

PRODUCT NUMBER
2070

ACCEPTED

DEC - 4 1987

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

BUCTRIL[®] HERBICIDE



For the control of certain broadleaf weeds in small grains, corn, sorghum, flax, garlic, annual canarygrass, mint, turf and noncrop areas.

ACTIVE INGREDIENT:

Octanoic acid ester of bromoxynil* (3,5-dibromo-4-hydroxybenzonitrile) 33.4%

INERT INGREDIENTS

Bromoxynil octanoate equivalent to 22.9% of bromoxynil or not less than 2.0 pounds of bromoxynil per gallon. 66.6%

Keep Out of Reach of Children

AVISO

WARNING

PRECAUTION AL USUARIO:

Si usted no lee inglés, no use este producto hasta que la etiqueta haya sido explicado completamente.

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.

See Side Panel for Additional Precautionary Statements

by cleaning or 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

STORAGE AND DISPOSAL

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

STORAGE:

Do not store near fertilizers or seeds. Store at temperatures above 3°F. If allowed to freeze remix before using

PESTICIDE DISPOSAL:

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance

CONTAINER DISPOSAL:

Metal: Triple rinse (or equivalent). Then puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities

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

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, mint, turf and noncrop areas. 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,[®] Avenge,[®] MCPA, 2,4-D or Hoe-on[®] 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. On turf, Buctril can be tankmixed with MCPP, Banvel, MCPP + Banvel, or 2,4-D + MCPP. 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.

MIXING INSTRUCTIONS

Buctril Alone: Fill the spray tank 1/2 to 3/4 full with clean water. Begin agitation and add the recommended amount of 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.

If tankmixing with Avenge, MCPA, 2,4-D, Hoe-on, MCPP, or Banvel add the recommended amount of Buctril first. After Buctril is thoroughly mixed with water, add the recommended amount of the other herbicide(s) 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.

APPLICATION PROCEDURES

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

CROP	TYPE OF APPLICATION EQUIPMENT		
	GROUND	AERIAL	AUTOMATED SPRINKLER IRRIGATION
SMALL GRAINS	X	X	X
FIELD AND POPCORN	X	X	X
GRAIN SORGHUM	X	X	X
FLAX	X	X	
GARLIC	X	X	
ANNUAL CANARYGRASS	X		
MINT	X		
TURF	X		
NONCROP 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 $\frac{1}{4}$ 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.

GENERAL WEED LIST

Postemergence application of Buctril 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 (*Sonchus oleraceus*)
 Black Nightshade (*Solanum nigrum*)
 Blue Mustard (*Chorispora tenella*)
 Coast Fiddleneck (*Amsinckia intermedia*)
 Common Cocklebur (*Xanthium pensylvanicum*)
 Common Lambquarter (*Chenopodium album*)
 Common Tarweed (*Hemizonia congesta*)
 Eastern Black Nightshade (*Solanum ptycanthum*)
 Field Pennycress (*Thlaspi arvense*)
 Green Smartweed (*Polygonum scabrum*)
 Hairy Nightshade (*Solanum sarachoides*)
 Jimsonweed (*Datura stramonium*)
 Lady'sthumb (*Polygonum persicaria*)
 Pennsylvania Smartweed (*Polygonum pensylvanicum*)
 Ragweed spp. (annual) (*Lepidium* spp.)
 Shepherdspurse (*Capsella bursa-pastoris*)
 Silverleaf Nightshade (*Solanum elaeagnifolium*)
 Tartary Buckwheat (*Eragrostis tataricum*)
 (1) Sunflower (*Helianthus annuus*)
 Wild Buckwheat (*Polygonum convolvulus*)

SUSCEPTIBLE BROADLEAF WEED SPECIES

Buttaloebur (*Solanum rostratum*)
 Common Groundsel (*Senecio vulgaris*)
 Common ragweed (*Ambrosia artemisiifolia*)
 Corn Chamomile (*Anthemis arvensis*)
 Corn Gromwell (*Lithospermum arvense*)
 Cow Chick (*Saprinaria vaccaria*)
 Giant Ragweed (*Ambrosia trifida*)
 Hemp Lesbania (*Sesbania exaltata*)
 Ivyleaf Morningglory (*Ipomoea hederacea*)
 Knapweed (*Scleranthus annuus*)
 (2) Kochia (*Kochia scoparia*)
 London Rocket (*Sisymbrium irio*)
 Mayweed (*Anthemis cotula*)
 Prostrate Knotweed (*Polygonum aviculare*)
 (2) Redroot Pigweed (*Amaranthus retrofractus*)
 Russian Thistle (*Salsola kali*)
 (2) Spiny Pigweed (*Amaranthus spinosus*)
 Tail Morningglory (*Ipomoea purpurea*)
 (2) Tall Waterhemp (*Amaranthus tuberculatus*)
 Tumble Mustard (*Sisymbrium altissimum*)
 Velvetleaf (*Abutilon theophrasti*)
 Venice Mallow (*Hibiscus trionum*)
 Wild Mustard (*Brassica kaber*)
 Wild Radish (*Raphanus raphanistrum*)

(1) For control of sunflower, delay application until first emerging sunflower seedlings are 4 inches in height.

(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 of top growth. Regrowth may occur.

INSECTICIDE

<u>Common Name</u>	<u>Trade Name</u>	<u>Formulation</u>
Diazinon	Various	Emulsifiable Concentrate
Dimethoate	Various	Emulsifiable Concentrate
Trichlorfon	Dylox	Soluble Powder
Carbofuran	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 $\frac{1}{2}$ to $\frac{3}{4}$ 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 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 a Registered Trademark of Union Carbide Corporation.

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 cold 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, or Hoeion 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 nozzle, 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

Apply Buctril by automated sprinkler irrigation systems using $\frac{1}{4}$ to $\frac{1}{2}$ acre inch of water per acre. 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, aerial, or automated sprinkler irrigation systems), weed species and stage of growth of weeds at time of application.

Recommendations are as follows:

WHEAT and BARLEY

BUCTRIL RECOMMENDATIONS

TIMING OF APPLICATION				
PRODUCT	CROP/GEOGRAPHICAL AREA	RATE	CROP	WEED
Buctril	Fall seeded wheat and barley throughout the United States and spring seeded wheat and barley in Idaho, Oregon and Washington	1½ Pints/A	Apply to wheat and barley from emergence to the boot stage	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
		2 Pints/A		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
	Spring seeded wheat and barley except Idaho, Oregon and Washington	1 Pint/A	Apply to wheat and barley from emergence to the boot stage	Most Susceptible and Susceptible Broadleaf Weeds 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
		1½ Pints/A		Use Buctril at 1½ pints/A for control of kochia that is 2-4 inches in height and pigweed (<i>Amaranthus</i> spp.) that does not exceed the 4 leaf stage or 2 inches in height, whichever comes first

BUCTRIL TANK MIXTURE RECOMMENDATIONS

TIMING OF APPLICATION				
PRODUCT	CROP/GEOGRAPHICAL AREA	RATE	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	¾ Pint/A + ¼ ½ 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	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
		1 Pint/A + ¼ ½ ounce/A		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
	Spring seeded wheat and barley except Idaho, Oregon and Washington	¾ Pint/A + ¼ ½ ounce/A		Most Susceptible and Susceptible Broadleaf Weeds Apply Buctril + Glean at ¾ pint/A + ¼ ½ 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
		1½ Pints/A + ¼ ½ ounce/A		Use Buctril + Glean at 1½ pints/A + ¼ ½ ounces/A for control of kochia that is 2-4 inches in height and pigweed (<i>Amaranthus</i> 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 AVENGE

A tank mixture of Buctril + Avenge 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 + Avenge tank mixtures when the majority of the wild oats are in the 3 to 5 leaf stage of growth. This frequently 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 Avenge label for varietal restrictions and recommended Avenge rates as related to wild oat density.

Avenge 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 $\frac{1}{4}$ to $\frac{1}{2}$ 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 has tillered but before the forming of joints in the stem.

BUCTRIL 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 in 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.

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, RYE and TRITICALE

(Automated Sprinkler Irrigation Application)

Buctril can be applied through automated sprinkler irrigation systems to fall and spring seeded wheat, barley, oats, rye and triticale from emergence to the joint stage. Apply Buctril at 2 pints/A in $\frac{1}{4}$ to $\frac{1}{2}$ acre inch of water. 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 postemergence applications of Buctril.

MOST SUSCEPTIBLE BROADLEAF WEEDS

Apply to weeds up to the 4 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.

FIELD CORN, POPCORN and GRAIN SORGHUM

Buctril is applied as a postemergence application in field corn, popcorn or grain sorghum grown for grain, seed or silage under conventional minimum tillage or no tillage 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 cautions and limitations on this label and the labels of products used in tank mixtures with Buctril.

APPLICATION PROCEDURES

GROUND EQUIPMENT

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, drift 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.

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 1½ 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 When determining leaf stage, count all leaves except cotyledonary leaves		1 Pint/A		1½ Pints/A	
		Maximum Leaf Stage	Maximum Weed Height (inches)	Maximum Leaf Stage	Maximum 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 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
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
Velvetleaf	<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					
Canada Thistle	<i>Cirsium arvense</i>	not recommended		8 inch to bud stage	
Buctril suppresses the growth by burning down of top growth. Regrowth may occur.					

BUCTRIL TANK MIXTURE RECOMMENDATIONS

BUCTRIL and ATRAZINE. Postemergence applications of Buctril at 1 and 1½ pints/A in a tank mixture with atrazine at 1½ and 1½ 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

When determining leaf stage, count all leaves except cotyledonary leaves

BUCTRIL AND ATRAZINE RATE (TANKMIX)

		¼ Pint/A + ½ lbai/A		¾ Pints/A + 1½ lbai/A		1 Pint/A + ½ lbai/A		1 Pint/A + 1½ lbai/A		1½ Pints/A + ½ lbai/A	
		MAXIMUM LEAF STAGE	MAXIMUM WEED HEIGHT (inches)	MAXIMUM LEAF STAGE	MAXIMUM WEED HEIGHT (inches)	MAXIMUM LEAF STAGE	MAXIMUM WEED HEIGHT (inches)	MAXIMUM LEAF STAGE	MAXIMUM WEED HEIGHT (inches)	MAXIMUM LEAF STAGE	MAXIMUM WEED HEIGHT (inches)
Black Nightshade	<i>Solanum nigrum</i>	4	4	4	4	6	6	6	6	6	6
Buffalobur	<i>Solanum rostratum</i>	4	4	4	4	6	4	6	4	6	4
Common Cocklebur	<i>Xanthium pensylvanicum</i>	6	8	8	10	8	10	10	12	10	12
Common Lambsquarters	<i>Chenopodium album</i>		6		10		10		12		12
Common Ragweed	<i>Ambrosia artemisiifolia</i>	6	4	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
Giant Ragweed	<i>Ambrosia trifida</i>	4	4	4	4	6	6	6	6	6	6
Hemp Sesbania	<i>Sesbania exaltata</i>	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
Jimsonweed	<i>Datura stramonium</i>	4	4	4	4	6	6	6	6	6	6
Ladysthumb	<i>Polygonum persicaria</i>	4	4	4	4	6	6	8	8	8	8
Pennsylvania Smartweed	<i>Polygonum pensylvanicum</i>	4	4	4	4	6	6	8	8	8	8
Prickly Sida	<i>Sida spinosa</i>			6	2	4	1	6	2	4	1
Puncturevine	<i>Tribulus terrestris</i>							6	4	6	4
Redroot Pigweed ¹	<i>Amaranthus retroflexus</i>	4	2	8	6	6	4	8	6	6	4
Smooth Pigweed ¹	<i>Amaranthus hybridus</i>	4	2	6	4	4	2	6	4	6	4
Spiny Pigweed ¹	<i>Amaranthus spinosus</i>	4	2	8	6	6	4	8	6	6	4
Sunflower	<i>Helianthus annuus</i>	6	8	8	10	8	10	10	12	10	12
Tall Morningglory	<i>Ipomoea purpurea</i>	3	3	4	4	4	4	4	4	4	4
Tall Waterhemp ¹	<i>Amaranthus tuberculatus</i>	4	2	8	6	6	4	8	6	6	4
Velvetleaf	<i>Abutilon theophrasti</i>	4	3	4	3	6	5	6	5	8	6
Vernice Mallow	<i>Hibiscus trionum</i>	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
Wild Mustard	<i>Sinapis arvensis</i>	4	4	4	4	4	4	4	4	4	4

WEEDS SUPPRESSED

Canada thistle	<i>Cirsium arvense</i>	Not Recommended	Not Recommended	Not Recommended	8" bud	8" bud
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Selected rates of Buctril & Atrazine tank mixtures suppress the growth by burning down the top growth. Regrowth may occur.

¹ If pigweeds (*Amaranthus* sp.) present in the field to be treated have been identified as treating resistant biotypes, use Buctril at 1½ pints/A in a tank mixture with atrazine at ½ or 1½ lbai/A. Applications should be made when pigweeds do not exceed the 4 leaf stage and 2 inches in height.

1/ 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 1½ 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 and POPCORN

BUCTRIL TANKMIX RECOMMENDATIONS

TIMING OF APPLICATION			
PRODUCT	RATE	CROP	WEED
Buctril + Atrazine 1/ 2/ (Tankmix)	1 Pint/A + ½-1½ lbai/A	Apply to corn between the 1 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 Buctril & Atrazine tank mixtures at recommended rates of application.
	1½ Pints/A + ½-1½ lbai/	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 seedlings.

1/

ATRAZINE CONVERSION TABLE		
Atrazine Formulation	Atrazine Rate Pounds of active ingredient per acre	Atrazine Formulation Rate per acre
Atrazine 4L	½	1 Pint
Atrazine 80 WP	1½	2½ Pints
	½	½ Pound
Aatrex® Nine O	1½	1½ Pounds
	½	½ Pound
	1½	1½ Pounds

2/ Follow all cautions and limitations on the labels of products used in tank mixtures with Buctril.

FIELD CORN
(Ground Application Only)
BUCTRIL TANKMIX RECOMMENDATIONS

PRODUCT	RATE	TIMING OF APPLICATION	
		CROP	WEED
Buctril + Banvel 1 ¹ / ₂ (Tankmix)	1 Pint/A + 1 1/4 lb/a/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 bindweed up to the mid bloom stage
	1 1/2 Pints/A + 1 1/4 lb/a/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	

1: SPECIAL PRECAUTIONS FOR BUCTRIL & 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 & BANVEL UNLESS ALL CAUTIONS AND LIMITATIONS ON THE BANVEL LABEL ARE FOLLOWED.

FIELD CORN
(Ground Application Only)
BUCTRIL TANKMIX RECOMMENDATIONS

PRODUCT	RATE	TIMING OF APPLICATION	
		CROP	WEED
Buctril + 2,4 D ¹ (Tankmix)	1 Pint A + 1 1/4 lb/a A	Apply to corn between the 3 leaf stage and prior to tassel emergence. When corn exceeds 8 inches in height, drop nozzles must be used to apply Buctril & 2,4 D tank mixtures as a directed spray	All weeds controlled by Buctril at recommended rates of application plus control of wild mustard that is larger than the 4 leaf stage or 4 inches in height, whichever comes first
	1 1/2 Pints A + 1 1/4 lb/a A	Apply to corn between the 4 leaf stage and prior to tassel emergence. When corn exceeds 8 inches in height, drop nozzles must be used to apply Buctril & 2,4 D tank mixtures as a directed spray	

2,4 D CONVERSION TABLE 1/

2,4-D Formulaton	2,4-D Rate Pounds of active ingredient per acre	2,4-D Formulation Rate per acre
2,4 D 4lb/gallon	1 1/4	1 1/2 Pint
2,4 D 6lb/gallon	1 1/4	1 1/2 Pint

SPECIAL PRECAUTIONS FOR BUCTRIL + 2,4 D TANK MIXTURE Postemergence applications of 2,4 D causes brittleness to corn. Winds or cultivations may cause breakage while corn is brittle. Follow all cautions and limitations on the labels of products used in tank mixtures 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 prior to tassel emergence. Apply Buctril at 2 pints/A in $\frac{1}{4}$ to $\frac{1}{2}$ 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 SUSECEPTIBLE BROADLEAF WEEDS and SUSECEPTIBLE BROADLEAF WEEDS to postemergence applications of Buctril.

MOST SUSECEPTIBLE 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.

SUSECEPTIBLE 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

PRODUCT	RATE	TIMING OF APPLICATION	
		CROP	WEED 1/
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 stage of growth that are controlled by Buctril at recommended rates of application.
	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.	

1. For control of a list of weeds, refer to the APPLICATION RATE TABLE for field corn, popcorn and grain sorghum and the GENERAL WEED LIST. For Buctril at 1 1/2 pints/A refer to MOST SUSECEPTIBLE WEEDS and at 1 pint/A refer to SUSECEPTIBLE 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.

GRAIN SORGHUM

BUCTRIL TANKMIX RECOMMENDATIONS

PRODUCT	RATE	TIMING OF APPLICATION	
		CROP	WEED
Buctril + Atrazine 2 (Tankmix)	1 1/2 Pint A + 1/2 lb. Atrazine	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 lb. Atrazine	Apply to grain sorghum between the 4 leaf stage up to the boot stage. Use a maximum of 2 applications per season.	

1. Refer to ATRAZINE CONVERSION TABLE under the corn section for conversion of active ingredient rates of atrazine to formulation rates.

2. Follow all directions and limitations on the label 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 2 pints/A in $\frac{1}{4}$ to $\frac{1}{2}$ 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 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.

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 a postemergence application of Buctril at $1\frac{1}{2}$ pints/A or Buctril + atrazine tank mixture at 1 pint/A + $\frac{1}{2}$ lb/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 use 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 BROADLEAF WEEDS (See GENERAL WEED LIST) apply Buctril at 2 pints/A 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.

For control of SUSCEPTIBLE BROADLEAF WEEDS, apply Buctril at 4 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.

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 2 pints/A tankmixed with MCPA at $\frac{1}{4}$ to $\frac{1}{2}$ 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. When mint is dormant, Buctril should be applied at the rate of 2 to 4 pints/A depending upon weed species present.

Applications made when mint is growing should be at the rate of 1 to 1½ pints/A. Application should 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 water 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. 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, Pennaawn, Shawnee, Lahee or Alta Fescues, Ornamental grass, High and Seaside, or Arctura Bentgrasses, perennial Ryegrasses, Bahiagrass and newly sown Zoysiagrass planted for seed or sod production, or fescue grasses planted for seed production only.

APPLICATION PROCEDURES

Buctril used alone and in tank mixtures should be applied 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 ^{1/} RECOMMENDATIONS

SEEDLING AND ESTABLISHED TURF

PRODUCT	RATE PER ACRE	RATE PER 1000 FT. ²	WEED SPECIES
Buctril	1 1/2 Pints	0.6075 fl. oz.	See GENERAL WEED LIST

ESTABLISHED TURF ONLY; EXCLUDING BENTGRASS PUTTING GREENS

Buctril	4 Pints	1.5 fl. oz.	As previously listed for Buctril plus the following Spurweed (<i>Soliva</i> spp.) Yellow Woodsorrel (<i>Oxalis</i> spp.) 2/
	8 Pints	3.0 fl. oz.	As previously listed for Buctril plus the following Prostrate Spurge (<i>Euphorbia supina</i>)

BUCTRIL TANK MIXTURE RECOMMENDATIONS

BUCTRIL TANK MIXTURES ESTABLISHED TURF ONLY; EXCLUDING BENTGRASSES

PRODUCT	RATE PER ACRE	RATE PER 1000 FT. ²	WEED SPECIES
Buctril + MCP P	2.4 Pints + 1.0 LBAI	0.75-1.5 fl. oz. + 0.025 LBAI	As previously listed for Buctril plus the following Common Chickweed (<i>Stellaria media</i>) Mouseear Chickweed (<i>Cerastium vulgatum</i>) Red Clover (<i>Trifolium pratense</i>) White Clover (<i>Trifolium repens</i>) Ground Ivy (<i>Glechoma hederacea</i>) Stitchwort (<i>Stellaria graminea</i>) Knotweed (<i>Polygonum aviculare</i>) Prostrate Spurge (<i>Euphorbia supina</i>)
Buctril + dicamba	2 Pints + 0.25-0.5 LBAI	0.75-1.5 fl. oz. + 0.006-0.012 LBAI	As previously listed for Buctril plus the following Common Chickweed (<i>Stellaria media</i>) Mouseear Chickweed (<i>Cerastium vulgatum</i>) Red Clover (<i>Trifolium pratense</i>) White Clover (<i>Trifolium repens</i>) Knotweed (<i>Polygonum aviculare</i>) Red Sorrel (<i>Rumex acetosella</i>) Pepperweed (<i>Lepidium</i> spp.)
	4 Pints + 0.25-0.5 LBAI	1.5 fl. oz. + 0.006-0.012 LBAI	As previously listed for Buctril and Buctril + dicamba plus the following Prostrate Spurge (<i>Euphorbia supina</i>) Yellow Woodsorrel (<i>Oxalis</i> spp.) Spurweed (<i>Soliva</i> spp.)
Buctril + MCP P + dicamba	2 Pints + 0.5-1.0 LBAI + 0.125-0.25 LBAI	0.75 fl. oz. + 0.0125-0.025 LBAI + 0.003-0.006 LBAI	As previously listed for Buctril combinations plus the following Plantains (<i>Plantago</i> spp.) Dandelion (<i>Taraxacum officinale</i>)
	4 Pints + 0.5-1.0 LBAI + 0.125-0.25 LBAI	1.5 fl. oz. + 0.0125-0.025 LBAI + 0.003-0.006 LBAI	Prostrate Spurge (<i>Euphorbia supina</i>) Spurweed (<i>Soliva</i> spp.)
Buctril + 2,4-D + MCP P 4	2 Pints + 0.5-1.0 LBAI + 0.5-1.0 LBAI	0.75 fl. oz. + 0.0125-0.025 LBAI + 0.0125-0.025 LBAI	As previously listed for Buctril tank mixtures plus the following Plantains (<i>Plantago</i> spp.) Knotweed (<i>Polygonum aviculare</i>) Dandelion (<i>Taraxacum officinale</i>) Red Sorrel (<i>Rumex acetosella</i>) 3/

1/ Buctril use rates are expressed as pints/A and fl. oz./1000 ft.² and the tank mix herbicides (dicamba, MCP P, and 2,4-D) use rates are given in pounds of active ingredient per acre (LBAI/A) and pounds of active ingredient per 1000 ft.² (LBAI/1000 ft.²) due to the various formulations commercially available. Make the necessary calculations to liquid measure based on the formulation used.

2/ Except in California.

3/ Use high rate of MCP P or 2,4-D.

4/ Including prepackaged mixtures such as Chipco Turf-Kleen.

A second application of Buctril alone 2 weeks after the initial treatment may be needed to get complete control of established Prostrate Spurge or Yellow Woodsorrel.

In order to ensure maximum safety and weed control follow all cautions and limitations on this label and the labels of products used in tank mixtures with Buctril.

INDUSTRIAL SITES AND NONCROP AREAS

FOR BROADCAST TREATMENT OF SMALL WEEDS:

Apply 2 quarts of Buctril with either 2 quarts of surfactant or 2 gallons of diesel oil in 150 gallons of water for each acre sprayed. Thorough coverage is important. Make sure spray boom is high enough to contact tops of all plants. Use adequate spray pressure to contact all leaf surfaces.

FOR SPOT TREATMENT OF SCATTERED INFESTATIONS OR LARGE WEEDS ALONG FENCEROWS IN VACANT LOTS AND ON INDUSTRIAL SITES:

Mix 1 quart of Buctril with either 1 quart of surfactant or 1 gallon of diesel oil per 100 gallons of spray solution. Cover all the weed foliage thoroughly. Use at least 200 gallons of spray solution for each acre sprayed.

When using oil, add Buctril to oil—then add water to this mixture while agitating vigorously.

CONTROLS THESE WEEDS IN THE SEEDLING STAGE:

In the Southwestern United States, Buctril effectively controls Russian thistle (*Salsola kali*), Saltbush (*Atriplex* spp.), Maretail (*Conyza canadensis*), Puncturevine (*Tribulus terrestris*), Prostrate Spurge (*Euphorbia supina*) and Bassia (*Bassia* spp.).

Buctril should be applied in early summer when Russian Thistle is immature and growing vigorously. Best results are obtained when temperatures are 80°F or higher.

Local conditions may affect the use of this chemical. Consult State Agricultural Extension or Experiment Station weed specialists for specific recommendations for local weed problems.

AUTOMATED SPRINKLER IRRIGATION SYSTEMS

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

Apply BUCTRIL® Herbicide through sprinkler including center pivot, lateral move, side (wheel) roll, solid set or hand move irrigation systems only. Do not apply this product through any other type of irrigation system.

Specific Requirements For Application Through Automated Sprinkler Irrigation Systems

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 operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

BUCTRIL^R
(EPA REG. NO. 359-564)

AND

FINESSE^R
(EPA REG. NO. 352-445)

TANK MIX
DIRECTIONS FOR USE

CROP: Fall and Spring-seeded wheat and barley.

GEOGRAPHIC AREA: Use only in the states of Idaho, Oregon, Washington

TARGET PESTS: All weeds listed on the Buctril package label and on the Finesse product label.

RATE: Apply Buctril at 3/4-1 1/2 pints/A and Finesse at 1/6-1/3 ounce/A.

APPLICATION: Apply to wheat and barley in the fall or spring at any time after the crop is in the 2-3 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.

BUCTRIL^R 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, fescues, 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 2-3 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 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.

USE RECOMMENDATIONS:

BUCTRIL

TIMING OF APPLICATION

RATE	CROP	WEED ^{1/}
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-trifoliate leaf stage.	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.
2 Pints/A		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.

^{1/} Refer to the general weed list on the Bucril package label for a complete list of susceptible weeds.

BUCTRIL AND MCPA - Grass Crops Only - Do not use on alfalfa.

A tank mixture of Bucril 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 Bucril label. The rate of Bucril in the tank mixture is the same as when Bucril is used alone See BUCTRIL RECOMMENDATIONS.

Bucril + MCPA tank mixtures can be applied after the 3 leaf stage but before the crop reaches the boot stage. Apply only to the following grass species: Crested wheatgrasses tall wheatgrass, blue bunch wheatgrass, intermediate wheatgrass, sheep fescue, canby bluegrass, 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 temperatures exceed 80°F as crop injury may occur.

BUCTRIL® Herbicide
Seedling Alfalfa Use Directions

SEEDLING ALFALFA

Apply BUCTRIL in the spring 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 should be applied to seedling alfalfa in the 2-4 trifoliate leaf stage. Apply BUCTRIL at 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) BUCTRIL at 1 pint/A can be applied in tank mixture with 2,4-DB at 0.5 lb ai'.

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 for complete use directions. For use through automated sprinkler irrigation systems BUCTRIL may be applied at 2 pints per acre only. Refer to the GENERAL INFORMATION SECTION for complete sprinkler irrigation system use directions.

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 within 30 days following treatment.
- Follow all restrictions and precautions on the 2,4-DB label when a BUCTRIL + 2,4-DB tank mixture is used.
- Do not apply BUCTRIL through automated sprinkler irrigation systems in California

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 purposes 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 DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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