennial weeds): Limited to 2 applications per year. Maximum of 2.0 lbs ae/acre per application. Minimum of 30 days between applications.

Postemergence (woody plants): Limited to 1 application per year. Maximum of 4.0 lbs ae/acre per year.

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.

Along fences, roadsides, industrial sites, around farm buildings and similar areas, use 1 to 2 quarts (.95 to 1.4 lb ae) of LOW VOL 4 in 100 gallons of water per acre. Thoroughly wet all foliage to run-off.

TULE (BULRUSH) AND OTHER RUSHES: Mix 4 pints (1.4 lb ae) of LOW VOL 4 and 1 gallon of diesel oil or kerosene, then add this mixture to 100 gallons of water. Spray to wet all foliage (400-800 gallons per acre). Addition of a wetting agent may be advisable. Apply in the spring during flower head emergence. Respray if needed when regrowth is 3 to 5 feet tall.

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food, or feed by storage or disposal. Do not store under conditions which might adversely affect the container or its ability to function properly.

PESTICIDE STORAGE: Do not store below temperature of 0°F. If frozen, warm to 45°F and redissolve before using by rolling or shaking the container. Store in safe manner. Store in original container only. Keep container tightly closed when not in use. Reduce stacking height where local conditions can affect package strength. Personnel should use clothing and equipment consistent with good pesticide handling.

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: Nonrefillable container: Do not reuse this container to hold materials other than pesticides or dilute pesticides (rinsate). After emptying and cleaning, it may be allowable to temporarily hold rinsate or other pesticide-related materials in the container. Contact your state regulatory agency to determine allowable practices in your state. Once cleaned, some agricultural plastic pesticide containers can be taken to a container collection site or picked up for recycling. To find the nearest site, contact your chemical dealer or manufacturer, or contact The Agricultural Container Recycling Council (ACRC) at www.acrcycle.org.

Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

For packages up to 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 ¼ 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.

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 or 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.

For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ 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. 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 or 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.

For packages greater than 56 gallons: To clean the container before final disposal, empty the remaining contents from this 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 procedure two more times.

For refillable containers: 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 this 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 procedure two more times.

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