

264-438

2-7-2005

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# BRONATE® HERBICIDE

**FOR CONTROL OF CERTAIN BROADLEAF WEEDS IN SMALL GRAINS (WHEAT, BARLEY, OATS AND RYE), CONSERVATION RESERVE PROGRAM (CRP) AREAS, GRASSES GROWN FOR SEED PRODUCTION AND FLAX**

**ACTIVE INGREDIENT:** Octanoic acid ester of bromoxynil\* (3,5-dibromo-4-hydroxybenzotrile) .....31.7%  
Isooctyl ester of 2-methyl-chlorophenoxyacetic acid\*\* .....34.0%

**INERT INGREDIENTS:** .....34.3%

\*Bromoxynil octanoate equivalent to 21.8% of bromoxynil or not less than 2.0 pounds of bromoxynil per gallon.

\*\*Equivalent to 21.8% 2-methyl-chlorophenoxyacetic acid or not less than 2.0 pounds MCPA acid per gallon.

**E.P.A. Reg. No. 264-438**

**E.P.A. Est. No.**

## KEEP OUT OF REACH OF CHILDREN AVISO WARNING

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

**ACCEPTED**  
FEB 1 2005  
Under the Federal Insecticide, Fungicide, and Rodenticide Act,  
as amended for the pesticide registered under  
EPA Reg. No. 264-438

**For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577**

**For PRODUCT USE Information Call 1-888-99BAYER (1-888-992-2937)**

### FIRST AID

<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor for treatment advice.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give any liquid to the person</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>

**For MEDICAL Emergencies Call 24 Hours A Day 1-800-334-7577.**

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

**NOTE TO PHYSICIAN:** This product may pose an aspiration pneumonia hazard. Contains petroleum distillate.

## PRECAUTIONARY STATEMENTS

### WARNING

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

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

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical resistant to this product are listed below. If you want more options, follow the instructions for category F on an EPA chemical resistant category selection chart.

Applicators and other handlers must wear coveralls over a long-sleeved shirt and long pants, chemical resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, or viton gloves, a chemical resistant apron when cleaning equipment, protective eyewear, chemical resistant headgear for overhead exposure, and chemical resistant footwear plus socks.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

If you will handle a total of 60 gallons or more of this product per day, you must use a mechanical transfer system for all mixing and loading operations. If this product is packaged in a 30 gallon drum, you must use a mechanical transfer system which terminates in a drip-free hard coupling which may be used only with a spray or mix tank which has been fitted with a compatible coupling. If you do not presently own or have

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access to a mechanical transfer system with this type of coupling, contact your dealer for information on how to obtain such a system or to modify your present system. When using a mechanical transfer system, do not remove or disconnect the pump or probe from the container until the container has been emptied and rinsed. The pump or probe system must be used to rinse the empty container and to transfer the rinsate directly to the mixing or spray tank.

Application from a tractor with a completely enclosed cab or aerial application is required whenever this product is applied to 360 or more acres in a day. The closed systems and enclosed cabs must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)]. The handler PPE requirements may be reduced or modified as specified in the WPS.

To reduce exposure to residues, wash the spray rig, tractor, and all other equipment used to handle or apply this product with water daily or before using the equipment for any other purpose.

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

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

### User Safety Recommendations

Users should wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing immediately if pesticide gets inside. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to wildlife and fish. Use with care when applying to areas frequented by wildlife or adjacent to any body of water. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of equipment washwaters.

### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

### CAUTION

BRONATE® Herbicide contains low volatile isooctyl ester of MCPA. At high air or ground surface temperatures, vapors from this product may cause injury to susceptible plants. This fact should be considered when applying BRONATE®.

### DIRECTIONS FOR USE

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

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry intervals. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is coveralls over long-sleeved shirt and long pants, chemical resistant gloves such as nitrile, viton or barrier laminate, chemical-resistant footwear plus socks, chemical-resistant headgear for overhead exposure and protective eyewear.

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## STORAGE AND DISPOSAL

### STORAGE

Do not contaminate water, food or feed by storage or disposal. Store at temperatures above 3° F. If allowed to freeze, remix before using.

### PESTICIDE DISPOSAL

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

### CONTAINER DISPOSAL

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.

### RETURNABLE -- REFILLABLE CONTAINERS

This material may be repackaged in 15 or 30 gallon returnable-refillable containers by Aventis CropScience or a registered establishment under contract to Aventis CropScience. After use, return the container to the point of purchase or designated locations. This container must only be refilled with BRONATE® Herbicide. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Prior to refilling, inspect thoroughly for damage such as cracks, punctures, abrasions and damaged or worn out threads on closure devices. Do not refill or transport damaged or leaking containers. Check for leaks after refilling and before transportation. If the container is not being refilled, return it to the point of purchase.

## GENERAL INFORMATION

BRONATE® is formulated as an emulsifiable concentrate containing the equivalent of 2 lbs. per gallon of octanoic acid ester of bromoxynil and 2 pounds per gallon of isooctyl ester of MCPA.

BRONATE® is a selective postemergence herbicide for control of important broadleaf weeds infesting small grains (wheat, barley, oats, rye), conservation reserve program areas, and grass grown for seed. Optimum weed control is obtained when BRONATE® is applied to actively growing weed seedlings. BRONATE® is primarily a contact herbicide, therefore thorough coverage of the weed seedlings is essential for optimum control.

BRONATE® has little residual activity. Therefore subsequent flushes of weeds will not be controlled by the initial treatment. Generally crops that form a good canopy will help shade subsequent weed flushes. However, certain crops or short-straw varieties, for example Yaccora Rojo wheat, may not develop the crop canopy fast enough to shade the subsequent flushes of weeds.

Occasional transitory leaf burn may occur. The temporary leaf burn is similar to that seen with liquid fertilizer. Because the activity of BRONATE® is mainly contact, recovery of the crop is generally rapid with no lasting effect. Frequency and amount of leaf burn may be greater when crops are stressed by abrasive winds, cool to cold evening temperatures or mechanical injury, such as that caused by hail, sleet or insect feeding. To reduce the potential for temporary leaf burn, applications should be made to dry foliage in the recommended spray volumes per acre when weather conditions are not extreme.

## MIXING, LOADING AND HANDLING INSTRUCTIONS

### 2.5 Gallon Containers

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

### 30 Gallon and Bulk Containers

If you will handle a total of 60 gallons or more of this product per day, you must use a mechanical transfer system for all mixing and loading operations. If this product is packaged in a 30 gallon drum, you must use a mechanical transfer system which terminates in a drip-free hard coupling which may be used only with a spray or mix tank which has been fitted with a compatible coupling. If you do not presently own or have access to a mechanical transfer system with this type of coupling, contact your dealer for information on how to obtain such a system or to modify your present system. When using a mechanical transfer system, do not remove or disconnect the pump or probe from the container until the container has been emptied and rinsed. The pump or probe system must be used to rinse the empty container and to transfer the rinsate directly to the mixing or spray tank.

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

**TANK MIXTURES:** BRONATE® can be applied in tank mixture with many other herbicides and insecticides registered for use on approved crops. Refer to the specific crop section for rate recommendations and other restrictions. To apply BRONATE® in mixture with another product, fill the spray tank 1/2 to 3/4 full with clean water and begin agitation. If tankmixing with wettable powder, soluble powder, flowable or dry flowable products, add the powder or flowable product first. After the other herbicide is thoroughly mixed with water add the recommended amount of BRONATE® and add water to the spray tank to the desired level. If tankmixing with other product types, add the BRONATE® first before adding the other product. Always mix one product in water thoroughly before adding another product or compatibility problems may occur. Never mix two products together without first mixing in water.

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

If tank mixing with products other than those listed within each crop section, a compatibility test is recommended to ensure satisfactory spray preparation. To test for compatibility, use a small container and mix a small amount (0.5 to 1 quart) of spray, combining all ingredients in the same

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ratio as the anticipated use. If any indications of physical incompatibility develop, do not use this mixture for spraying. Indications of incompatibility usually will appear within 5 to 15 minutes after mixing. To ensure maximum crop safety and weed control, follow all cautions and limitations on this label and the labels of products used in the tank mixture with BRONATE®.

**SPRAYABLE LIQUID FERTILIZERS AND SPRAY ADDITIVES**

BRONATE® can be applied in combination with sprayable liquid fertilizer or spray additives such as surfactants or crop oil concentrate. When tankmixing with liquid fertilizer always add the fertilizer to the spray tank first and agitate thoroughly before adding BRONATE®. Always predetermine the compatibility with liquid fertilizer by mixing small proportional quantities in advance. Agitation must be maintained during filling and application operations to ensure that BRONATE® is evenly mixed with the fertilizer. Leaf burn may occur when BRONATE® is applied with liquid fertilizer, but new leaves are not adversely affected.

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

**APPLICATION PROCEDURES**

BRONATE® can be applied to registered use areas by ground, aerial and sprinkler irrigation equipment.

**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.

Select a spray volume and delivery system that will ensure thorough and uniform spray coverage. For optimum spray distribution and thorough coverage use of flat fan nozzles (maximum tip size 8008) with a spray pressure of 40-60 psi are recommended. Other nozzle types and lower spray pressures that produce coarse spray droplets may not provide adequate coverage of the weeds to ensure optimum control. Raindrop® nozzles and flood nozzles are not recommended as weed control with BRONATE® may be reduced.

In general, a spray volume of 10 to 20 gallons per acre (GPA) is recommended for optimum spray coverage. A minimum of 5 GPA with a minimum spray pressure of 50 psi and a maximum ground speed of 10 mph may be used with higher speed, low volume ground application if ground terrain, crop and weed density allow effective spray distribution. When using higher speed equipment, a maximum ground speed of 10 mph is suggested if field conditions cause excessive boom movement during application which results in poor spray coverage. Ground applications made when dry, dusty field conditions exist may provide reduced weed control in wheel track areas. Applications using less than 10 gallons per acre may result in reduced weed control.

When weed infestations are heavy, use of higher spray volumes and spray pressure will be helpful in obtaining uniform weed coverage. When corn or grain sorghum are large enough to interfere with the spray pattern, drop nozzles should be used to obtain uniform weed coverage. If you are unsure of the infestation level or size of crop, consult your local extension service.

Do not apply when winds are gusty or when other conditions favor poor spray coverage and/or off target spray movement.

**AERIAL APPLICATION**

Use orifice discs, cores and nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage. In general a minimum spray volume of 5 GPA and a maximum pressure of 40 psi are recommended. A minimum spray volume of 3 gallons per acre may be used if crop canopy and weed density allow adequate spray coverage. Aerial applications using less than 5 gallons of spray volume per acre may result in reduced weed control.

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

**SPRINKLER IRRIGATION APPLICATION**

BRONATE® Herbicide can be applied through sprinkler irrigation systems to small grains and grasses grown for seed.

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

**SPECIFIC REQUIREMENTS FOR APPLICATION THROUGH AUTOMATED SPRINKLER IRRIGATION SYSTEM**

1. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and

constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Agitation is recommended in the pesticide supply tank when applying the BRONATE® Herbicide.
9. BRONATE® Herbicide should be applied continuously for the duration of the water application with center pivot and continuous lateral move systems. Application of BRONATE® 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 BRONATE® Herbicide is diluted in the supply tank, fill the tank with half of the water amount desired, add the BRONATE® and then add remaining water amount with agitation. Always dilute with at least 4 parts water to 1 part BRONATE®.
13. Start the sprinklers and then inject BRONATE® Herbicide into the irrigation line. BRONATE® 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 BRONATE® Herbicide label for detailed information on application rates and timings.

**CHEMIGATION USER PRECAUTIONS**

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

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

Allow sufficient time for pesticide to be flushed through all the lines and nozzles before turning off irrigation water.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

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

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

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

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## GENERAL WEED LIST

Postemergence application of BRONATE® Herbicide will control the following weeds when sprayed in the seedling stage. Maximum weed stage of growth is listed under BRONATE® RECOMMENDATIONS.

### MOST SUSCEPTIBLE BROADLEAF WEED SPECIES

Annual sowthistle	( <i>Sonchus oleraceus</i> )
Black mustard	( <i>Brassica nigra</i> )
Black nightshade	( <i>Solanum nigrum</i> )
Common cocklebur	( <i>Xanthium strumarium</i> )
Common lambsquarters	( <i>Chenopodium album</i> )
Common tarweed	( <i>Hemizonia congesta</i> )
Cow cockle ( <i>Saponaria vaccaria</i> )	
Cutleaf nightshade	( <i>Solanum triflorum</i> )
Eastern black nightshade	( <i>Solanum phycanthum</i> )
Coast fiddleneck	( <i>Amsinckia intermedia</i> )
Field pennycress	( <i>Thlaspi arvense</i> )
Green smartweed	( <i>Polygonum scabrum</i> )
Hairy nightshade	( <i>Solanum sarachoides</i> )
Horned Poppy	( <i>Glaucium comiculatum</i> )
Jimsonweed	( <i>Datura stramonium</i> )
Ladysthumb ( <i>Polygonum persicaria</i> )	
Lanceleaf sage	( <i>Salvia reflexa</i> )
London rocket	( <i>Sisymbrium irio</i> )
Marshelder ( <i>Iva xanthifolia</i> )	
Pennsylvania smartweed	( <i>Polygonum strumarium</i> )
Pepperweed spp.	( <i>Lepidium app.</i> )
Redroot pigweed	( <i>Amaranthus retroflexus</i> )
Russian thistle	( <i>Salsola kali</i> )
Shepherdspurse	( <i>Capsella bursa-pastoris</i> )
Silverleaf nightshade	( <i>Solanum elaeagnifolium</i> )
Smooth pigweed	( <i>Amaranthus hybridus</i> )
Spiny pigweed	( <i>Amaranthus spinosus</i> )
<sup>1</sup> Sunflower ( <i>Helianthus annuus</i> )	
Tall Waterhemp	( <i>Amaranthus tuberculatus</i> )
Tartary buckwheat	( <i>Fagopyrum tataricum</i> )
Tumble mustard	( <i>Sisymbrium altissimum</i> )
Wild buckwheat	( <i>Polygonum convolvulus</i> )
Wild mustard	( <i>Sinapis arvensis</i> )
Yellow rocket	( <i>Barbarea vulgaris</i> )

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

### SUSCEPTIBLE BROADLEAF WEED SPECIES

Blue (purple) mustard	( <i>Chlorispora tenella</i> )
Common groundsel	( <i>Senecio vulgaris</i> )
Common ragweed	( <i>Ambrosia artemisiifolia</i> )
Corn chamomile	( <i>Anthemis arvensis</i> )
Corn gromwell	( <i>Lithospermum arvense</i> )
Fumitory	( <i>Fumaria officinalis</i> )
Giant ragweed	( <i>Ambrosia trifida</i> )
Hemp sesbania	( <i>Sesbania exaltata</i> )
Henbit	( <i>Lamium amplexicaule</i> )
Ivyleaf morningglory	( <i>Ipomoea hederacea</i> )
Knawel	( <i>Scleranthus annuus</i> )
Kochia	( <i>Kochia scoparia</i> )
Mayweed	( <i>Anthemis cotula</i> )
Prostrate knotweed	( <i>Polygonum aviculare</i> )
Puncture vine	( <i>Tribulus terrestris</i> )
Tall morningglory	( <i>Ipomoea purpurea</i> )
Tansy mustard	( <i>Descurainia pinnata</i> )
Tarweed	( <i>Hemizonia spp.</i> )
Velvetleaf	( <i>Abutilon theophrasti</i> )
Wild radish ( <i>Raphanus raphanistrum</i> )	

Weeds germinating after spraying will not be controlled.

### WEED SUPPRESSION

Canada Thistle	( <i>Cirsium arvense</i> )
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BRONATE® Herbicide applied at 1 1/2 pints per acre provides burn down of top growth. Regrowth may occur. Make applications when Canada thistle is 8 inches tall to the bud stage.

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**WHEAT, BARLEY, OATS AND RYE  
BRONATE® RECOMMENDATIONS**

		APPLICATION TIMING AND SPECIFIC COMMENTS	
PRODUCT	RATE	CROP	WEEDS
BRONATE®	1 pint/A	Fall seeded wheat, barley, oats and rye throughout the United States and spring seeded wheat, barley, oats and rye in Idaho, Oregon, Washington, Colorado, Wyoming and Montana. Apply to wheat, barley, oats and rye from the 3 leaf stage but before	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 1/2-2 pints/A	the crop reaches the boot stage.	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.
	2 pints/A		Apply to henbit, knawel and mayweed up to the 4 leaf stage or 2 inches in height, whichever comes first. Apply to kochia and tansy mustard for improved control when these weeds exceed the recommended stage of growth or are growing under cool, dry conditions.
	1-1 1/2 pints/A	Spring seeded wheat and barley except Idaho, Oregon, Washington, Colorado, Montana, and Wyoming. Apply to wheat, barley, oats and rye from the 3 leaf stage but before the crop reaches the boot stage.	MOST SUSCEPTIBLE AND SUSCEPTIBLE BROADLEAF WEEDS: Apply to weeds that do not exceed the 8 leaf stage or 4 inches in height, whichever comes first. If weed forms rosette, apply before weeds exceed 2 inches in diameter. Apply to kochia up to 2 inches in height.
	1 1/2-2 pints/A	Spring seeded wheat and barley except Idaho, Oregon, Washington, Colorado, Montana, and Wyoming. Apply to wheat, barley, oats and rye from the 3 leaf stage but before the crop reaches the boot stage.	Apply to kochia that is 2-4 inches in height.
	Chemigation Only 2 pints/A	Apply to wheat, barley, oats and rye from the 3 leaf stage but before the boot stage. Apply through automated sprinkler irrigation systems with mechanical transfer loading system only. See MIXING LOADING AND HANDLING INSTRUCTIONS section for complete details	Apply to MOST SUSCEPTIBLE and SUSCEPTIBLE broadleaf weeds up to the 4-leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.
	Post-harvest 3/4-2 pints/A	Make applications following harvest of wheat, barley, oats and rye in the states of North Dakota, South Dakota, Minnesota, and Montana. Do not plant any rotational crop until the following use season.	Apply 3/4 to 1 pint/A to MOST SUSCEPTIBLE BROADLEAF WEEDS up to the 8 leaf stage or 4 inches in height, whichever comes first. Apply 1 1/2 to 2 pints/A to SUSCEPTIBLE BROADLEAF WEEDS up to the 4 leaf stage or 2 inches in height, whichever comes first. For control of both grasses and broadleaf weeds, tank mix BRONATE® with Roundup® or Roundup® + 2,4-D such as WEEDONE® or WEEDAR® brand herbicides.

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## BRONATE® TANK MIXTURE RECOMMENDATIONS

		APPLICATION TIMING AND SPECIFIC COMMENTS	
PRODUCT	RATE	CROP	WEEDS
BRONATE® + Rhonox® (MCPA ester)	3/4 - 2 pints/A + 1/4-1/2 pint/A	Apply to spring seeded wheat, barley, oats and rye from tillering stage, but before boot stage.	For control of MOST SUSCEPTIBLE and SUSCEPTIBLE weeds and improved control of redroot pigweed and kochia. Apply to weeds up to the 8 leaf stage, 3 inches in height or 2 inches in diameter, whichever comes first. Apply to kochia and redroot pigweed up to 2 inches in height or diameter.
BRONATE® + Glean® + nonionic surfactant	3/4-1 1/2 pints/A + 1/6-1/3 oz/A + 1 qt/100 gal of water	Apply to wheat and barley from the 3 leaf stage but before the crop reaches the boot stage. Refer to Glean® label for crop rotation and other restrictions.	This tankmix improves control of broadleaf weeds such as henbit, tansy mustard and chickweed. Apply to weeds up to the 8-leaf stage, 4 inches in height or 2 inches in diameter, whichever comes first.
BRONATE® + Finesse® + nonionic surfactant	3/4-1 1/2 pints/A + 1/6-1/3 oz/A + 1 qt/100 gal of water	Apply to wheat and barley from the 3-leaf stage but before the crop reaches the boot stage. Refer to Finesse® label for crop rotation and other restrictions.	This tankmix improves control of broadleaf weeds such as henbit, tansy mustard and chickweed. Apply to weeds up to the 8 leaf stage, 4 inches in height or 2 inches in diameter, whichever comes first.
BRONATE® + Ally® + nonionic surfactant	3/4-1 1/2 pints/A + 1/10 oz/A + 1 qt/100 gal of water	Apply to wheat and barley from the 3-leaf stage but before the crop reaches the boot stage. Refer to Ally® label for crop rotation and other restrictions.	This tankmix improves control of broadleaf weeds such as henbit, tansy mustard and chickweed. Apply to weeds up to the 8 leaf stage, 4 inches in height or 2 inches in diameter, whichever comes first.
BRONATE® + Banvel®	3/4-1 1/2 pints/A + 1/8-1/4 pint/A	Fall seeded wheat from the 3 leaf stage but before jointing. Spring seeded wheat from the 3 to 5 leaf stage of growth.	This tankmix improves control of broadleaves such as prostrate knotweed and kochia. Apply to weeds up to the 8 leaf stage, 3 inches in height or 2 inches in diameter, whichever comes first. Apply to kochia up to 2 inches in height or diameter.
BRONATE® + Harmony® Extra + nonionic surfactant	3/4-1 1/2 pints/A + 3/10-1/2 oz/A + 1 qt/100 gal of water	Winter wheat. Apply from the 3 leaf stage but before the 3rd node is detectable. Refer to the Harmony® Extra label for crop rotation and other restrictions. Spring wheat and barley. Apply after the 3, leaf stage but before the 1st node is detectable. Refer to the Harmony® Extra label for crop rotation and other restrictions.	This tankmix improves control of broadleaf weeds such as henbit, chickweed and redroot pigweed. Apply to weeds up to the 8 leaf stage, 4 inches in height or across, whichever comes first.
BRONATE® + Amber® + nonionic surfactant	3/4-1 1/2 pints/A + 0.28 - 0.56 oz/A + 0.25 - 0.5% v/v	Apply to wheat and barley from the 3 leaf stage, but before the flag leaf is visible. Refer to the Amber® label for crop rotation and other restrictions.	This tank mix improves control of broadleaves such as henbit, tansy mustard, and pigweed. Apply to weeds up to the 4 leaf stage, 4 inches in height or 2 inches in diameter, whichever comes first.



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**WHEAT, BARLEY, OATS AND RYE  
BRONATE® TANK MIXTURE RECOMMENDATIONS (continued)**

<b>APPLICATION TIMING AND SPECIFIC COMMENTS</b>			
<b>PRODUCT</b>	<b>RATE</b>	<b>CROP</b>	<b>WEEDS</b>
BRONATE® + Express® + nonionic surfactant	3/4-1 1/2 pints/A + 1/6-1/3 oz/A + 1 qt/100 gal of water	Wheat and barley. Apply from the 3 leaf stage but before the flag is visible. Refer to the Express® label for crop rotation and other restrictions.	This tankmix improves control of broadleaf weeds such as henbit, chickweed, redroot pigweed and suppression of Canada thistle. Apply to annual weeds up to the 8 leaf stage, 4 inches in height or across, whichever comes first and to Canada thistle 4 to 8 inches tall with 2 to 6 inches of new growth.
BRONATE® + Curtail® or Curtail® M	3/4-1 1/2 pints/A + 2 pints/A	Apply to wheat and barley after the crop begins to tiller up to the 1st node detectable.	This tankmix improves control of kochia, wild buckwheat and suppression of Canada thistle. Apply to annual broadleaf weeds up to the 8 leaf stage, 4 inches in height or 2 inches in diameter and to Canada thistle in the rosette to prebud stage.
BRONATE® + metribuzin (Sencor® or Lexone®)	1 pint/A + 1/8-3/16 lb ai/A	Winter wheat in Idaho, Oregon and Washington. Apply in spring after growth has started and secondary roots with a minimum of 3 to 4 tillers have been established, but before the forming of joints in the stem. Avoid application when crop has experienced winter kill, frost damage, disease or drought.	This tankmix improves control of broadleaf weeds such as chickweed, filaree, henbit. Apply to weeds up to the 4 leaf stage, 2 inches in height or diameter, whichever comes first. A recognized authority should be consulted concerning the use of this mixture in your area.
BRONATE® + Avenge®	1-2 pints/A + 2 1/2-4 pints/A	Winter wheat. Four leaf to tillering stage. Refer to Avenge® label for varietal and other restrictions.  Spring Wheat. Five to 6 leaf stage. Refer to Avenge® label for varietal and other restrictions.  Barley. Three to 7 leaf stage.	This tankmix will provide wild oat control in addition to broadleaves. Apply to wild oats in the 3-5 leaf stage and broadleaves that do not exceed the 4 leaf stage or rosettes of 1.5 inches in diameter. Avenge use rates per acre are 2 1/2 pints (1-10 oats per sq. ft.), 3 pints (11-25 oats per sq. ft.) or 4 pints (more than 25 oats per sq. ft.).
BRONATE® + Assert®	1-1 1/2 pints/A + 1-1 1/2 pints/A	Apply to wheat and barley from the 3 leaf stage but before boot stage. Refer to Assert® label for crop rotation and other restrictions.	This tankmix will provide wild oat control in addition to broadleaf weeds. Apply to wild oats at the 1-4 leaf stage and broadleaf weeds up to the 8 leaf stage, 4 inches in height or 2 inches in diameter, whichever comes first. Use Assert at 1 1/2 pints/A west of the Rocky Mountains or if wild oats have initiated tillering. For spray volumes in excess of 10 GPA, add 0.3 fluid oz of nonionic surfactant for each gallon in excess of 10 GPA.

**Restrictions and Precautions: Wheat, Barley, Oats and Rye**

- Do not graze treated fields within 45 days after application.
- Do not apply when crops are under moisture stress.
- Do not apply when crop canopy covers the weeds as poor control will result.
- Reduced weed control may occur when weeds are stressed from lack of moisture or cold temperatures.
- Refer to labels of products used in tank mixture for additional restrictions and precautions.

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**CONSERVATION RESERVE PROGRAM AREAS (CRP)**

**BRONATE® RECOMMENDATIONS**

PRODUCT	RATE	APPLICATION TIMING AND SPECIFIC COMMENTS	
		CROP	WEEDS
BRONATE®	1 - 2 pints/A	Apply to grasses from the 3 leaf stage.	Apply 1 pint/A to MOST SUSCEPTIBLE and 1 1/2 - 2 pints/A to SUSCEPTIBLE broadleaf weeds up to the 8 leaf stage, 4 inches in height or 2 inches in diameter, whichever comes first.

**RESTRICTIONS AND PRECAUTIONS: CRP AREAS**

- Do not allow livestock to graze in treated areas or feed treated grass to livestock.
- If legumes are included in CRP area planting, severe injury may occur to legumes treated with BRONATE®.

**GRASSES GROWN FOR SEED PRODUCTION**

**BRONATE® RECOMMENDATIONS**  
Seedling and Established Grasses

PRODUCT	RATE	RATE	APPLICATION TIMING AND SPECIFIC COMMENTS	
	Per ACRE	Per 1000 SQ.FT.	CROP	WEEDS
BRONATE®	1 to 2 Pints	0.375 to 0.75 Fl. Oz.	Apply to established and newly seeded grasses grown for seed or sod production before the boot stage. Established grasses tolerant to BRONATE® include bentgrasses, Kentucky Bluegrass, Fescues, Ryegrass, Bermudagrass, St. Augustinegrass and Zoysiagrass. BRONATE® may also be used on seedling grasses such as Merion, Park, Delta, or common Kentucky Bluegrasses, Pennlawn, Chewings, Illahee or Alta Fescues, Orchard grass, Highland, Seaside or Astoria Bentgrasses, perennial Ryegrasses, Bahiagrass and Zoysiagrass.	Refer to the GENERAL WEED LIST for a listing of susceptible broadleaf weeds.  Optimal control will be attained when weeds are treated in the seedling stage (less than 4 leaf stage, 2 inches in height, or 1 inch in diameter).
BRONATE®	Chemigation 2 pints/A only	0.75 Fl. Oz.	Apply to established and newly seeded grasses grown for seed or sod production before the boot stage. Apply through automated sprinkler irrigation systems with mechanical transfer loading system only. See MIXING LOADING AND HANDLING INSTRUCTIONS section for complete details. Refer to the list of established grasses that are tolerant to BRONATE®.	

**RESTRICTIONS AND PRECAUTIONS: Grasses grown for seed or sod production**

- Do not allow livestock to graze in treated areas or feed treated grasses to livestock.
- Do not apply BRONATE® to grasses grown for seed production with backpack or hand-held application equipment.

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**FLAX (*Linum usitatissimum* only)**  
**BRONATE® RECOMMENDATIONS**

PRODUCT	RATE	APPLICATION TIMING AND SPECIFIC COMMENTS	
		CROP	WEEDS
BRONATE®	0.9 pint/A	Apply to flax that is 2 to 8 inches in height. Do not apply BRONATE® to flax during or after the bud stage.	Apply to MOST SUSCEPTIBLE weeds that do not exceed the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.

**RESTRICTIONS AND PRECAUTIONS: Flax (*Linum usitatissimum* only)**

- Do not apply if temperatures are expected to exceed 85° F at or 3 days following application or crop injury may occur.
- Unacceptable crop injury may occur following BRONATE® application to flax grown on high organic, peat type soils.
- Application under high humidity conditions can injure flax.
- Unless otherwise instructed, do not apply BRONATE® to flax with crop oil concentrate, surfactants or nitrogen solutions.
- Do not use on ornamental flax.

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**IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and should be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Aventis CropScience. All such risks shall be assumed by the user or buyer.

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**NET CONTENTS: 2.5 Gallons**

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**Bayer CropScience**

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BRONATE® Herbicide (PENDING) 05/27/04.