



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

December 21, 2022

Marcia Trostle  
Senior Advisor – Chemistry Registration  
Loveland Products Inc.  
P.O. Box 1286  
Greeley, CO 80632-1286

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from the Interim Decision for Bromoxynil and the National Marine Fisheries Services' (NMFS) Biological Opinion on the Effects of Bromoxynil on Pacific Salmonids  
*Product Name: BROCLEAN*  
*EPA Registration Number: 34704-891*  
*Application Dates: 3/23/2020 and 9/2/2021*  
*Decision Numbers: 560947 and 578351*

Dear Marcia Trostle:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Bromoxynil Interim Decision. The Agency has concluded that your submission is acceptable.

This letter also addresses the label mitigation resulting from the NMFS' Biological Opinion on the effects of Bromoxynil on Pacific salmonids. The Agency has concluded that your submission is also acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling

before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Quinn Gavin at [gavin.quinn@epa.gov](mailto:gavin.quinn@epa.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a long horizontal flourish extending to the right.

Linda Arrington, Branch Chief  
Risk Management and Implementation Branch 4  
Pesticide Re-Evaluation Division  
Office of Pesticide Programs

Enclosure



Bromoxynil GROUP 6 HERBICIDE

# BROCLEAN®

HERBICIDE FOR THE CONTROL OF CERTAIN BROADLEAF WEEDS IN CORN (FIELD AND POP), SORGHUM (GRAIN AND FORAGE), SUDANGRASS, BARLEY, OATS, RYE, TRITICALE, WHEAT, SEEDLING ALFALFA, FLAX, GARLIC, ONIONS (DRY BULB), MINT, GRASSES GROWN FOR SEED AND SOD PRODUCTION, CONSERVATION RESERVE PROGRAM (CRP) AREAS, NON-RESIDENTIAL TURFGRASS, AND NON-CROPLAND/INDUSTRIAL SITES.

**ACTIVE INGREDIENT:**

Octanoic acid ester of bromoxynil\*  
(3,5-dibromo-4-hydroxybenzotrile)

33.4%

**OTHER INGREDIENTS\*\*:**

66.6%

**TOTAL**

**100.0%**

\*\* Contains xylene range/petroleum distillates.

\* Bromoxynil octanoate equivalent to 22.9% of bromoxynil or not less than 2.0 pounds of bromoxynil per gallon.

## KEEP OUT OF REACH OF CHILDREN CAUTION

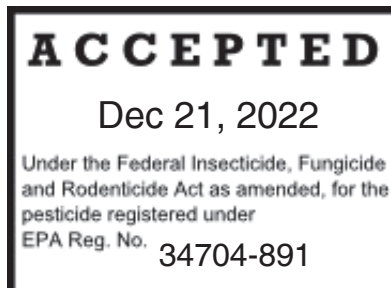
For Additional Precautionary Statements, Complete First Aid, Directions for Use, Storage and Disposal and Other Use Information, See Inside This Label Booklet.

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 to 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 any 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 to 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>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.  <b>FOR A MEDICAL EMERGENCY INVOLVING THIS PRODUCT CALL: 1-866-944-8656.</b>  <b>Note to Physician:</b> Contains petroleum distillate. Vomiting may cause aspiration pneumonia.</p>	

EPA REG. NO. 34704-891

EPA EST. NO. 51036-GA-1

NET CONTENTS 2.5 GALS. (9.46 L)



03102016 draft

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS AND DOMESTIC**  
**ANIMALS**  
**CAUTION**

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

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants,
- Chemical resistant gloves made of Barrier Laminate, Nitrile Rubber  $\geq$  14 mils, Neoprene Rubber  $\geq$  14 mils, or Viton®  $\geq$  14 mils gloves,
- Chemical resistant apron when cleaning equipment, mixing, and loading,
- Protective eyewear,
- Shoes plus socks.

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.

**ENGINEERING CONTROLS**

When handlers use closed systems, 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.

Handlers must use closed mixing loading systems during mixing/loading liquids for aerial applications to fallow land and high-acreage field crops.

If you will handle a total of 60.0 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 30.0 gallon drum, you must use a mechanical transfer system which terminates in a drip-free 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.

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.

APPLICATION BY CHEMIGATION must be done by fixed pipe, overhead sprinkler systems or hand moved pipe. If hand moved pipe is used for chemigation, the pipe must not be handled in any way until 24 hours after chemigation has been completed and residues have been flushed from the system. When applying by chemigation, no person may enter the application site unless in an enclosed vehicle.

DURING AERIAL APPLICATION, human flaggers are prohibited unless in enclosed vehicles. Aerial application is prohibited within 300 feet of residential areas (e.g. homes, schools, hospitals, shopping areas, etc.).

**USER SAFETY RECOMMENDATIONS**

**Users should:**

Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. 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 is toxic to wildlife and fish. Use with care when applying to areas frequented by wildlife or adjacent to any body of water. 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 apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of equipment washwaters.

Reporting Ecological Incidents: To report ecological incidents, including mortality, injury, or harm to plants and animals, call **1-800-222-1222**.

NON-TARGET ORGANISM ADVISORY STATEMENT: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Read entire label before using this product.

**Endangered Species Protection Requirements:** It is a Federal offense to use any pesticide in a manner that results in an unauthorized "take" (e.g., kill or otherwise harm) of an endangered species and certain threatened species, under the Endangered Species Act section 9. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the area in which you are applying the product. You must obtain a Bulletin no earlier than six months before using this product. To obtain Bulletins, consult <http://www.epa.gov/espp/>, call 1-844-447-3813, or email ESPP@epa.gov. You must use the Bulletin valid for the month in which you will apply the 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.

### Restrictions

- Handlers must use closed mixing loading systems during mixing/loading liquids for aerial applications to fallow land and high-acreage field crops.
- Do Not Apply this product to Golf Course Turf

### 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).**

For all crops except those noted below, the REI is 24 hours.

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 2 days for onion, alfalfa, corn, grass, mint and garlic.

The REI for turf grown for transplanting (e.g. on sod farms) is 26 days.

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 Barrier Laminate, Nitrile Rubber  $\geq$  14 mils, Neoprene Rubber  $\geq$  14 mils, or Viton®  $\geq$ 14 mils gloves,
- Shoes plus socks,
- Protective eyewear.

For uses on turf grown for transplanting (e.g. on sod farms) notify workers of the application by warning them orally and by posting signs at entrances to treated areas.

### 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 the product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Do not enter or allow others to enter the treated area until sprays have dried.

### RETURNABLE — REFILLABLE CONTAINERS

After use, return the container to the point of purchase or designated locations. This container must only be refilled with Broclean® Herbicide. **DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE.** Prior to refilling, inspect thoroughly for damage such as cracks, punctures, abrasions and damaged or worn out threads on closure devices. Do not refill or transport damaged or leaking containers. Check for leaks after refilling and before

transportation. If the container is not being refilled, return it to the point of purchase.

### **PRODUCT INFORMATION**

Broclean is formulated as an emulsifiable concentrate of octanoic acid ester of bromoxynil containing the equivalent of 2.0 pounds of bromoxynil per gallon.

Broclean is a selective postemergence herbicide for control of important broadleaf weeds infesting field corn, popcorn, sorghum (grain and forage), barley, oats, rye, triticale, wheat, seedling alfalfa, flax, onions (dry bulb), garlic, mint (established peppermint and spearmint), Conservation Reserve Program (CRP) areas, grasses grown for seed or sod production, non-residential turfgrass, and non-cropland and industrial sites. Optimum weed control is obtained when Broclean is applied to actively growing weed seedlings. Broclean is primarily a contact herbicide, therefore thorough coverage of the weed seedlings is essential for optimum control. Broclean has little residual activity. Therefore subsequent flushes of weeds will not be controlled by the initial treatment. Generally crops that form a good canopy will help shade subsequent weed flushes. However, certain crops or short-straw varieties, for example Yaccora Rojo wheat, may not develop the crop canopy fast enough to shade the subsequent flushes of weeds. Occasional transitory leaf burn may occur. The temporary leaf burn is similar to that seen with liquid fertilizer. Because the activity of Broclean is not systemic, recovery of the crop is generally rapid with no lasting effect. Frequency and amount of leaf burn may be greater when crops are stressed by abrasive winds, cool to cold evening temperatures or mechanical injury, such as that caused by hail, sleet or insect feeding. To reduce the potential for temporary leaf burn, make applications to dry foliage in the specified spray volumes per acre when weather conditions are not extreme.

### **WEED RESISTANCE MANAGEMENT**

#### **MODE OF ACTION (MOA)**

Broclean herbicide contains the active ingredient bromoxynil.

Bromoxynil is a nitrile herbicide (Group 6 mode of action) inhibiting photosynthesis.

Contact your local extension agent, crop advisor, or sales representative to find out if suspected resistant weeds to this MOA has been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective mechanisms of actions for each target weed. Use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner.

A given weed population may contain or develop resistance to an herbicide or herbicide MOA after repeated use. Appropriate resistance-management strategies should be followed to mitigate or delay resistance. If levels of control provided by applications of this product is reduced and cannot be accounted for by factors such as misapplication, abnormal levels of target species or extremes of weather, it may be the case that target species have developed a strain resistant to applications of this product.

Suspected herbicide-resistant weeds may be identified by these indicators:

- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

If resistance develops, this product may not provide sufficient control of target species. Where you suspect target species are developing resistance, contact State/local agricultural advisors. If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available, or by a mechanical method such as hoeing or tillage.

Integrated weed management guidelines promote an economically viable, environmentally sustainable, and socially acceptable weed control program regardless of the herbicide(s) used. The highlights of successful integrated weed management include:

1. Correctly identify weeds and look for trouble areas within field to identify resistance indicators.
2. Rotate crops.
3. Start the growing season with clean fields.
4. Rotate herbicide modes of action by using multiple modes of action during the growing season and apply no more than 2 applications of a single herbicide mode of action to the same field in a 2-year period. One method to accomplish this is to rotate herbicide tolerant trait systems.
5. Apply listed rates of herbicides to actively growing weeds at the correct time with the right application techniques.
6. Control any weeds that may have escaped the herbicide application.

**BROCLEAN®**  
**EPA REG. NO. 34704-891**

7. Thoroughly clean field equipment between fields.
8. Scout before and after application to monitor weed populations for early signs of resistance development.
9. Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage ( or other mechanical control methods), cultural ( e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.

Contact your local agronomic advisor for more specific information on integrated weed management for your area. Users should report lack of performance to registrant or their representative. For mixtures including this herbicide note that each listed weed may not be controlled by multiple mechanisms of action. Refer to crop specific directions (below) for maximum application rates and number of applications.

**MIXING, LOADING AND HANDLING INSTRUCTIONS**

2.5 Gallon Containers

Take special care in mixing and loading this product. Place hands on the container in such a way as to avoid possible drip or splash.

30.0 Gallon and Bulk Containers

If you will handle a total of 60.0 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 30.0 gallon drum, you must use a mechanical transfer system which terminates in a drip-free 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.

Broclean ALONE: Fill the spray tank 1/2 to 3/4 full with clean water. Begin agitation and add the specified amount of Broclean. Add water to the spray tank to the desired level. Maintain sufficient agitation to ensure a uniform spray mixture during application.

TANK MIXTURES: Broclean can be applied in tank mixture with many other herbicides and insecticides registered for use on approved crops. Refer to the specific crop section for rate directions and other restrictions. To apply Broclean in mixture with another product, fill the spray tank 1/2 to 3/4 full with clean water and begin agitation. If tank mixing with wettable powder, soluble powder, flowable, or dry flowable products, add the powder or flowable product first. After the other herbicide is thoroughly mixed with water add the specified amount of Broclean and add water to the spray tank to the desired level. If tank mixing with other product types, add the Broclean first before adding the other product. 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.

**COMPATIBILITY OF INSECTICIDES WITH Broclean**

The following foliar insecticides are compatible with Broclean as tank mixtures.

<b>INSECTICIDE COMMON NAME</b>	<b>TRADE NAME</b>	<b>FORMULATION</b>
Dimethoate	Various	Emulsifiable Concentrate
Trichlorfon	Dylox®	Soluble Powder
Chlorpyrifos	Warhawk®	Emulsifiable Concentrate
Malathion	Various	Emulsifiable Concentrate
Permethrin	Pounce®	Emulsifiable Concentrate
Carbaryl	Carbaryl 4L	Sprayable wettable powder or Flowable

If tank mixing with products other than listed above or 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 1.0 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 Broclean.

**SPRAYABLE LIQUID FERTILIZERS AND SPRAY ADDITIVES**

Broclean 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 Broclean. 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 Broclean is evenly mixed with the fertilizer. Leaf burn may occur when Broclean is applied with liquid fertilizer, but new leaves are not adversely affected.

CAUTION: Fertilizers and spray additives can increase foliage leaf burn when applied with Broclean. Do not apply fertilizers or spray additives with Broclean if leaf burn is a major concern due to environmental conditions, crop or variety sensitivity to Broclean. Do not apply Broclean in combination with fertilizer or spray additives if restricted under the individual crop use directions.

**APPLICATION PROCEDURES**

Broclean can be applied to registered use areas by ground, aerial and sprinkler irrigation equipment. The following provides recommended methods of application for each crop.

CROP	TYPE OF APPLICATION EQUIPMENT		
	GROUND	AERIAL	SPRINKLER IRRIGATION
Corn (field and pop)	X	X	X
Sorghum (grain and forage) and Sudangrass	X	X	X
Wheat, barley, oats, rye, triticale.	X	X	X
Seedling alfalfa	X	X	X
Flax	X	X	
Garlic	X	X	X
Onions (dry bulb)	X		X
Mint	X		X
Grass grown for seed or sod production	X	X	X
Conservation Reserve Program	X	X	X
Non-residential turfgrass	X	X	-
Non-cropland/Industrial sites	X	X	-

(X) indicates recommended application use.

**GROUND APPLICATION**

Use a standard herbicide boom sprayer that provides uniform and accurate application. Equip sprayer with screens no finer than 50 mesh in the nozzle tips and in-line 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 minimum 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 are not recommended as weed control with Broclean may be reduced. A spray volume of 10.0 to 20.0 gallons per acre (GPA) is needed for optimum spray coverage. A minimum of 5.0 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 10.0 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, use drop nozzles to obtain uniform weed coverage. If you are unsure of the infestation level or the size of the crop, consult your local extension service.



## AERIAL APPLICATION

Aerial application to fallow land is prohibited within 25 feet of residential areas (e.g., homes, schools, playgrounds, shopping areas, hospitals, etc.).

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.

### MANDATORY SPRAY DRIFT MANAGEMENT

#### Aerial Applications:

- Do not release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Select a nozzle and pressure that deliver fine or coarser droplets
- The distance of the outer most nozzles on the boom must not exceed 75% of the length of the wingspan or 90% of the rotor diameter
- Do not apply during temperature inversions.

#### Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR A VOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

## IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

### Controlling Droplet Size - Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

### Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

### BOOM HEIGHT - Ground Boom

For ground equipment, the boom should remain level with the crop and have minimal bounce.

### RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift.

## SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers 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.

#### **WIND**

Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS. Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### **Sensitive Areas**

The pesticides 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).

Ensure uniform application - to avoid streaked, uneven or overlapped application, use appropriate marking devices.

Thoroughly wash aircraft, especially landing gear, after each day of spraying to remove residues of this product accumulated during spraying or from spills.

#### **Boom Equipment**

For control of weed or brush species listed in this label using conventional boom equipment - Use the specified rates of this product and surfactant in 3.0 to 30.0 gallons of water per acre as a broadcast spray, unless otherwise specified. See the "WEEDS CONTROLLED" section of this label for specific rates. As density of vegetation increases, spray volume should be increased within the recommended range to ensure complete coverage. Carefully select correct nozzle to avoid spraying a fine mist. For best results with ground application equipment, use flat fan nozzles. Check for even distribution of spray droplets.

#### **SPRINKLER IRRIGATION APPLICATION**

Broclean can be applied through sprinkler irrigation systems to barley, oats, rye, triticale, wheat, field corn, popcorn, and grain sorghum, onions (dry bulb), mint, grasses grown for seed or sod production, garlic, Conservation Reserve Program (CRP) areas and seedling alfalfa.

Apply Broclean through sprinkler systems including center pivot, lateral move, side (wheel) roll, solid set or hand move irrigation systems only. If hand moved pipe is used for chemigation, the pipe must not be handled in any way until 24 hours after chemigation has been completed and residues have been flushed from the system. When applying by chemigation, no person may enter the application site unless in an enclosed vehicle. Do not apply this product through any other type of irrigation system.

#### **Specific Requirements For Application Through Automated Sprinkler Irrigation System**

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Agitation is required in the pesticide supply tank when applying the Broclean.
9. Broclean should be applied continuously for the duration of the water application with center pivot and continuous lateral move systems. Application of Broclean should be made during the last 30 to 45 minutes of the irrigation set with other overhead sprinkler systems.
10. For best performance, set the sprinkler system to deliver approximately 0.5 inch or less of water per acre.
11. Remove scale, pesticide residues and other foreign matter from the supply tank and entire injector system. Flush with clean water.
12. If Broclean is diluted in the supply tank, fill the tank with half of the water amount desired, add the Broclean and then add remaining water amount with agitation. Always dilute with at least 4 parts water to 1 part Broclean.
13. Start the sprinklers and then inject Broclean into the irrigation line. Broclean should be injected with a positive

**BROCLEAN®**  
**EPA REG. NO. 34704-891**

displacement pump into the main line at least 8 feet ahead of a right angle turn to insure adequate mixing. Refer to the Broclean label for detailed information on application rates and timings.

### **CHEMIGATION USER RESTRICTIONS**

Do not apply when conditions favor drift, when system connections or fittings leak, or when nozzles do not provide uniform distribution.

Do not connect an irrigation system used for pesticide application to a public water system.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

### **CHEMIGATION USER PRECAUTIONS**

- Application of more than 0.5 inch per acre of irrigation water may result in decreased product performance on certain soils.
- Allow sufficient time for pesticide to be flushed through all the lines and nozzles before turning off irrigation water.
- Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

### **CULTIVATION**

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

### **WEED LIST**

Postemergence application of Broclean will control the following weeds when sprayed in the seedling stage. Maximum weed stage of growth is listed under RECOMMENDED USES for each crop.

### **MOST SUSCEPTIBLE BROADLEAF WEED SPECIES**

Annual Sowthistle ( <i>Sonchus oleraceus</i> )	Field Pennycress ( <i>Thlaspi arvense</i> )
Black Nightshade ( <i>Solanum nigrum</i> )	Green Smartweed ( <i>Polygonum scabrum</i> )
Blue Mustard ( <i>Chorispora tenella</i> )	Hairy Nightshade ( <i>Solanum sarachoides</i> )
Bristly Starbur ( <i>Acanthospermum hispidum</i> )	Jimsonweed ( <i>Datura stramonium</i> )
Coast Fiddleneck ( <i>Amsinckia intermedia</i> )	Ladysthumb ( <i>Polygonum persicaria</i> )
Common Cocklebur ( <i>Xanthium strumarium</i> )	Lanceleaf sage ( <i>Salvia reflexa</i> )
Common Lambsquarters ( <i>Chenopodium album</i> )	Pennsylvania Smartweed ( <i>Polygonum pennsylvanicum</i> )
Common Tarweed ( <i>Hemizonia congesta</i> )	Pepperweed spp. ( <i>annual</i> ) ( <i>Lepidium</i> spp.)
Cutleaf Nightshade ( <i>Solanum triflorum</i> )	Shepherdspurse ( <i>Capsella bursa-pastoris</i> )
Eastern Black Nightshade ( <i>Solanum ptycanthum</i> )	Silverleaf Nightshade ( <i>Solanum elaeagnifolium</i> )
	Tartary Buckwheat ( <i>Fagopyrum tataricum</i> )
	Sunflower <sup>1</sup> ( <i>Helianthus annuus</i> )
	Wild Buckwheat ( <i>Polygonum convolvulus</i> )

<sup>1</sup> For control of sunflower, delay application until first emerging sunflower seedlings are 4 inches in height.

### **SUSCEPTIBLE BROADLEAF WEED SPECIES**

Buffalobur ( <i>Solanum rostratum</i> )	Giant Ragweed ( <i>Ambrosia trifida</i> )
Burcucumber ( <i>Sicyos angulatus</i> )	Hemp Sesbania ( <i>Sesbania exaltata</i> )
Common Groundsel ( <i>Senecio vulgaris</i> )	Ivyleaf morningglory ( <i>Ipomoea hederacea</i> )
Common ragweed ( <i>Ambrosia artemisiifolia</i> )	Knawel ( <i>Scleranthus annuus</i> )
Corn Chamomile ( <i>Anthemis arvensis</i> )	Kochia <sup>2</sup> ( <i>Kochia scoparia</i> )
Corn Gromwell ( <i>Lithospermum arvense</i> )	London Rocket ( <i>Sisymbrium irio</i> )
Cow Cockle ( <i>Saponaria vaccaria</i> )	Mayweed ( <i>Anthemis cotula</i> )

**BROCLEAN®**  
**EPA REG. NO. 34704-891**

Pitted morningglory (*Ipomoea lacunosa*)  
Prostrate Knotweed (*Polygonum aviculare*)  
Puncturevine (*Tribulus terrestris*)  
Redroot Pigweed<sup>2</sup> (*Amaranthus retroflexus*)  
Russian Thistle (*Salsola kali*)  
Spiny Pigweed<sup>2</sup> (*Amaranthus spinosus*)  
Tall Morningglory (*Pomoea purpurea*)

Tall Waterhemp<sup>2</sup> (*Amaranthus tuberculatus*)  
Tumble mustard (*Sisymbrium altissimum*)  
Velvetleaf (*Abutilon theophrasti*)  
Venice Mallow (*Hibiscus trionum*)  
Wild Mustard (*Sinapis arvensis*)  
Wild Radish (*Raphanus raphanistrum*)  
Yellow Starthistle (*Centaurea solstitialis*)

<sup>2</sup> For effective control, these weeds should not exceed the 4 leaf stage or 2 inches in height, whichever comes first.

### **WEED SUPPRESSION**

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

Only the following uses referenced in this label are registered for use in California: seedling alfalfa, wheat, barley, oats, rye and triticale, flax, corn (post emergence application only), sorghum (post emergence application only), onions (dry bulb), garlic; chemigation in seedling alfalfa, barley, oats, rye, triticale, wheat, onions (dry bulb) and garlic; 2,4-D and MCPA tank mixtures in barley, oats, rye, triticale, wheat; 2,4-D and atrazine tank mixtures in corn and sorghum; 2,4-DB tank mixture in seedling alfalfa; grass for seed and sod production, non-residential turfgrass; and non-cropland and industrial sites. All applications must be made with a minimum spray volume of 10 GPA by ground or 5 GPA by air equipment.

### **TANK MIX DIRECTIONS**

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### **SPECIFIC CROP USES**

#### **CEREAL GRAIN CROPS**

Corn (Field and Pop), Sorghum (Grain and Forage) and Sudangrass  
Wheat, Barley, Oats, Rye and Triticale

#### **FORAGE, FIBER AND SPECIALTY CROPS**

Alfalfa (Seedling) Flax  
Garlic  
Mint (Established Peppermint and Spearmint) Onions (dry bulb)

#### **GRASS CROPS**

Conservation Reserve Program (CRP) Areas Grass Grown for Seed or Sod Production Non-Residential Turfgrass

#### **NON-CROPLAND**

Noncropland and Industrial Sites

### **CEREAL GRAIN CROPS CORN (FIELD AND POP), SORGHUM (GRAIN AND FORAGE) AND SUDANGRASS**

### **BROCLEAN ALONE DIRECTIONS APPLICATION TIMING AND SPECIFIC COMMENTS**

See CORN AND SORGHUM APPLICATION RATE TABLE - Broclean for list of weeds and corresponding stages of growth that are controlled by Broclean at recommended rates of application. For control of additional weeds not listed in the rate table see the Weed List.

Use the 2 pints/Acre rate on corn to control susceptible weeds that are growing under less than optimum conditions and where Broclean + atrazine tank mixtures cannot be used.

**Chemigation:** Apply to MOST SUSCEPTIBLE broadleaf weeds up to the 8 leaf stage or 4 inches in height or 2 inches in diameter, whichever comes first. Apply to SUSCEPTIBLE broadleaf weeds up to the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first. Do not use chemigation for control of weeds that exceed 4 inches in height because control may be unacceptable.

**BROCLEAN®**  
EPA REG. NO. 34704-891

<b>RATE</b>	<b>CROP DIRECTIONS</b>
Preemergence 1.0 to 1.5 pt/A	Apply to corn or sorghum before planting until just prior to crop emergence.
1.0 pt/A	Apply to corn after emergence and prior to tassel emergence. Apply to sorghum and sudangrass between the 3 leaf stage but prior to the preboot stage (growth stage 4).
1.5 pt/A	Apply to corn between the 4 leaf stage and prior to tassel emergence. Apply to sorghum and sudangrass between the 4 leaf stage and prior to preboot stage (growth stage 4).
2.0 pt/A	Apply to field corn only between the 4 leaf stage and prior to tassel emergence. Precaution: DO NOT APPLY THE 2.0 pt/A RATE OF BROCLEAN ALONE OR IN TANK MIXTURES TO SORGHUM.
Chemigation 2.0 pt/A only	Apply to corn after emergence and prior to tassel emergence. Apply to sorghum and sudangrass after emergence but prior to preboot stage (growth stage 4). Apply through automated sprinkler irrigation systems with a mechanical transfer loading system only. See MIXING, LOADING AND HANDLING INSTRUCTIONS section for complete details.

**CORN AND SORGHUM APPLICATION RATE TABLE - Broclean only**

<b>WEED SPECIES <sup>1</sup></b>	<b>1.0 Pt/A</b>		<b>1.5 to 2.0 pt/A <sup>4</sup></b>	
	<b>Max Leaf Stage</b>	<b>Max Weed Hgt (inches)</b>	<b>Max Leaf Stage</b>	<b>Max Weed Hgt (inches)</b>
<b>When determining leaf stage, count all leaves except cotyledonary leaves</b>				
Black Nightshade ( <i>Solanum nigrum</i> )	6	6	6	6
Buffalobur ( <i>Solanum rostratum</i> )	4	2	6	4
Burcucumber ( <i>Sicyos angulatus</i> )	-	-	4	4
Common Cocklebur ( <i>Xanthium strumarium</i> )	6	8	8	10
Common Lambsquarters ( <i>Chenopodium album</i> )	-	6	-	8
Common Ragweed ( <i>Ambrosia artemisiifolia</i> )	6	4	8	6
Eastern Black Nightshade ( <i>Solanum ptycanthum</i> )	6	6	6	6
Giant Ragweed ( <i>Ambrosia trifida</i> )	6	4	6	6
Hemp Sesbania ( <i>Sesbania exaltata</i> )	-	-	4	4
Ivyleaf Morningglory ( <i>Ipomoea hederacea</i> )	3	3	4	4
Jimsonweed ( <i>Datura stramonium</i> )	4	4	6	6
Kochia ( <i>Kochia scoparia</i> )	-	-	-	2
Ladysthumb ( <i>Polygonum persicaria</i> )	4	4	6	6
Pennsylvania Smartweed ( <i>Polygonum pensylvanicum</i> )	4	4	6	6
Pitted Morningglory ( <i>Ipomoea lacunosa</i> )	3	3	4	4
Redroot Pigweed <sup>3</sup> ( <i>Amaranthus retroflexus</i> )-			4	2
Spiny Pigweed <sup>3</sup> ( <i>Amaranthus spinosus</i> )			4	2
Sunflower ( <i>Helianthus annuus</i> )	4	6	6	8
Tall Morningglory ( <i>Ipomoea purpurea</i> )	3	3	4	4
Tall Waterhemp <sup>3</sup> ( <i>Amaranthus- tuberculatus</i> )			4	2
Velvetleaf ( <i>Abutilon theophrasti</i> )	4	3	6	5
Venice Mallow ( <i>Hibiscus trionum</i> )	-	-	4	2
Wild Buckwheat ( <i>Polygonum convolvulus</i> )	4	5	6	8
Wild Mustard ( <i>Sinapis arvensis</i> )	-	-	4	4

**WEEDS SUPPRESSED <sup>2</sup>**

Canada Thistle (*Cirsium arvense*) Not Recommended 8 inch to bud stage

- <sup>1</sup> When determining leaf stage, count all leaves except cotyledonary leaves.
- <sup>2</sup> Broclean suppresses the growth by burning down of top growth. Regrowth may occur.
- <sup>3</sup> Control of pigweeds in the high plains areas of Texas and Oklahoma may not be satisfactory with Broclean. Repeat applications may be necessary to achieve satisfactory control.
- <sup>4</sup> Do not apply Broclean at the 2.0 pt/A rate to sorghum.

**BROCLEAN TANK MIXTURE**  
**DIRECTIONS**  
**APPLICATION TIMING AND SPECIFIC COMMENTS**

**Broclean + Atrazine**

See CORN AND SORGHUM APPLICATION RATE TABLE - BROCLEAN + ATRAZINE TANK MIXTURES for list of weeds and corresponding stages of growth that are controlled by Broclean + Atrazine tank mixtures at recommended rates of application. For control of additional weeds not listed in the rate table see the Weed List.

<b>RATE</b>	<b>CROP DIRECTIONS</b>
Preemergence 0.75 to 1 .5pt/A + 0.5 to 1.2 lb AI/A	Apply to corn or sorghum before planting until just prior to crop emergence.
0.75 to 1.0 pt/A + 0.5 to 1.2 lb AI/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.
1.5 pt/A + 0.5 to 1.2 lb AI/A	Apply to corn between the 4 leaf stage and before corn is 12 inches tall. Apply to sorghum between the 4 leaf stage and prior to the preboot stage (growth stage 4) or 12 inches in height, whichever comes first.

**ATRAZINE TANK MIX RESTRICTIONS**

Atrazine is a Restricted Use Herbicide. Due to groundwater concerns, users must read and follow all precautionary statements and instructions on the atrazine label in order to minimize the potential for atrazine to reach groundwater.

CORN AND SORGHUM APPLICATION RATE TABLE												
WEED SPECIES <sup>1</sup>	BROCLEAN AND ATRAZINE RATE (TANK MIX)											
	0.75 Pt/A + 0.5 Lb A/A		0.75 Pt/A + 1.2 Lb		1.0 Pt/A + 0.5 Lb		1.0 Pt/A + 1.2 Lb A/A		1.5 pt/A + 0.5 Lb A/A		1.5 pt/A + 1.2 Lb A/A	
When determining leaf stage, count all leaves except cotyledonary leaves.	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX	MAX
	LEAF	WEE	LEAF	WEE	LEAF	WEE	LEAF	WEE	LEA	WEE	LEAF	WEE
	STG	D	STG	D	STG	D	STG	D	F	D	STG	HGT
Black Nightshade ( <i>Solanum nigrum</i> )	4	4	4	4	6	6	6	6	6	6	6	6
Buffalobur ( <i>Solanum rostratum</i> )	4	4	4	4	6	4	6	4	6	4	6	4
Burcucumber ( <i>Sicyos angulatus</i> )	4	4	4	4	4	4	6	6	6	6	6	6
Common Cocklebur ( <i>Xanthium strumarium</i> )	4	4	4	4	4	4	6	6	6	6	6	6
Common Lambsquarters ( <i>Chenopodium album</i> )	6	8	8	10	8	10	10	12	10	12	10	12
Common Ragweed ( <i>Ambrosia artemisiifolia</i> )	-	6	-	10	-	10	-	12	-	12	-	12
astern Black Nightshade ( <i>Solanum ptycanthum</i> )	6	4	8	6	8	6	8	6	8	6	8	6
Entireleaf Morningglory ( <i>Ipomoea hederacea</i> )	4	4	4	4	6	6	6	6	6	6	6	6
Giant Ragweed ( <i>Ambrosia trifida</i> )	-	-	4	3	4	3	4	3	4	3	4	3
Hemp Sesbania ( <i>Sesbania exaltata</i> )	-	-	4	3	4	3	4	3	4	3	4	3
Ivyleaf Morningglory ( <i>Ipomoea hederacea</i> )	4	6	6	8	6	8	6	8	8	10	8	10
Jimsonweed ( <i>Datura stramonium</i> )	4	4	4	4	4	4	4	4	4	4	4	4
Kochia ( <i>Kochia scoparia</i> )	3	3	4	4	4	4	4	4	4	4	4	4
Ladysthumb ( <i>Polygonum persicaria</i> )	4	4	4	4	6	6	6	6	6	6	6	6
Marestail ( <i>Conyza canadensis</i> )	-	2	-	2	-	2	-	2	-	4	-	4
Palmleaf Morningglory ( <i>Ipomoea wrightii</i> )	4	4	4	4	6	6	8	8	8	8	8	8
Pitted Morningglory ( <i>Ipomoea lacunosa</i> )	-	-	-	3	-	5	-	5	-	5	-	5
Pennsylvania Smartweed ( <i>Polygonum pennsylvanicum</i> )	-	-	4	3	4	3	4	3	4	8	4	3
Pokeweed ( <i>Phytolacca americana</i> )	3	3	4	4	4	4	4	4	4	3	4	4
Prickly Sida ( <i>Sida spinosus</i> )	4	4	4	4	6	6	6	6	6	6	6	6
Puncturevine ( <i>Tribulus terrestris</i> )	4	4	4	4	6	6	8	8	8	4	8	8
Purple Morningglory ( <i>Ipomoea muricata</i> )	-	-	4	4	6	6	6	6	6	6	6	6
Redroot Pigweed <sup>3</sup> ( <i>Amaranthus retroflexus</i> )	-	-	6	2	4	1	6	2	4	1	6	2
Smallflower Morningglory ( <i>Jacquemontia tamnifolia</i> )	-	-	-	-	-	-	6	4	6	4	6	4
Smooth Pigweed <sup>3</sup> ( <i>Amaranthus hybridus</i> )	-	-	2	3	2	3	2	3	2	3	2	3
Spiny Pigweed <sup>3</sup> ( <i>Amaranthus spinosus</i> )	4	2	8	6	6	4	8	6	6	4	8	6
Sunflower ( <i>Helianthus annuus</i> )	-	-	4	3	4	3	4	3	4	3	4	3
Tall Morningglory ( <i>Ipomoea purpurea</i> )	4	2	6	4	4	2	6	4	6	4	6	4
Tall Waterhemp ( <i>Amaranthus tuberculatus</i> )	4	2	8	6	6	4	8	6	6	4	8	6
Toothed Spurge ( <i>Euphorbia dentata</i> )	6	8	8	10	8	10	10	12	10	12	10	12
Velvetleaf ( <i>Abutilon theophrasti</i> )	3	3	4	4	4	4	4	4	4	4	4	4
Venice Mallow ( <i>Hibiscus trionum</i> )	4	2	8	6	6	4	8	6	6	4	8	6
Wild Buckwheat ( <i>Polygonum convolvulus</i> )	2	2	2	2	4	4	4	4	4	4	4	4
Wild Mustard ( <i>Sinapis arvensis</i> )												

**WEEDS SUPPRESSED <sup>2</sup>**

Canada thistle ( <i>Cirsium arvense</i> )	Not Recommended	Not Recommended	8"-bud	8"-bud	8"-bud
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<sup>1</sup> When determining leaf stage, count all leaves except cotyledon leaves.

<sup>2</sup> Selected rates of Broclean + atrazine tank mixtures suppress the growth by burning down of top growth. Regrowth may occur.

<sup>3</sup> If pigweeds (*Amaranthus* sp.) present in the field to be treated have been identified as triazine resistant biotypes, use Broclean at 1.5 pt/A in a tank mixture with atrazine at 0.5 to 1.2 lbs A/A. Applications should be made when pigweeds do not exceed the 4-leaf stage and 2 inches in height. Control of pigweeds in the high plains areas of Texas and Oklahoma may not be satisfactory with Broclean + atrazine tank mixtures. Repeat applications may be necessary to achieve satisfactory control.

**ATRAZINE CONVERSION TABLE <sup>1</sup>**

ATRAZINE FORMULATION	LBS A/A	ATRAZINE RATE/A
Atrazine 4L	0.5	1.0 pt
	1.2	2.4 pt
Atrazine 80WP	0.5	0.625 lb

**BROCLEAN®**  
EPA REG. NO. 34704-891

	1.2	1.5 lb
Atrazine 90	0.5	0.6 lb
	1.2	1.3 lb

<sup>1</sup> Follow all precautions and restrictions on the labels of products used in tank mixture with Broclean.

**SPECIAL USE DIRECTIONS FOR OTHER WEED PROBLEMS IN CORN AND SORGHUM**

**Large Common Cocklebur, Common Lambsquarters and Sunflower**

For control of common cocklebur and common lambsquarters up to 14 inches in height and sunflower up to 18 inches in height, use a postemergence application of Broclean at 1.0 pint per acre. Make a second application of Broclean at the same rate 7 to 10 days later.

**Large Velvetleaf**

For control of velvetleaf up to 14 inches in height, use postemergence application of Broclean at 1.5 to 2.0 pints per acre or Broclean + atrazine tank mixture at 1.0 pint per acre + 1.2 pounds active ingredient per acre. Make a second application of Broclean at 1.0 pint per acre 7 to 10 days later, but do not exceed a total of 2.0 pints per acre of Broclean per season on field corn or popcorn.

**Canada Thistle Management**

For effective management of Canada thistle, the following Broclean treatments should be applied to thistle from 8" to the bud stage for in-season burndown of top growth:

Broclean at 1.5 to 2.0 pt/A

Broclean at 1.0 to 1.5 pt/A + atrazine at 0.5 to 1.2 lbs AI/A

Broclean at 1.0 to 1.5 pt/A + Rifle® or Clarity® at 0.25 to 0.5 pt/A

Broclean at 1.0 to 1.5 pt/A + atrazine at 0.5 to 1.2 lbs AI/A + Rifle or Clarity at 0.125 to 0.25 pt/A

Broclean at 1.0 to 1.5 pt/A + 2,4-D at 0.125 to 0.25 lb AI/A

Broclean at 1.0 to 1.5 pt/A + atrazine at 0.5 to 1.2 lbs AI/A + 2,4-D at 0.125 to 0.25 pt/A

If possible follow with cultivation 14 to 21 days after treatment. In the fall apply 2,4-D (such as Salvo), Rifle, Clarity or glyphosate (Makaze®) at recommended rates to Canada thistle 4 to 8 inches tall prior to killing frost. Follow with a similar control program in next year's rotational crop.

**ADDITIONAL BROCLEAN TANK MIXTURE DIRECTIONS  
APPLICATION TIMING AND SPECIFIC COMMENTS**

**Broclean + Rifle**

All weeds controlled by Broclean at recommended rates of application plus improved control of pigweed.

For Canada thistle burndown and field bindweed suppression up to the mid-bloom stage, use 0.25 to 0.5 pt/A of Rifle with Broclean

1.0 pt/A + 0.125 to 0.5 pt/A	Apply to field corn after emergence and before corn is 36 inches tall or 15 days before tassel emergence, whichever comes first. Apply to sorghum between the 3 leaf stage and prior to the preboot stage (growth stage 4) or 15 inches in height, whichever comes first. Do not apply in the bootstage. Use drop nozzles if crop is taller than 8 inches.
1.5 pt/A + 0.125 to 0.5 pt/A	Apply to field corn between the 4 leaf stage and before corn is 36 inches tall or 15 days before tassel emergence, whichever comes first. Apply to sorghum between the 4 leaf stage and prior to the preboot stage (growth stage 4) or 15 inches in height, whichever comes first. Do not apply in the boot stage. Use drop nozzles if

**Broclean + atrazine + Rifle**

All weeds controlled by Broclean + atrazine tank mixtures at recommended rates of application plus improved control of pigweed. For field bindweed suppression, use 0.25 pt/A of Rifle/Clarity with Broclean.

1.0 pt/A + 0.5 to 1.2 lb AI/A + 0.125 to 0.25 pt/A	Apply to field corn after emergence and before corn is 12 inches tall. Apply to sorghum between the 3 leaf stage and 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.
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**BROCLEAN®**  
EPA REG. NO. 34704-891

1.5 pt/A + 0.5 to 1.2 lbs AI/A + 0.125 to 0.25 pt/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 and 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.
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**Broclean + 2,4-D (such as Salvo® and Amine 4 2,4-D Brand Herbicides)**

All weeds controlled by Broclean at recommended rates plus improved pigweed and kochia control. For Canada thistle burndown and field bindweed suppression up to the midbloom stage, use 0.125 to 0.25 lb AI/A of 2,4-D with Broclean.

1.0 pt/A + 0.0625 to 0.25 lb AI/A	Apply to field corn after emergence and prior to tassel emergence. Use drop nozzles if crop is taller than 8 inches. Apply to sorghum between the 3 leaf stage and prior to the preboot stage (growth stage 4) or 15 inches in height. Use drop nozzles if crop is taller than 8 inches.
1.5 pt/A + 0.0625 to 0.25 lb AI/A	Apply to field corn between the 4 leaf stage and prior to tassel emergence. Use drop nozzles if crop is taller than 8 inches. Apply to sorghum between the 4 leaf stage and prior to the preboot stage (growth stage 4) or 15 inches in height. Use drop nozzles if crop is taller than 8 inches.

**Broclean+ atrazine + 2,4-D (such as Salvo® and Amine 4 2,4-D Brand Herbicides).**

All weeds controlled by Broclean + atrazine tank mixtures at recommended rates of application plus improved devils claw control.

<b>RATE</b>	<b>CROP</b>
1.0 pt/A + 0.5 to 1.2 lb AI/A + 0.0625 to 0.25 lb AI/A	Apply to field corn after emergence and before the corn is 12 inches tall. Use drop nozzles if crop is taller than 8 inches. Apply to sorghum between the 3 leaf stage and 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.
1.5 pt/A + 0.5 to 1.2 lb AI/A + 0.0625 to 0.25 lb AI/A	Apply to field corn between the 4 leaf stage and before the corn is 12 inches tall. Use drop nozzles if crop is taller than 8 inches. Apply to sorghum between the 4 leaf stage and 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.

**Broclean + Accent+non-ionic surfactant**

All broadleaf weeds controlled by Broclean at 1.0 or 1.5 pt/A 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 guideline on the Broclean or Accent labels that are least restrictive. Do not apply this tankmix to sorghum.

1.0 pt/A + 0.66 oz/A + 1.0 qt/100 gal of water (0.25% v/v)	Apply to field corn preemergence or post- emergence but before the corn up to 36 inches tall.. Use drop nozzles when corn is 24 to 36 inches tall.
1.5 pt/A 0.66 oz/A + 1.0 qt/100 gal of water (0.25% v/v)	Apply to field corn between the 4 leaf stage of corn growth and before the corn is 36 inches tall. Use drop nozzles when corn is 24 to 36 inches tall.

**Broclean+ atrazine+ Accent+non-ionic surfactant**

All broadleaf weeds controlled by Broclean + atrazine 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 guideline on the Broclean or Accent labels that are least restrictive. Do not apply this tankmix to sorghum.

1.0 pt/A + 0.5 to 1.2 lb AI/A + 0.66 oz/A + 1.0 qt/100 gal of water (0.25% v/v)	Apply to field corn preemergence or post- emergence but before the corn is 12 inches tall..
1.5 pt/A + 0.5 to 1.2 lb AI/A + 0.66 oz/A + 1.0 qt/100 gal of water (0.25% v/v)	Apply to field corn between the 4 leaf stage of corn growth and before the corn is 12 inches tall.

**Broclean + Beacon® + non-ionic surfactant**

All broadleaf weeds controlled by Broclean at 1.0 pt/A plus grasses and broadleaves controlled by Beacon. For optimum weed control, treat when broadleaves and grasses are in the recommended growth stage or size. Follow the weed size guide Broclean or Beacon guidelines on the labels that are least restrictive. Do not apply this tank mix to sorghum

**BROCLEAN®**  
EPA REG. NO. 34704-891

1.0 pt/A + 0.38 to 0.76 oz/A (1 to 2 packets/4 A) + 1.0 qt/100 gals of water (0.25% v/v)	Apply to field corn from 4 to 20 inches in height..
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**Broclean + Stinger®**

All weeds controlled by Broclean at recommended rates of application plus improved Canada thistle burndown. For optimum performance apply to Canada thistle at least 4 inches in diameter or height but before bud stage. Do not apply this tank mix to sorghum

1.0 pt/A + 0.33 to 0.66 pt/A	Apply to field corn after emergence up to 24 inches in height.
1.5 pt/A + 0.33 to 0.66 pt/A	Apply to field corn from 4 leaf stage up to 24 inches in height

**Broclean+ atrazine + Stinger**

All weeds controlled by Broclean + atrazine tank mixtures at recommended rates of application plus improved Canada thistle burndown. For optimum performance apply to Canada thistle at least 4 inches in diameter or height but before bud stage. Do not apply this tank mix to sorghum.

1.0 pt/A + 0.5 to 1.2 lbs AI/A + 0.33 to 0.66 pt/A	Apply to field corn after emergence and before corn is 12 inches tall.
1.5 pt/A + 0.5 to 1.2 lbs AI/A + 0.33 to 0.66 pt/A	Apply to field corn from 4 leaf stage and before corn is 12 inches tall.

**Broclean + Pursuit® + nonionic surfactant + UAN fertilizer solution**

This tank mix will control all broadleaf weeds listed as controlled by Broclean at 0.75 to 1.0 pt/A plus giant foxtail, redroot pigweed, and other grass and broadleaf weeds listed on the Pursuit label.

0.75 to 1.0 pt/A + 4 ozs/A + 1.0 qt/100 gals of water (0.25% v/v) + 1.0 to 2.0 qts/A	Apply this tank mix only on field corn all hybrids possessing resistance to Pursuit herbicide. Contact your seed supplier for further information. Apply this tank mix to corn between the 3 leaf to 8 leaf stage of growth. Do not use crop oil concentrates when applying Broclean + Pursuit tank mixtures.
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**Broclean + glyphosate (Makaze)**

All weeds controlled by Broclean at specified rates of application plus control of certain grass and perennial weeds.

Preemergence 1.0 to 1.2 pt/A + 0.5 to 3.0 pt/A	Apply to corn or sorghum before planting time up until just prior to crop emergence. Refer to glyphosate label for rate to use depending on weeds present at time of application.
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**RESTRICTIONS AND PRECAUTIONS: Corn (Field and Pop), Sorghum (Grain and Forage) and Sudangrass Restrictions:**

- Do not plant rotational crops until the following season.
- Do not cut crop for feed, fodder or graze within 30 days of application.
- The total cumulative rate may not exceed 0.5 lb AI bromoxynil/A (2.0 pt Broclean/A).
- Do not apply the 2.0 pt/A rate of Broclean to sorghum.
- Follow all restrictions and precautions on the label of all products used in tank mixture with Broclean.
- Special care must be taken when using Broclean, Rifle, Clarity or 2,4-D tank mixtures to avoid off target drift to sensitive crops.

**Precautions:**

- Broclean does not 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.
- Seed corn producers should consult the respective seed corn company regarding tolerance of certain seed production inbred lines to Broclean.
- Do not apply Broclean postemergence to seed corn inbreds or popcorn prior to the 3 leaf stage of crop growth as excessive crop leaf burn may occur.
- Postemergence application prior to the 3 leaf growth stage of corn or sorghum may result in increased crop leaf burn.
- Tank mixtures with Accent/nonionic surfactant or Beacon/nonionic surfactant may result in increased initial crop leaf burn. Use of crop oil concentrate, nitrogen fertilizer solution or other adjuvants in Broclean + Accent or Broclean + Beacon tank mixtures may result in a further increase in crop leaf burn.

**BROCLEAN®**  
EPA REG. NO. 34704-891

Tank mixtures with 2,4-D, Rifle, or Clarity can cause stalk brittleness to field corn. Tank mixtures with 2,4-D and Rifle can cause stalk brittleness to sorghum. Winds or cultivation may cause breakage while crop is brittle.

- Do not apply Broclean at any rate to sorghum after the preboot stage of growth (growth stage 4) as severe crop injury, including loss of crop yield may result.
- Do not apply the Broclean + Pursuit tankmix except to field corn hybrids known to possess resistance to Pursuit, or severe crop injury may result.

**WHEAT, BARLEY, OATS, RYE AND TRITICALE BROCLEAN DIRECTIONS APPLICATION TIMING AND SPECIFIC COMMENTS**

<b>RATE</b>	<b>CROP DIRECTIONS</b>	<b>WEEDS</b>
1.0 to 2.0 pt/A	Spring seeded wheat, barley, oats, rye and triticale. Use in all states except Idaho, Oregon, Washington, Colorado, Wyoming and Montana. Apply from emergence up and prior to the boot stage.	Apply 1.0 pt/A to MOST SUSCEPTIBLE and 1.5 to 2.0 pt/A to SUSCEPTIBLE weeds that do not exceed the 4 leaf stage or 2 inches in height, whichever comes first. If weed forms rosette, apply before weeds exceed 1 inch in diameter. Use Broclean at 1.5 to 2.0 pt/A for control of kochia that is 2 to 4 inches in height and pigweed that does not exceed the 4 leaf stage or 2 inches in height, whichever comes first.
1.5 to 2.0 pt/A	Fall seeded wheat, barley, oats, rye and triticale throughout the United States. Apply from emergence to the boot stage. Spring seeded wheat, barley, oats, rye and triticale in Idaho, Oregon, Washington, Colorado, Wyoming and Montana: Apply from emergence up and prior to the boot stage.	Apply to MOST SUSCEPTIBLE weeds (see Weed List) up to the 8 leaf stage or 4 inches in height, whichever comes first. If weed forms rosette apply before weeds exceed 2 inches in diameter. Apply to SUSCEPTIBLE broadleaf weeds up to the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.
Chemigation Only 2.0 pt/A	Apply to wheat, barley, oats, rye and triticale from emergence to the boot stage. Apply through automated sprinkler irrigation systems with a mechanical transfer loading system only. See MIXING, LOADING AND HANDLING INSTRUCTIONS section for complete details.	Apply to MOST SUSCEPTIBLE broadleaf weeds up to the 8 leaf stage or 4 inches in height or 2 inches in diameter, whichever comes first. Apply to SUSCEPTIBLE broadleaf weeds up to the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first. Do not use chemigation for control of weeds that exceed 4 inches in height because control may be unacceptable.
Barley, oats, rye, triticale, and wheat underseeded with alfalfa 1.0 to 1.5 pt/A	Apply to barley, oats, rye, triticale, and wheat underseeded with alfalfa after barley, oats, rye, triticale, and wheat emerge up to the boot stage and when underseeded alfalfa has a minimum of 4 trifoliolate leaves. Follow all precautions and restrictions listed under the barley, oats, rye, triticale, wheat and seedling alfalfa sections.	Apply 1.0 pt/A to MOST SUSCEPTIBLE and 1.5 pt/A to SUSCEPTIBLE broadleaf weeds that do not exceed the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.

**BROCLEAN TANKMIX DIRECTIONS APPLICATION TIMING AND SPECIFIC COMMENTS**

Except where noted below, apply to weeds up to the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.

<b>RATE</b>	<b>CROP</b>
<b>Broclean + 2,4-D (such as Salvo® and Amine 4 2,4-D brand herbicides)</b>	
1.0 to 2.0 pt/A + 0.25 to 0.5 lb Al/A	To improve control of mustards and pigweed Apply to wheat, barley, oats and rye from the fully tillered to 0.5 lb and before jointing stage.

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0.75 to 1.0 pt/A + 0.25 to 0.5 lb Al/A	To improve control of wild buckwheat, redroot pigweed and wild mustard, apply to wheat and barley in Minnesota, North and South Dakota from the fully tillered and before the jointing stage.
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**Broclean + MCPA (such as MCP Amine 4 or MCP Ester 4)**

1.0 to 2.0 pt/A + 0.25 to 0.5 lb Al/A	To improve control of mustards, pigweed and kochia, apply to wheat, barley, oats and rye from the 4 leaf stage and before jointing.
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**Broclean + Rifle.**

1.0 to 1.5 pt/A + 0.125 to 0.25 pt/A	To improve control of broadleaves such as prostrate knotweed. Fall seeded wheat apply prior to the jointing stage. Spring seeded wheat apply up to the 5 leaf stage.
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**Broclean + Glean® + nonionic surfactant**

0.75 to 1.5 pt/A + 0.16 to 0.33 oz/A + 1.0 qt/100 gals of water (0.25% v/v)	To improve control of broadleaves such as henbit, tansy mustard and pigweed, apply to wheat and barley from the 2 leaf stage and before boot stage. Refer to Glean label for crop rotation and other restrictions.
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**Broclean + Ally® + nonionic surfactant**

0.75 to 1.5 pt/A + 0.1 oz/A + 1.0 qt/100 gals of water (0.25% v/v)	To improve control of broadleaves such as tansy mustard and pigweed. Apply to wheat and barley from the 2 leaf stage and before the boot stage. Refer to Ally label for crop rotation and other restrictions.
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**Broclean + Finesse® + nonionic surfactant**

0.75 to 1.5 pt/A + 0.16 to 0.33 oz/A + 1.0 qt/100 gals of water (0.25% v/v)	To improve control of broadleaves such as tansy mustard, henbit, chickweed, and pigweed, apply to wheat and barley from the 2 leaf stage and before the boot stage. Refer to Finesse label for crop rotation and other restrictions.
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**Broclean + Amber® + nonionic surfactant**

0.75 to 1.5 pt/A + 0.28 to 0.56 oz/A + 1 to 2 qts/100 gals of water (0.25 to 0.5% v/v)	To improve control of broadleaves such as tansy mustard, henbit, and pigweed, apply to wheat and barley after the 3 leaf stage and before the flag leaf is visible. Refer to the Amber label for crop rotation and other restrictions.
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**Broclean + Express® + nonionic surfactant**

This tank mix improves control of broadleaf weeds such as redroot pigweed, tansy mustard and suppression of Canada thistle, apply to annual weeds up to the 4 leaf stage, 4 inches tall or across and to Canada thistle 4 to 8 inches tall with 2 to 6 inches of new growth.

Apply after crop is in the 2 leaf stage and before the flag leaf is visible. Refer to Express label for crop rotation and other restrictions.

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1.0 to 1.5 pt/A + 0.16 to 0.33 oz/A + 1.0 qt/100 gals of water (0.25% v/v)	Winter wheat.
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0.75 to 1.5 pt/A + 0.16 to 0.33 oz/A + 1.0 qt/100 gal of water	Spring wheat and barley.
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**Broclean + Harmony® Extra + nonionic surfactant**

Apply to weeds up to 4 leaf stage, 4 inches in height or across whichever comes first.

Refer to the Harmony Extra label for crop rotation and other restrictions.

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0.75 to 1.5 pt/A + 0.3 to 0.5 oz/A + 1.0 qt/100 gals of water (0.25% v/v)	To improve control of broadleaf weeds such as henbit, chickweed and redroot pigweed Winter wheat: Apply after the 2 leaf stage and before the 3rd node is detectable Spring wheat and barley: Apply after the 2 leaf stage and before the 1st node is detectable.
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**Broclean + Curtail® or Curtail M**

Apply to annual broadleaf weeds up to the 8 leaf stage up to 4 inches in height or 2 inches in diameter and Canada thistle in the rosette to prebud stage.

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1.0 to 1.5 pt/A + 2.0 pt/A	To improve control of kochia, wild buckwheat and Canada thistle, apply to wheat and barley after the crop begins to tiller up to the 1st node detectable.
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**Broclean + metribuzin (Metribuzin 75)**

Apply to weeds that do not exceed 2 inches tall or rosettes of 2 inches in diameter. The higher use rates of both products should be used only in emergency weed situations and if some minor crop injury is acceptable. A recognized authority should be consulted concerning the use of this mixture in your area.

Avoid application when crop has experienced winter kill, frost damage, disease or drought.

1.0 to 1.25 pt/A + 0.125 to 0.25 lb AI/A	To improve control of broadleaves such as chickweed, filaree, henbit and dogfennel. Winter wheat in Idaho, Montana, Oregon and Washington. Apply in spring after growth has started and secondary roots with a minimum of 3 to 4 tillers have been established and before boot stage.
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**Broclean + diuron**

Apply to weeds before they are 2 inches tall or 2 inches in diameter.

1.0 pt/A + 0.4 lb AI/A	To improve control of broadleaves such as henbit and gromwell. Winter wheat and winter barley in Idaho, Oregon and Washington. Use only in areas where annual rainfall exceeds 16 inches. One fall application after emergence and before soil freezes or in spring as soon as soil thaws.
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**Broclean + Hoelon®**

To control wild oat, green foxtail and annual ryegrass

Apply to grasses 1-3 leaf stage and broadleaves no larger than 4 leaf stage or rosettes of 1.5 inches in diameter

1.0 to 2.0 pt/A + 2.66 pt/A	Spring Barley: After emergence and before jointing. Avoid using this tank mixture on barley exposed to cold (lower than 40 °F) and/or prolonged wet weather conditions as crop injury may result.
1.0 to 2.0 pt/A + 2.66 to 3.33 pt/A	Winter wheat and spring wheat.: After emergence and before jointing.

**Broclean + Hoelon + crop oil concentrate**

**Restriction: Do not use on barley**

Use a minimum of 10.0 gals of spray volume/A.

1.0 to 2.0 pt/A + 2.0 to 2.66 pt/A + 1.0 to 2.0 pt/A	Winter wheat and spring wheat. After emergence and before jointing.
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**Broclean + Avenge™**

To control wild oats, Apply to wild oats in the 3-5 leaf stage and broadleaves that do not exceed the 4 leaf stage or rosettes of 1.5 inches in diameter.

Avenge use rates per acre are 2.5 pt (1 to 10 oats/sq ft), 3.0 pt (11 to 25 oats/sq ft) or 4.0 pt (more than 25 oats/sq ft). Refer to Avenge label for varietal and other restrictions.

1.0 to 2.0 pt/A + 2.5 to 4.0 pt/A	Winter Wheat. 4 leaf to tillering stage.
	Spring Wheat. 5 to 6 leaf stage.
	Barley. 2 to 7 leaf stage.

**RESTRICTIONS AND PRECAUTIONS: Wheat, Barley, Oats, Rye and Triticale**

**Restrictions:**

- Do not graze treated fields within 45 days following treatment.
- Do not apply when crops are under moisture stress.
- Do not apply when underseeded alfalfa is under moisture, temperature, insect or disease stress or has been stressed by other pesticide carryover or application.
- Do not cut for feed or graze spring treated underseeded alfalfa within 30 days following treatment.
- Do not cut for feed or graze fall or winter treated underseeded alfalfa until spring, at least 60 days following treatment.
- Refer to labels of products used in tank mixture of additional restrictions and precautions.
- Do not plant rotational crops until the following use season.
- The total cumulative rate must not exceed 0.5 lb AI bromoxynil/A (2.0 pt Broclean/A) per year.

**Precautions:**

- Reduced weed control may occur when weeds are stressed from lack of moisture or cold temperatures.
- Do not apply when crop canopy covers the weeds as poor weed control will result.
- Do not add a surfactant or crop oil when applying to underseeded alfalfa or increased injury will occur.

**FORAGE, FIBER AND SPECIALTY CROPS**

**ALFALFA (SEEDLING)**

**BROCLEAN DIRECTIONS APPLICATION TIMING AND SPECIFIC COMMENTS**

Apply 1.0 pt/A to MOST SUSCEPTIBLE broadleaf weeds and 1.5 pt/A for SUSCEPTIBLE broadleaf weeds (See Weed List) when weeds do not exceed 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first. The lower rates of Broclean will not adequately control over-wintered pennycress, henbit and mustards.

<b>RATE</b>	<b>CROP DIRECTIONS</b>
1.0 to 1.5 pt/A	In the states of CA, WA, OR, ID, MT, WY, CO, UT, NV, AZ, NM and the western halves of ND, SD, NE and KS: Apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 2 trifoliates. Unacceptable crop injury may occur to alfalfa seedlings less than the 2 trifoliolate stage. Broclean applications made when temperatures are expected to exceed 80 °F and 3 days following application can result in unacceptable crop injury. In the remaining states apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 4 trifoliolate leaves. When alfalfa stand is uneven and conditions favor leafburn, unacceptable crop injury may occur to alfalfa in the 2 trifoliolate or smaller stage of growth. If you are unsure of growth stage conditions, contact your local extension service. Broclean applications made when temperatures are expected to exceed 70 °F and 3 days following application can result in unacceptable crop injury. Follow all other use directions listed on the Broclean label.
Chemigation Only  2.0 pt/A	Apply to seedling alfalfa with a minimum of 2 trifoliolate leaves. Apply through auto-mated sprinkler irrigation systems with a mechanical transfer loading system only. See MIXING LOADING AND HANDLING INSTRUCTIONS Section for complete details. Broclean applications made when temperatures are expected to exceed 85 °F and 3 days following application can result in unacceptable crop injury.

**BROCLEAN TANK MIXTURE DIRECTIONS**

**APPLICATION TIMING AND SPECIFIC COMMENTS**

**Broclean + Butyrac® 200 (2,4-DB)**

This tank mix improves control of pigweed (sp), kochia, and tansy mustard. Apply when weeds do not exceed the the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first. Broclean + Butyrac 200 tank mixtures will not adequately control over-wintered pennycress, henbit and mustards.

<b>RATE</b>	<b>CROP DIRECTIONS</b>
1.0 pt/A + 1.0 qt/A	Apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 4 trifoliolate leaves. When alfalfa stand is uneven and conditions favor leaf burn, unacceptable crop injury may occur to alfalfa in the 2 trifoliolate or smaller stage of growth. If you are unsure of growth stage conditions, contact your local extension service. In the states of CA, WA, OR, ID, MT, WY, CO, UT, NV, AZ, NM, and the western halves of ND, SD, NE and KS, Broclean applications made when temperatures are expected to exceed 80 °F and 3 days following application can result in unacceptable crop injury. In the remaining states application made when temperatures are expected to exceed 70 °F and 3 days following application can result in unacceptable crop injury. Rainfall or overhead irrigation within 7 to 10 days following a Butyrac application can cause unacceptable crop injury.

<b>RATE</b>	<b>CROP DIRECTIONS</b>
<b>Broclean + Pursuit + non-ionic surfactant</b>	
	This tank mix will control MOST SUSCEPTIBLE broadleaf weeds (See Weed List) when weeds do not exceed the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first; and other grass and broadleaf weeds listed on the Pursuit label. Weeds should be 1 to 3 inches tall for optimum control.

**BROCLEAN®**  
EPA REG. NO. 34704-891

0.75 to 1.0 pt/A + 3.0 to 6.0 ozs/A + 1.0 qt/100 gals of water (0.25% v/v)	In the states of CA, WA, OR, OR, MT, WY, CO, UT, NV, AZ, NM, and the western halves of ND, SD, NE, and KS: Apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 2 trifoliolate leaves. When alfalfa stand is uneven and conditions favor leafburn, unacceptable crop injury may occur to alfalfa treated prior to the 2nd trifoliolate stage of growth. If you are unsure of growth stage conditions, contact your local extension service. Broclean + Pursuit applications made when temperatures are expected to exceed 80 °F at and 3 days following application can result in unacceptable crop injury.
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**Broclean + Pursuit + non-ionic surfactant**

Broclean at 0.5 pt/A tank mixed with Pursuit will control common lambsquarters up to 2 inches in height plus weeds listed on the Pursuit label. Broclean at 0.75 pt/A + Pursuit will control the MOST SUSCEPTIBLE annual broadleaf weeds (See Weed List) when weeds do not exceed the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first plus weeds listed on the Pursuit label. Applications should be made when the majority of the weeds are 1-3 inches tall and when common lambsquarters do not exceed 4 inches in height. For low growing weeds (such as mustards) apply before the rosette exceeds 3 inches in diameter. Refer to the Pursuit label for a list of susceptible weeds at each of the recommended rates.

0.5 to 0.75 pt/A + 3.0 to 6.0 ozs/A + 1.0 qt/100 gals of water (0.25% v/v)	In all states except CA, WA, OR, ID, MT, WY, CO, UT, NV, AZ, NM, and the western halves of ND, SD, NE and KS: Apply in the fall or spring to seedling alfalfa when the majority of the field has a minimum of 2 trifoliolate leaves. When alfalfa stand is uneven and conditions favor leafburn, unacceptable crop injury may occur to alfalfa treated prior to the 2nd trifoliolate stage of growth. If you are unsure of growth stage conditions, contact your local extension service. Broclean + Pursuit applications made when temperatures are expected to exceed 70 °F and 3 days following applications can result in unacceptable crop injury.
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**RESTRICTIONS AND PRECAUTIONS: Alfalfa (Seedling)**

**Restrictions:**

- Do not cut for feed or graze spring treated alfalfa within 30 days following treatment.
- The total cumulative rate of Broclean may not exceed 0.5 lb AI bromoxynil/A (2.0 pt Broclean/A).
- Follow all restrictions and precautions on the tank mixture product label when a Broclean tank mixture is used.
- Broclean alone can be applied to seedling alfalfa that has been underseeded into barley, oats, rye, triticale, wheat that include wheat, barley, oats, rye and triticale. See application restrictions under the BARLEY, OATS, RYE, TRITICALE, WHEAT SECTION.
- Do not cut for feed or graze fall or winter treated alfalfa until spring, at least 60 days following treatment.

**Precautions:**

- Crop leaf burn can occur following Broclean application. Warm, humid conditions may enhance leaf burn. New crop growth will not be affected. Alfalfa yield should not be reduced although total biomass tonnage may decrease compared to a weedy field due to weed removal.
- The use of Eptam® preemergence may enhance crop leaf burn from postemergence application of Broclean and should be considered prior to using Broclean.
- Do not apply when alfalfa is under moisture, temperature, insect or disease stress or has been stressed by other pesticide carry over or application.
- Do not add a surfactant or crop oil unless specified in the use directions because increased alfalfa injury will occur.
- Rainfall or overhead irrigation within 7 to 10 days following Butyrac 200 application can cause unacceptable crop injury.

**FLAX (*Linium usitatissimum* only) BROCLEAN DIRECTIONS  
APPLICATION TIMING AND SPECIFIC COMMENTS**

Weeds: Apply to MOST SUSCEPTIBLE weeds that do not exceed the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first

RATE	CROP DIRECTIONS
1.0 pt/A	Apply to flax that is 2 to 8 inches in height. Do not apply Broclean to flax during or after the bud stage.

**BROCLEAN TANK MIXTURE DIRECTIONS APPLICATION TIMING AND SPECIFIC COMMENTS  
Broclean + Poast + Crop oil Concentrate or Dash®**

**BROCLEAN®**  
EPA REG. NO. 34704-891

This tank mix will control broadleaf weeds plus grassy weeds listed on the Poast label. Apply to MOST SUSCEPTIBLE broadleaf weeds (see list on the Broclean label) that do not exceed the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.

<b>RATE</b>	<b>CROP DIRECTIONS</b>
1.0 pt/A+1.0 to 1.5 pt/A+2.0 pt/A or 2.0 pt/A	Apply to flax that is 2 to 8 inches in height. Do not apply this tank mix to flax during or after the bud stage, or within 75 days of flax harvest.

**RESTRICTIONS AND PRECAUTIONS: Flax (*Linium usitatissium* only)**

**Restrictions:**

- Maximum 0.5 lb AI bromoxynil/A (2.0 pts Broclean/A)
- Preharvest Interval (PHI) is 30 days
- Do not use on ornamental flax.
- Follow all precautions, directions and restrictions on the Poast label when using this tank mixture with Broclean.
- Unless otherwise instructed, do not apply Broclean with crop oil concentrate, surfactants or nitrogen solutions.

**Precautions:**

- Do not apply if temperatures are expected to exceed 85 °F or 3 days following application or crop injury may occur.
- Unacceptable crop injury may occur following Broclean application to flax grown on high organic, peat type soils.
- Application under high humidity conditions can injure flax.

**GARLIC BROCLEAN DIRECTIONS**  
**APPLICATION TIMING AND SPECIFIC COMMENTS**

Apply to MOST SUSCEPTIBLE and SUSCEPTIBLE broadleaf weeds up to the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.

<b>RATE</b>	<b>CROP DIRECTIONS</b>
1.5 to 2.0 pt/A	Apply to garlic after emergence and before 12 inches in height.

**PRECAUTIONS AND RESTRICTIONS: Garlic**

**Restrictions:**

- PHI is 112 days following treatment (except garlic grown in muck soils in Northeastern United States, PHI is 60 days).
- Maximum 0.5 lb AI bromoxynil/A (2.0 pts Broclean/A).
- Broclean can be applied through automated sprinkler irrigation application.

**Precautions:**

Use a minimum of 20.0 gals/A for ground application.

**MINT**  
**(ESTABLISHED PEPPERMINT AND SPEARMINT ONLY)**  
**BROCLEAN DIRECTIONS**  
**APPLICATION TIMING AND SPECIFIC COMMENTS**

Apply to MOST SUSCEPTIBLE and SUSCEPTIBLE weeds that do not exceed the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.

<b>RATE</b>	<b>CROP DIRECTIONS</b>
1.0 to 1.5 pt/A	Apply to dormant or actively growing established peppermint or spearmint crops that exhibit good vigor.



Chemigation 2.0 pt/A only	Apply to dormant or actively growing established peppermint or spearmint crops that exhibit good vigor. Apply through automated sprinkler irrigation systems with a mechanical transfer loading system only. See <b>MIXING, LOADING AND HANDLING INSTRUCTIONS</b> section for complete details.
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**RESTRICTIONS AND PRECAUTIONS: Mint**

**Restrictions:**

- Preharvest interval is 70 days following treatment.
- Do not apply more than 0.5 lb AI bromoxynil/A (2.0 pts Broclean/A) to mint in a single growing season.

**Precautions:**

- Application made to mint when temperatures are expected to exceed 70 °F or 5 days following application may result in unacceptable crop injury. This injury is more likely to occur following Broclean application in the spring.
- Do not apply to mint growing under adverse conditions including diseases, insects, nematodes, high salt content soil, drought, excessive moisture, winter damage or other environmental stress.
- Application of Broclean to mint should not be made within two weeks of a Sinbar® application or unacceptable crop injury may result.
- Due to risk of injury, do not use in spring on newly established mint. Fall applications to spring planted mint should be acceptable if the crop is well established.
- Broclean can cause temporary stunting and discoloration of the mint particularly from the spring application. However, the injury symptoms are only temporary and have not caused yield reduction.
- Use of Broclean in combination with other products may increase temporary stunting and discoloration.

**ONIONS (DRY BULB) BROCLEAN DIRECTIONS  
APPLICATION TIMING AND SPECIFIC COMMENTS**

Apply Broclean at 1.0 pt/A to control MOST SUSCEPTIBLE weeds and 1.5 pt/A for SUSCEPTIBLE weeds. Weeds should not exceed the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.

RATE	CROP DIRECTIONS
Preemergence 1.0 to 1.5 pt/A	Preemergence use restricted to onions (dry bulb) east of the Mississippi River only on muck soils containing greater than 10% organic matter. Apply at least 3 to 4 days prior to emergence. Rainfall or irrigation within 2 days following preemergence applications or 3 days prior to crop emergence may result in unacceptable crop injury. Preemergence applications can be applied using either ground or aerial equipment.
Postemergence 1.0 to 1.5 pt/A	Apply only to onions (dry bulb) which have 2 to 5 true leaves. Use at least 50.0 to 70.0 gals of water/A and <b>apply by ground equipment or chemigation only.</b> Water volume is important – <b>CONCENTRATED SPRAYS KILL ONIONS.</b> Thorough and uniform coverage is necessary for good weed control. In onion-producing areas, certain environmental conditions reduce development of waxy coating on the onion leaves, thus increasing the possibility of injury. Dry soil, dry onion foliage, high light intensity, low humidity, and high temperatures tend to increase the waxy coating on onion leaves and thus reducing chances for injury. It is essential that the soil and onion foliage

**RESTRICTIONS AND PRECAUTIONS: Onions (dry bulb)**

**Restrictions:**

- Do not apply postemergence applications of Broclean to onions with aerial equipment.
- Do not add surfactant.
- Maximum 0.375 lb AI bromoxynil/A (1.5 pts Broclean/A) per year.
- PHI is 30 days.
- Do not irrigate onions that have received a preemergence application of Broclean for 2 days following application or within 3 days of crop emergence.
- Do not use Broclean preemergence to onions grown west of the Mississippi River.
- Do not use Broclean on onions grown under low light intensity, in areas such as Oregon, west of the Cascades.

**Precautions:**

- The sensitivity of onions to Broclean varies with the variety and environmental conditions. Therefore, even if all the label directions are followed, Broclean application still may cause injury to onions under certain

circumstances.

- Do not treat onions damaged by sand, insects, or diseases.

**GRASS CROPS**  
**CONSERVATION RESERVE PROGRAM (CRP) AREAS BROCLEAN DIRECTIONS**  
**APPLICATION TIMING AND SPECIFIC COMMENTS**

Apply to MOST SUSCEPTIBLE and SUSCEPTIBLE broadleaf weeds up to the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.

<b>RATE</b>	<b>CROP DIRECTIONS</b>
1.0 to 2.0 pt/A	Apply to grasses after emergence. If alfalfa is planted, apply after the 4 trifoliolate leaf stage.
Chemigation 2.0 pt/A only	Apply to grasses after emergence. If alfalfa is planted apply after the 4 trifoliolate leaf stage. Apply through automated sprinkler irrigation systems with a mechanical transfer loading system only. See MIXING, LOADING AND HANDLING INSTRUCTIONS section for complete details.

**BROCLEAN TANK MIXTURE DIRECTIONS APPLICATION TIMING AND SPECIFIC COMMENTS**

**Broclean + MCPA (such as MCP Amine 4 or MCP Ester 4)**

This tank mix improves control of mustards, pigweed, and kochia. Apply up to the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.

<b>RATE</b>	<b>CROP DIRECTIONS</b>
1.0 to 2.0 pt/A + 0.25 to 0.5 pt/A	Apply to CRP areas after grasses have reached the 3 leaf stage. Do not use this tank mixture in areas where alfalfa or other legumes have been planted.

**RESTRICTIONS AND PRECAUTIONS: CRP AREAS**

**Restrictions:**

- Do not allow livestock to graze in treated areas or feed treated grass and forage to livestock.
- Do not apply more than 1.5 pt/A of Broclean to CRP areas that are underseeded with alfalfa.
- Maximum 0.5 lb AI bromoxynil/A (2.0 pts Broclean/A)/year.
- Maximum rate for areas underseeded with alfalfa is 0.375 lb AI bromoxynil (1.5 pt/A Broclean)/year.

**Precautions:**

- Do not add spray adjuvants or fluid fertilizers when applying Broclean to CRP areas planted with alfalfa or other legumes.
- Do not apply Broclean to CRP areas planted with alfalfa if temperatures are expected to exceed 80 °F or severe crop injury may occur. If legumes other than alfalfa have been planted, severe crop injury may occur at any application temperature.

**GRASSES GROWN FOR SEED OR SOD PRODUCTION BROCLEAN DIRECTIONS**  
**SEEDLING AND ESTABLISHED GRASSES**

Apply to established and newly seeded grasses for seed or sod production before the boot stage.

Established grasses tolerant to Broclean include bentgrasses, Kentucky Bluegrass, Fescues, Ryegrass, Bermudagrass, St. Augustinegrass and Zoysiagrass. Broclean may also be used on seedling grasses such as Merion, Park, Delta, or common Kentucky Bluegrasses, Pennlawn, Chewings, Illahee or Alta Fescues, Orchard- grass, Highland, Seaside or Astoria Bentgrasses, perennial Ryegrasses, Bahiagrass and Zoysiagrass

Refer to the Weed List for a listing of susceptible broadleaf weeds. Optimal control will be attained when weeds are treated in the seedling stage (less than 4 leaf stage, 2 inches in height, or 1 inch in diameter).

<b>RATE/A</b>	<b>RATE/1000 SQ FT</b>	<b>CROP DIRECTIONS</b>
1.0 to 2.0 pt	0.375 to 0.75 fl oz	Established grasses tolerant to Broclean
Chemigation 2.0 pt only	0.75 fl oz	Apply to the list of established grasses that are tolerant to Broclean through automated sprinkler irrigation systems with mechanical transfer loading system only. See MIXING, LOADING AND HANDLING INSTRUCTIONS section for complete details.

**RESTRICTIONS: Grasses grown for seed or sod production.**

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EPA REG. NO. 34704-891

- Do not allow livestock to graze in treated areas or feed treated grasses to livestock.
- Do not apply Broclean to grasses grown for seed or sod production with backpack or hand-held application equipment.
- Maximum 0.5 lb AI bromoxynil/A (2.0 pts Broclean/A)/year.

**NON-RESIDENTIAL TURFGRASS  
SEEDLING AND ESTABLISHED NON-RESIDENTIAL TURFGRASS APPLICATION TIMING AND SPECIFIC COMMENTS**

Apply to established and newly seeded non-residential turfgrass when weeds are small and actively growing. Established turf- grasses that are tolerant to Broclean include bentgrasses, Kentucky Bluegrass, Fescues, Ryegrass, Bermudagrass

St. Augustinegrass and Zoysiagrass. Broclean may also be used on seedling grasses such as Merion, Park, Delta, or common Kentucky Bluegrasses, Pennlawn, Chewings, Illahee or Alta Fescues, Orchard- grass, Highland, Seaside or Astoria Bentgrasses, perennial Ryegrasses, Bahiagrass and Zoysiagrass.

Optimal control will be attained when weeds are treated in the seedling stage (less than 4 leaf tage, 2 inches in height, or 1 inch in diameter).

Refer to the Weed List for a listing of susceptible broadleaf weeds.

RATE/A	RATE/1000 SQ FT
1.0 to 2.0 pt	0.375 to 0.75 fl oz

**RESTRICTIONS: Non-residential turfgrasses**

- Do not allow livestock to graze in treated areas or feed treated grasses to livestock.
- Do not apply Broclean to non-residential turf with backpack or hand-held application equipment.
- Maximum 0.5 lb AI bromoxynil/A (2.0 pts Broclean/A)/year.
- Do Not Apply this product to Golf Course Turf

**NON-RESIDENTIAL TURFGRASS BROCLEAN TANK MIXTURE DIRECTIONS  
(Established Non-Residential Turfgrass )  
APPLICATION TIMING AND SPECIFIC COMMENTS**

Optimal control will be attained when weeds are treated in the seedling stage (less than 4 leaf stage, 2 inches in height, or 1 inch in diameter).

RATE/A	RATE/1000 SQ FT	CROP
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**Broclean + MCPP**

All weed species previously listed in the Weed List for Broclean plus the following species:  
Red Clover (*Trifolium pretense*), White Clover (*Trifolium repens*), Common Chickweed (*Stellaria media*), Mouseear Chickweed (*Cerastium vulgatum*), Ground Ivy (*Glechoma hederacea*), Stitchwort (*Stellaria gramminea*), Knotweed (*Polygonum aviculare*), Prostrate Spurge (*Euphorbia supina*)

2.0 pt + 1.0 lb AI	0.75 fl oz + 0.025 lb AI	Apply to established non- residential turfgrass only. This treatment is not recommended for use on St. Augustinegrass or centipede grass.
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**Broclean + MCPP + Dicamba**

All weed species previously listed in the Weed List for Broclean and Broclean/ Dicamba tank mixtures plus the following species: Dandelion (*Taraxacum officinale*), Plantains (*Plantago* spp.)

2.0 pt + 0.5 to 1.0 lb AI + 0.125 to 0.25 lb AI	0.75 fl oz + 0.0125 to 0.025 lb AI + 0.003 to 0.006 lb AI	Apply to established non- residential turfgrass only. This treatment is not recommended for use on St. Augustinegrass or centipede grass.
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**Broclean + MCPP + 2,4-D**

All weed species previously listed in the the Weed List for Broclean and Broclean/2,4-D tank mixtures plus the following species: Dandelion (*Taraxacum officinale*), Plantains (*Plantago* spp.), Red Sorrel (*Rumex acetosella*), Knotweed (*Polygonum aviculare*)

2.0 pt + 0.5 to 1.0 lb AI + 0.5 to 1.0 lb AI	0.75 fl oz + 0.0125 to 0.025 lb AI + 0.0125 to 0.025 lb AI	Apply to established non- residential turfgrass only. This treatment is not recommended for use on St. Augustinegrass or centipedegrass.
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**RESTRICTIONS: Tank Mixture Directions, established Non-residential turfgrasses**

- Do not allow livestock to graze in treated areas or feed treated grasses to livestock.
- Do not apply Broclean to non-residential turf with backpack or hand-held application equipment.
- Maximum 0.5 lb AI bromoxynil/A (2.0 pts Broclean/A)/season.
- Do Not Apply this product to Golf Course Turf

**NON-CROPLAND  
NON-CROPLAND AND INDUSTRIAL SITES BROCLEAN DIRECTIONS  
APPLICATION TIMING AND SPECIFIC COMMENTS**

Apply to non-cropland and industrial sites when weeds have emerged and are actively growing. Use adequate spray volumes to ensure thorough coverage. Optimal control will be attained when weeds are treated in the seedling stage (less than 4 leaf stage, 2 inches in height, or 1 inch in diameter). Refer to the Weed List for a listing of susceptible broadleaf weeds.

RATE/A	RATE/1000 SQ FT
1.0 to 2.0 pt	0.375 to 0.75 fl oz

**RESTRICTIONS AND PRECAUTIONS: Non-Cropland and Industrial Sites**

**Restrictions:**

- Do not allow livestock to graze in treated areas or feed treated plant material to livestock.
- Do not apply Broclean to non-cropland and industrial sites with backpack or hand-held application equipment.
- Maximum 0.5 lb AI bromoxynil/A (2.0 pts Broclean/A)/season.

**Precautions:**

- Addition of surfactant or crop oil concentrate may improve burndown of broadleaf weeds under cool, dry conditions.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Do not store near fertilizers or seeds. Store at temperatures above 30 °F. If allowed to freeze, remix before using.

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

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

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

**For packages up to 5 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 5 gallons and less than 56 gallons: Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it

back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**For packages greater than 56 gallons:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

**For refillable containers:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.**

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