



**Agri Star™**  
By Albaugh Inc.

# D-638

## BROADLEAF HERBICIDE

**NET CONTENTS:**

2 1/2 GAL.

**ACTIVE INGREDIENT:**

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

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

\*\*Contains petroleum distillates.

EPA Reg. No. 42750-36

EPA Est. No. 42750-MO-1

**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**

<b>If in eyes:</b>	<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>
<b>If swallowed:</b>	<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 <b>any</b> liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If on skin or clothing:</b>	<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>
<b>If inhaled:</b>	<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**.

Manufactured By:

**ALBAUGH, INC.**  
Ankeny, Iowa 50021

4011AL22  
AD 062303

## 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 listed below. If you want more options, follow the instructions for category E on an EPA chemical-resistance category selection chart.

Applicators and other handlers must wear long-sleeved shirt and long pants, chemical resistant gloves Category E, such as barrier laminate >14 mils, or neoprene rubber >14 mils, or nitrile rubber >14 mils, or viton >14 mils, shoes plus socks, and protective eyewear.

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.

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.

#### ENGINEERING CONTROLS STATEMENTS

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 get 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 product is toxic to fish. Drift or runoff may adversely affect fish and non-target plants. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment washwaters. Do not contaminate water used for irrigation or domestic purposes. Do not apply when weather conditions favor drift from treated areas. Avoid spray drift to susceptible plants such as cotton, beans, peas, ornamentals, and most vegetables, as injury may occur. Coarse sprays are less likely to drift. Under very high temperature, vapors from this product may injure susceptible plants in the immediate vicinity.

**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 Category E, such as barrier laminate >14 mils, or neoprene rubber >14 mils, or nitrile rubber >14 mils, or viton >14 mils, 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.

## AERIAL SPRAY DRIFT MANAGEMENT

### Spray Drift Management

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment-and-weather-related factors determine the potential for spray drift. The applicator is responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory.

### Aerial Drift Reduction Advisory

[This section is advisory in nature and does not supersede the mandatory label requirements.]

#### Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

#### Controlling Droplet Size

- Volume – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles – Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- Nozzle Type – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### Boom Length

For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

### Application Height

Applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.)

### Wind

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE: Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### Temperature Inversions

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the high variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that lavers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### Sensitive Areas

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

## GENERAL WEED LIST

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

\*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.

## SPECIFIC USE DIRECTIONS

### CEREAL GRAIN CROPS

#### WHEAT and BARLEY (not underseeded with legumes)

WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
<b>Postemergence:</b> Annual and biennial weeds Perennial broadleaf weeds	1 pt. 2 pts.*	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.
<b>Wild onion or garlic</b>	1-1/2 to 2 pts.	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.
<b>Emergency weed control in wheat</b> Perennial broadleaf weeds	3 pts.*	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.
<b>Preharvest</b>	1 to 2 pts.*	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 to 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.

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## FIELD CORN

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WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
<b>Preplant</b>	1-1/2 to 2-1/2 pts.	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.
<b>Preemergence</b>	2 to 3 pts.	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.
<b>Postemergence</b>		
Annual broadleaf weeds	2/3 pt.	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 pt.	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.
<b>Preharvest</b>	1-1/2 to 2-1/2 pts.	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.

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## POPCORN

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WEEDS IN CROP	RATE PER ACRE	DIRECTIONS
<b>Preharvest</b>	1-1/2 to 2-1/2 pts.	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.

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### Restrictions and limitations for use on field corn and popcorn:

- Do not forage or feed corn fodder for 7 days following application.
- A minimum application volume of 5 gallons per acre by air or 10 gallons per acre by ground is recommended.

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## GRAIN SORGHUM (MILO)

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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	1-1/2 pts.	

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### Restrictions and limitations for use on sorghum:

- Do not forage or feed sorghum fodder for 7 days following application.
- A minimum application volume of 5 gallons per acre by air or 10 gallons per acre by ground is recommended.

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## SOYBEANS (PREPLANT ONLY)

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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 30 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 marestail, mousetail, wild mustard, field pennycress, cutleaf evening primrose, common purslane, speedwell and Virginia copperleaf.

Apply no more than 2-2/3 pints in one season prior to planting soybeans. 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<sup>®</sup>, Poast<sup>®</sup> Plus, Gly Star<sup>™</sup> Original or Roundup<sup>®</sup>, Roundup D-Pak<sup>®</sup>, Honcho<sup>®</sup>, Gramoxone<sup>®</sup> Extra, Prowl<sup>®</sup>, Pursuit<sup>®</sup> Plus, Scepter<sup>®</sup>, Scepter<sup>®</sup> 70 DG, Squadron<sup>®</sup> 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.

### Restrictions and limitations for use on soybeans (preplant):

- 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.
- Apply no more than 2-2/3 pints per acre in one season prior to planting soybeans.
- 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.
- Only one application of this product may be made prior to planting soybeans per growing season.

- 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.

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### GRASSES GROWN FOR SEED PRODUCTION

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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.	

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### WEEDS AND BRUSH IN PASTURES, RANGELAND, FALLOWLAND AND CONSERVATION RESERVE PROGRAM AREAS

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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 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).

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#### Restrictions and limitations for use on rangeland and pastures:

- A minimum application volume of 2 gallons by air or 5 to 10 gallons by ground is recommended for pastures.
  - Do not graze animals on treated areas within 7 days of treatment.
  - Do not cut forage for hay within 30 days of treatment.
  - Do not permit dairy animals or meat animals being finished for slaughter to forage treated fields within 3 days of slaughter.
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### ORNAMENTAL TURF (GOLF COURSES, CEMETERIES, PARKS AND OTHER TURF AREAS)

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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 5 pts.	To control dandelion, plantain and most other broadleaf weeds common 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).

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**Restrictions and limitations for use on ornamental turf areas:**

- 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 apply more than 2 broadcast applications per year per treatment site. This does not exclude spot treatment.
- Do not allow people (other than applicator) or pets on treatment area during application.
- Do not enter treatment areas until sprays have dried.

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## CONSERVATION RESERVE PROGRAM AREAS

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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.

**Restrictions and limitations for use on Conservation Reserve Program areas:**

- 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.

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## FALLOWLAND AND CROP STUBBLE

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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	1-1/2 to 4 qts.	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 in crop stubble	2-2/3 to 4 qts.	Apply to new regrowth of wild onion or garlic which occurs in the fall following harvest of small grains, soybeans, corn or grain sorghum.

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**Restrictions and limitations for use on fallowland and crop stubble:**

- A minimum spray volume of 5 gallons per acre by air or 10-15 gallons per acre by ground is recommended.
- Do not plant treated fallowland until 3 months after treatment or until chemical has disappeared from soil.
- Do not graze dairy animals on treated areas within 7 days of treatment.

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**COTTON STUBBLE**

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<b>WEEDS IN CROP</b>	<b>RATE PER ACRE</b>	<b>DIRECTIONS</b>
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 regrowth)	1-1/2 pts. to 4 qts.	Spray to actively growing weeds, including cotton stubble regrowth, following harvest. 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.

**Restrictions and limitations for use on cotton stubble:**

- A minimum spray volume of 5 gallons per acre by air or 10-15 gallons per acre by ground is recommended.
- 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 of application.

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.

## 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	1-1/3 to 2-2/3 qts.	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	2 to 4 qts.	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.

### SMALL AREA APPLICATIONS FOR NON-CROP USE

For control of broadleaf weeds in small non-crop areas with hand-held or back-pack 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	RATE PER ACRE	DIRECTIONS
musk thistle	1-1/2 to 2 qts.	rosette stage spring or fall; use higher rate in fall
field bindweed	1-1/2 to 2 qts.	bud to full bloom
hoary cress	2 qts.	bud to full bloom
leafy spurge, Russian knapweed	2 qts.	full bloom
Canada thistle, camelthorn, lotus	2 qts.	bud to early bloom
Canada thistle	2 qts.	in spring or summer
Canada thistle	1-1/2 to 2-1/2 qts.	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)	3 qts.	late spring to early summer when 4 to 6 feet tall; repeat in fall and following spring.
tansy ragwort	3 qts.	rosette stage to early bloom
nutgrass	3 qts.	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.

## CONDITIONS OF SALE AND WARRANTY

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

ALBAUGH, INC., its Supplemental Distributors and the Seller warrant that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. NEITHER ALBAUGH, INC. NOR ITS SUPPLEMENTAL DISTRIBUTORS MAKE ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS.

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Gramoxone® is a registered trademark of Syngenta Crop Protection, Inc.

## NOTES

## NOTES



# Agri Star™

By Albaugh Inc.

# D-638

## BROADLEAF HERBICIDE

**NET CONTENTS:**

**2 1/2 GAL.**

Manufactured By:

**ALBAUGH, INC.**  
Ankeny, Iowa 50021

4011AL22  
AD 062303

**ACTIVE INGREDIENT:**

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

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

\*\*Contains petroleum distillates.

EPA Reg. No. 42750-36

EPA Est. No. 42750-MO-1

## 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**

<b>If in eyes:</b>	<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>
<b>If swallowed:</b>	<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 <b>any</b> liquid to the person.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>If on skin or clothing:</b>	<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>
<b>If inhaled:</b>	<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.**