

# BUCTRIL® HERBICIDE

FOR THE CONTROL OF CERTAIN BROADLEAF WEEDS IN SMALL GRAINS, SEEDLING ALFALFA, CORN, SORGHUM, FLAX, GARLIC, ANNUAL CANARYGRASS AND MINT.

## ACTIVE INGREDIENT:

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

33.4%

## INERT INGREDIENTS:

66.6%

\*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 AVISO WARNING

PRECAUTION AL USUARIO Si usted no lee ingles, no use este producto hasta que le etiqueta haya sido explicado ampliamente

E.P.A. Reg. No. 264-437

E.P.A. Est. No. 264-MO-01

For **PRODUCT USE** Information Call 1-800-334-9745.

For **EMERGENCY** Information **ONLY** Call 24 Hours A Day 1-800-334-7577.

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS WARNING

Harmful if swallowed or absorbed through skin or inhaled. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist.

Users of this product are encouraged to participate in Rhone-Poulenc's educational program dealing with potential hazards and safer use of this product. Further information on this program can be obtained by contacting Rhone-Poulenc Ag Company at 1-800-334-9745.

When mixing and loading this product, applying or cleaning, adjusting or repairing equipment, protective clothing must be worn. The protective clothing should consist of nitrile gloves, long sleeved clothing, long pants and goggles or face shield. Contaminated clothing must be removed and washed prior to reuse. Do not wash contaminated clothing with household clothing.

When treating more than 300 acres per day, this product must be applied with a mechanical transfer system. See Mixing, Loading and Handling Directions for more details.

#### STATEMENT OF PRACTICAL TREATMENT

**IF SWALLOWED:** Get medical attention. Do not induce vomiting, contains petroleum distillates. Do not give anything by mouth to an unconscious person.

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists.

**IF IN EYES:** Flush with water for 15 minutes. Get medical attention.

#### 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. Do not apply when weather conditions favor drift from target areas. Do not contaminate water by cleaning of equipment or disposal of wastes.

#### 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.

#### REENTRY STATEMENT

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

Do not enter treated areas without protective clothing until sprays have dried.

Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

Written or Oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers and given in a language customarily understood by the workers. Oral and Written warnings must include the STATEMENT OF PRACTICAL TREATMENT and REENTRY STATEMENTS as they appear on the label.

#### GENERAL INFORMATION

BUCTRIL® is a selective postemergence herbicide for control of important broadleaf weeds infesting small grains (wheat, barley, oats, rye, triticale), field corn, popcorn, grain sorghum, flax, garlic, annual canarygrass, and mint. Optimum weed control is obtained when BUCTRIL® is applied to actively growing weed seedlings. BUCTRIL® is primarily a contact herbicide, therefore thorough coverage of the weed seedlings is essential for optimum control.

BUCTRIL® is formulated as an emulsifiable concentrate of octanoic acid ester of bromoxynil containing the equivalent of 2 pounds of bromoxynil per gallon. To broaden the spectrum of control in wheat and barley, BUCTRIL® may be tankmixed with Glean®, Finesse®, Avenge®, MCPA, 2,4-D or Hoelon®. In oats and rye, BUCTRIL® may be tankmixed with MCPA or 2,4-D. In field corn and popcorn, BUCTRIL® can be tankmixed with atrazine, Banvel®, or 2,4-D. BUCTRIL® may also be tankmixed with atrazine in grain sorghum. See individual crop recommendations for proper chemical rates to be used. 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 BUCTRIL®.

ACCEPTED

For the Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. 136, registered under EPA Reg. No. 264-437.

## MIXING, LOADING AND HANDLING INSTRUCTIONS

### 2.5 Gallon Containers

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

### 30 Gallon and Bulk Containers

If treating more than 300 acres per day, this product must be applied with a mechanical transfer system. When treating more than 300 acres per day it is recommended that either 30 gallon or bulk containers be used. Transfer from these containers to the mixing or spray tank should be accomplished using pumps or transfer probes. 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 is to be used to rinse the empty container and to transfer the residue directly to the mixing or spray tank.

**BUCTRIL® ALONE:** Fill the spray tank 1/2 to 3/4 full with clean water. Begin agitation and add the recommended amount

**BUCTRIL®.** Add water to the spray tank to the desired level. Maintain sufficient agitation to ensure a uniform spray mixture during application.

**TANK MIXTURES:** Fill the spray tank 1/2 to 3/4 full with clean water and begin agitation. If tankmixing with either Glean or Atrazine, add the recommended amount of Glean or Atrazine first. After the herbicide is thoroughly mixed with water add the recommended amount of BUCTRIL® and add water to the spray tank to the desired level.

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.

### APPLICATION PROCEDURES

BUCTRIL® alone and in a tank mixture with Glean, Avenge, MCPA, 2,4-D, Hoelon, Finesse and Atrazine can be applied by both ground and aerial equipment. In addition, BUCTRIL® + Atrazine can be applied by automated sprinkler irrigation systems. The following provides recommended methods of application for each crop.

#### TYPE OF APPLICATION EQUIPMENT

CROP	AUTOMATED SPRINKLER IRRIGATION		
	GROUND	AERIAL	
Small grains	X	X	X
Seedling alfalfa	X	X	X
Field and Popcorn	X	X	X
Grain sorghum	X	X	X
Flax	X	X	
Garlic	X	X	
Onion	X		
Annual canarygrass	X		
Mint	X		
Turf	X		
Non-crop areas	X		

(X) indicates recommended application use

### GROUND APPLICATION

Use a standard herbicide boom sprayer that provides uniform and accurate application. Sprayer should be equipped with screens no finer than 50 mesh in the nozzle tips and in-line strainers. Specific application instructions are described under each crop heading.

### AERIAL APPLICATION

Use a minimum of 5 gallons of spray volume per acre using diaphragm-type nozzles that produce cone or fan spray patterns with a maximum spray pressure of 40 psi at the nozzle tips.

Nozzles should be located no farther than 3/4 the distance from the center of the aircraft to the end of the wing or rotor. Nozzles should be oriented at an angle between straight down and straight back.

The aircraft should discharge the spray a maximum of 10 feet above the crop. To minimize drift, do not apply during periods of gusty winds or when wind exceeds 5 mph.

### AUTOMATED SPRINKLER IRRIGATION SYSTEMS

BUCTRIL® Herbicide can be applied through overhead sprinkler irrigation systems to small grains, field corn, popcorn, and grain sorghum.

Apply BUCTRIL® Herbicide through sprinkler including center pivot, lateral move, side (wheel) roll, solid set or hard move irrigation systems only. 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 recommended in the pesticide supply tank when applying the BUCTRIL® Herbicide.
9. BUCTRIL® Herbicide should be applied continuously for the duration of the water application with center pivot and continuous lateral move systems. Application of BUCTRIL® Herbicide should be made during the last 30-45 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 BUCTRIL® Herbicide is diluted in the supply tank, fill the tank with half of the water amount desired, add the BUCTRIL® and then add remaining water amount with agitation.

- 13 Start the sprinklers and then inject BUCTRIL® Herbicide into the irrigation line. BUCTRIL® should be injected with a positive displacement pump into the main line at least 8 feet ahead of a right angle turn to insure adequate mixing. Refer to the BUCTRIL® Herbicide label for detailed information on application rates and timings.

### CHEMIGATION USER PRECAUTIONS

Application of more than 0.5 inch/acre of irrigation water may result in decreased product performance on certain soils.

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

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.

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

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

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.

### GENERAL WEED LIST

Postemergence application of BUCTRIL® Herbicide 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> )
Black Nightshade	( <i>Solanum nigrum</i> )
Blue Mustard	( <i>Chonspora tenella</i> )
Coast Fiddleneck	( <i>Amsinckia intermedia</i> )
Common Cocklebur	( <i>Xanthium strumarum</i> )
Common Lambsquarters	( <i>Chenopodium album</i> )
Common Tarweed	( <i>Hemizonia congesta</i> )
Eastern Black Nightshade	( <i>Solanum pycnanthum</i> )
Field Pennycress	( <i>Thlaspi arvense</i> )
Green Smartweed	( <i>Polygonum scabrum</i> )
Hairy Nightshade	( <i>Solanum sarachoides</i> )
Jimsonweed	( <i>Datura stramonium</i> )
Ladysthumb	( <i>Polygonum persicaria</i> )
Pennsylvania Smartweed	( <i>Polygonum pennsylvanicum</i> )
Pepperweed spp	(annual) ( <i>Lepidium spp</i> )
Shepherdspurse	( <i>Capsella bursa-pastoris</i> )
Silverleaf Nightshade	( <i>Solanum elaeagnifolium</i> )
Tartary Buckwheat	( <i>Fagopyrum tataricum</i> )
1 Sunflower	( <i>Helianthus annuus</i> )
Wild Buckwheat	( <i>Polygonum convolvulus</i> )

1 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> )
Common Groundsel	( <i>Senecio vulgaris</i> )
Common ragweed	( <i>Ambrosia artemisiifolia</i> )
Corn Chamomile	( <i>Anthemis arvensis</i> )
Corn Gromwell	( <i>Lithospermum arvense</i> )
Cow Cockle	( <i>Saponaria vaccaria</i> )
Giant Ragweed	( <i>Ambrosia trifida</i> )
Hemp Sesbania	( <i>Sesbania exaltata</i> )
Ivyleaf morningglory	( <i>Pomoea hederacea</i> )
Knawel	( <i>Sciranthus annuus</i> )
2 Kochia	( <i>Kochia scoparia</i> )
London Rocket	( <i>Sisymbrium ino</i> )
Mayweed	( <i>Anthemis colula</i> )

Prostrate Knotweed  
2 Redroot Pigweed  
Russian Thistle  
2 Spiny Pigweed  
Tall Morningglory  
2 Tall Waterhemp  
Tumble Mustard  
Velvetleaf  
Venice Mallow  
Wild Mustard  
Wild Radish

(*Polygonum aviculare*)  
(*Amaranthus retroflexus*)  
(*Salsola kali*)  
(*Amaranthus spinosus*)  
(*Pomoea purpurea*)  
(*Amaranthus tuberculatus*)  
(*Sisymbrium altissimum*)  
(*Achutylon theophrasti*)  
(*Hibiscus trionum*)  
(*Raphanus raphanistrum*)

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

### WEED SUPPRESSION

BUCTRIL® suppresses the growth of Canada Thistle (*Cirsium arvense*) by burning down top growth. Regrowth may occur.

### COMPATIBILITY OF INSECTICIDES WITH BUCTRIL®

The following foliar insecticides are compatible with BUCTRIL® Herbicide as tank mixtures.

#### INSECTICIDE

COMMON NAME	FORMULATION	TRADE NAME
Diazinon	Various	Emulsifiable Concentrate
Dimethoate	Various	Emulsifiable Concentrate
Trichlorfon	Dylox	Soluble Powder
Carbaryl	Furadan	Flowable
Chlorpyrifos	Lorsban	Emulsifiable Concentrate
Malathion	Various	Emulsifiable Concentrate
Oxydemeton methyl	Metasystox R	Sprayable Concentrate
Permethrin	Pounce	Emulsifiable Concentrate
Fenvalerate	Pydrin	Emulsifiable Concentrate
Carbaryl	Sevin	Sprayable wettable powder
Demeton	Systox	Emulsifiable Concentrate

When mixing an insecticide with BUCTRIL®, fill the spray tank 1/2 to 3/4 full with clean water and begin agitation. If tank mixing with either Dylox, Furadan or SEVIN®, add the recommended amount of insecticide first. After the insecticide is thoroughly mixed with water, add the recommended amount of BUCTRIL® Herbicide and add water to the spray tank to the desired level.

If tank mixing with the other insecticides listed above, add the recommended amount of BUCTRIL® first. After BUCTRIL® is thoroughly mixed with water, add the recommended amount of insecticide to the spray tank and add water to the spray tank to the desired level.

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.

### FOLLOW ALL CAUTIONS AND LIMITATIONS ON THE LABELS OF PRODUCTS USED IN TANK MIXTURES WITH BUCTRIL®.

Dylox®, Metasystox® and Systox® are Registered Trademarks of the Parent Company of Farbenfabriken Bayer GmbH, Leverkusen.

Furadan® is a Registered Trademark of FMC Corporation.

Lorsban® is a Trademark of the Dow Chemical Company.

Pounce® is a Registered Trademark of FMC Corporation.

Pydrin® is a Registered Trademark of Shell Chemical Company.

SEVIN® is the Registered Trademark of Rhone Poulenc for carbaryl insecticide.

### WHEAT, BARLEY, OATS, RYE AND TRITICALE

BUCTRIL® can be applied to small grains from emergence up to the boot stage. Applications should be made to weeds soon after emergence for best weed control and to prevent competition to the crop. Reduced weed control may occur when weeds are

stressed from lack of moisture or high temperatures. Avoid spray drift to nontarget areas. Do not graze treated fields for 30 days following application.

BUCTRIL® can be applied to wheat and barley alone or in a tank mixture with Glean, Avenge, MCPA, 2,4-D, Finesse or Hoelon to broaden the spectrum of weed control. BUCTRIL® can also be applied to oats and rye alone or in a tank mixture with MCPA or 2,4-D. To ensure maximum crop safety and weed control, follow all cautions and limitations on this label and the labels of products used in tank mixtures with BUCTRIL®.

## APPLICATION PROCEDURES

### GROUND APPLICATION

BUCTRIL® used alone and in tank mixtures can be applied by ground equipment using a minimum spray volume of 10 gallons per acre. Use flat fan nozzles spaced a maximum of 20 inches apart with a minimum spray pressure of 30 psi at the nozzle tips. Other nozzle types may not provide adequate coverage of the weeds to ensure optimum weed control.

### AERIAL APPLICATION

BUCTRIL® and tank mixtures with BUCTRIL® can be applied by aerial equipment using a minimum spray volume of 5 gallons per acre with a maximum spray pressure of 40 psi at the nozzle tips.

Refer to AERIAL APPLICATION under the GENERAL INFORMATION section for complete use directions.

## AUTOMATED SPRINKLER IRRIGATION SYSTEMS

Refer to GENERAL INFORMATION section for complete use directions and precautions.

## SPRAYABLE LIQUID FERTILIZERS

BUCTRIL® can be applied to small grains using sprayable liquid fertilizer as the carrier. Predetermine the compatibility with the liquid fertilizer by mixing small proportional quantities in advance. Agitation must be maintained during filling and application operations to ensure that BUCTRIL® is evenly mixed with the fertilizer. Leaf burn may occur when BUCTRIL® is applied with liquid fertilizer, but new leaves are not adversely affected.

## RECOMMENDED USES

The recommended rate of BUCTRIL® used alone or in a tank mixture with another herbicide is determined by the crop (winter or spring seeded), geographic area, application equipment (ground or aerial), weed species and stage of growth of weeds at time of application.

Recommendations are as follows:

### WHEAT AND BARLEY BUCTRIL® RECOMMENDATIONS

PRODUCT	CROP/ GEOGRAPHICAL AREA	RATE	TIMING OF APPLICATION	
			CROP	WEED
BUCTRIL®	Fall seeded wheat and barley throughout the United States and spring seeded wheat and barley in Idaho, Oregon and Washington	1 1/2 Pints/A	Apply to wheat and barley from emergence to the boot stage	<b>Most Susceptible and Susceptible Broadleaf Weeds</b> Apply to weeds up to the 4 leaf stage or 2 inches in height whichever comes first. If weed forms rosette, apply before weeds exceed 1 inch in diameter.
	Spring seeded wheat and barley except Idaho, Oregon and Washington	1 Pint/A	Apply to wheat and barley from emergence to the boot stage	<b>Most Susceptible and Susceptible Broadleaf Weeds</b> Apply BUCTRIL® at 1 pint/A to 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.
		1 1/2 Pints/A		Use BUCTRIL® at 1 1/2 pints/A for control of kochia that is 2 to 4 inches in height, and pigweed (Amaranthus spp.) that does not exceed the 4 leaf stage or 2 inches in height, whichever comes first.

## BUCTRIL® TANK MIXTURE RECOMMENDATIONS

PRODUCT	CROP/ GEOGRAPHICAL AREA	RATE	TIMING OF APPLICATION CROP	WEED
BUCTRIL® + GLEAN (Tankmix)	Fall seeded wheat and barley throughout the United States and spring seeded wheat and barley in Idaho, Oregon and Washington.	3/4 Pint/A + 1/6-1/3 oz/A  1 Pint/A + 1/6-1/3 oz/A	Apply to wheat and barley in the fall or spring at any time after the crop is in the 2 to 3 leaf stage, but before the boot stage	<b>Most Susceptible Broadleaf Weeds</b> Apply to weeds 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  <b>Susceptible Broadleaf Weeds</b> Apply to weeds up to the 4 leaf stage or 2 inches in height whichever comes first. If weed forms rosette, apply before weeds exceed 1 inch in diameter.
BUCTRIL® + GLEAN (Tankmix)	Spring seeded wheat and barley except Idaho, Oregon and Washington.	3/4 Pint/A + 1/6-1/3 oz/A  1 1/2 Pints/A + 1/6-1/3 oz/A		<b>Most Susceptible and Susceptible Broadleaf Weeds</b> Apply BUCTRIL® + Glean at 3/4 pint/A + 1/6-1/3 ounces/A to 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 BUCTRIL® + Glean at 1 1/2 pints/A + 1/6-1/3 ounces/A for control of kochia that is 2-4 inches in height and pigweed (Amaranthus spp.) that does not exceed the 4 leaf stage or 2 inches in height, whichever comes first

A tankmix application of BUCTRIL® and Glean broadens the spectrum of weed control. See Glean label for listing of additional susceptible weed species and crop rotation instructions.

Glean® is a registered trademark of E. I. DuPont de Nemours & Co., Inc.

### BUCTRIL® AND AVEGE

A tank mixture of BUCTRIL® + Avege can be used to control wild oats in addition to the broadleaf weeds controlled by BUCTRIL®. The rate and application timing for broadleaf weed control with BUCTRIL® in the tank mixture is the same as when BUCTRIL® is used alone. See BUCTRIL® RECOMMENDATIONS.

Apply BUCTRIL® + Avege tank mixtures when the majority of the wild oats are in the 3 to 5 leaf stage of growth. This frequency coincides with barley in the 2 to 7 leaf stage, spring seeded wheat in the 5 to 6 leaf stage, and fall seeded wheat in the 4 leaf to tillered stage of growth.

See Avege label for varietal restrictions and recommended Avege rates as related to wild oat density.

Avege® is a trademark of American Cyanamid Company.

### BUCTRIL® AND MCPA OR 2,4-D

A tank mixture of BUCTRIL® at the recommended rate and MCPA or 2,4-D at 1/4 to 1/2 pound of active ingredient per acre is used to broaden the spectrum of broadleaf weed control. The tank mixture will control the weeds listed on the MCPA or 2,4-D labels in addition to the weeds listed on the BUCTRIL® label. The rate of BUCTRIL® in the tank mixture is the same as when BUCTRIL® is used alone. See BUCTRIL® RECOMMENDATIONS.

BUCTRIL® + MCPA tank mixtures can be applied after the 3 leaf stage but before the crop reaches the boot stage. BUCTRIL® + 2,4-D tank mixtures can be applied after the crop is tillered, but before the forming joints in the stem.

### BUCTRIL® HERBICIDE AND HOELON

A tank mixture of BUCTRIL® + Hoelon can be used to control annual grasses in addition to the broadleaf weeds controlled by BUCTRIL®. The rate and application timing for broadleaf weed control with BUCTRIL® in the tank mixture is the same as when BUCTRIL® is used alone. See BUCTRIL® RECOMMENDATIONS.

BUCTRIL® + Hoelon tank mixtures can be applied to fall seeded wheat and spring seeded wheat and barley up to the jointing stage of growth. Annual grasses should be in the 1 to 3 leaf stage of growth, up to the 4 leaf stage of wheat. See Hoelon label to determine recommended Hoelon rate in relation to the annual grassy weed stage of growth.

Hoelon is a trademark of Hoechst AG.

### BUCTRIL® HERBICIDE AND FINESSE

Use only in the states of Idaho, Oregon, and Washington.

Crop: Fall and Spring seeded Wheat and Barley

**Target Pests:** All weeds listed on the BUCTRIL® label and the Finesse product label.

### BUCTRIL® HERBICIDE RECOMMENDATIONS

Apply BUCTRIL® at 3/4 to 1 1/2 pints/A and Finesse at 1/6 to 1/3 ounce/A.

Apply to wheat and barley in the fall or spring at any time after the crop is in the 2 to 3 leaf stage, but before the boot stage.

**GROUND APPLICATION:** Use a standard herbicide boom sprayer that provides uniform and accurate application. Sprayer should be equipped with flat fan nozzles spaced a maximum of 20 inches apart and screens no finer than 50 mesh in the nozzle tips.

and in-line strainers. Apply a minimum spray volume of 10 gallons per acre with minimum spray pressure of 30 psi at the nozzle tips.

**AERIAL APPLICATION:** The sprayer should be equipped to provide a uniform and accurate application. Use a minimum spray volume of 5 gallons per acre using diaphragm type nozzles that produce cone or fan spray patterns with a maximum spray pressure of 40 psi at the nozzle tips. Nozzles should be located no further than 3/4 the distance from the center of the aircraft to the end of the wing or rotor. Nozzles should be oriented at an angle between straight down and straight back. The aircraft should discharge the spray a maximum of 10 feet above the crop. To minimize drift, do not apply during periods of gusty winds or when wind exceeds 5 mph.

In order to ensure maximum safety and weed control, follow label recommendations on this label and all the cautions and limitations on the package labels of the tank mixture components.

Finesse® is a registered trademark of E.I. DuPont de Nemours & Company (Inc.), Wilmington, DE

#### **OATS, RYE AND TRITICALE**

BUCTRIL® used alone or in a tank mixture with MCPA or 2,4-D can be applied to oats and rye. BUCTRIL® should be used alone when applied to triticale. Use the same rates and application timing as recommended for wheat and barley. Refer to previous section for WHEAT AND BARLEY.

#### **WHEAT, BARLEY, OATS, AND TRITICALE**

##### **(Automated Sprinkler Irrigation Application)**

BUCTRIL® Herbicide can be applied through automated sprinkler irrigation systems to fall and spring seeded wheat, barley, oats, rye and triticale from emergence to the boot stage. Apply BUCTRIL® Herbicide at 2 pints/A in 1/4 to 1/2 acre-inch of water. **BUCTRIL® Herbicide at 2 pints/A must be applied with a mechanical transfer system only.** See MIXING, LOADING AND HANDLING INSTRUCTIONS section for complete details. See GENERAL INFORMATION section for complete use directions and precautions. Refer to GENERAL WEED LIST in GENERAL INFORMATION section for list of MOST SUSCEPTIBLE BROADLEAF WEEDS and SUSCEPTIBLE BROADLEAF WEEDS to post emergence applications of BUCTRIL® Herbicide.

#### **MOST SUSCEPTIBLE BROADLEAF WEEDS**

Apply to weeds 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.

#### **SUSCEPTIBLE BROADLEAF WEEDS**

Apply to weeds up to the 4 leaf stage or 2 inches in height whichever comes first. If weed forms rosette apply before weeds exceed 1 inch in diameter.

**WEED SIZE IS CRITICAL WHEN BUCTRIL® HERBICIDE IS APPLIED THROUGH AUTOMATED SPRINKLER IRRIGATION SYSTEMS. WEEDS SHOULD NOT EXCEED THE MAXIMUM INDICATED STAGE OF GROWTH.**

**DO NOT APPLY BUCTRIL® HERBICIDE THROUGH AUTOMATED SPRINKLER IRRIGATION SYSTEMS IN CALIFORNIA**

#### **SEEDLING ALFALFA**

Apply BUCTRIL® Herbicide when weed seedlings are actively growing. For optimum control, apply BUCTRIL® in sufficient spray volume to ensure good coverage of the weeds.

#### **BUCTRIL® Herbicide Recommendations**

BUCTRIL® can be applied to seedling alfalfa with a minimum of 2 trifoliate leaves.

Apply BUCTRIL® 1 pint/A to control the MOST SUSCEPTIBLE BROADLEAF WEEDS and 1 1/2 pints/A for control of SUSCEPTIBLE BROADLEAF WEEDS (See GENERAL WEED LIST). Weeds should not exceed the 4 leaf stage or 2 inches in height, whichever comes first, or before rosettes are 1.5 inches in diameter. For improved control of kochia and pigweed (sp), tansy mustard, and henbit, BUCTRIL® at 1 pint/A should be applied in tank mixture with 2,4-DB at 0.5 lb. ai/A. BUCTRIL® will not adequately control over-wintered pennycress, henbit, and mustards.

**FOR GROUND APPLICATION,** use a minimum of 20 gallons of spray volume per acre. Use flat fan nozzles spaced a maximum of 20 inches apart with a minimum spray pressure of 30 psi at the nozzle tips.

**FOR AERIAL APPLICATION,** use a minimum of 5 gallons of spray volume per acre with a maximum spray pressure of 40 psi at the nozzle tips. Refer to AERIAL APPLICATION under GENERAL INFORMATION section of the BUCTRIL® Herbicide label for complete use directions.

#### **FOR AUTOMATED SPRINKLER IRRIGATION APPLICATION**

BUCTRIL® Herbicide can be applied at 2 pints/A only. BUCTRIL® Herbicide at 2 pints/A must be applied with a mechanical transfer system only. See MIXING, LOADING, AND HANDLING INSTRUCTIONS section for complete details. See GENERAL INFORMATION section for complete use directions and precautions.

#### **RESTRICTIONS AND PRECAUTIONS**

Crop leaf burn can occur following BUCTRIL® 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.

Do not treat when temperatures exceed 70° F at and 3 days following application because unacceptable crop injury may occur.

Do not apply when alfalfa is under moisture, temperature, insect or disease stress.

Do not add a surfactant or crop oil because increased alfalfa injury will occur.

Do not cut for feed or graze spring treated alfalfa within 30 days following treatment.

Do not apply BUCTRIL® through automated sprinkler irrigation in California.

Do not cut for feed or graze fall or winter treated alfalfa until spring, at least 60 days following treatment.

Total BUCTRIL® Herbicide applied to a seedling alfalfa crop should not exceed 2 pints/A.

Follow all restrictions and precautions on the 2,4-DB label when a BUCTRIL® + 2,4-DB tank mixture is used.

#### **FIELD CORN, POPCORN AND GRAIN SORGHUM**

BUCTRIL® is applied as a broadcast application in field corn, popcorn or grain sorghum growth for grain, seed or silage under conventional minimum tillage, ridge tillage or no-till systems. For optimum control spray seedling weeds that are actively growing and not stressed from lack of moisture or low temperatures. Avoid spray drift to non-target areas.

A tank mixture of BUCTRIL® + Atrazine may be used in field corn, popcorn or grain sorghum to broaden the spectrum of control and provide residual control of germinating seedlings. In field corn, BUCTRIL® may also be used in a tank mixture with Banvel or 2,4-D.

When environmental conditions are quite cool and cloudy or hot and humid, some leaf burn may occur on the corn or grain sorghum foliage. The crop rapidly outgrows this condition and

new growth is unaffected. To ensure maximum crop safety and weed control, follow all precautions and limitations on this label and the labels of products used in tank mixtures with BUCTRIL®.

## **APPLICATION PROCEDURES**

### **GROUND TREATMENT**

BUCTRIL® used alone and in tank mixtures with Atrazine or 2,4-D can be applied with ground equipment using a minimum of 10 gallons of spray volume per acre. Use flat fan nozzles spaced a maximum of 20 inches apart with a minimum spray pressure of 30 psi at the nozzle tips. Other nozzle types may not provide adequate coverage of the weeds to ensure optimum control. When weed infestations are heavy, use of a higher spray volume and spray pressure will be helpful to ensure uniform weed coverage. When corn or grain sorghum is large enough to interfere with the spray pattern, drop nozzles should be used to obtain uniform coverage of the weeds.

When BUCTRIL® is used in a tank mixture with Banvel, use a minimum of 20 gallons of spray volume per acre. Use flat fan nozzles spaced a maximum of 20 inches apart with a spray pressure less than 20 psi at the nozzle tips. DO NOT APPLY TANK MIXTURES OF BUCTRIL® & 2,4-D or BUCTRIL® & BANVEL WITH AERIAL EQUIPMENT.

### **AERIAL EQUIPMENT**

BUCTRIL® used alone or in tank mixtures with Atrazine can be applied by aerial equipment. Use a minimum of 5 gallons of spray volume per acre with a maximum spray pressure of 40 psi at the nozzle tips. Refer to AERIAL APPLICATION under GENERAL INFORMATION section for complete use directions.

### **AUTOMATED SPRINKLER IRRIGATION SYSTEMS**

Refer to GENERAL INFORMATION section for complete use directions and precautions.

### **BUCTRIL® RECOMMENDATIONS**

Postemergence applications of BUCTRIL® can be applied to field corn, popcorn and grain sorghum at 1 and 1 1/2 pints/A. A second application is recommended if a new flush of weeds occurs following the first application. The total cumulative rate should not exceed 3 pints/A per season. Application can be made to corn up to tassel emergence, but do not apply within 30 days of ensilage. Application may be made to grain sorghum up to the boot stage but do not apply within 30 days of ensilage. Refer to APPLICATION RATE TABLE for weeds controlled.

# APPLICATION RATE TABLE FOR CORN AND GRAIN SORGHUM

WEED SPECIES <sup>1</sup>		1 Pint/A		1 1/2 Pints/A	
When determining leaf stage, count all leaves except cotyledonary leaves		Max. Leaf Stage	Max. Weed Height (Inches)	Max. Leaf Stage	Max. Weed Height (Inches)
Black Nightshade	( <i>Solanum nigrum</i> )	6	6	6	6
Buffalobur	( <i>Solanum rostratum</i> )	4	2	6	4
Common Cocklebur	( <i>Xanthium pensylvanicum</i> )	6	8	8	10
Common Lambquarters	( <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
Ladysthumb	( <i>Polygonum persicaria</i> )	4	4	6	6
Pennsylvania Smartweed	( <i>Polygonum pensylvanicum</i> )	4	4	6	6
Redroot Pigweed	( <i>Amaranthus retroflexus</i> )	-	-	4	2
Spiny Pigweed	( <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	( <i>Amaranthus tuberculatus</i> )	-	-	4	2
Witchgrass	( <i>Abutilon theophrasti</i> )	4	3	6	5
Vernice Mallow	( <i>Hibiscus trionum</i> )	-	-	4	2
Wild Buckwheat	( <i>Polygonum convolvulus</i> )	4	6	6	8
Wild Mustard	( <i>Brassica kaber</i> )	-	-	4	4

## WEEDS SUPPRESSED<sup>2</sup>

Canada Thistle	<i>Cirsium arvense</i>	Not Recommended	8 inch to bud stage
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<sup>1</sup>When determining leaf stage, count all leaves except cotyledonary leaves.

<sup>2</sup>BUCTRIL® suppresses the growth by burning down of top growth. Regrowth may occur.

## PREPLANT THROUGH PREEMERGENCE APPLICATION

BUCTRIL® Herbicide can be applied before planting up until just prior to field corn, popcorn or grain sorghum emergence to control actively growing weed seedlings.

## BUCTRIL® HERBICIDE RECOMMENDATIONS

PRODUCT	RATE <sup>1</sup>	CROP	WEED <sup>2</sup>
BUCTRIL®	1 to 1 1/2 Pints/A	Apply to field corn, popcorn and grain sorghum before planting time up until just prior to crop emergence.	See APPLICATION RATE TABLE for list of weeds and corresponding stage of growth that are controlled by BUCTRIL® or BUCTRIL® and Atrazine at recommended rates of application.
BUCTRIL® + Atrazine <sup>3,4</sup>	1 to 1 1/2 Pints/A + 1/2 to 1 1/5 Lbs. ai/A		

<sup>1</sup>When preplant through preemergence treatment is followed with a BUCTRIL® postemergence application, the cumulative rate should not exceed 3 pints/A per season.

<sup>2</sup>For control of additional weeds not listed in the APPLICATION RATE TABLE for field corn, popcorn and grain sorghum, see GENERAL WEED LIST. Use BUCTRIL® at 1 pint/A for control of MOST SUSCEPTIBLE WEEDS and 1 1/2 pints/A for control of SUSCEPTIBLE WEEDS. Apply BUCTRIL® to weeds that do not exceed the 4 leaf stage or 2 inches in height, whichever comes first. If weed forms rosette, apply before weed exceeds 1 inch in diameter.

<sup>3</sup>Refer to ATRAZINE CONVERSION TABLE under the corn section for conversion of active ingredient rates of Atrazine formulation rates.

<sup>4</sup>Follow all cautions and limitations on the product labels used in tank mixtures with BUCTRIL®.



# **BUCTRIL® TANK MIXTURE RECOMMENDATIONS**

**BUCTRIL® and ATRAZINE:** Postemergence applications of BUCTRIL® at 3/4, 1 and 1 1/2 pints/A can be applied to field corn, popcorn and grain sorghum using the following use directions. Refer to APPLICATION RATE TABLE for weeds controlled

**APPLICATION RATE TABLE FOR BUCTRIL® & ATRAZINE TANK MIXTURES**

WEED SPECIES <sup>1</sup>		BUCTRIL® AND ATRAZINE RATE (TANK MIX)											
		3/4 Pint/A		3/4 Pint/A		1 Pint/A		1 Pint/A		1 1/2 Pint/A		1 1/2 Pint/A	
		•		•		•		•		•		•	
		1/2 lb a.i./A	1 1/5 lb a.i./A	1/2 lb a.i./A	1 1/5 lb a.i./A	1/2 lb a.i./A	1 1/5 lb a.i./A	1/2 lb a.i./A	1 1/5 lb a.i./A	1/2 lb a.i./A	1 1/5 lb a.i./A	1/2 lb a.i./A	1 1/5 lb a.i./A
When determining leaf stage, count all leaves except cotyledonary leaves		MAX LEAF STAGE	MAX WEED HEIGHT	MAX LEAF STAGE	MAX WEED HEIGHT	MAX LEAF STAGE	MAX WEED HEIGHT	MAX LEAF STAGE	MAX WEED HEIGHT	MAX LEAF STAGE	MAX WEED HEIGHT	MAX LEAF STAGE	MAX WEED HEIGHT
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
Common Cocklebur	( <i>Xanthium pensylvanicum</i> )	6	8	8	10	8	10	10	12	10	12	10	12
Common Lambsquarters	( <i>Chenopodium album</i> )	-	6	-	10	-	10	-	12	-	12	-	12
Common Ragweed	( <i>Ambrosia artemisiifolia</i> )	6	4	8	6	8	6	8	6	8	6	8	6
Eastern Black Nightshade	( <i>Solanum ptycanthum</i> )	4	4	4	4	6	6	6	6	6	6	6	6
Giant Ragweed	( <i>Ambrosia trifida</i> )	4	4	4	4	6	6	6	6	6	6	6	6
Hump Sesbania	( <i>Sesbania exaltata</i> )	4	4	4	4	4	4	4	4	4	4	4	4
Ivyleaf Morningglory	( <i>Ipomoea hederacea</i> )	3	3	4	4	4	4	4	4	4	4	4	4
Jimsonweed	( <i>Datura stramonium</i> )	4	4	4	4	6	6	6	6	6	6	6	6
Ladysthumb	( <i>Polygonum persicaria</i> )	4	4	4	4	6	6	8	8	8	8	8	8
Pennsylvania Smartweed	( <i>Polygonum pensylvanicum</i> )	4	4	4	4	6	6	8	8	8	8	8	8
Tickly Sida	( <i>Sida spinosa</i> )	-	-	6	2	4	1	6	2	4	1	6	2
Puncturevine	( <i>Tribulus terrestris</i> )	-	-	-	-	-	-	6	4	6	4	6	4
Redroot Pigweed <sup>3</sup>	( <i>Amaranthus retroflexus</i> )	4	2	8	6	6	4	8	6	6	4	8	6
Smooth Pigweed <sup>3</sup>	( <i>Amaranthus hybridus</i> )	4	2	6	4	4	2	6	4	6	4	6	4
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> )	6	8	8	10	8	10	10	12	10	12	10	12
Tall Morningglory	( <i>Ipomoea purpurea</i> )	3	3	4	4	4	4	4	4	4	4	4	4
Tall Waterhemp <sup>1</sup>	( <i>Amaranthus tuberculatus</i> )	4	2	8	6	6	4	8	6	6	4	8	6
Velvetleaf	( <i>Abutilon theophrasti</i> )	4	3	4	3	6	5	6	5	8	6	8	6
Vernice Mallow	( <i>Hibiscus trionum</i> )	-	2	4	2	4	2	4	2	4	2	4	2
Wild Buckwheat	( <i>Polygonum convolvulus</i> )	6	8	8	10	8	10	10	12	10	12	10	12
Wild Mustard	( <i>Sinapis arvensis</i> )	4	4	4	4	4	4	4	4	4	4	4	4

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

Canada thistle	<i>Cirsium arvense</i>	Not Recommended	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 cotyledonary leaves

<sup>2</sup>Selected rates of BUCTRIL® + 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 BUCTRIL® at 1 1/2 pints/A in a tank mixture with Atrazine at 1/2 or 1 1/5 lb a.i./A. Applications should be made when pigweeds do not exceed the 4-leaf stage and 2 inches in height

## **FIELD CORN AND POPCORN BUCTRIL® RECOMMENDATIONS**

### **TIMING OF APPLICATION**

PRODUCT	RATE	CROP	WEED <sup>1/</sup>
BUCTRIL®	1 Pint/A	Apply to corn between the 3 leaf stage and prior to tassel emergence Use a maximum of 2 applications per season	See APPLICATION RATE TABLE for list of weeds and corresponding stage of growth that are controlled by BUCTRIL® at recommended rates of application
	1 1/2 Pint/A	Apply to corn between the 4 leaf stage and prior to tassel emergence Use a maximum of 2 applications per season	

<sup>1/</sup>For control of additional weeds not listed in the APPLICATION RATE TABLE for field corn, popcorn and grain sorghum, see GENERAL WEED LIST: Use BUCTRIL® at 1 pint/A for control of MOST SUSCEPTIBLE WEEDS and 1 1/2 pints/A for control of SUSCEPTIBLE WEEDS. Apply BUCTRIL® to weeds that do not exceed the 4-leaf stage or 2 inches in height, whichever comes first. If weed forms rosette, apply before weed exceeds 1 inch in diameter

**FIELD CORN  
(Ground Application Only)  
BUCTRIL® TANKMIX RECOMMENDATIONS**

TIMING OF APPLICATION			
PRODUCT	RATE	CROP	WEED
BUCTRIL® + Banvel® (tankmix)	1 Pint/A + 1/4 lb ai/A	Apply to corn between the 3 leaf stage and before corn is 36 inches tall or 15 days before tassel emergence, whichever comes first	All weeds controlled by BUCTRIL® at recommended rates of application plus Canada thistle when applied from the 8 inch to bud stage and field bind weed up to the mid bloom stage
BUCTRIL® + Banvel® (tankmix)	1 1/2 Pints/A + 1/4 lb ai/A	Apply to corn between the 4 leaf stage and before corn is 36 inches tall or 15 days before tassel emergence, whichever comes first	

\*Special precautions for BUCTRIL® and Banvel tank mixtures BUCTRIL® & Banvel tank mixtures should be applied in a minimum of 20 gallons of spray volume per acre with a spray pressure below 20 psi at the nozzle tips.  
Do not use a tank mixture of BUCTRIL® and Banvel unless all cautions and limitations on the Banvel label are followed.

**FIELD CORN AND POPCORN  
BUCTRIL® TANKMIX RECOMMENDATIONS**

TIMING OF APPLICATION			
PRODUCT	RATE	CROP	WEED
BUCTRIL® + Atrazine 1,-	1 Pint/A + 1/2-1 1/5 lb ai/A	Apply to corn between the 3 leaf stage and before corn is 30 inches tall. Make up to 2 applications per season	See APPLICATION RATE TABLE for list of weeds and corresponding stage of growth that are controlled by by BUCTRIL® & Atrazine tank mixtures at recommended rates of application
BUCTRIL® + Atrazine 1,2	1 Pint/A + 1/2-1 1/5 lb ai/A	Apply to corn between the 4 leaf stage and before corn is 30 inches tall. Make up to 2 applications per season	These tank mixtures also provide some residual control of germinating weed seeds.

<sup>1</sup> Refer to ATRAZINE CONVERSION TABLE under the corn section for conversion of active ingredient rates of Atrazine to formulation rates

<sup>2</sup> Follow all cautions and limitations on the labels of products used in tank mixtures with BUCTRIL®

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

ATRAZINE FORMULATION	ATRAZINE RATE POUNDS OF ACTIVE INGREDIENT PER ACRE	ATRAZINE FORMULATION RATE PER ACRE
Atrazine 4L	1/2	1 Pint
	1 1/5	2 2/5 Pints
Atrazine 80WP	1/2	5/8 Pound
	1 1/5	1 1/2 Pounds
Aatrex® Nine-O	1/2	3/5 Pound
	1 1/2	1 1/3 Pounds

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

**FIELD CORN AND POPCORN**

(Automated Sprinkler Irrigation Application)

BUCTRIL® can be applied through automated sprinkler irrigation systems to field and popcorn between the 3-leaf stage and before corn is 30" tall. Apply BUCTRIL® at 1.5 pints/A + Atrazine at 1/2 to 1 1/5 lb ai/A in 1/4 to 1/2 acre-inch of water. See GENERAL INFORMATION section for complete use directions and precautions. Refer to GENERAL WEED LIST in the GENERAL INFORMATION section for list of MOST SUSCEPTIBLE BROADLEAF WEEDS and SUSCEPTIBLE BROADLEAF WEEDS to post-emergence applications of BUCTRIL®.

**MOST SUSCEPTIBLE BROADLEAF WEEDS**

Apply to weeds 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.

**SUSCEPTIBLE BROADLEAF WEEDS**

Apply to weeds up to the 4-leaf stage or 2 inches in height whichever comes first. If weed forms rosette apply before weeds exceed 1 inch in diameter.

**WEED SIZE IS CRITICAL WHEN BUCTRIL® IS APPLIED THROUGH AUTOMATED SPRINKLER IRRIGATION SYSTEMS. WEEDS SHOULD NOT EXCEED THE MAXIMUM INDICATED STAGE OF GROWTH.**

Do not apply BUCTRIL® through automated sprinkler irrigation systems in California.

**GRAIN SORGHUM  
BUCTRIL® RECOMMENDATIONS**

**TIMING OF APPLICATION**

PRODUCT	RATE	CROP	WEED <sup>1</sup>
BUCTRIL®	1 Pint/A	Apply to grain sorghum between the 3-leaf stage up to the boot stage. Use a maximum of 2 applications per season	See APPLICATION RATE TABLE for list of weeds and corresponding stages of growth that are controlled by BUCTRIL® at recommended rates of application growth that are controlled
	1 1/2 Pints/A	Apply to grain sorghum between the 4-leaf stage up to the boot stage. Use a maximum of 2 applications per season	

<sup>1</sup>For control of additional weeds not listed in the APPLICATION RATE TABLE for field corn, popcorn and grain sorghum, see GENERAL WEED LIST. Use BUCTRIL® at 1 pint/A for control of MOST SUSCEPTIBLE WEEDS and 1 1/2 pints/A for control of SUSCEPTIBLE WEEDS. Apply BUCTRIL® to weeds that do not exceed the 4-leaf stage or inches in height, whichever comes first. If weed forms rosette, apply before weed exceeds 1 inch in diameter.

**GRAIN SORGHUM  
BUCTRIL® TANKMIX RECOMMENDATIONS**

**TIMING OF APPLICATION**

PRODUCT	RATE	CROP	WEED
BUCTRIL® + Atrazine <sup>2</sup> (tankmix)	3/4 To 1 Pint/A + 1/2 to 1 1/5 lb a/A	Apply to grain sorghum between the 3-leaf stage up to the boot stage. Use a maximum of 2 applications per season	See APPLICATION RATE TABLE for list of weeds and corresponding stages of growth that are controlled by BUCTRIL® & Atrazine tank mixtures at recommended rates of application. These tank mixtures also provide some residual control of germinating weed seedlings
	1 1/2 Pints/A + 1/2 to 1 1/5 lb a/A	Apply to grain sorghum between the 4-leaf stage up to the boot stage. Use a maximum of 2 applications per season	

<sup>1</sup>Refer to ATRAZINE CONVERSION TABLE under the corn section for conversion of active ingredient rates of Atrazine to formulation rates.

<sup>2</sup>Follow all cautions and limitations on the label's of products used in tank mixtures with BUCTRIL®.

**GRAIN SORGHUM**

(Automated Sprinkler Irrigation Application)

BUCTRIL® can be applied through automated sprinkler irrigation systems to grain sorghum from the 3-leaf up to the boot stage. Apply BUCTRIL® at 1 1/2 pints/A + Atrazine at 1/2 to 1 1/5 lbs a/A in 1/4 to 1/2 acre-inch of water. See GENERAL INFORMATION section for complete use directions and precautions. Refer to GENERAL WEED LIST in the GENERAL INFORMATION section for list of MOST SUSCEPTIBLE BROADLEAF WEEDS and SUSCEPTIBLE BROADLEAF WEEDS.

**MOST SUSCEPTIBLE BROADLEAF WEEDS**

Apply to weeds 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.

**SUSCEPTIBLE BROADLEAF WEEDS**

Apply to weeds up to the leaf stage or 2 inches in height whichever comes first. If weed forms rosette apply before weeds exceed 1 inch in diameter.

**WEED SIZE IS CRITICAL WHEN BUCTRIL® IS APPLIED THROUGH AUTOMATED SPRINKLER IRRIGATIONS. WEEDS SHOULD NOT EXCEED THE MAXIMUM INDICATED OF GROWTH.**

Do not apply BUCTRIL® through automated sprinkler irrigation systems in California.

**SPECIAL USE DIRECTIONS FOR CONTROL OF LARGE BROADLEAF WEEDS**

Sequential applications of BUCTRIL® or BUCTRIL® tank mixtures may be necessary for control of broadleaf weeds that exceed the maximum stage of growth recommended with a single application of BUCTRIL® or BUCTRIL® tank mixture. Thorough coverage of the weeds is essential to obtain optimum weed control.

**COMMON COCKLEBUR, COMMON LAMBSQUARTERS, 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 BUCTRIL® at 1 pint/A. Make a second application of BUCTRIL® at the same rate 7 to 10 days later.

**VELVETLEAF**

For control of velvetleaf up to 14 inches in height, use post-emergence application of BUCTRIL® at 1 1/2 pints/A or BUCTRIL® + Atrazine tank mixture at 1 pint/A + 1 1/5 lb a/A. Make a second application of BUCTRIL® at 1 pint A 7 to 10 days later.

**RESTRICTIONS AND LIMITATIONS**

BUCTRIL® does not control grasses. Therefore, it is recommended that a suitable grass control program be used to provide any required grass control.

Do not add a spray additive, or mix with liquid fertilizers, because excessive crop injury may occur.

Do not apply BUCTRIL® if heavy rainfall is expected within 1 hour of application.

Seed corn producers should consult the respective seed corn company regarding tolerance of certain seed production inbred lines to BUCTRIL®.

Do not plant rotational crops until the following season.

Do not apply within 30 days of ensilage.

The total cumulative rate should not exceed 3 pints/A per season.

**FLAX**

Apply BUCTRIL® when weed seedlings are actively growing. For optimum control apply BUCTRIL® in sufficient spray volume to

ensure good coverage of the weeds. Do not apply to flax under humid conditions and when air temperature is above 85°F as injury may occur. Do not add spray additive with BUCTRIL®.

#### **BUCTRIL® RECOMMENDATIONS**

BUCTRIL® at 1 pint/A should be applied postemergence to flax that is 2 to 8 inches in height. Do not apply BUCTRIL® to flax during or after the bud stage.

BUCTRIL® at 1 pint/A will control the MOST SUSCEPTIBLE and SUSCEPTIBLE BROADLEAF WEEDS (See GENERAL WEED LIST) when applied at the recommended weed stage of growth. Weeds should 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.

**FOR GROUND APPLICATION**, use a minimum of 10 gallons of spray volume per acre. Use flat fan nozzles spaced a maximum of 20 inches apart with a minimum spray pressure of 30 psi at the nozzle tips. Other nozzle types may not provide adequate coverage of weeds to ensure optimum weed control.

**FOR AERIAL APPLICATION**, use a minimum of 5 gallons of spray volume per acre with a maximum spray pressure of 40 psi at the nozzle tips. Refer to AERIAL APPLICATION under GENERAL INFORMATION section for complete use directions.

#### **GARLIC**

Apply BUCTRIL® when weed seedlings are actively growing. For optimum control apply BUCTRIL® in sufficient spray volume to ensure good coverage of the weeds.

#### **BUCTRIL® RECOMMENDATIONS**

BUCTRIL® can be applied after the crop emerges but before garlic is 12 inches in height.

For control of MOST SUSCEPTIBLE AND SUSCEPTIBLE BROADLEAF WEEDS (See GENERAL WEED LIST) apply BUCTRIL® at 1 1/2 pints/A to weeds up to the 4 leaf stage or 2 inches in height, whichever comes first. If weed forms rosette, apply before weeds exceed 1 inch in diameter.

**FOR GROUND APPLICATION**, use a minimum of 20 gallons of spray volume per acre. Use flat fan nozzles spaced a maximum of 20 inches apart with a minimum spray pressure of 30 psi at the nozzle tips. Other nozzle types may not provide adequate coverage of the weeds to ensure optimum weed control.

**FOR AERIAL APPLICATION**, use a minimum of 5 gallons of spray volume per acre with a maximum spray pressure of 40 psi at the nozzle tips. Refer to AERIAL APPLICATION under GENERAL INFORMATION section for complete use directions.

Do not apply BUCTRIL® within 112 days of anticipated harvest.

#### **ONIONS**

Apply BUCTRIL® at 1 to 1 1/2 pints per acre in at least 50 to 70 gallons of water per acre by ground equipment only. Apply when onions have 2 to 5 true leaves. Water volume is important. Concentrated sprays kill onions. Thorough and uniform coverage is necessary for good weed control. Do not treat thrips or sand damaged crops. Do not add surfactants. Do not apply with aerial equipment.

See GENERAL WEED LIST on the BUCTRIL® Herbicide package label for weeds controlled. Use BUCTRIL® at 1 pint/A for control of MOST SUSCEPTIBLE WEEDS and 1 1/2 pints/A for control of SUSCEPTIBLE WEEDS. Application should be made when weeds 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.

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

be dry at the time of application. Humidity should be low and dew should be off the leaves.

Applications should not be made 24 hours before or after cultivation, irrigation, or rain, longer than 24 hours if possible. It is best to spray on a bright, sunny day after dew has completely dried from onion foliage.

Do not use BUCTRIL® Herbicide on onions grown under low light intensity, in areas such as Oregon, west of the Cascades.

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

#### **ANNUAL CANARYGRASS**

Apply BUCTRIL® and MCPA tank mixtures when weed seedlings are actively growing. For optimum control applications should be made in a sufficient spray volume to ensure good coverage of the weeds.

#### **BUCTRIL® RECOMMENDATIONS**

BUCTRIL® at 1 to 1 1/2 pints/A tankmixed with MCPA at 1/4 to 1/2 pound active ingredient per acre should be applied to annual canarygrass with a minimum of 3 leaves. BUCTRIL® and MCPA tank mixtures will control the MOST SUSCEPTIBLE and SUSCEPTIBLE BROADLEAF WEEDS (SEE GENERAL WEED LIST) when applied at the recommended stage of growth. Weeds should 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.

Applications should be made in a minimum of 10 gallons of spray volume per acre. Use flat fan nozzles spaced a maximum of 20 inches apart with a minimum spray pressure of 30 psi at the nozzle tips. Other nozzle types may not provide adequate coverage of the weeds to ensure optimum weed control.

#### **PRECAUTIONS**

Do not apply when annual canarygrass is under stress from lack of water, or when the crop forms a canopy over the weeds. Do not graze livestock in treated annual canarygrass fields. Do not harvest within 75 days after application.

#### **PEPPERMINT AND SPEARMINT (ESTABLISHED ONLY)**

#### **BUCTRIL® RECOMMENDATIONS**

BUCTRIL® should be applied only on established peppermint and spearmint which has been harvested for at least one year prior to treatment. BUCTRIL® should be applied after emergence of the broadleaf weeds but before they have more than 4 to 6 leaves. See GENERAL WEED LIST for weeds controlled by BUCTRIL®. Applications should be at the rate of 1 to 1 1/2 pints/A. Applications should not be made when air temperatures exceed or are expected to exceed 70° F within 5 days after application. A second application may be made if needed, but the cumulative rate of BUCTRIL® should not exceed 6 pints/A during a single growing season. Do not apply within 70 days of harvest.

All applications of BUCTRIL® to mint should be in a minimum of 10 gallons of spray volume per acre. Use flat fan nozzles spaced a maximum of 20 inches apart with a minimum spray pressure of 30 psi at the nozzle tips. Other nozzle types may not provide adequate coverage of the weeds to ensure optimum weed control.

#### **PRECAUTIONS**

BUCTRIL® may cause temporary stunting and leaf chlorosis when applied to growing mint. Do not apply to mint growing under adverse conditions such as insect, nematode and disease infestations, high soil salt content, drought, excessive moisture or mint suffering from winter injury.

#### **ESTABLISHED TURFGRASSES AND NEWLY PLANTED GRASSES FOR SOD OR SEED PRODUCTION**

Postemergence applications of BUCTRIL® controls many seedling broadleaf weeds commonly found in turfgrasses. See GENERAL WEED LIST for weeds controlled by BUCTRIL®. Established grasses tolerant to BUCTRIL® include bentgrasses, Kentucky Bluegrass, Fescues, Ryegrass, Bermudagrass, St. Augustinegrass and Zoysiagrass. BUCTRIL® 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 newly sprigged Zoysiagrass planted for seed or sod production, or forage grasses planted for seed production only.

#### APPLICATION PROCEDURES

Apply BUCTRIL® at 1 1/2 pints (0.6 fl oz per 1000 sq. ft.) in 10 to 100 gallons of spray volume per acre. When using a spray volume from 10 to 40 gpa, use flat fan nozzles spaced a maximum of 20 inches apart with a minimum spray pressure of 30 psi at the nozzle tips. When using higher spray volumes, flood jet nozzles may be used with a minimum spray pressure of 30 psi at the nozzle tips.

#### BUCTRIL® HERBICIDE WEED CONTROL IN COVER CROPS ON CONSERVATION RESERVE ACRES DIRECTIONS FOR USE

##### CROPS

Crested wheatgrasses (all), tall wheatgrass, western wheatgrass, bluebunch wheatgrass, intermediate wheatgrass, perennial ryegrass, fescue, bentgrasses, Kentucky bluegrass, Canby bluegrass, bahiagrass, Russian wildrye, seedling alfalfa

##### TARGET WEEDS

BUCTRIL® will control broadleaf weeds mentioned in the GENERAL WEED LIST found on the package label. Follow all use directions on this label and on the BUCTRIL® package label to ensure product performance and crop safety.

##### WHEN TO APPLY

BUCTRIL® may be applied with standard ground boom and aerial hydraulic spray systems to forage crops listed here anytime after the 2 to 3 leaf stage, but before weeds exceed recommended stages of growth for treatment. Seedling alfalfa may be treated anytime after the 3-trifoliate leaf stage.

##### HOW TO APPLY

**GROUND APPLICATION:** Use a standard herbicide boom sprayer that provides uniform and accurate application. Sprayer should be equipped with flat fan nozzles spaced a maximum of 20 inches apart and screens no finer than 50 mesh in the nozzle tips and in-line strainers. Apply in a minimum spray volume of 10 gallons per acre with minimum spray pressure of 30 psi at the nozzle tips.

**AERIAL APPLICATION:** The sprayer should be equipped to provide a uniform and accurate application. Use a minimum spray volume of 5 gallons per acre using diaphragm-type nozzle that produce cone or fan spray patterns with a maximum spray pressure of 40 psi at the distance from the center of the aircraft to the end of the wing or rotor. Nozzles should be oriented at an angle between straight down and straight back. The aircraft should discharge the spray a maximum of 10 feet above the crop. To minimize drift, do not apply during periods of gusty winds or when wind exceeds 5 mph.

In order to ensure maximum safety and weed control, follow label recommendations on this label and all the precautions and limitations on the package labels of the tank mixture components.

#### USE RECOMMENDATIONS BUCTRIL®

TIMING OF APPLICATION		
RATE	CROP	WEED <sup>1/</sup>
BUCTRIL® 1 1/2 Pints/A	Apply anytime in the fall or spring after grasses have reached the 2-3 leaf stage or when alfalfa has reached the 3-into late leaf stage	<b>MOST SUSCEPTIBLE AND SUSCEPTIBLE BROADLEAF WEEDS</b>
		Apply to weeds up to the 4 leaf stage or 2 inches in height; whichever comes first. If weed forms rosette, apply before weeds exceed 1 inch in diameter.

<sup>1/</sup>Refer to the general weed list on the BUCTRIL® package label for a complete list of susceptible weeds.

#### BUCTRIL® AND MCPA

**Grass Crops Only - Do not use on alfalfa.**

A tank mixture of BUCTRIL® at the recommended rate + MCPA at 1/4 to 1/2 pound of active ingredient per acre is used to broaden the spectrum of broadleaf weed control. The tank mixture will control the weeds listed on the MCPA label, in addition to the weeds listed on the BUCTRIL® label. The rate of BUCTRIL® in the tank mixture is the same as when BUCTRIL® is used alone. See BUCTRIL® RECOMMENDATIONS.

BUCTRIL® + MCPA tank mixtures can be applied after the 3 leaf stage but before the crop reached the boot stage. Apply only to the following grass species: Crested wheatgrasses, tall wheatgrass, blue bunch wheatgrass, intermediate wheatgrasses, sheep fescue, canby bluegrass, and Russian wildrye. Do not apply to alfalfa.

#### USE RESTRICTIONS

Do not allow livestock to graze treated fields.

Do not feed treated grasses or alfalfa to livestock.

Do not apply BUCTRIL® + MCPA tank-mixtures to alfalfa.

Mix with clean water only. Do not use spray additives or fluid fertilizers as crop injury may occur.

Do not apply BUCTRIL® to alfalfa when air temperature exceed 80°F as crop injury may occur.

#### STORAGE AND DISPOSAL

##### STORAGE

##### PESTICIDE DISPOSAL

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

##### CONTAINER DISPOSAL

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants (a) that this product conforms to the chemical description on the label, (b) that this product is reasonably fit for the purpose set forth in the directions for use when it is used in accordance with such directions, and (c) that the directions, warnings and other statements on this label are based upon responsible experts evaluation of reasonable tests of effectiveness of toxicity to laboratory animals and to plants, and of residues on food crops and upon reports of field experience. Tests have not been made on all varieties or in all states or under all conditions. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE, ANY OTHER WARRANTIES EXPRESS OR IMPLIED AND IT EXPRESSLY EXCLUDES AND

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