


42750-36

07/23/2008

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 <p>U.S. ENVIRONMENTAL PROTECTION AGENCY</p> <p>Office of Pesticide Programs Registration Division (7505P) Ariel Rios Building 1200 Pennsylvania Ave., NW Washington, D.C. 20460</p> <p>NOTICE OF PESTICIDE:  <input type="checkbox"/> Registration  <input checked="" type="checkbox"/> Reregistration          (under FIFRA, as amended)</p>	EPA Reg. Number: 42750-36	Date of Issuance: JUL 23 2008
	Term of Issuance:	
	Name of Pesticide Product: D-638 Broadleaf Herbicide	
Name and Address of Registrant (include ZIP Code):  Albaugh, Inc. 121 NE 18 <sup>th</sup> Street Ankeny, IA 50021		
<p>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.</p>		
<p>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.</p> <p>This product is reregistered in accordance with FIFRA sec. 4(g)(2)(C) provided that you:</p> <ol style="list-style-type: none"> <li>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.</li> <li>2) To the label add "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, et. al. v. EP</u>, C01-0132C, (W.D. WA). For further information, please refer to <a href="http://www.epa.gov/espp/wtc">http://www.epa.gov/espp/wtc</a>."</li> </ol>		
Signature of Approving Official:  Joanne I. Miller Product Manager 23 Herbicide Branch Registration Division (7505P)	Date:  JUL 23 2008	

3) Note the type size of “KEEP OUT OF REACH OF CHILDREN DANGER/PELIGRO” must meet the requirements of chapter 3 of the label review manual (see <http://www.epa.gov/oppfead1/labeling/lrm/chap-03.htm>).

4) A footnote must be added to the ingredient statement per the acute toxicity review which states “Contains Petroleum Distillate.”

5) Per the acute toxicity review, the Hazards to Humans and Domestic Animals must be revised as follows:

- Delete the statement “Wear protective eyewear (goggles or face shield)” as this will appear under the PPE section.
- Revise the statement “Avoid contact with skin, eyes, and clothing” to read “Do not get in eyes or on clothing.”

6) The PPE section must be revised to read as follows:

- Following the Personal Protective Equipment heading, add the text “(PPE)”
- Delete butyl and natural rubber from the listing of chemical-resistant materials since these only provide slight protection under category E.
- Per the acute toxicity review, add “Wear protective eyewear (goggles or face shield).”
- Delete the entire sentence beginning with “For containers over 1 gallon...”

7) User Safety Requirements must be revised to include the bolded text below:

“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.”

8) The mechanical transfer text (under the Engineering Controls Statement) paragraph beginning with “For containers of 5 gallons or more...” may be deleted from the label.

9) The text in bold type must be added to the User Safety Recommendation text current on the label:

“User should remove clothing/**PPE** immediately if pesticide gets inside.”

10) Revise the last two sentences in the Non-Agricultural Use Requirements box to read as follows:

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

11) With the exception of drift-related text appearing in the Environmental Hazards (“Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas”) and General Precautions and Restrictions (“Do not apply this product in a way that will contact workers or other persons, either directly or through drift”), all drift text appearing on the label must be placed together and be located below the required text currently on the label. Any conflicting

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text must be deleted from the label. In addition, revise the Spray Drift heading to read "Spray Drift Management."

12) Directions for Use

- Under the **Soybean Restrictions** section, revise the statement under the 2 application option "Do not apply within 7 days of planting soybeans" to read "Do not apply within 15 days of planting soybeans." Also revise the statement under the single application option "Do not apply within 15 days of planting soybeans" to read "Do not apply within 30 days of planting soybeans."

- Add a **Grasses Grown for Seed or Sod Restrictions** section, which reads as follows:

"Do not make more than 2 applications per year.  
Do not apply more than 5.6 pints per acre per application.  
Minimum of 21 days between applications."

- Under the **Rangeland and Pasture Restrictions** section, revise this section to read as follows (except tank mixing statement):

"Do not cut forage for hay within 7 days of application.  
For susceptible annual and biennial broadleaf weeds do not exceed 2.8 pints per acre per application. For moderately susceptible biennial and perennial broadleaf weeds and woody plants, do not exceed 5.6 pints per acre per application.  
For spot treatment do not exceed 5.6 pints per acre.

Maximum of 2 applications per year.  
Minimum of 30 days between applications.

If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable.  
For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed."

Also, revise the rate(s) in the table to correspond with these maximum rates listed above.

- Under the **Ornamental Turfgrass Restrictions** section and table, revise the maximum rates to read as follows:

"Do not apply more than 4-1/4 pints per acre per application.  
Do not apply more than 8.4 pints per acre per season (excluding spot treatments)."  
Delete "other turf areas".

- Under the **Conservation Reserve Program Restrictions** section, apply the restrictions required for rangeland and pasture.

- Under the **Fallow Land Restrictions** section and table, revise the maximum rate of 5-3/4 pints

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per acre per application to 5.6 pints per acre per application. Also, under the restrictions section add the statement "Only labeled crops can be planted within 30 days of application."

- Under the **Non-Crop Restrictions** section, revise the maximum rate of 5-3/4 pints per acre per application to 5.6 pints per acre per application.

Delete "other non-crop areas".

13) To the Warranty section add "to the extent consistent with applicable law" in front of "buyer's exclusive remedy" and "in no case shall Albaugh".

Submit one copy of the revised final printed label for the record.

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 stamped copy of the label is enclosed for your records.

If you have any questions please call Erik Kraft at 703-308-9358 or email at Kraft.Erik@epa.gov.

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EDITOR'S NOTE: Clean draft for 2,4-D RED

D-638  
Broadleaf Herbicide

ACTIVE INGREDIENTS:

2,4-dichlorophenoxyacetic acid*	13.8%
2,4-dichlorophenoxyacetic acid, butoxyethyl ester*	24.5%
OTHER INGREDIENTS**:	61.7%
TOTAL	100.0%

\*Total 2,4-dichlorophenoxyacetic acid equivalent 30.8% by weight or 2.8 pounds per gallon.

\*\*Contains petroleum distillates.

KEEP OUT OF REACH OF CHILDREN

DANGER/PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID	
IF IN EYES:	<ul style="list-style-type: none"> <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 SWALLOWED:	<ul style="list-style-type: none"> <li>Immediately call a poison control center or doctor.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>Do not give any liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
IF ON SKIN OR CLOTHING:	<ul style="list-style-type: none"> <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 INHALED:	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
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.	
NOTE TO PHYSICIAN - Probable mucosal damage may contraindicate the use of gastric lavage.	

See inside booklet for additional precautionary statements.

EPA Reg. No. 42750-36

EPA Est. No. XXXXXX-XX-XXX

NET CONTENTS

MANUFACTURED BY:  
Albaugh, Inc.  
Ankeny, Iowa 50021

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

JUL 23 2008

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

42750-36

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## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### DANGER

Corrosive. Causes irreversible eye damage. Wear protective eyewear (goggles or face shield). Avoid contact with skin, eyes or clothing. Harmful if swallowed, inhaled or absorbed through skin. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before reuse.

#### PERSONAL PROTECTIVE EQUIPMENT

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 E on an EPA chemical-resistance category selection chart.

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

Long-sleeved shirt and long pants.

Shoes and socks.

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 applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

For containers over 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.

See engineering controls for additional requirements.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. 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)]

For containers of 5 gallons or more, a mechanical transfer system (such as a probe and pump or spigot) must be used for transferring the contents of the container. Do not open pour from this container. If the contents of a non-refillable pesticide container is 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.

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:

- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 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.

MIXING AND LOADING: 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.

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 intervals. 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 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls,
- Chemical-resistant gloves made of any waterproof material.
- Shoes plus socks, and
- 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.

For ornamental turf uses (golf courses, cemeteries, parks and other turf grass areas), do not enter treatment areas until sprays have dried. Do not allow people (other than applicator) or pets on treatment area during application.

#### STORAGE AND DISPOSAL

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

##### PESTICIDE STORAGE:

Store in original container in a dry, secured storage area. Keep container tightly closed when not in use.

##### PESTICIDE DISPOSAL:

Open dumping is prohibited. Pesticide wastes are acutely hazardous. 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:

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.

#### GENERAL INFORMATION

D-638 is a special formulation containing 2,4-D acid. It is more effective than 2,4-D amines for controlling hard-to-kill weeds such as field bindweed, Russian knapweed, Canada thistle, leafy spurge, cattails, tules and nutgrass. D-638 should be applied when daytime temperatures are lower than 80 to 85 degrees. Spraying when temperatures are higher may cause rapid foliar burn and decrease the product's effectiveness. Treatment at higher temperatures also increases the possibility of crop injury. **INJURY TO CROPS FROM THIS HERBICIDE MAY OCCUR. IF YOU ARE NOT PREPARED TO ACCEPT SOME DEGREE OF CROP INJURY, DO NOT USE THIS PRODUCT.** Crop varieties vary in response to 2,4-D and some are easily injured. Apply D-638 only to varieties known to be tolerant to 2,4-D. If you are uncertain concerning tolerant varieties or local use situations that may affect crop tolerance to 2,4-D, consult your seed company or state Agricultural Extension Service for advice.

**GENERAL RESTRICTIONS:** Do not apply product through any type of irrigation system. Do not use in or near a greenhouse.

**MIXING INSTRUCTIONS:** Add one-half the required amount of water to the spray tank; then add D-638 with agitation, and finally, the balance of the water with continued agitation. Provide continuous agitation to insure uniform spray mixtures. Use spray mixture as soon as possible after mixing.

**COMPATIBILITY:** If D-638 is to be tank mixed with fertilizers or with other pesticides, compatibility should be tested prior to mixing. To test for compatibility, use a small container and mix a small amount (0.5 to 1 quart) of spray, combining all ingredients in the same ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually will appear within 5 to 15 minutes after mixing. Read and follow the label of each tank-mix product used for precautionary statements, directions for use, geographic and other restrictions.

**COMBINATION WITH LIQUID NITROGEN FERTILIZER:** Use the recommended amount of D-638 per acre for weeding and feeding corn, small grains, grasses for production or grass pastures as directed on this label. Use the fertilizer at rates recommended by supplier or Extension Service Specialist. Fill the spray tank about half full with



the liquid fertilizer, then add D-638 with vigorous agitation, and complete filling the tank. Apply immediately and continue agitation in the spray tank during application. Do not allow mixture to stand overnight. NOTE: Fertilizers can increase foliage contact burn of herbicides. Reducing the fertilizer rate and concentration will reduce the hazard of leaf burn.

### SPRAY DRIFT

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.

GENERAL WEED LIST

ANNUAL AND BIENNIAL WEEDS		PERENNIAL WEEDS	
annual yellow sweetclover	mustards (except blue mustard)	*alfalfa	healall
*beggarticks	pepperweeds (except perennial)	*Austrian fieldcress	*hoary cress
bull thistle	**pigweeds (Amaranthus spp.)	*bindweed (hedge, field, European)	Jerusalem artichoke
coffeeweed	*prickly lettuce	blue lettuce	*many-flower aster
*common Broomweed	ragweed (common or giant)	*Canada thistle	*nettles (including stinging)
common burdock	rough fleabane	catnip	*orange hawkweed
common cocklebur	*Russian thistle	chicory	plantains
common evening primrose	*salsify (western or common)	dandelion	sowthistle (perennial)
common lambsquarters	*smartweeds (annual species)	*docks	*tansy ragwort
croton (Texas or woolly)	sowthistle (annual or spiny)	*dogbanes	Texas blueweed
galinsoga	sunflower	*goldenrod	*vervains
jimsonweed	velvetleaf	*ground ivy	*western ironweed
*knotweed	*vervains		*wild garlic
*mallow (venice or little)	vetches		*wild onion
marshelder	*wild carrot		
morningglory (common, ivy, woolly)	wild lettuce		
*musk thistle	wild parsnip		
	wild radish		

\*These species may require repeat applications and/or use of higher rate recommended on this product label even under ideal conditions for application.

\*\*Control of pigweeds in the High Plains area of Texas and Oklahoma may not be satisfactory with this product.

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### SPECIFIC USE DIRECTIONS

#### CEREAL GRAIN CROPS

WHEAT, OATS, RYE and BARLEY  
(not underseeded with legumes)

WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
Postemergence: Annual and biennial weeds Perennial broadleaf weeds	1 pint 2 pints*	Apply after grain is fully tillered (usually about 4-8 inches high) but not forming joints in the stem. Apply when weeds are near bud stage. Do not spray grain in boot to dough stage.
Wild onion or garlic	1-1/2 to 2 pints.	Apply 1-1/2 pints when grain is fully tillered and wild garlic or onion plants are small. Apply 2 pints after harvest in the crop stubble. For control of new fall growth of wild onion or garlic, refer to FALLOWLAND use directions.
Emergency weed control in wheat  Perennial broadleaf weeds	3 pints*	Apply when weeds are approaching bud stage, but do not spray grain during the boot to dough stage. The 3 pint per acre application can produce injury to wheat. Balance the severity of your weed problem against the possibility of crop damage. Where perennial weeds are scattered, spot treatment is suggested to minimize the extent of crop injury.
Preharvest	1 to 1-1/3 pints*	Apply when grains are in the hard dough stage to suppress large weeds that may interfere with harvest. Best results will be obtained when soil moisture is sufficient to induce succulent weed growth.

\*Use the lower rate if small annual and biennial weeds are the major problem. Use the higher rate if perennial weeds or annual and biennial weeds are present which are in the hard-to-kill categories as determined by local experience. The higher rates increase the risk of grain injury and should be used only where weed control problems justify the risk of grain damage. Do not apply to grain in the seedling stage.

#### Restrictions and limitations for use on cereal grains:

- For aerial application on grain, apply in 2 or more gallons of water per acre. For ground application, a minimum of 10-15 gallons of water per acre is recommended for proper spray coverage.
- Do not mix with oil for crop uses.
- Do not permit dairy animals or meat animals being finished for slaughter to forage treated grain fields within 2 weeks after treatment.
- Do not feed treated straw to livestock if a preharvest treatment or emergency treatment as described above is applied.

#### CEREAL GRAIN RESTRICTIONS:

- Postemergence: Make no more than one application per crop cycle.
- Postemergence: Do not apply more than 3-1/2 pints per acre per application.
- Preharvest: Make no more than one application per crop cycle.
- Preharvest: Do not apply more than 1-1/3 pints per acre per application.
- Pre-Harvest interval is 14 days.

D-638 contains 0.35 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 crop cycle.

CORN (Field, Pop And Sweet)		
WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
Preplant	1-1/2 to 2-1/2 pints	To control emerged broadleaf weed seedlings or existing cover crops prior to planting corn, apply 7 to 14 days before planting. Do not use on light, sandy soil, or where soil moisture is inadequate for normal weed growth. Use high rate for control of less susceptible weeds or cover crops such as alfalfa.
Preemergence	2 to 3 pints	To control broadleaf weeds, apply 3-5 days after planting but before corn emerges. Use high rate on soil high in organic matter. Do not use on light, sandy soil, or where soil moisture is inadequate for normal weed growth.
Postemergence		
Annual broadleaf weeds	2/3 to 1 pint	Avoid spraying just after the first corn leaves unfold, as injury may occur. Apply when weeds are small and corn is less than 8 inches tall (to top of canopy). If corn more than 8 inches tall must be sprayed, use drop pipes.
Perennial broadleaf weeds	1 to 1-1/3 pints	Spray when weeds are in the bud to bloom stage. If corn is more than 8 inches tall, use drop pipes to keep spray off corn leaves. Do not spray in tassel to dent stage. 2,4-D may make corn brittle. Winds or cultivation may cause stalk breakage while brittle.
Preharvest	1-1/2 to 2-1/2 pints	After the dent stage to suppress weeds that interfere with harvest, such as bindweed, cocklebur, dogbane, jimsonweed, ragweed, sunflower and velvetleaf, and to decrease production of weed seeds, spray with air or ground equipment. The high rate will be needed for weeds under stress.

A minimum application volume of 5 gallons per acre by air or 10 gallons per acre by ground is recommended.

**CORN RESTRICTIONS:**

- Preplant or Pre-emergence: Make no more than one application per crop cycle.
- Preplant or Pre-emergence: Do not apply more than 2-3/4 pints per acre per application.
- Postemergence: Make no more than one application per crop cycle.
- Postemergence: Do not apply more than 1-1/3 pints per acre per application.
- Minimum spray interval between applications for sweet corn is 21 days.
- Preharvest (Field and Pop only):
  - Make no more than one application per crop cycle.
  - Do not apply more than 4-1/4 pints per acre per application.
  - Do not use treated crop as fodder for 7 days following application.
  - Corn (Field and Pop) Pre-Harvest Interval is 7 days.
  - Corn (Sweet) Pre-Harvest Interval is 45 days.

D-638 contains 0.35 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 for Field and Pop Corn.

Do not exceed a combined total of 1.5 pounds of a.e. per acre for Sweet Corn.

GRAIN SORGHUM (MILO)		
WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
Annual broadleaf weeds	1 pt.	Treat when sorghum is 6 to 15 inches tall. If sorghum is taller than 8 inches (to top of canopy), use drop nozzles to keep spray crop foliage. Do not treat during the boot, flowering or early dough stages.
Perennial broadleaf weeds	1-1/3 pts.	

A minimum application volume of 5 gallons per acre by air or 10 gallons per acre by ground is recommended.

**SORGHUM RESTRICTIONS:**

- Do not apply more than 1-1/3 pints per acre per application.
- Do not make more than 1 post-emergence application per year.
- Pre-Harvest Interval is 30 days.
- Do not permit meat or dairy animals to consume treated crop as fodder or forage for 30 days following application.

D-638 contains 0.35 pounds a.e. of 2,4-D per pint. When tank mixing with products that contain 2,4-D ester, do not exceed a combined total of 0.5 pounds of a.e. per acre per year.

SOYBEANS (PREPLANT ONLY)		
WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
Postemergence	1 to 1-1/3 pts.	Apply not less than 7 days prior to planting soybeans, when weeds are small and actively growing. Use the higher rate on larger weeds and when perennials are present. Some weeds may require repeat treatment for adequate control (See GENERAL WEED LIST and below).
	1-1/3 to 2-2/3 pts.	Apply not less than 15 days prior to planting soybeans, when weeds are actively growing. Some weeds may require repeat treatment for adequate control (See GENERAL WEED LIST and below).

In addition to those weeds found on the GENERAL WEED LIST, D-638 will suppress or control the following broadleaf weeds frequently encountered in reduced tillage soybean production systems: bullnettle, smallflowered bittercress, Carolina geranium, smallflowered buttercup, common and rough cinquefoil, red clover (partially controlled), horseweed or marestalk, mousetail, wild mustard, field pennycress, cutleaf evening primrose, common purslane, speedwell and Virginia copperleaf.

After applying, plant soybean seed as deep as practical or at least 1-1/2 to 2 inches deep. Adjust the planter press wheel, if necessary, to ensure that planted seed is completely covered.

If desired, D-638 may be applied preplant to soybeans in tank mixtures with other herbicides such as Poast®, Poast® Plus, Gly Star™ Original or Roundup®, Roundup D-Pak®, Honcho®, Gramoxone® Extra, Prowl®, Pursuit® Plus, Scepter®, Scepter® 70 DG, Squadron® and others that are registered for preplant soybean use.

NOTE: Unacceptable injury to soybeans planted in fields previously treated may occur. Whether or not soybean injury occurs, and the extent of injury will depend on weather and agronomic factors such as the amount of weed vegetation and previous crop residue present that may be in effect between the time of application and the emergence of the soybean plant.

**SOYBEAN (Preplant) RESTRICTIONS**

- Pre-plant (2 application option):
  - Do not apply more than 1-1/3 pints per acre per preplant application.
  - Do not apply within 7 days of planting soybeans.
- Pre-plant (single application option):
  - Do not apply more than 2-2/3 pints per acre.
  - Do not apply within 15 days of planting soybeans.
- Do not apply 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 apply 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 preplant use.

D-638 contains 0.35 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 pounds of a.e. per acre per crop cycle.

GRASSES GROWN FOR SEED PRODUCTION		
WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
Annual broadleaf weeds	1 to 1-1/2 pts.	Apply to established stands in the spring before the seed head comes into the boot stage. Do not spray in boot stage of growth. In seedling grasses apply in the spring after the grass has tillered or has at least 5 leaves but before the boot stage. Use only the low rate on seedling grasses.
Perennial and biennial broadleaf weeds	2 to 3 pts.	

PASTURE and RANGELAND (established grass pastures, rangeland, and perennial grasslands not in agricultural production)		
WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
Annual broadleaf weeds	2-1/2 pts.	Apply in spring or fall when annual weeds such as knotweed or common chickweed are up but still small and in or near the seedling stage and growing vigorously. Also controls cocklebur, galinsoga, lambsquarters, mustards, pigweed, ragweed and sunflower.
Perennial and biennial broadleaf weeds	3 to 5-3/4 pts.	To control dandelion, plantain and most other common broadleaf weeds in turf, apply in spring or fall when these weeds are growing actively. Treat wild garlic or onion in three successive seasons (example: spring, fall, spring).

#### RANGELAND & PASTURE RESTRICTIONS:

- A minimum application volume of 2 gallons by air or 5-10 gallons by ground is recommended for pastures.
- Livestock Feeding Restrictions:
  - 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 7 days after application.
  - For government program grasslands, follow program grazing restrictions if more restrictive than those given above.
- Do not apply more than 5-3/4 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 11-1/3 pints per acre per year.
- If grass is to be cut for hay, Agricultural Use requirements for the Worker Protection Standard are applicable.

D-638 contains 0.35 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.

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ORNAMENTAL TURF (Golf Courses, Cemeteries, Parks And Other Turf Areas)		
WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
Annual broadleaf weeds	2-1/2 pts.	Apply in the spring or fall when weeds such as knotweed or common chickweed are up but still small and in or near the seedling stage and growing vigorously. Also controls cocklebur, galinsoga, lambsquarters, mustards, pigweed, ragweed and sunflower.
Perennial and biennial broadleaf weeds	3 to 4-1/3 pts.	To control dandelion, plantain and most other common broadleaf weeds in turf, apply in spring or fall when these weeds are growing actively. Treat wild garlic or onion in three successive seasons (example: spring, fall, spring).

ORNAMENTAL TURFGRASS RESTRICTIONS:

- Do not apply more than 4-1/3 pints per acre per application.
- Do not make more than 2 applications per year (excluding spot treatments).
- Minimum spray interval between broadcast applications is 30 days.
- Do not apply more than 11-1/3 pints per acre per season (excluding spot treatments).
- A minimum application volume of 25 gallons per acre is recommended for use on turf.
- Do not apply to newly seeded areas until sod is formed and grass has been cut a few times. Do not use D-638 for susceptible southern grasses such as St. Augustine. Bentgrass and clover may be injured by this treatment.
- Do not allow people (other than applicator) or pets on treatment area during application.
- Do not enter treatment areas until sprays have dried.

CONSERVATION RESERVE PROGRAM AREAS		
WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
Annual broadleaf weeds in young grasses	2/3 to 1-1/3 pts.	Apply to actively growing annual broadleaf weeds. Use 2/3 to 1-1/3 pints when weeds are small; use higher rates on older weeds. Do not apply to young grasses with fewer than 6 leaves or prior to tillering, as excessive injury may result. Do not apply more than 1-1/3 pints until grasses are well established as excessive injury may result.
	2/3 to 2-2/3 pts.	
Biennial and perennial broadleaf weeds in established grasses	2-2/3 to 5 pts.	Treat when biennial weeds are in the seedling to rosette stage and before flower stalks become apparent. Treat perennial weeds in the bud to bloom stage. Apply to actively growing weeds.

CONSERVATION RESERVE PROGRAM RESTRICTIONS:

- Use at least 2 gallons of water per acre by air and 5 gallons of water per acre by ground.
- Do not harvest or graze treated Conservation Reserve Program areas.
- Do not apply to grasses in the boot to dough stage if grass seed production is desired.
- Do not apply more than 5 pints per acre per application.
- Do not make more than 2 applications per year.
- Minimum spray interval between applications is 30 days.
- Pre-Harvest Interval is 7 days (cut forage for hay).
- If grass is to be cut for hay, Agricultural Use requirements for the Worker Protection Standard are applicable.
- For program lands, such as Conservation Reserve Program, consult program rules to determine whether grass or hay may be used. The more restrictive requirements of the program rules or this label must be followed.



D-638 contains 0.35 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.

FALLOWLAND AND CROP STUBBLE		
WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
Annual broadleaf weeds	1-1/3 to 2-2/3 pts.	Use the lower rate when weeds are small (2 to 3 inches tall) and growing actively. Use the higher rate on older and drought-stressed plants, except as directed in the SPECIAL WEED PROBLEMS section of this label.
Biennial broadleaf weeds	2-2/3 to 5-1/3 pts.	Spray while musk thistles or other biennial species are in the seedling to rosette stage, and before flower stalks become apparent. The lower rate can be used in spring during rosette stage. In fall or after flower stalks have developed, use the highest rate, except as directed in the SPECIAL WEED PROBLEMS section of this label.
Perennial broadleaf weeds (including cotton stubble)	3 to 5-3/4 pts.	Spray weeds in bud to bloom stage, or in good vegetative growth. Do not disturb treated area for at least 2 weeks after treatment, or until weed tops are dead, except as directed in the SPECIAL WEED PROBLEMS section of this label.
Wild garlic and onion	3 to 5-3/4 pts.	Apply to new regrowth of wild onion or garlic in crop stubble which occurs in the fall following harvest of small grains, soybeans, corn or grain sorghum.

Within 29 days following an application of this product, plant only those crops named as use sites on this label or other registered 2,4-D labels. Follow more specific limitations, if any, provided in the directions for individual crops. Labeled crops may be at risk for crop injury or loss when planted soon after application, especially in the first 14 days. All other crops may be planted 30 or more days following an application without concern for illegal residues in the planted crop. However, under certain conditions, there may be risk of injury to susceptible crops. Under normal conditions, any crop may be planted without risk of injury if at least 90 days of soil temperatures above freezing have elapsed since application. When planting into treated areas, the risk of crop injury is less if lower rates of product were applied and conditions following application have included warm, moist soil conditions that favor rapid degradation of 2,4-D. Risk is greater if higher rates of product were applied and soil temperatures have been cold and/or soils have been excessively wet or dry in the days following application. Consult your local Agricultural Extension Service for information about susceptible crops and typical soil conditions in your area.

**FALLOW LAND RESTRICTIONS**

- A minimum spray volume of 5 gallons per acre by air or 10-15 gallons per acre by ground is recommended.
- Livestock Feeding Restrictions:
  - 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 7 days after application.
  - For government program grasslands, follow program grazing restrictions if more restrictive than those given above.
- Make no more than two applications per year.
- Do not apply more than 5-3/4 pints per acre per application.
- Minimum spray interval between applications is 30 days

WEEDS AND BRUSH IN NON-CROP AREAS (Fencerows, Roadsides, Drainage Ditchbanks, Vacant Lots, Airfields, Railroad And Highway And Utility Rights-Of-Way, And Other Non-Crop Areas)		
WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
Annual broadleaf weeds	2 to 5-3/4 pts.	Apply when most weeds are still young and young and growing vigorously, except as directed in the SPECIAL WEED PROBLEMS section of this label.
Perennial and biennial broadleaf weeds	4 to 5-3/4 pts.	Apply when weeds are actively growing and near the bud stage, but before flowering. For best results tansy ragwort and musk thistle, treat in rosette stage, before bolting. A second application is usually needed for best results on thistle, nettle and bindweed. Treat wild onion or garlic in early spring and in fall when they are young and growing actively, except as directed in the SPECIAL WEED PROBLEMS section of this label.
Woody plants	4 to 11-1/3 pts.	?????

**NON-CROPLAND RESTRICTIONS:**

- Postemergence (annual & perennial weeds):
  - Do not make more than 2 applications per year.
  - Do not apply more than 5-3/4 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 11-1/3 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.

D-638 contains 0.35 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.

## SMALL AREA APPLICATIONS FOR NON-CROP USE

For control of broadleaf weeds in small non-crop areas with hand-held or backpack sprayers, mix 5 fluid ounces per gallon of water. Thoroughly wet all weed foliage. Maintain agitation of mixture.

SPECIAL WEED PROBLEMS (Directions For Special Weed Problems In Pastures, Fallowland, Non-Crop And Conservation Reserve Program And Conservation Reserve Acreage)		
To control the following special weed problems in fallowland, non-crop areas or pastures, apply the rates indicated at the recommended application time in sufficient spray volume by air or ground to obtain thorough and uniform coverage. Thorough and uniform coverage may require high volume ground spraying at 50 gallons per acre or more or aerial spraying at 10 gallons per acre or more when weed growth is dense. Adequate soil moisture for weed growth is essential for good control.		
WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
musk thistle	3 to 4 pts.	rosette stage spring or fall; use higher rate in fall
field bindweed	3 to 4 pts.	bud to full bloom
hoary cress	4 pts.	bud to full bloom
leafy spurge, Russian knapweed	4 pts.	full bloom
Canada thistle, camelthorn, lotus	4 pts.	bud to early bloom
Canada thistle	4 pts.	in spring or summer
Canada thistle	3 to 5 pts.	6 to 8 inches high in fall, prior to a killing frost with good soil moisture. Do not till treated area within 7 days of treatment.
cattails, tule (hard-stem bulrush)	6 pts.	late spring to early summer when 4 to 6 feet tall; repeat in fall and following spring.
tansy ragwort	6 pts.	rosette stage to early bloom
nutgrass	6 pts.	6 to 8 inches high, before bloom; repeat when regrowth is 6 to 8 inches high.

Refer to the restrictions and limitations for use on these sites.

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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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