

# 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. 1	Number:
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Date of Issuance:

2217-413

SEP 12 2008

NOTICE OF PESTICIDE:

\_\_ Registration

x Reregistration
(under FIFRA, as amended)

Term of Issuance:

Name of Pesticide Product:

600 LV 2,4-D Weed Killer A Low Volatile Ester

Name and Address of Registrant (include ZIP Code):

PBI/Gordon Corporation 1217 West 12<sup>th</sup> Street Kansas City, Missouri 64101

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) Per the acute toxicity review, chemical-resistant gloves are required for all handlers. The glove statement in the handler PPE section ("chemical-resistant gloves when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate") must be revised to read "chemical-resistant gloves."
- 3) The mechanical transfer engineering control text may be deleted from the label.
- 4) The text "except as noted on appropriate labels" must be deleted from the second sentence of the Environmental Hazard section.
- 5) Protective eyewear is not required per the RED but may remain in the early entry PPE section in the Agricultural Use Requirements box.
- 6) Because the label prohibits application through any type of irrigation system, reference to chemigation in the first sentence of the spray drift management section must be deleted from the label.
- 7) The following revisions are needed in the Directions for Use:

#### Corn:

It is unclear whether this product is only intended for use on field or pop corn, or whether it may also be used on sweet corn. Since rate restrictions are different for field/popcorn and sweet corn, the

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label must be revised to clarify this issue. If this product is to be used on sweet corn, the following restrictions must be added to the label and any conflicting text must be removed.

### Sweet Corn:

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

The preharvest interval is 45 days.

The minimum interval between applications is 21 days.

The maximum application rate per crop cycle is 1.5 lbs ae per acre.

Preplant or preemergence:

Apply only one preplant or preemergence application per crop cycle.

The maximum application rate is 1.0 lbs ae per acre per application.

Postemergence:

Apply only one postemergence application per crop cycle.

The maximum application rate is 0.5 lbs ae per acre per application."

#### Sovbeans:

Per the RED, the planting interval of 7 days before planting a single application of 0.67 pint/A to soybeans (Page 8 of the label) must be revised to read 15 days.

# Broadleaf weed control in noncropland areas such as lawns, golf courses, cemeteries, parks, airfields, roadsides, and vacant lots:

A 30-day retirement interval is required for non-crop land uses and must be added to this section of the label.

8) 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 <u>Washington Toxics Coalition</u>, et al. v. EPA, C01-0132C, (W.D. WA). For further information, please refer to EPA Web Site: http://www.epa.gov/espp.

9) 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 maximum application restrictions are identical to the highest currently registered rate for each appropriate application site.

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.

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# 600 LV 2,4-D WEED KILLER A LOW VOLATILE ESTER

ACCEPTED with COMMENTS In EPA Letter Dated:

SEP 12 2008

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

# 2211-413

## EPA Reg. No. 2217-413

ACTIVE INGREDIENT:	
2,4-D, 2-ethylhexyl ester (CAS 1928-43-4)	87.9%
INERT INGREDIENTS:	12.1%
TOTAL	100.0%

Contains petroleum distillates, xylene or xylene range aromatic solvent. THIS PRODUCT CONTAINS:

5.6 lbs. 2,4-dichlorophenoxyacetic acid equivalent per gallon or 58.3% Isomer Specific By AOAC Methods.

#### KEEP OUT OF REACH OF CHILDREN

#### CAUTION

STOP! READ THE ENTIRE LABEL FIRST. OBSERVE ALL PRECAUTIONS AND FOLLOW DIRECTIONS CAREFULLY.

## PRECAUTIONARY STATEMENTS

#### Hazards to Humans and Domestic Animals

**CAUTION:** Causes moderate eye irritation. Wear protective eyewear. Harmful if absorbed through skin. Avoid contact with skin, eyes or clothing. Harmful if swallowed. Harmful if inhaled. Avoid breathing spray mist. 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 barrier laminate, nitrile rubber, neoprene rubber, or Viton. 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:

- protective eyewear,
- · long-sleeved shirt and long pants,
- · shoes and socks, plus
- chemical resistant gloves when 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.

See engineering controls for additional requirements.



#### **User Safety 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.

#### **Engineering Control Statements**

Containers greater than 1 gallon but 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.

Containers of 5 gallons or more: Do not open-pour product from this container. A mechanical system (such as a probe and pump or spigot) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40CFR 170.240(d)(4)], the handler PPE requirements may be reduced or modified as specified in the WPS.

Engineering controls for aerial application: 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. Pilots must use an enclosed cockpit 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 gum, using tobacco or using the toilet.
- Users should 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.
- Users should 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.

First Aid	
If in eyes:	<ul> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If on skin or clothing:	<ul> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 - 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed:	<ul> <li>Immediately call a poison control center or doctor.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.</li> </ul>
If inhaled:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
	ct container or label with you when calling a poison control center or doctor or going for may also contact 1-877-800-5556 for emergency medical treatment advice.

Note to Physician: Contains petroleum distillates—vomiting may cause aspiration pneumonia.

#### **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 cistern or well may result in contamination of drinking water or groundwater.

#### **Physical or Chemical Hazards**

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.

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

#### **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170.

This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment 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
- 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.

Re-entry Statement: Do not enter or allow people (or pets) to enter the treated area until sprays have dried.

#### General Information

Apply 600 LV 2,4-D Weed Killer as a water or oil spray during warm weather when weeds or brush are actively growing. Application under drought conditions often will give poor results. Use low spray pressure to minimize drift. On cropland and along roadsides, do not exceed 20 psi pressure.

**Use Precautions**: Do not apply this product through any type of irrigation system. Do not apply when temperatures exceed 90°F. Do not apply if rain is expected within the hour.

Use adequate spray volume to provide uniform coverage of weeds and brush, usually 2 to 20 gallons per acre by ground equipment and 2 to 5 gallons by aircraft. Higher gallonage may be used if desired to improve spray coverage.

Generally, the lower dosages recommended on this label will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species and under conditions where control is more difficult, the higher dosages will be needed.

For crop uses, do not mix with oil or other adjuvants unless specifically recommended on this label. Deep rooted perennial weeds such as Canada thistle, field bindweed, and many woody plants usually require repeated applications for maximum control.

Read and follow all precautions on this label. Local conditions may affect the use of herbicides. Consult your State Agricultural Experiment Station or Extension Service weed specialists for advice in selecting treatments from this label to best fit local conditions. Be sure that use of this product conforms to all applicable regulations. Apply this product only as specified on this label.

<b>BROADLEAF WEEDS</b>	·		
Bindweed	Jewelweed	Poison ivy	Tansy ragwort
Buckbrush	Jimsonweed	Poorjoe	Thistle, bull
Buckhorn	Knotweed	Ragweed	Thistle, musk
Buckwheat	Kochia	Rape, wild	Thistle, Russian
Canada thistle	Lambsquarters	Sage, coastal	Tumbleweed
Cocklebur	Locoweed	Sagebrush, sand	Velvetleaf
Coffeeweed	Mallow, Venice	Salsify	Vervain
Cornflower	Manzanita	Sheep sorrel	Vetch
Coyotebrush	Marshelder	Shepherdspurse	Wild carrot
Croton	Milkweed	Sicklepod	Wild garlic
Dandelion	Milkvetch	Smartweed	Wild hemp
Docks	Morningglory, annual	Sneezeweed, bitter	Wild onion
Dogfennel	Mustards	Sowthistle, annual	Wild radish
Elderberry	Nettles	Spanishneedles	Wild sweet potato
Fanweed	Oak, shinnery	Sumac	Willow
Galinsoga	Pennycress	Sunflower	Wormwood
Goatsbeard	Pepperweed, field	Sweetclover	Yellow rocket
Halogeton	Pigweed	Tansy mustard	Yellow starthistle
Horsenettle	Plantain	-	

#### 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 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 of below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

2,4-D ester 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 and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

**Additional requirements for ground boom application.** Do not apply with a nozzle height greater than 4 feet above the crop canopy.

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.

#### **Spray Preparation**

With Water: Fill the spray tank about one-half full with water. Add the required amount of 600 LV 2,4-D Weed Killer with agitation. Then, add the rest of the water.

Note: 600 LV in water forms an emulsion which tends to separate unless the mixture is kept agitated.

With Water & Oil: Mix 600 LV 2,4-D Weed Killer and the oil first. Add this mixture to the water. However, with adequate agitation, the oil can be added after the 600 LV 2,4-D Weed Killer is mixed in the water.

With Oil: If straight oil is used, a solution is formed and separation does not occur. Do not allow any water to get into the herbicide-oil solution to avoid formulation of an invert emulsion.

#### SMALL GRAINS (NOT UNDERSEEDED WITH A LEGUME)

**Spring Wheat & Barley:** Apply 1/3 to 3/4 pint of product per acre (A). Spray when crop 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 (3/4 to 1.5 pints of product per acre) may be required to control certain weeds but crop injury may occur.

Winter Wheat & Rye: Apply 1/3 to 1/2 pint of product per acre in the spring at the full tiller stage but before the early boot stage. Do not apply before the tiller stage nor from early boot to the dough stage.

**Spring Seeded Oats:** Apply 1/3 pint of product per acre at the full tiller stage but before the early boot stage. Oats are less tolerant to 2,4-D than wheat or barley and more likely to suffer some injury.

**Fall Seeded Oats (Southern) Grown for Grain:** Apply 1/2 to 1 pint of product per acre after full tillering but before the early boot stage. Some difficult weeds may require the higher rate for maximum control but crop injury may result. Do not apply during or immediately following cold weather.

**Preharvest Treatment:** Apply 1/2 to 3/4 pint of product per acre when grains are in the hard dough stage to control large weeds that may interfere with harvest. Best results are obtained when soil moisture is sufficient to cause succulent weed growth.

Limitations on 2,4	4-D for use on cereal grains (whea	at, barley, oats, and rye)		
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Spray Volume	Preharvest Interval (PHI)
Post Emergent	1.5 pints/A (1.0 lb 2,4-D ae/A)	1	2 gal/A	14 Days
Preharvest	0.75 pints/A (0.5 lb 2,4-D ae/A)	1	2 gal/A	14 Days
ae = Acid Equivale	ent. Do not exceed the maximum sea	asonal rate of 2:5 pints (1.5	lb 2,4-D ae) per ac	re per season.

#### CORN

Hybrids vary in response to 2,4-D and some are easily injured. Spray only varieties known to be tolerant to 2,4-D. Contact seed company or your State Agricultural Experiment Station or Extension Service weed specialists for this information. Use one of the following programs for weed control in corn:

**Pre-Plant or Preemergence:** Apply 1.5 pints of product per acre to soil before corn emerges. Do not cultivate until necessary.

Emergence: Apply 3/4 pint of product per acre just as corn plants are breaking ground.

**Postemergence:** After emergence of corn, use 1/2 pint of product per acre. Application of 1/2 to 3/4 pint of product per acre may be needed for maximum control of some weeds but such rates are more likely to injure the corn. Do not apply from the tasseling to dough stage. Do not use with oil, atrazine or other adjuvants. Crop injury is more likely to occur if corn is growing rapidly under high temperature and high soil moisture conditions. To reduce breakage of stalks from temporary brittleness caused by 2,4-D, delay cultivation for 8 to 10 days after treatment.

**Preharvest Treatment:** After the hard dough or dent stage, apply 1.0 to 1.33 pints of product per acre by air or ground equipment to suppress perennial weeds and control tall weeds such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, smartweed, velvetleaf, and vines that interfere with harvesting.

Limitations on 2,4-D for use on corn					
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Spray Volume	Pregrazing Interval	Preharvest Interval (PHI)
Preplant or Preemergent	1.5 pint/A (1.0 lb 2.4-D ae/A)	1	2	NA	NA
Postemergent	0.75 pint/A (0.53 lb 2,4-D ae/A)	1	2	7 Days	7 Days
Preharvest	1.33 pints/A (0.93 lb 2,4-D ae/A)	1	. 2	7 Days	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 3.6 pints (2.5 lb 2,4-D ae) per acre per season. Do not use treated crop as fodder for 7 days following application. Do not harvest for grain for 7 days following application.

#### **GRAIN SORGHUM (MILO)**

Apply 1/3 pint of product per acre when sorghum is 5 to 15 inches tall. A higher rate of 1/2 to 2/3 pint of product per acre 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 crop leaves as much as possible.

Temporary crop injury may occur under conditions of high soil moisture and high air temperatures. Cultivars 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 or your Agricultural Experiment Station or Extension Service weed specialists for information.

Limitations on 2,4	-D use on grain sorghum		<del></del>	
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Spray Volume	Preharvest Interval (PHI)
Postemergent	0.67 pint/A (0.47lb 2,4-D ae/A)	1	2 gal/A	30 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 0.67 pint (0.47 lb 2,4-D ae) per acre per season. Do not harvest grain for 30 days following application. Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following applications.

# SOYBEANS (PREPLANT ONLY) GENERAL INFORMATION

600 LV 2,4-D Weed Killer is a phenoxy type herbicide that provides postemergence control of many susceptible annual and perennial broadleaf weeds. 600 LV 2,4-D Weed Killer 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. 600 LV 2,4-D Weed Killer 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.

#### MIXING INSTRUCTIONS

Mix 600 LV 2,4-D Weed Killer only with water, unless otherwise directed on this label. 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 in ground equipment.

Application Schedule - Preplant	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Spray Volume	Planting Interval before planting Soybeans
Single Application	0.67 pint/A (0.47 lb 2,4-D ae/A)	1	2 gal/A	7 Days
Single Application	1.33 pints/A (0.93 lb 2,4-D ae/A)	1	2 gal/A	15 Days
Two or Sequential Applications	0.67 pint/A (0.47 lb 2,4-D ae/A)	2	2 gal/A	15 Days

Alfalfa*	Garlic, wild*	Ragweed, common
Bindweed*	Horseweed or marestail	Ragweed, giant
Bullnettle .	Ironweed .	Shepherdspurse
Bittercress, smallflowered	Lambsquarters, common	Smartweed, Pennsylvania
Buttercup, smallflowered	Lettuce, prickly	Sowthistle, annual
Carolina geranium	Morningglory, annual	Speedwell
Cinquefoil, common and rough	Mousetail	Thistle, Canada*
Clover, red*	Mustard, wild	Thistle, bull
Cocklebur, common	Onion, wild*	Velvetleaf
Dandelion	Pennycress, field	Vetch, hairy*
Dock, curly*	Plantain	Virginia copperleaf
Eveningprimrose, cutleaf	Purslane, common	

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 weed species to 600 LV 2,4-D Weed Killer is variable. Consult your local county or state Agricultural Extension Service or crop consultant for advice.

#### APPLICATION RESTRICTIONS AND PRECAUTIONS FOR SOYBEANS (PREPLANT)

Important Notice: Unacceptable injury to soybeans planted in fields previously treated with 600 LV 2.4-D Weed Killer 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.

Do not apply 600 LV 2,4-D Weed Killer when weather conditions such as air temperature inversions or wind favor drift from treated areas to susceptible plants.

In fields previously treated with 2,4-D, plant soybean seed as deep as practical or at least 1.5 to 2.0 inches deep. Adjust the press wheel of the planter, if necessary, to ensure that planted seed is completely covered.

#### **GRASS SEED CROPS**

Use 3/4 to 1 pint of product per acre in the amount of water required for uniform application by air or ground equipment. Apply to established stands in spring from the tiller to early boot stage. Do not spray in boot stage. New spring seedlings may be treated with the lower rate after the grasses have at least five leaves. Perennial weed regrowth may be treated in the fall.

Limitations of	on 2,4-D applications	to grass seed crops			
Use Site	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Interval Between Applications	Minimum Spray Volume	Preharvest Interval (PHI)
Grass Seed Crops	1.0 pints/A (0.7 lb 2,4-D ae/A)	2	21 Days	2 gal/A	7 Days
		d the maximum seasona cut forage for hay within		2,4-D ae) per a	cre per season,

#### PASTURE AND RANGELAND

grasslands not in agricultural production such as Conservation Reserve program (CRP).				
Weed Types	Rate per Application	When to Apply		
Susceptible annual and biennial broadleaf weeds	1.5 pints/A (1.0 lb 2,4-D ae/A)	Spring or fall during active growth		
Moderately susceptible biennial and perennial broadleaf weeds	1.5 to 3.0 pints/A (1.0 to 2.0 lb 2,4-D ae/A)	Spring or fall during seedling to rosette stage		
For difficult to control weeds and woody plants	3.0 pints/A (2.0 lb 2,4-D ae/A)	Spring or fall during bud to bloom stage. A second application may be required		
Spot treatment	3.0 pints/A (2.0 lb 2,4-D ae/A)			

Bitterweed, Broomweed, Croton, Docks, Kochia, Marshelder, Musk Thistle and Other Broadleaf Weeds: Use 3 pints of 600 LV 2,4-D Weed Killer per acre per application in the amount of water needed for uniform application. If the weeds are young and growing actively, 1.0 quart 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 3 pints of product per acre making two applications (fall-spring) or (spring-fall).

**Weed Control in Newly Sprigged Coastal Bermudagrass:** Apply 1.5 to 3.0 pints of product per acre preemergence and/or postemergence.

Sand Shinnery Oak and Sand Sagebrush: On the oak, use 1.5 pints of product in 5.0 gallons of oil or in 4.0 gallons of water plus 1.0 gallon of oil per acre. Apply by aircraft between May 15 and June 15. On the Sagebrush, use 1.5 pints in 3.0 gallons of oil per acre and apply by aircraft when foliage is fully expanded and the brush is actively growing.

Chamise, Manzanita, Buckbrush, Coastal Sage, Coyotebrush and Certain Other Chaparral Species: Use 3 pints per acre per application 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 leafed out and growing actively when sprayed. Retreatment may be needed.

Limitations on 2,4-D pasture and rangeland (established grass pastures, rangeland, and perennial grasslands, not in agricultural production such as Conservation Reserve program (CRP)).					nial	
Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Interval Between Applications	Minimum Spray Volume	Pregrazing Interval	Preharvest Interval (PHI)
Postemergent	3 pints/A (2.0 lb 2,4-D ae/A)	2	30 Days	2 gal/A	0 Days	7 Days

ae = Acid Equivalent. Do not exceed the maximum seasonal rate of 6 pints (4.0 lb 2,4-D ae) per acre per season. Do not apply within 30 days of the previous application. Do not cut forage for hay within 7 days of application. If grass is to be cut for hay, the Agricultural Use Requirements for the Worker Protection Standard (WPS) are applicable. For program lands such as the 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 labeling must be followed.

#### DIRECTIONS, RESTRICTIONS AND LIMITATIONS FOR USE IN NON-CROPLAND

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.

Broadcast applications to annual and perennial weeds: Apply to emerged weeds. For best results, treat when weeds are young and actively growing. The maximum application rate to listed noncropland sites is 0.35 gallon of product per acre per application per site. When multiple applications of up to 2.0 lbs. acid equivalent per acre are utilized to reach the maximum seasonal use rate, do not make a second application within 30 days of the first application. Minimum spray volume: Use 2 or more gallons of spray solution per acre. Number of applications: Limited to 2 applications per year.

Broadcast applications to woody plants: Apply to trees and brush when foliage is fully expanded and plants are actively growing. Up to 0.70 gallon of product per acre (4.0 lbs. acid equivalent per acre) may be applied in a single application to rights-of-way, including electrical power lines, communication lines, pipelines, highways and railroads that intersect wooded areas or stands of trees, brush and woody plants. The maximum annual noncropland application rate for tree, brush and woody plant control is 0.70 gallon of product per acre per application per site.

Target species	Application Schedule	Maximum Rate per Application	Maximum Number of Applications per Year	Minimum Interval Between Applications	Minimum Spray Volume
Annual and perennial weeds	Broadcast	0.35 gal/A (2.0 lb 2,4-D ae/A)	2	30 days	2
Woody plants	Broadcast and high volume foliar	0.70 gal/A (4.0 lb 2,4-D ae/A)	1	NA	See Tables 1-2.

#### High volume foliar applications (100-400 gallons per acre):

Apply 0.18 - 0.70 gallon of product per acre with adequate water or apply a 0.18 - 0.70% vol/vol spray solution as a full cover spray with high volume equipment. Use the lower spray concentrations in the range for susceptible species and use the higher spray concentrations within the range for hard-to-control species, for mature plants during the late summer or under adverse environmental conditions (e.g. drought).

Spray broadleaf weeds, woody plants or mixed brush uniformly and thoroughly by wetting all leaves, stems, bark and root collars. The total volume of spray solution required for adequate coverage of solid stands of mixed brush can range from 100-400 gallons of spray solution per treated acre. The spray preparation chart for applications on a spray-to-wet basis is shown below in Table 1.

**Table 1.** Instructions for preparing 100-400 gallons of spray solution at 0.18 - 0.70% spray concentration with water for high volume foliar applications.

0.40%	0.709/
	0.70%
0.35 gal.	0.70 gal.
0.70 gal.	
	~

The maximum seasonal application rate for trees, brush and woody plant control is 0.7 gallon of product per acre per application per site.

#### For Backpack Sprayers, Knapsack Sprayers, And Hand-pressurized Pump Sprayers

**Table 2.** Instructions for preparing 1-3 gallons of spray solution at 0.18 - 0.70% spray concentration with water for high volume foliar applications.

Amount Of Product Needed for Spray Concentration of :					
0.18 %	0.23 %	0.40 %	0.70 %		
1.5 teaspoons	2 teaspoons	3 teaspoons	6 teaspoons		
3 teaspoons	4 teaspoons	6 teaspoons	12 teaspoons		
4 teaspoons	6 teaspoons	3 tablespoons	6 tablespoons		
	0.18 % 1.5 teaspoons 3 teaspoons	0.18 %         0.23 %           1.5 teaspoons         2 teaspoons           3 teaspoons         4 teaspoons	0.18 %         0.23 %         0.40 %           1.5 teaspoons         2 teaspoons         3 teaspoons           3 teaspoons         4 teaspoons         6 teaspoons		

Make application in such a way as to prevent drift of the spray away from the area being treated. Spraying can be effective at anytime up to 3 weeks before frost as long as soil moisture is sufficient for active growth of the brush. Control will be less effective in midsummer during hot dry weather when soil moisture is deficient and plants are not actively growing. Oil or wetting agent may be added to the spray if needed, for increased effectiveness.

# BROADLEAF WEED CONTROL IN NONCROPLAND AREAS SUCH AS LAWNS, GOLF COURSES, CEMETERIES, PARKS, AIRFIELDS, ROADSIDES, AND VACANT LOTS

Apply 1.5 to 2.1 pints per acre in the amount of water needed for uniform application. Treat when weeds are young and growing well. Do not use on golf greens nor on dichondra or other broadleaf herbaceous groundcovers. Do not use on creeping grasses such as bentgrass and St. Augustinegrass except for spot treatments, 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 treatment in the same season or in subsequent years.

Use Site	Maximum Rate per Application	Maximum Number of Applications per Year	Maximum Acid Equivalent Amount Applied per Year
Ornamental turfgrass	2.1 pints/A (1.5 lb 2,4-D ae/A)	2	2.8 lb/A

**SPOT TREATMENT:** To control broadleaf weeds in small noncropland areas with a hand sprayer, use 4 fl.oz. of 600 LV 2,4-D Weed Killer in 3.0 gallons of water and spray to thoroughly wet all weed foliage. Keep spray mixture agitated to prevent separation.

#### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in original container in a locked storage area inaccessible to children or pets. This product may be stored in an unheated building.

**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:** For Plastic Containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities by burning. If burned stay out of smoke. For Metal Containers - Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

## LIMITED WARRANTY AND DISCLAIMER

**IMPORTANT:** Read this LIMITED WARRANTY AND DISCLAIMER before buying or using this product. By opening and using this product, buyer and all users agree to accept the terms of this LIMITED WARRANTY AND DISCLAIMER in their entirety and without exception. If the terms are not acceptable, return this product unopened immediately to the point of purchase, and the purchase price will be refunded in full.

It is impossible to eliminate all risks inherently associated with use of this product. Damage to the treated article, ineffectiveness, or other unintended consequences can result from use of the product under abnormal conditions such as weather, presence of other materials, or the manner or use of application, etc. Such factors and conditions are beyond the control of the manufacturer, and BY PURCHASING AND USING THIS PRODUCT THE BUYER AND ALL USERS OF THIS PRODUCT AGREE TO ACCEPT ALL SUCH RISKS. Buyer and all users further agree to assume all risks of loss or damage from the use of the product in any manner that is not explicitly set forth in or that is inconsistent with label instructions, warnings and cautions.

The manufacturer warrants only that this product conforms to the chemical description given on the label, and that the product is reasonably suited for the labeled use when applied according to the Directions for Use, subject to the inherent risks described below. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE MANUFACTURER NEITHER MAKES NOR INTENDS ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY EXPRESSLY DISCLAIMED.

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promptly notified in writing of any claims, whether based in contract, tort, negligence, strict liability, or otherwise, to be eligible to receive either remedy stated above.

The terms of this LIMITED WARRANTY AND DISCLAIMER cannot be varied by any written or verbal statements or agreements at the point of sale or elsewhere. No employee or agent of the manufacturer or seller is authorized to vary or exceed the terms of this LIMITED WARRANTY AND DISCLAIMER in any manner.

## **APPENDIX**

- 1. Front Panel Statements
  - See next panel for additional Precautionary Statements and First Aid
  - Net Contents:
  - EPA Est. No.

## **DOCUMENT CONTROL INFORMATION**

1. Unique Label Identifier: 002217-00413.20071105

2. Previous Version: AP061005

3. Reason for Issue: Various changes pertaining to re-registration. Re-format label.