

PM 25 264-437
1/29

BUCTRIL

and

METRIBUZIN
Herbicide
(Sencor/Lexon)
(EPA Reg.No. *)

HERBICIDE

(EPA Reg. No. 359-564)



ACCEPTED

FEB - 4 1985

Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. ~~359-564~~

264-437

TANK MIX

DIRECTIONS FOR USE

- CROP:** Fall seeded wheat and barley and spring seeded barley.
- GEOGRAPHIC AREA:** Use only in the states of Idaho, Oregon and Washington.
- TARGET PEST:** Henbit, ivyleaf speedwell and mayweed up to the 4 leaf stage or 2 inches in height or diameter whichever comes first in addition to the weeds controlled by Buctril. Refer to package label for list of weeds controlled by Buctril.
- RATE:** Apply Buctril at 1 to 1 1/2 pints per acre and metribuzin (Sencor/Lexone) at 1/8 - 3/16 lbai/A.
- APPLICATION:** Apply in the spring after wheat and barley has started to grow and has a well established secondary root system with at least 3 to 4 tillers, but before the forming of joints in the stem.

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

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Aerial Application (continued)

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.

Sencor is a registered trademark of the parent company of Farbenfabriken Bayer GmbH, Leverkusen.

Lexone is a registered trademark of E.I. Du Pont de Nemours Co., Inc.

- * Sencor DF 75% Dry Flowable Herbicide (EPA Reg. No. 3125-325)
- Sencor 50% Wettable Powder Herbicide (EPA Reg. No. 3125-277-AA)
- Sencor 4 Flowable Herbicide (EPA Reg. No. 3125-314)
- Lexone DF Weed Killer Dispersable Granule (EPA Reg. No. 352-390)
- Lexone 4L Weed Killer (EPA Reg. No. 352-382)
- Lexone Weed Killer Wettable Powder (EPA Reg. No. 352-375)

This labeling must be in the possession of the user at the time of pesticide application.

0185

RHÔNE-POULENC INC.
AGROCHEMICAL DIVISION
 Monmouth Junction, New Jersey 08852

20/29

PRODUCT NUMBER
2070

SPECIMEN LABEL 3

ACCEPTED
FEB - 4 1985
Under the Federal Insecticide,
Fungicide, and Rodenticide Act,
as amended, for the pesticide
registered under
EPA Reg. No. 359-569

BUCTRIL HERBICIDE

 RHÔNE-POULENC

Sorghum
✓

small grains, corn, flax, garlic.

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

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



GENERAL INFORMATION

Buctril is a selective postemergence herbicide for control of important broad-leaf weeds infesting small grains (wheat, barley, oats, and rye), field corn, popcorn, grain sorghum, flax, garlic, 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 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 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, Hoelon, 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	
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 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 may be applied through automated sprinkler irrigation systems to small grains, field and popcorn and grain sorghum. Use a properly engineered chemical injection system which includes antisiphon and check valves to prevent water source contamination and overflow of the mix tank. The system should also include interlocking controls between the metering device and the water pump to ensure simultaneous shutoff. The sprinkler system should provide uniform coverage and should have no leaks. The chemical injection tank should be cleaned before application to remove all fertilizer, pesticide and other foreign matter. Add Buctril or a Buctril-water mixture to the injector tank. A solution of Buctril diluted with water can be used only where agitation is present in the mix tank to achieve higher volumes needed in some irrigation systems. Carefully calibrate the system before and during application. Allow sufficient time for Buctril to be flushed through the system before turning off the irrigation water.

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 pennsylvanicum)
- Common lambsquarters (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)
- Ladythumb (Polygonum persicaria)
- Pennsylvania smartweed (Polygonum pennsylvanicum)
- Pepperweed spp. (annual) (Lepidium spp.)
- Shepherdspurse (Capsella bursa-pastoris)
- Silverleaf nightshade (Solanum elaeagnifolium)
- Tartary buckwheat (Fagopyrum tataricum)
- ¹/Sunflower (Helianthus annuus)
- Wild buckwheat (Polygonum convolvulus)

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

SUSCEPTIBLE BROADLEAF WEED SPECIES

- Buffalobur (solanum nostratum)
- Common groundsel (Senecio vulgaris)
- Common ragweed (Ambrosia artemisiifolia)
- Corn chamomile (Anthemis arvensis)
- Corn Groundwell (Lithospermum arvense)
- Cow cockle (Saponaria vaccaria)
- Giant ragweed (Ambrosia trifida)
- Hemp Sesbania (Sesbania exaltata)
- Ivyleaf morningglory (Ipomoea hederacea)
- Knawel (Scleranthus annuus)
- ²/Kochia (Kochia scoparia)
- London Rocket (Sisymbrium irio)
- Mayweed (Anthemis cotula)
- Prostrate knotweed (Polygonum aviculare)
- ²/Redroot pigweed (Amaranthus retroflexus)
- Russian thistle (Salsola kali)
- ²/Spiny pigweed (Amaranthus spinosus)
- Tall morningglory (Ipomoea purpurea)
- ²/Tall waterhemp (Amaranthus tuberculatus)
- Tumble mustard (Sisymbrium altissimum)
- Velvetleaf (Abutilon theophrasti)
- Wild mustard (Brassica kaber)
- Wild radish (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 of top growth. Regrowth may occur.

WHEAT, BARLEY, OATS, AND RYE

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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 Hoxlon 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 minimum spray pressure of 40 psi at the nozzle tips. Refer to AERIAL APPLICATION under the GENERAL INFORMATION section for complete use directions.

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AUTOMATED SPRINKLER IRRIGATION SYSTEMS

Apply Buctril by automated sprinkler irrigation systems using 1/4 to 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:

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WHEAT AND BARLEY
(Ground and Aerial Applications)

BUCTRIL RECOMMENDATIONS

<u>PRODUCT</u>	<u>CROP/GEOGRAPHICAL AREA</u>	<u>RATE</u>	<u>TIMING OF APPLICATION</u>	
			<u>CROP</u>	<u>WEEDS</u>
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.	<u>MOST SUSCEPTIBLE BROADLEAF WEEDS</u> Apply to weeds up to 12 inches in height whichever comes first, apply before weeds exceed 1/2 inch diameter.
		2 Pints/A		<u>SUSCEPTIBLE BROADLEAF WEEDS</u> Apply to weeds up to 12 inches in height whichever comes first, apply before weeds exceed 1/2 inch 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.	<u>MOST SUSCEPTIBLE AND S</u> Apply Buctril at 1 pint/A if weeds exceed the 4 leaf stage whichever comes first. apply before weeds exceed 1/2 inch diameter.
		1 1/2 Pints/A		Use Buctril at 1 1/2 pints/A on kochia that is 2-4 inches tall (Amaranthus sp.) that is in the 2 leaf stage or 2 inches in height whichever comes first.

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BUCTRIL TANK MIXTURE RECOMMENDATIONS

BUCTRIL AND GLEAN

-----TIMING OF APPLICATION-----

<u>PRODUCT</u>	<u>CROP/GEOGRAPHICAL AREA</u>	<u>RATE</u>	<u>CROP</u>	<u>WEED</u>
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 ounce/A	Apply to wheat and barley in the fall or spring any time after the crop is in the 2 to 3 leaf stage, but before the boot stage.	<u>MOST SUSCEPTIBLE BROADLEAF WEEDS</u> 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 + 1/6-1/3 ounce/A		<u>SUSCEPTIBLE BROADLEAF WEEDS</u> 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.	3/4 Pint/A + 1/6-1/3 ounce/A		<u>MOST SUSCEPTIBLE AND SUSCEPTIBLE BROADLEAF WEEDS</u> Apply Buctril + Glean at 3/4 pint/A + 1/6-1/3 ounce/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 + 1/6-1/3 ounce/A		Use Buctril + Glean at 1 1/2 pints/A + 1/6-1/3 ounce/A for control of kochia that is 2-4 inches in height and pigweed (<u>Amaranthus</u> sp.) 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.

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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 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 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.

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OATS AND RYE

Buctril used alone or in a tank mixture with MCPA or 2,4-D can be applied to oats and rye. 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 RYE
(Automated Sprinkler Irrigation Application)

Buctril can be applied through automated sprinkler irrigation systems to fall and spring seeded wheat, barley, oats and rye from emergence to the boot stage. Apply Buctril at 2 pints/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 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 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.

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FIELD CORN, POPCORN AND GRAIN SORGHUM

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Buctril is applied as a broadcast application in field corn, popcorn or grain sorghum grown 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 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.

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APPLICATION PROCEDURES

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Buctril used alone and in tank mixtures can be applied by ground equipment using 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 control. When weed infestations are heavy, use of a higher spray volume and spray pressure will be helpful to ensure uniform weed coverage.

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.

Buctril can also be applied to field corn, popcorn and grain sorghum through automated sprinkler irrigation systems. Refer to GENERAL INFORMATION section for complete use directions and precautions.

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 cut for feed or graze within 30 days after application.

A second application of Buctril 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 may be made to corn up to the 8-leaf stage regardless of height. Application may be made to grain sorghum up to the 10-leaf stage not to exceed 12 inches in height.

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BUCTRIL RECOMMENDATIONS

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Postemergence applications of Buctril at 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 CORN AND GRAIN SORGHUM

WEED SPECIES		1 Pint/A		1 1/2 Pints/A	
		Maximum Leaf Stage	Maximum Weed Height (inches)	Maximum Leaf Stage	Maximum Weed Height (inches)
When determining leaf stage, count all leaves except cotyledonary leaves					
Black Nightshade	<u>Solanum nigrum</u>	6	6	6	6
Buffalobur	<u>Solanum rostratum</u>	4	2	6	4
Common Cocklebur	<u>Xanthium pensylvanicum</u>	6	8	8	10
Common Lambsquarters	<u>Chenopodium album</u>	-	6	-	8
Common Ragweed	<u>Ambrosia artemisiifolia</u>	6	4	8	6
Eastern Black Nightshade	<u>Solanum ptycanthum</u>	6	6	6	6
Giant Ragweed	<u>Ambrosia trifida</u>	6	4	6	6
Hemp Sesbania	<u>Sesbania exaltata</u>	-	-	4	4
Ivyleaf Morningglory	<u>Ipomoea hederacea</u>	3	3	4	4
Jimsonweed	<u>Datura stramonium</u>	4	4	6	6
Ladysthumb	<u>Polygonum persicaria</u>	4	4	6	6
Pennsylvania Smartweed	<u>Polygonum pensylvanicum</u>	4	4	6	6
Redroot Pigweed	<u>Amaranthus retroflexus</u>	-	-	4	2
Spiny Pigweed	<u>Amaranthus spinosus</u>	-	-	4	2
Sunflower	<u>Helianthus annuus</u>	4	6	6	8
Tall Morningglory	<u>Ipomoea purpurea</u>	3	3	4	4
Tall Waterhemp	<u>Amaranthus tuberculatus</u>	-	-	4	2
Velvetleaf	<u>Abutilon theophrasti</u>	4	3	6	5
Wild Buckwheat	<u>Polygonum convolvulus</u>	4	6	6	8
Wild Mustard	<u>Brassica kaber</u>	-	-	4	4

WEEDS SUPPRESSED

Canada thistle	<u>Cirsium arvense</u>	not recommended	8 inch to bud stage
Buctril suppresses the growth by burning down of top growth. Regrowth may occur.			

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BUCIRIL RECOMMENDATIONS

**FIELD CORN AND POPCORN
(Ground and Aerial Applications)**

			-----TIMING OF APPLICATION-----	
<u>PRODUCT</u>	<u>CROP</u>	<u>RATE</u>	<u>CROP</u>	<u>TIMING OF APPLICATION</u>
Buctril	Field corn and popcorn	1 Pint/A	Apply to corn from the 3-leaf stage to the 8-leaf stage - maximum of two applications per season.	See APPLICATION RATE corresponding maximum controlled by Buctril
		1 1/2 Pints/A	Apply to corn from the 4-leaf stage to the 8-leaf stage - maximum of two applications per season.	See APPLICATION RATE corresponding maximum controlled by Buctril

1/ For control of additional weeds not listed in the APPLICATION RATE TABLE for field corn, popcorn and grain sorghum, see at 1 pint/A for control of MOST SUSCEPTIBLE WEEDS and 1 1/2 pints/A for control of SUSCEPTIBLE WEEDS. Apply Buctril to weed stage or 2 inches in height, whichever comes first. If weed forms rosette, apply before weed exceeds 1 inch in diameter.

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BUCTRIL TANKMIX RECOMMENDATIONS

**FIELD CORN AND POPCORN
(Ground and Aerial Applications)**

-----TIMING OF APPLICATION-----

<u>PRODUCT</u>	<u>CROP</u>	<u>RATE</u>	<u>CROP</u>	<u>NEED</u>
Buctril + 1/ Atrazine (Tankmix)	Field corn and popcorn	1 Pint/A + 1/2 - 1 1/5 lbs/A	Apply to corn from the 3-leaf stage to the 8-leaf stage.	All weeds controlled by Buctril at 1 pint/A plus control of pigweeds (<i>Amaranthus Spp.</i>) up to the 6-leaf stage or 4 inches in height, whichever comes first. This tank mixture also provides some residual control of germinating seedlings.
		1 1/2 Pints/A + 1/2 - 1 1/5 lbs/A	Apply to corn from the 4-leaf stage to the 8-leaf stage.	All weeds controlled by Buctril at 1 1/2 pints/A plus control of pigweeds (<i>Amaranthus Spp.</i>) up to the 6-leaf stage or 4 inches in height, whichever comes first. This tank mixture also provides some residual control of germinating seedlings.

Atrazine Formulation	Atrazine Rate Pounds of active ingredient per acre	Atrazine Formulation Rate per acre
Atrazine 4L	1/2	1 Pint
Atrazine 80 WP	1 1/5	2 2/5 Pints
	1/2	5/8 Pound
	1 1/5	1 1/2 Pounds
Astrex® Nine-0	1/2	3/5 Pound
	1 1/5	1 1/3 Pounds

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BUCIRIL TANKMIX RECOMMENDATIONS

FIELD CORN
(Ground and Aerial Applications)

PRODUCT	CROP	RATE	TIMING OF APPLICATION	
			CROP	NEED
Buctril + 2,4-D ^{2/} (tankmix)	Field corn	1 Pint/A + 1/4 lbai/A	Apply to corn from the 3-leaf stage to the 8-leaf stage. When corn exceeds 8 inches in height, drop nozzles must be used to apply the Buctril + 2,4-D tank mixture as a directed spray.	All weeds controlled by Buctril at 1 pint/A plus control of wild mustard that is larger than the 4-leaf stage or 4 inches in height, whichever comes first.
		1 1/2 Pinta/A + 1/4 lbai/A	Apply to corn from the 4-leaf stage to the 8-leaf stage. When corn exceeds 8 inches in height, drop nozzles must be used to apply the Buctril + 2,4-D tank mixture as a directed spray.	All weeds controlled by Buctril at 1 1/2 pinta/A plus control of wild mustard that is larger than the 4-leaf stage or 4 inches in height, whichever comes first.

SPECIAL PRECAUTIONS FOR BUCIRIL + 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. Refer to 2,4-D label for other use directions and cautions.

2,4-D CONVERSION TABLE ^{2/}		
2,4-D formulation	2,4-D Rate Pounds of active ingredient per acre	2,4-D Formulation Rate per acre
2,4-D 4lb/gallon	1/4	1/2 Pint
2,4-D 6lb/gallon	1/4	1/3 Pint

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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 postemergence applications of Buctril.

MOST SUSCEPTIBLE BROADLEAF WEEDS

Apply to weeds up to the 8 leaf stage or 4 inches 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.

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BUCTRIL RECOMMENDATIONS

GRAIN SORGHUM
(Ground and Aerial Applications)

-----TIMING OF APPLICATION-----

<u>PRODUCT</u>	<u>CROP</u>	<u>RATE</u>	<u>CROP</u>	<u>TIMING OF APPLICATION</u>
Buctril	Grain Sorghum	1 Pint/A		Apply to grain sorghum from the 3-leaf stage to the 10-leaf stage, not to exceed 12 inches in height. See APPLICATION RATE corresponding maximum height controlled by Buctril.
		1 1/2 Pints/A		Apply to grain sorghum from the 4-leaf stage to the 10-leaf stage, not to exceed 12 inches in height. See APPLICATION RATE corresponding maximum height controlled by Buctril.
Buctril + Atrazine (tankmix)	Grain Sorghum	1 Pint/A + 1/2 - 1 1/5 lbs/A		Apply to grain sorghum from the 3-leaf stage to the 10-leaf stage, not to exceed 12 inches in height. All weeds controlled by this tank mixture of germinating seeds.
		1 1/2 Pints/A + 1/2 - 1 1/5 lbs/A		Apply to grain sorghum from the 4-leaf stage, to the 10-leaf stage, not to exceed 12 inches in height. All weeds controlled by this tank mixture of germinating seeds.

1/ For control of additional weeds not listed in the APPLICATION RATE TABLE for field corn, popcorn and grain sorghum, see 1 pint/A for control of MDS1 SUSCEPTIBLE WEEDS and 1 1/2 pints/A for control of SUSCEPTIBLE WEEDS. Apply Buctril to weed stage or 2 inches in height, whichever comes first. If weed forms rosette, apply before weed exceeds 1 inch in diameter.

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height. Apply Buctril at 2 pints/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 postemergence applications of Buctril.

MOST SUSCEPTIBLE BROADLEAF WEEDS

Apply to weeds up to the 8 leaf stage or 4 inches 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.

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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 a 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 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.

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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.

ESTABLISHED TURFGRASSES AND NEWLY PLANTED GRASSES FOR SOD OR SEED PRODUCTION

Postemergence applications of Bucril controls many seedling broadleaf weeds commonly found in turfgrasses. Established grasses tolerant to Bucril include bentgrasses, Kentucky Bluegrass, Fescues, Ryegrass, Bermudagrass, St. Augustinegrass and Zoysiagrass. Bucril 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

Bucril 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.

BUCTRIL¹ RECOMMENDATIONS

SEEDLING AND ESTABLISHED TURF:

PRODUCT	RATE PER ACRE	RATE PER 1000 FT. ²	WEED SPECIES
Buctril	1 1/2 - 2 Pints	0.6-0.75 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 (<u>Soliva</u> spp.) Yellow Woodsorrel (<u>Oxalis</u> spp.) ²
	8 Pints	3.0 fl. oz.	As previously listed for Buctril plus the following: Prostrate Spurge (<u>Euphorbia supina</u>)

BUCTRIL TANK MIXTURE RECOMMENDATIONS

BUCTRIL TANK MIXTURES ESTABLISHED TURF ONLY: EXCLUDING BENTGRASSES

Buctril + MCP	2-4 Pints + 1.0 LBAI	0.75-1.5 fl. oz. + 0.025 fl. oz.	As previously listed for Buctril plus the following: Common Chickweed (<u>Stellaria media</u>) Mouseear Chickweed (<u>Cerastium vulgatum</u>) Red Clover (<u>Trifolium pratense</u>) White Clover (<u>Trifolium repens</u>) Ground Ivy (<u>Glechoma hederacea</u>) Stitchwort (<u>Stellaria graminea</u>) Knotweed (<u>Polygonum aviculare</u>) Prostrate Spurge (<u>Euphorbia supina</u>)
Buctril + MCP	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 (<u>Stellaria media</u>) Mouseear Chickweed (<u>Cerastium vulgatum</u>) Red Clover (<u>Trifolium pratense</u>) White Clover (<u>Trifolium repens</u>) Knotweed (<u>Polygonum aviculare</u>) Red Sorrel (<u>Rumex acetosella</u>) Pepperweed (<u>Lepidium</u> spp.)
Buctril + dicamba	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 (<u>Euphorbia supina</u>) Yellow Woodsorrel (<u>Oxalis</u> spp.) ² Spurweed (<u>Soliva</u> spp.)

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BUCTRIL TANK MIXTURES ESTABLISHED TURF ONLY: EXCLUDING BENTGRASSES (continued)

PRODUCT	RATE PER ACRE	RATE PER 1000 FT. ²	WEED SPECIES
Buctril +	2 Pints +	0.75-fl. oz. +	As previously listed for Buctril combinations plus the following:
MCCP +	0.5-1.0 LBAI +	0.0125-0.025 LBAI +	Plaintains (<u>Plantago</u> spp.)
dicamba	0.125-0.25 LBAI	0.003-0.006 LBAI	Dandelion (<u>Taraxacum officinale</u>)
	4 Pints +	1.5 fl. oz. +	Prostrate Spurge (<u>Euphorbia supina</u>)
	0.5-1.0 LBAI +	0.0125-0.025 LBAI +	Spurweed (<u>Soliva</u> spp.)
	0.125-0.25 LBAI	0.003-0.006 LBAI	
Buctril +	2 Pints +	0.75 fl. oz. +	As previously listed for Buctril tank mixtures plus the following:
2,4-D +	0.5-1.0 LBAI +	0.0125-0.025 LBAI +	Plaintains (<u>Plantago</u> spp.)
MCCP ⁴	0.5-1.0 LBAI	0.0125-0.025 LBAI	Knotweed (<u>Polygonum aviculare</u>)
			Dandelion (<u>Taraxacum officinale</u>)
			Red Sorrel (<u>Rumex acetosela</u>) ^{3/}

1/Buctril use rates are expressed as pints/A and fl. oz/1000 ft.² and the tankmix herbicides (dicamba, MCCP, and 2,4-D) use rates are given in pounds of active ingredient per acre (LBAI/A) and pounds of active ingredient per 1000 ft² (LBAI/1000 ft²) 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 MCCP 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.) Marestalk (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.

CONDITIONS OF SALE, WARRANTY, LIMITATION OF LIABILITY

This product conforms to the chemical description of the label thereof and is reasonably fit for the purpose stated on such label only when used in accordance with directions under normal use conditions. Follow directions carefully. Timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended and other influencing factors in the use of this product are beyond the control of Rhone-Poulenc or the seller. Buyer assumes all risks of use, storage, or handling of this material, not in strict accordance with directions given herewith. In no case shall Rhone-Poulenc or the seller be liable for consequential, special, or indirect damages such as loss of profits or values resulting from the use or handling of this product.