

## RESTRICTED USE PESTICIDE

DUE TO GROUND AND SURFACE WATER CONCERNS. FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.



# BROZINE®

## POSTEMERGENT HERBICIDE FOR CONTROL OF CERTAIN BROADLEAF WEEDS IN CORN AND SORGHUM.

### SHAKE WELL BEFORE USING

#### ACTIVE INGREDIENT:

Octanoic acid ester of bromoxynil\*  
(3,5-dibromo-4-hydroxybenzotrile) ..... 15.74%  
Atrazine\*\*(2-chloro-4-ethylamino-6-isopropylamino-S-triazine) ..... 21.62%

INERT INGREDIENTS: ..... 62.64%  
TOTAL 100.00%

\* Product contains bromoxynil octanoate equivalent to 10.81% of bromoxynil or 1.0 pound of bromoxynil per gallon.

\*\*Product contains 2.0 pounds of atrazine per gallon.

## KEEP OUT OF REACH OF CHILDREN CAUTION

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

EPA REG. NO. 34704-892  
EPA EST. NO. 070989-MO-001  
NET CONTENTS 2½ GALS (9.46 L)

IHT

05P06

## PRECAUTIONARY STATEMENTS CAUTION

FIRST AID	
<b>If Swallowed:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not give anything by mouth to an unconscious person.</li><li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</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 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 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 mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>

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

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

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eyes, or clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are nitrile rubber, viton or barrier laminate. If you want more options, follow the instructions for category F on an EPA chemical-resistance category selection chart.

**Mixers, loaders, applicators, flaggers, and other handlers must wear:** Long-sleeved shirt and long pants, chemical-resistant gloves, such as nitrile rubber, viton or barrier laminate, shoes plus socks, and chemical-resistant apron, when mixing/loading, cleaning up spills, or cleaning 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. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. To reduce exposure to residues, wash the spray rig, tractor, and all other equipment used to handle or apply this product with water daily or before using the equipment for any other purpose.

### ENGINEERING CONTROLS

Mixers and loaders supporting aerial applications at a rate greater than 3 lbs ai/A must use a closed system that meets the requirements for dermal protection listed in the Worker Protection Standard (WPS) for Agricultural Pesticides [40 CFR 170.240(d)(4)] and must: Wear the personal protective equipment required for mixers and loaders, wear protective eyewear if the system operates under pressure, and be provided and have immediately available for use in an emergency, such as a spill or equipment breakdown: chemical resistant footwear.

Pilots must use an enclosed cockpit in a manner that is consistent with the WPS for Agricultural Pesticides [40 CFR 170.240 (d)(6)]. Pilots must wear the PPE required on this labeling for applicators, however, they need not wear chemical-resistant gloves when using an enclosed cockpit.

Flaggers supporting aerial applications must use an enclosed cab that meets the definition on the Worker Protection Standard for Agricultural Pesticides [40 CFR 170.240 (d)(5)] for dermal protection.

When applicators use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### USER SAFETY RECOMMENDATIONS

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.  
Users should remove clothing/PPE immediately if the pesticide gets inside. Then wash thoroughly and put on clean clothing.  
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.

### ENVIRONMENTAL HAZARDS

Atrazine can travel (seep or leach) through the soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable; i.e. well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

Product must not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. Product must not be applied within 66 feet of points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet of natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or setback from runoff entry points must be planted to crop, or seeded with grass or other suitable crop.

Product must not be mixed or loaded, or used within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 ft. of any well are prohibited, unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all

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times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide to the mixing/loading sites.

Additional State imposed requirements regarding well-head setbacks and operational area containment must be observed.

One of the following restrictions must be used in applying atrazine to tile-outletted terraced fields containing standpipes:

- Do not apply within 66 feet of standpipes in tile-outletted terraced fields.
- Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2-3 inches in the entire field.
- Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is practiced. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest

This pesticide is toxic to 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. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment wash water.

### PHYSICAL AND CHEMICAL HAZARDS

Combustible. 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.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info](http://www.atrazine-watershed.info), or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Loveland Products, Inc. for a refund.

Read entire label before using this product.

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 24 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, shoes plus socks, protective eyewear, and chemical-resistant gloves, such as any waterproof material.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Do not store near fertilizers or seeds. Store at temperatures above 32°F. If exposed to freezing temperatures, store at temperatures above 55°F for 24 hours or until completely thawed. Shake well before using.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Plastic: Triple rinse (or equivalent). Then 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.

**Metal:** Triple rinse (or equivalent). Then offer for recycling and reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, if allowed by State and Local authorities.

**Bulk/Mini-Bulk Containers:** When the container is empty, replace the cap and seal all openings that have been opened during use; and return the container to the point of purchase, or to a designated location named at the time of purchase of product. This container must only be refilled with this pesticide product. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. Do not transport if this container is damaged or leaking. For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300. If not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

### GENERAL INFORMATION

BROZINE contains the equivalent of 1 pound per gallon of octanoic acid ester of bromoxynil and 2 pounds per gallon of atrazine.

BROZINE is a selective postemergence herbicide for control of important broadleaf weeds infesting field corn, popcorn, and sorghum. Optimum weed control is obtained when BROZINE is applied to actively growing weed seedlings. BROZINE is primarily a contact herbicide, therefore thorough coverage of the weed seedlings is essential for optimum control. BROZINE has limited residual activity. However, dependent on weather conditions following application, subsequent flushes of weeds may not be controlled by the initial treatment.

Occasional transitory leaf burn may occur. The temporary leaf burn is similar to that seen with liquid fertilizer. Because the activity of BROZINE is not systemic, recovery of the crop is generally rapid with no lasting effect.

When tank mixing or sequentially applying atrazine or products containing atrazine to corn or sorghum, do not exceed an application rate of 2.0 pounds active ingredient of atrazine per acre for any single application and the total pounds of atrazine applied (lbs. ai/A) must not exceed 2.5 pounds active ingredient per year.

When tank-mixing or sequentially applying atrazine or products containing atrazine to crops other than corn or sorghum, the total pounds of atrazine applied (lbs. ai/A) must not exceed the specific seasonal rate limits as noted in the use directions.

Postemergence application to corn and sorghum must be made before corn and sorghum reaches 12 inches in height.

Pre-Harvest Intervals (PHI):

Field corn forage uses: 60-day PHI

Sweet corn forage uses: 45-day PHI

Preemergent sorghum forage uses: 60-day PHI

Postemergent sorghum forage uses: 45-day PHI

Maximum broadcast application rates for corn and sorghum must be as follows:

- If no atrazine was applied prior to corn/sorghum emergence, apply a maximum of 2 lb ai/A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lb ai/A per calendar year.
- Apply a maximum of 2.0 lb ai/A as a single preemergence application on soils that are not highly erodible (As defined by the Natural Resource Conservation Service) or on highly erodible (As defined by the Natural Resource Conservation Service) soils if at least 30% of the soil is covered with plant residues; or
- Apply a maximum of 1.6 lb ai/A as a single preemergence application on highly erodible (As defined by the Natural Resource Conservation Service) soils if < 30% of the surface is covered with plant residues; or 2.0 lb ai/A applied postemergence.

### MIXING, LOADING AND HANDLING INSTRUCTIONS

#### 2.5 Gallon Containers

It is strongly recommended that special care be taken in mixing and loading this product. Hands should be placed on the container in such a way as to avoid possible drip or splash. Correct procedures for mixing and loading are provided in Loveland Products, Inc.'s Educational Program.

#### 30 Gallon and Bulk Containers

If you will handle a total of 120 gallons or more of this product per day, you must use a mechanical transfer system for all mixing and loading operations. If this product is packaged in a 30 gallon drum, you must use a mechanical transfer system which terminates in a dripfree hard coupling which may be used only with a spray or mix tank which has been fitted with a compatible coupling. If you do not presently own or have access to a mechanical transfer system with this type of coupling, contact your dealer for information on how to obtain such a system or to modify your present system. When using a mechanical transfer system, do not remove or disconnect the pump or probe from the container until the container has been emptied and rinsed. The pump or probe system must be used to rinse the empty container and to transfer the rinsate directly to the mixing or spray tank.

**BROZINE ALONE:** Fill the spray tank  $\frac{1}{2}$  to  $\frac{3}{4}$  full with clean water. Begin agitation and add the recommended amount of BROZINE. Add water to the spray tank to the desired level. Maintain sufficient agitation to ensure a uniform spray mixture during application.

**TANK MIXTURES:** BROZINE can be applied in tank mixture with many other herbicides and insecticides provided that these other products are registered for use on the crop/use site to be treated. The tank mix must be used in accordance with the more restrictive pesticide label limitations and precautions. Refer to the specific crop section for rate recommendations and other restrictions. To apply BROZINE in mixture with another product, fill the spray tank  $\frac{1}{2}$  to  $\frac{3}{4}$  full with clean water and begin agitation. Add the BROZINE first and mix thoroughly. Add the other product to the tank while maintaining agitation and add water to the spray tank to the desired level. Always mix one product in water thoroughly before adding another product or compatibility problems may occur. Never mix two products together without first mixing in water.

Maintain sufficient agitation while mixing and during application to ensure a uniform spray mixture. If spray mixture is allowed to remain without agitation for short periods of time, be sure to agitate until uniformly mixed before application.

If tank mixing with products other than those listed within each crop section, a compatibility test is recommended to ensure satisfactory spray preparation. 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. To ensure maximum crop safety and weed control, follow all cautions and limitations on this label and the labels of products used in the tank mixture with BROZINE.

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### SPRAYABLE LIQUID FERTILIZERS AND SPRAY ADDITIVES

BROZINE can be applied in combination with sprayable liquid fertilizer or spray additives such as surfactants or crop oil concentrate. When tank mixing with liquid fertilizer always add the fertilizer to the spray tank first and agitate thoroughly before adding BROZINE. Always predetermine the compatibility with liquid fertilizer by mixing small proportional quantities in advance. Agitation must be maintained during filling and application operations to ensure that BROZINE is evenly mixed with the fertilizer.

NOTE: Fertilizers and spray additives can increase foliage leaf burn when applied with BROZINE. Do not apply fertilizers or spray additives with BROZINE if leaf burn is a major concern due to environmental conditions, crop or variety sensitivity to BROZINE.

### APPLICATION PROCEDURES

BROZINE can be applied to registered use areas by ground, and aerial application equipment. Aerial application is prohibited within 300 feet of residential areas (e.g. homes, schools, playgrounds, shopping areas, hospitals, etc.). Do not apply with backpack or hand-held application equipment. Do not apply this product through any type of irrigation system.

### GROUND APPLICATION

Use a standard herbicide boom sprayer that provides uniform and accurate application. Sprayer should be equipped with screens no finer than 50 mesh in the nozzle tips and inline strainers. Select a spray volume and delivery system that will ensure thorough and uniform spray coverage. For optimum spray distribution and thorough coverage use of flat fan nozzles (maximum tip size 8008) with a spray pressure of 40-60 psi are recommended. Other nozzle types and lower spray pressures that produce coarse spray droplets may not provide adequate coverage of the weeds to ensure optimum control. Raindrop® nozzles and flood nozzles are not recommended as weed control with BROZINE may be reduced. In general, a spray volume of 10 to 20 gallons per acre (GPA) is recommended for optimum spray coverage. A minimum of 5 GPA with a minimum spray pressure of 50 psi and a maximum ground speed of 10 mph may be used with higher speed, low volume ground application if ground terrain, crop and weed density allow effective spray distribution. When using higher speed equipment a maximum speed of 10 mph is suggested if field conditions cause excessive boom movement during application which results in poor spray coverage. Ground applications made when dry, dusty field conditions exist may provide reduced weed control in wheel track areas. Applications using less than 10 gallons per acre may result in reduced weed control.

When weed infestations are heavy, use of higher spray volumes and spray pressure will be helpful in obtaining uniform weed coverage. When corn or grain sorghum are large enough to interfere with the spray pattern, drop nozzles should be used to obtain uniform weed coverage. If you are unsure of the infestation level or size of the crop, consult your local extension service. Do not apply when winds are gusty or when other conditions favor poor spray coverage and/or off target spray movement.

### AERIAL APPLICATION

Use orifice discs, cores and nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage. In general, a minimum spray volume of 5 GPA and a maximum pressure of 40 psi are recommended.

Do not apply during inversion conditions, when winds are gusty or when other conditions favor poor spray coverage and/or off target spray movement. Off target spray movement can be minimized by increasing the spray volume per acre and not applying when winds exceed 10 mph.

### CULTIVATION

When properly utilized, timely cultivations may aid overall weed control efforts as well as crop growth. However, cultivation BEFORE or DURING BROZINE applications may place target weeds under stress, resulting in erratic weed control. Whenever BROZINE is being utilized in an overall weed control program, plan to postpone any anticipated cultivations until 5-7 days after application to ensure best performance.

### 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 and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift 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 move nozzles on the boom must not exceed  $\frac{3}{4}$  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 Information.

### AERIAL DRIFT REDUCTION ADVISORY INFORMATION IMPORTANCE OF 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 Inversion section of this label).

### 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-** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. 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 backwards, parallel to the airstream, will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce the 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 larger droplets than other nozzle types.

**Boom Length-** For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application-** Applications should not be made at a height greater than 10 feet above the top of the largest 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 cross-wind, 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 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 light variable winds common during inversions. Temperature inversions are characterized by increasing temperature 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 layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards 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

Postemergence application of BROZINE herbicide will control the following weeds when sprayed in the seedling stage.

#### MOST SUSCEPTIBLE BROADLEAF WEED SPECIES

Annual Sowthistle	( <i>Sonchus oleraceus</i> )
Black Nightshade	( <i>Solanum nigrum</i> )
Blue Mustard	( <i>Chorispora tenella</i> )
Bristly starbur	( <i>Acanthospermum hispidum</i> )
Coast Fiddleneck	( <i>Amsinckia intermedia</i> )
Common Cocklebur	( <i>Xanthium strumarium</i> )
Common Lambsquarters	( <i>Chenopodium album</i> )
Common Tarweed	( <i>Hemizonia congesta</i> )
Cutleaf Nightshade	( <i>Solanum triflorum</i> )
Eastern Black Nightshade	( <i>Solanum ptycanthum</i> )
Field Pennycress	( <i>Thlaspi arvense</i> )
Green Smartweed	( <i>Polygonum scabrum</i> )
Hairy Nightshade	( <i>Solanum sarchooides</i> )
Jimsonweed	( <i>Datura stramonium</i> )
Ladysthumb	( <i>Polygonum persicaria</i> )
Lanceleaf sage	( <i>Salvia reflexa</i> )
Pennsylvania Smartweed	( <i>Polygonum strumarium</i> )
Pepperweed spp.	( <i>Lepidium</i> spp.)
Shepherdspurse	( <i>Capsella bursapastoris</i> )
Silverleaf Nightshade	( <i>Solanum elaeagnifolium</i> )
Tartary Buckwheat	( <i>Fagopyrum tataricum</i> )
Sunflower	( <i>Helianthus annuus</i> )
Wild Buckwheat	( <i>Polygonum convolvulus</i> )

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**SUSCEPTIBLE BROADLEAF WEED SPECIES**

Buffalobur	( <i>Solanum rostratum</i> )
Burcucumber	( <i>Sicyos angulatus</i> )
Common Groundsel	( <i>Senecio vulgaris</i> )
Common ragweed	( <i>Ambrosia artemisiifolia</i> )
Corn Chamomile	( <i>Anthemis arvensis</i> )
Corn Gromwell	( <i>Lithospermum arvense</i> )
Cow Cockle	( <i>Saponaria vaccaria</i> )
Giant Ragweed	( <i>Ambrosia trifida</i> )
Hemp Sesbania	( <i>Sesbania exaltata</i> )
Ivyleaf morningglory	( <i>Ipomoea hederacea</i> )
Knawel	( <i>Scleranthus annuus</i> )
Kochia	( <i>Kochia scoparia</i> )
London Rocket	( <i>Sisymbrium irio</i> )
Marestail	( <i>Conza canadensis</i> )
Mayweed	( <i>Anthemis cotula</i> )
Pitted morningglory	( <i>Ipomoea lacunosa</i> )
Pokeweed	( <i>Phytolacca americana</i> )
Prostrate Knotweed	( <i>Polygonum aviculare</i> )
Puncture Vine	( <i>Tribulus terrestris</i> )
Redroot Pigweed	( <i>Amaranthus retroflexus</i> )
Russian Thistle	( <i>Salsola kali</i> )
Spiny Pigweed	( <i>Amaranthus spinosus</i> )
Tall Morningglory	( <i>Ipomoea purpurea</i> )
Tall Waterhemp	( <i>Amaranthus tuberculatus</i> )
Tumble mustard	( <i>Sisymbrium altissimum</i> )
Velvetleaf	( <i>Abutilon theophrasti</i> )
Venice Mallow	( <i>Hibiscus trionum</i> )
Wild Mustard	( <i>Sinapsis arvensis</i> )
Wild Radish	( <i>Raphanus raphanistrum</i> )

**WEED SUPPRESSION**

BROZINE suppresses the growth of Canada thistle (*Cirsium arvense*) by burning down top growth. Regrowth may occur.

**CORN (FIELD AND POP) AND SORGHUM (GRAIN AND FORAGE)  
 BROZINE RECOMMENDATIONS**

**APPLICATION INSTRUCTIONS**

Post emergence application to corn and sorghum must be made before corn and sorghum reaches 12 inches in height.

PRODUCT	RATE	APPLICATION TIMING AND SPECIFIC COMMENTS	
		CROP	WEEDS
BROZINE	Pre-emergence 1½-3 pints/A	Apply to corn or sorghum before planting until just prior to crop emergence.	See APPLICATION RATE TABLE for list of weeds and corresponding maximum stage of growth that are controlled by BROZINE at 1½, 2, or 3 pints/A.
	1½-2 pints/A	Apply to corn after emergence but before corn is 12 inches tall.  Apply to sorghum after the 3 leaf stage but prior to the preboot stage (growth stage 4) or 12 inches in height, whichever comes first.	
	3 pints/A	Apply to corn between the 4 leaf stage but before corn is 12 inches tall.  Apply to sorghum after the 4 leaf stage but prior to the pre-boot stage (growth stage 4) or 12 inches in height, whichever comes first.	

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APPLICATION RATE TABLE FOR CORN AND SORGHUM

WEED SPECIES When determining leaf stage, count all leaves except cotyledonary leaves	BROZINE RATE					
	1½ Pints/A		2 Pints/A		3 Pints/A	
	MAX LEAF STAGE (INCHES)	MAX WEED HEIGHT (INCHES)	MAX LEAF STAGE (INCHES)	MAX WEED HEIGHT (INCHES)	MAX LEAF STAGE (INCHES)	MAX WEED HEIGHT (INCHES)
Black nightshade ( <i>Solanum nigrum</i> )	4	4	6	6	6	6
Buffalobur ( <i>Solanum rostratum</i> )	4	4	6	4	6	4
Burcucumber ( <i>Sicyos angulatus</i> )	-	-	4	4	4	4
Common cocklebur ( <i>Xanthium pensylvanicum</i> )	6	8	8	10	10	12
Common Lambsquarters ( <i>Chenopodium album</i> )	-	6	-	10	-	12
Common ragweed ( <i>Ambrosia artemisiifolia</i> )	6	4	8	6	8	6
Eastern black nightshade ( <i>Solanum ptycanthum</i> )	4	4	6	6	6	6
Entireleaf morningglory ( <i>Ipomoea hederacea</i> )	-	-	4	3	4	3
Giant ragweed ( <i>Ambrosia trifida</i> )	4	6	6	8	6	8
Hemp sesbania ( <i>Sesbania exaltata</i> )	4	4	4	4	4	4
Ivyleaf morningglory ( <i>Ipomoea hederacea</i> )	3	3	4	4	4	4
Jimsonweed ( <i>Datura stramonium</i> )	4	4	6	6	6	6
Kochia ( <i>Kochia scoparia</i> )	-	2	-	2	-	4
Ladysthumb ( <i>Polygonum persicaria</i> )	4	4	6	6	8	8
Marestail ( <i>Conza canadensis</i> )	-	-	-	5	-	5
Palmleaf morningglory ( <i>Ipomoea wrightii</i> )	-	-	4	3	4	3
Pennsylvania smartweed ( <i>Polygonum pensylvanicum</i> )	4	4	6	6	8	8
Pitted morningglory ( <i>Ipomoea lacunosa</i> )	3	3	4	4	4	4
Pokeweed ( <i>Phytolacca americana</i> )	4	4	6	6	6	6
Prickly sida ( <i>Sida spinosa</i> )	-	-	4	1	6	2
Puncturevine ( <i>Tibulus terrestris</i> )	-	-	-	-	6	-
Purple morningglory ( <i>Ipomoea muricata</i> )	-	-	2	3	2	3
Redroot pigweed <sup>1</sup> ( <i>Amaranthus retroflexus</i> )	4	2	6	4	8	6
Small flower morningglory ( <i>Jacquemontia tamnifolia</i> )	-	-	4	3	4	3
Smooth pigweed <sup>1</sup> ( <i>Amaranthus hybridus</i> )	4	2	4	2	6	4
Spiny pigweed <sup>1</sup> ( <i>Amaranthus spinosus</i> )	4	2	6	4	8	6
Sunflower ( <i>Helianthus annuus</i> )	6	8	8	10	10	12
Tall morningglory ( <i>Ipomoea purpurea</i> )	3	3	4	4	4	4
Tall waterhemp <sup>1</sup> ( <i>Amaranthus tuberculatus</i> )	4	2	6	4	8	6
Toothed spurge ( <i>Euphorbia dentata</i> )	-	-	4	4	4	4
Velvetleaf ( <i>Abutilon theophrasti</i> )	4	3	6	5	8	6
Venice mallow ( <i>Hibiscus trionum</i> )	4	2	4	2	4	2
Wild Buckwheat ( <i>Polygonum convolvulus</i> )	6	8	8	10	10	12
Wild mustard ( <i>Sinapis arvensis</i> )	4	4	4	4	4	4

WEED SUPPRESSED

Canada Thistle ( <i>Cirsium arvense</i> )			
BROZINE suppresses the growth by burning down of top growth. Regrowth may occur.	Not Recommended	8 Inch To Bud Stage	8 Inch To Bud Stage

<sup>1</sup>If pigweeds (*Amaranthus* spp.) present in the field to be treated have been identified as triazine resistant biotypes, use BROZINE only at 3 pints/A. Control of pigweeds in the high plains areas of Texas and Oklahoma may not be satisfactory with BROZINE. Repeat applications may be necessary to achieve satisfactory control in these areas. Applications should be made when pigweeds do not exceed the 4 leaf stage and 2 inches in height.

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**BROZINE TANK MIXTURE RECOMMENDATIONS**

PRODUCT	RATE	APPLICATION TIMING AND SPECIFIC COMMENTS	
		CROP	WEEDS
BROZINE + Banvel <sup>1*</sup>	1½-2 pints/A + ⅛-¼ pint/A	Apply to field corn after emergence but before corn is 12 inches tall.  Apply to sorghum between the 3 leaf stage but prior to the preboot stage (growth stage 4) or 12 inches in height, whichever comes first. Use drop nozzles if crop is taller than 8 inches.	All weeds controlled by BROZINE at recommended rates of application plus improved control of pigweed. For field bindweed suppression, use ¼ pint/A of Banvel <sup>1</sup> with BROZINE herbicide.
	3 pints/A + ⅛-¼ pint/A	Apply to field corn between the 4 leaf stage and before corn is 12 inches tall.  Apply to sorghum between the 4 leaf stage but prior to the preboot stage (growth stage 4) or 12 inches in height, whichever comes first. Do not apply in the boot stage. Use drop nozzles if crop is taller than 8 inches.	
BROZINE + 2,4-D (such as Weedone <sup>2</sup> and Weedar <sup>2</sup> brand)	1½-2 pints/A + ⅙-¼ lb ai/A	Apply to field corn after emergence but before corn is 12 inches tall. Use drop nozzles if crop is taller than 8 inches.  Apply to sorghum between the 3 leaf stage but prior to the preboot stage (growth stage 4) or 12 inches in height, whichever comes first. Use drop nozzles if crop is taller than 8 inches.	All weeds controlled by BROZINE at recommended rates of application plus improved control of devil's claw, kochia, field bindweed suppression, and Canada thistle burndown.
	3 pints/A + ⅙-¼ lb ai/A	Apply to field corn between the 4 leaf stage and before corn is 12 inches tall. Use drop nozzles if crop is taller than 8 inches.  Apply to sorghum after the 4 leaf stage but prior to the preboot stage (growth stage 4) or 12 inches in height, whichever comes first. Do not apply in the boot stage. Use drop nozzles if crop is taller than 8 inches.	
BROZINE + Stinger <sup>4</sup>	1½-2 pints/A + ⅓-⅔ pint/A	Apply to field corn after emergence but before corn is 12 inches tall.	All weeds controlled by BROZINE at recommended rates of application plus improved control of devil's claw, kochia, field bindweed suppression, and Canada thistle burndown. For optimum performance apply to Canada thistle at least 4 inches in diameter or height but before bud stage.
	3 pints/A + ⅓-⅔ pint/A	Apply to field corn between the 4 leaf stage and before corn is 12 inches tall.	

\*Clarity<sup>1</sup> may be used at the same rates as Banvel<sup>1</sup> in a tank mixture on corn. These mixtures must be applied before corn exceeds 8 inches in height. Do not use Clarity<sup>1</sup> in a tank mixture with BROZINE on sorghum.

PRODUCT	RATE	APPLICATION TIMING AND SPECIFIC COMMENTS	
		CROP	WEEDS
BROZINE + Accent <sup>5</sup> + non-ionic surfactant	1½-2 pints/A + ⅔ oz/A + 1 qt/100 gal. of water (0.25% v/v)	Apply to field corn preemergence or postemergence but before corn is 12 inches tall. Do not apply this tank mix to sorghum.	All broadleaf weeds controlled by BROZINE plus grasses and broadleaves controlled by Accent. For optimum weed control, treat when broadleaves and grasses are in the recommended growth stage or size. Follow the weed size guidelines on the BROZINE or Accent labels that are least restrictive.
	3 pints/A + ⅔ oz/A + 1 qt/100 gal. of water (0.25% v/v)	Apply to field corn between the 4 leaf stage of crop growth but before corn is 12 inches tall. Do not apply this tank mix to sorghum.	

**General Precautions and Restrictions:** Corn (Field and Pop) and Sorghum (Grain and Forage)

- Postemergence applications of BROZINE will not adequately control grasses. Therefore, it is recommended that a suitable grass control program be used to provide any required grass control.
- Addition of a spray additive or mixture with liquid fertilizers may cause excessive crop leaf burn.
- Do not use BROZINE on sorghum grown in sandy or loamy sand soils as excessive crop injury may occur.
- Seed corn producers should consult the respective seed corn company regarding tolerance of seed production inbred lines to BROZINE.
- Do not cut crop for feed or graze within 45 days after application.
- A second application of BROZINE may be applied if a new flush of weeds occurs following the first application. The total cumulative rate should not exceed 4 pints/A per season.
- Do not use BROZINE on any crop other than stated on this label.
- Application to grain sorghum growing under stress caused by minor element deficiency or to grain sorghum growing on highly calcareous soil may result in crop injury.
- Special care should be taken when using BROZINE and Banvel, Clarity or 2,4D tank mixtures to avoid off target drift to sensitive crops.
- Tank mixtures with 2,4D, Banvel, or Clarity can cause stalk brittleness to field corn. Tank mixtures with 2,4-D and Banvel can cause stalk brittleness to sorghum. Winds or cultivation may cause breakage while crop is brittle.
- Do not apply BROZINE herbicide at any rate to sorghum which has reached the boot stage of growth as severe crop injury, including loss of crop yield may result.
- Postemergence application prior to the 3 leaf stage of corn may result in increased crop leaf burn.
- Do not apply BROZINE prior to the 3 leaf stage to seed corn inbreds or popcorn as excessive crop leaf burn may occur.
- Tank mixtures with Accent + nonionic surfactant may result in increased crop leaf burn. Use of crop oil concentrate, nitrogen solution or other adjuvants in BROZINE + Accent tank mixtures may result in a further increase in crop leaf burn.
- Aerial application is prohibited within 300 feet of residential areas (e.g., homes, schools, playgrounds, shopping areas, hospitals, etc.)
- Do not apply with backpack or hand-held equipment.

**CROP ROTATION**

BROZINE contains atrazine at ¼ lb active per pint of product. Due to the residual activity of the atrazine, injury to crops planted in treated fields the following season may occur. Consult your local extension service on the potential for atrazine carryover injury to rotational crops for your soil types and weather conditions encountered following application. If in doubt about your specific situation, a soil test prior to planting rotation crops is recommended to determine the amount of atrazine remaining and its potential to cause crop injury to the intended crop.

**ATRAZINE RATE RESTRICTIONS**

Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or higher setbacks) which are different from the label, the more restrictive/protective requirements apply.

**PrePlant/Pre-emergence Use**

This product contains atrazine at 0.25 lb ai per pint. If BROZINE is applied preplant or pre-emergence with appropriately registered products containing atrazine, the following restrictions apply:

On highly erodible soils where conservation tillage is utilized (>=30% plant residue), the maximum allowable atrazine rate per growing season is 2.0 lb ai/A. On highly erodible

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soils where plant residue is < 30%, the maximum allowable atrazine rate is 1.6 lb ai/A. On soils not highly erodible, the maximum allowable soil applied atrazine rate is 2.0 lb ai/A.

**Postemergence Use**

This product contains atrazine at 0.25 lb ai per pint. Where there has been no previous atrazine soil application to the crop, if BROZINE is applied postemergence with appropriately registered products containing atrazine, the total amount of atrazine applied cannot exceed 2.0 lb ai/A. Where a previous soil application of atrazine has been made to the crop, if BROZINE is applied postemergence with appropriately registered products containing atrazine, the total amount of atrazine applied cannot exceed 2.5 lb ai/A per calendar year.

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**  
**BEFORE BUYING OR USING THIS PRODUCT**, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL, THIS PRODUCT IS SOLD AS IS TO THE EXTENT ALLOWED BY APPLICABLE LAW. LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL, BUYER OR USER MUST SEND, TO THE EXTENT REQUIRED BY APPLICABLE LAW, WRITTEN NOTICE OF SUCH CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, 7251 WEST 4TH STREET, GREELEY, CO 80634.

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<sup>1</sup>Registered trademark of Sandoz Crop Protection Corporation.

<sup>2</sup>Registered trademark of Rhone Poulenc Ag Company.

<sup>3</sup>Registered trademark of Delavan Corporation.

<sup>4</sup>Registered trademark of DowElanco Corporation.

<sup>5</sup>Registered trademark of E. I. duPont de Nemours and Co.

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