

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

December 21, 2022

Tasha Lott Product Registration Manager Albaugh, LLC 1525 NE 36<sup>th</sup> Street Ankeny, IA 50021

Subject: Registration Review Label Amendments Incorporating Mitigation Measures from

the Interim Decisions for Bromoxynil and MCPA and the National Marine Fisheries Services' (NMFS) Biological Opinion on the Effects of Bromoxynil on

Pacific Salmonids

Product Name: BROX-M HERBICIDE EPA Registration Number: 42750-52

*Application Dates*: 3/6/2020, 4/1/2021, and 11/18/2022 *Decision Numbers*: 560491, 572867, and 588808

# Dear Tasha Lott:

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

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

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

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A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 12 months from the date of this letter. After 12 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

If you have any questions about this letter, please contact Quinn Gavin at <a href="mailto:gavin.quinn@epa.gov">gavin.quinn@epa.gov</a>.

Sincerely,

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

Office of Pesticide Programs

Enclosure

# ACCEPTED

Dec 21, 2022

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 42750-52

Bromoxynil	Group	6	Herbicide
MCPA	Group	4	Herbicide

# **BROX-M** Herbicide

FOR CONTROL OF CERTAIN BROADLEAF WEEDS IN WHEAT, BARLEY, OATS & RYE, GRASSES GROWN FOR SOD, AND FLAX

ACTIVE INGREDIENTS:		
2-Ethylhexyl ester of 2-methyl-chlorophenoxyacetic acid*		34.0%
Octanoic acid ester of bromoxynil** (3,5-dibromo-4-hydroxybenzonitrile)		31.7%
OTHER INGREDIENTS***:		
	TOTAL	

# KEEP OUT OF REACH OF CHILDREN

# **WARNING /AVISO**

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.)

	See additional Precautionary Statements and Directions for Use below.		
	FIRST AID		
IF SWALLOWED:	<ul> <li>Immediately call a poison control center or doctor immediately for treatment advice.</li> <li>DO NOT give ANY liquid to the person.</li> <li>DO NOT induce vomiting unless told to do so by a poison control center or doctor.</li> <li>DO NOT give anything by mouth to an unconscious person.</li> </ul>		
IF IN EYES:	<ul> <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>		
IF ON SKIN OR CLOTHING:	<ul> <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>		
IF INHALED:	<ul> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>		
	HOT LINE NUMBER		
	ct container or label with you when calling a poison control center or doctor, or going for may also contact 1-800-424-9300 for emergency medical treatment information.		
NOTE TO PHYS	SICIAN: Contains petroleum distillate, vomiting may cause aspiration pneumonia.		
EPA Reg. No. 42750-52 EPA Est. No. NET CONTENTS:			
	MANUFACTURED BY: Albaugh, LLC Ankeny, Iowa 50021		

FOR CHEMICAL SPILL, LEAK, FIRE OR EXPOSURE, CALL CHEMTREC (800) 424-9300.

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

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

<sup>\*\*\*</sup>Contains petroleum distillates.

# PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### WARNING

May be fatal if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin or inhaled. Avoid contact with eyes, skins, or clothing. Avoid breathing spray mist.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Mixers, loaders, applicators, flaggers and other handlers must wear:

- · Long-sleeved shirt and long pants,
- Chemical resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride ≥14 mils or Viton ≥14 mils
- Shoes plus socks, and
- Protective eyewear.

Additional PPE requirements for mixers and loaders supporting aerial application to rangelands, pasture lands, or noncropland. These mixers/loaders also must wear:

- A chemical resistant apron, and
- A NIOSH approved particulate filtering respirator equipped with any R, or P class filter media with NIOSH approval number prefix TC-84A. It is recommended that the respirator wearer be fit tested, and trained in the use, maintenance, and limitations of the respirator.

See engineering controls for additional requirements.

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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

# **ENGINEERING CONTROLS STATEMENTS**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS. IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)]

Handlers must use a closed mixing/loading system during mixing/loading liquid for aerial applications to fallow land and high-acreage field crops. Handlers must use closed mixing loading systems during mixing and loading liquids for aerial application to barley, flax, oats, pasture and rangeland grass, rye, triticale, wheat, and grass grown for seed.

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.

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.

Chemigation: 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.

Aerial Application: Aerial application is prohibited within 300 feet of residential areas (e.g. homes, schools, playgrounds, shopping areas, hospitals, etc.)

**DO NOT** apply with backpack or hand-held application equipment.

Apply to non-residential turf only. DO NOT apply to residential, playground, or schoolyard turf.

# **USER SAFETY RECOMMENDATIONS**

Users should:

- 1. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- 2. Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing/PPE.
- 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 may be toxic to fish, aquatic invertebrates and aquatic plants. **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** contaminate water when disposing of equipment washwaters or rinsate. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

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

REPORTING ECOLOGICAL INCIDENTS: To report ecological incidents, including mortality, injury, or harm to plants and animals, call 1-800-247-8013.

# **Surface Water Advisory Statement:**

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water.

This product is classified as having high potential for reaching surface water via runoff for several months or more after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of MCPA from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

#### PHYSICAL AND CHEMICAL HAZARDS

Combustible. **DO NOT** use or store near heat or open flame.

# **DIRECTIONS FOR USE**

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

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

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

# AGRICULTURAL USE REQUIREMENTS

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

**DO NOT** enter or allow worker entry into treated areas during the restricted entry interval (REI). For all crops except sod farm turf, the REI is 24 hours.

**DO NOT** enter or allow worker entry into the treated areas during the restricted-entry interval (REI) of 24 hours for sod.

The REI for harvesting sod farm turf is 26 days. The REI for other turf activities is 24 hours. For uses on turf grown for transplanting (e.g. on sod farms), notify workers of the application by warning them orally and by posting warning signs at entrances to treated areas.

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, wear:

- 1. Chemical resistant gloves made of barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, polyvinyl chloride ≥14 mils or Viton ≥14 mils
- 2. Coveralls
- 3. Shoes plus socks
- 4. Protective eyewear

# NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to the use of this product on non-residential turfgrass areas that are NOT within the scope of the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

**DO NOT** enter or allow others to enter the treated area until sprays have dried.

**DO NOT** contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Store at temperatures above 35° 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 HANDLING: (See the Net Contents section on the container to determine if it non-refillable or refillable.) APPROPRIATE BOX MUST BE CHECKED.

Non-refillable containers (1 and 2.5 gallon): **DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

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

Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Non-refillable containers (>5 gallon): **DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

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

Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

<u>Refillable containers:</u> Refillable container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose.

When this container is empty, replace the cap and seal all openings that have been made during usage and return the container to the point of purchase, or to an alternate location designated by the manufacturer at the time of purchase of this product. If not returned, clean container the empty container and offer for recycling, if available.

Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the re-filler.

To clean the container before final disposal, empty the remaining contents from the container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or re-circulate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing process two more times.

If the container cannot be refilled, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

# PRODUCT INFORMATION

BROX-M is formulated as an emulsifiable concentrate containing the equivalent of 2 lbs. per gallon of octanoic acid ester of bromoxynil and 2 lbs. per gallon of 2-ethylhexyl ester of MCPA.

BROX-M is a selective postemergence herbicide for control of important broadleaf weeds infesting small grains (wheat, barley, oats, rye), flax, conservative reserve program areas, and grasses grown for sod production. Optimum weed control is obtained when BROX-M is applied to actively growing weed seedlings. BROX-M is primarily a contact herbicide; therefore, thorough coverage of the weed seedlings is essential for optimum control.

BROX-M 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 BROX-M 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.

Precaution: BROX-M contains low volatile 2-ethylhexyl 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 the product.

#### WEED RESISTANCE MANAGEMENT

For resistance management, please note that this product contains both a Group 4 (MCPA) and a Group 6 (Bromoxynil) herbicide. Any weed population may contain plants naturally resistant to Group 15 and/or Group 5 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of this product or other Group 4 and/or Group 6 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures from a different group if such use is permitted; where information on resistance in target weeds species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistance-prone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed-competitive crops or varieties) and other management practices.
- Fields should be scouted prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective. Fields should be scouted after application to verify that the treatment was effective.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide-resistance include: 1) Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds; 2) a spreading patch of non-controlled plants of a particular weed species; 3) surviving plants

mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method such as hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields, and planting clean seed.

- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance management and/or integrated weed-management recommendations for specific crops and weed biotypes.

Additional Best Management Practices include:

- Plant into weed-free fields and keep fields as weed-free as possible.
- Fields with difficult to control weeds should be rotated to crops that allow the use of herbicides with alternative mechanisms of action or different management practices.
- To the extent possible **DO NOT** allow weed escapes to produce seeds, roots or tubers. Manage weed seeds at harvest and postharvest to prevent a buildup of the weed seed-bank.
- Prevent field-to-field and within-field movement of weed seed or vegetative propagules. Thoroughly clean plant residues from equipment before leaving fields.
- Prevent an influx of weeds into the field by managing field borders.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed control program should consider all of the weeds present.
- Difficult to control weeds may require sequential applications of herbicides with differing mechanisms of action.
- Apply this herbicide at the correct timing and rate needed to control the most difficult weed in the field.
- Use a broad-spectrum soil-applied herbicide with a mechanism of action that differs from this product
  as a foundation in a weed-control program. DO NOT use more than two applications of this or any
  other herbicide with the same mechanism of action within a single growing season unless mixed with
  an herbicide with another mechanism of action with an overlapping spectrum for the difficult-to-control
  weeds.
- If resistance is suspected, treat weed escapes with an herbicide with a different MOA or use nonchemical methods to remove escapes.

Report any incidence of non-performance of this product against a particular weed species to your Albaugh, LLC retailer, or representative. If resistance is suspected, treat weed escapes with an herbicide having a different mechanism of action and/or use non-chemicals means to remove escapes, as practical, with the goal of preventing further seed production.

Contact your local sales representative, crop advisor, or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. **DO NOT** assume that each listed weed is being controlled by multiple mechanisms of action. Co-formulated active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredients in this product.

# 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. Contact your Albaugh representative if you have any questions regarding the correct procedure for mixing and loading.

30 Gallon and Bulk Containers: Refer to the ENGINEERING CONTROLS STATEMENTS for instructions on mixing and loading this product from containers 30 gallons or larger.

#### **BROX-M Alone**

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

#### Tank Mixtures

Brox-M may be tank-mixed with other pesticide products provided that these other products are registered for use on the crop/use site to be treated. The tank mix must be used in accordance with the more restrictive pesticide label instructions and precautions. No label dosage rates may be exceeded. Brox-M cannot be mixed with any product containing a label prohibition against such mixing.

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

#### SPRAYABLE LIQUID FERTILIZERS AND SPRAY ADDITIVES

BROX-M can be applied in combination with sprayable liquid fertilizer or spray additives such as surfactants or crop oil concentrate. When tank mixing with liquid fertilizer, always add the fertilizer to the spray tank first and agitate thoroughly before adding BROX-M.

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

Precaution: Fertilizers and spray additives can increase foliage leaf burn when applied with BROX-M.

RESTRICTION: **DO NOT** apply fertilizers or spray additives with this product if leaf burn is a major concern due to environmental conditions, crop or variety sensitivity to BROX-M.

#### **APPLICATION PROCEDURES**

BROX-M can be applied to registered use areas by ground, aerial and sprinkler irrigation equipment.

# **SPRAY DRIFT**

#### **Aerial Application**

- **DO NOT** release spray at a height greater than 10 ft. above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- DO NOT apply when wind speeds exceed 10 miles per hour at the application site.
- Applicators are required to use a medium or coarser droplet size (ASABE S572 and S641).
- The distance of the outer most nozzles on the boom must not exceed 75% of the length of the wingspan or 90% of the rotor diameter.
- DO NOT apply during temperature inversion.

# **Ground Application**

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
- DO NOT apply when wind speeds exceed 10 miles per hour at the application site.
  - **DO NOT** apply during temperature inversions.

#### **Boomless Ground Applications:**

- Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572) for all applications.
- DO NOT apply when wind speeds exceed 15 miles per hour at the application site.
- DO NOT apply during temperature inversions.

# SPRAY DRIFT ADVISORIES

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

#### IMPORTANCE OF DROPLET SIZE

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

#### Controlling Droplet Size- Ground Boom

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

# Controlling Droplet Size- Aircraft

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

# **BOOM HEIGHT- Ground Boom**

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

#### RELEASE HEIGHT- Aircraft

Higher release heights increase the potential for spray drift

#### SHIELDED SPRAYERS

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

### TEMPERATURE AND HUMIDITY

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

### TEMPERATURE INVERSIONS

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### WIND

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

#### **BOOMLESS GROUND APPLICATIONS:**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

#### HANDHELD TECHNOLOGY APPLICATIONS:

Take precautions to minimize spray drift.

#### **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. Other nozzle types and lower spray pressures that produce coarse spray droplets may not provide adequate coverage of the weeds to ensure optimum control. **DO NOT** use Raindrop® nozzles and flood nozzles as weed control with BROX-M may be reduced.

In general, a spray volume of 10 to 20 gallons per acre (GPA) should be used 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. 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.

**DO NOT** apply with nozzle height greater than 4 feet above crop canopy.

#### **AERIAL APPLICATION**

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.).

Use orifice discs, cores and nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage. Use a minimum spray volume of 5 GPA and a maximum pressure of 40 psi. 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.

Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

# **AERIAL APPLICATION USE RESTRICTIONS**

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

#### SPRINKLER IRRIGATION APPLICATION

BROX-M can be applied through sprinkler irrigation systems to wheat, barley, oats, rye and grasses grown for seed or sod.

Apply Brox-M 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 APPLICATIONS 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. Maintain agitation in the pesticide supply tank when applying.
- 9. Apply BROX-M continuously for the duration of the water application with center pivot and continuous lateral move systems. Apply BROX-M 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 BROX-M is diluted in the supply tank, fill the tank with half of the water amount desired, add; the BROX-M and then add remaining water amount with agitation. Always dilute with at least 4 parts water to 1 part BROX-M.
- 13. Start the sprinklers and then inject BROX-M into the irrigation line. Inject BROX-M 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 BROX-M 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.

# LIST OF WEEDS CONTROLLED

Postemergence application of BROX-M will control the following weeds when sprayed in the seedling stage. Maximum weed stage of growth is listed under BROX-M directions.

#### MOST SUSCEPTIBLE BROADLEAF WEED SPECIES

Annual Sowthistle (Sonchus oleraceus) Black Mustard (Brassica nigra) Black Nightshade (Solanum nigrum)

Common Cocklebur (Xanthium strumarium) Common Lambsquarters (Chenopodium album)

Common Tarweed (Hemizonia Congesta)

Cow Cockle (Saponaria vaccaria) Cutleaf Nightshade (Solanum triflorum) Eastern Black Nightshade (Solanum

ptycanthum)

Coast Fiddleneck (Amsinckia intermedia) Field Pennycress (Thlaspi arvense)

Green Smartweed (Polygonum scabrum) Hairy Nightshade (Solanum sarachoides) Horned Poppy (Glaucium comiculatum) Jimsonweed (Datura stramonium) Ladysthumb (Polygonum persicaria)

Lanceleaf sage (Salvia reflexa)

London Rocket (Sisymbrium irio) Marshelder (Iva xanthifolia)

Pennsylvania Smartweed (Polygonum

strumarium)

Pepperweed spp. (Lepidium spp.)

Redroot Pigweed (Amaranthus retroflexus)

Russian Thistle (Salsola kali)

Shepherdspurse (Capsella bursa-pastoris) Silverleaf Nightshade (Solanum elaeagnifolium)

Smooth Pigweed (Amaranthus hybridus) Spiny Pigweed (Amaranthus spinosus)

Sunflower<sup>1</sup>(Helianthus annuus)

Tall Waterhemp (Amaranthus tubersulatus) Tartary Buckwheat (Fagopyrum tataricum) Tumble Mustard (Sisymbrium altissimum)

Wild Buckwheat (Polygonum convolvulus) Wild Mustard (Sinapis arvensis)

Yellow Rocket (Barbarea vulgaris)

#### SUSCEPTIBLE BROADLEAF WEED SPECIES<sup>1</sup>

Blue (purple) Mustard (Chlorispora tenella) Common Groundsel (Senecio vulgaris) Common Ragweed (Ambrosia artemisiifolia) Corn Chamomile (Anthemis arvensis) Corn Gromwell (Lithospermum arvense) Fumitory (Fumaria officinalis) Giant Ragweed (Ambrosia trifida) Hemp Sesbania (Sesbania exaltata)

Henbit (Lamium amplexicaule) Ivyleaf Morningglory (Ipomoea hederacea)

Knawel (Scleranthus annuus) Kochia (Kochia scoparia) Mayweed (Anthemis cotula)

Prostrate Knotweed (Polygonum aviculare)

Puncture Vine (Tribulus terrestris) Tall Morningglory (Ipomoea purpurea) Tansy Mustard (Descurainia pinnata)

Tarweed (Hemizonia spp.) Velvetleaf (Abutilon theophrasti) Wild Radish (Raphanus raphanistrum)

Weeds germinating after spraying will not be controlled.

# WEED SUPPRESSION

Canada Thistle (Cirsium arvense)

BROX-M 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.

# WHEAT, BARLEY, OATS AND RYE **BROX-M DIRECTIONS**

DRODUCT	RATE	APPLICATION TIMING	G AND SPECIFIC COMMENTS
PRODUCT RATE		CROP	WEEDS
BROX-M	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,	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	Wyoming and Montana.	Susceptible Broadleaf Weeds: Apply to weeds up to the 4 leaf stage or 2 inches in

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

PRODUCT	DATE	APPLICATION TIMINO	G AND SPECIFIC COMMENTS
FRODUCT	RATE	CROP	WEEDS
		Apply to wheat, barley, oats and rye from the 3 leaf stage but before the crop reaches the boot	height, whichever comes first. If weed forms rosette, apply before weeds exceed 1 inch in diameter.
	2 pints/A	stage.	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 <b>DO NOT</b> 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 Engineering Controls Statements section for 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. <b>DO NOT</b> 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 BROX-M with Roundup® or Roundup® + 2,4-D.
BROX-M + MCPA ester (Based on 4 lbs per gallon AI)	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.
BROX-M + Chlorosulfur on (based on 0.75 lbs Al per pound product) + nonionic surfactant	3/4-1 ½ 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 tank mix partner label for crop rotation and other restrictions.	This tank mix improves control of broadleaf weeds such as henbit, tansy mustard and chickweed. Apply to weeds up to 8 leaf stage, 4 inches in height or 2 inches in diameter, whichever comes first.

PRODUCT	PRODUCT RATE APPLICATION TIMING AND SPECIFIC COMMENTS			
	IVATE	CROP	WEEDS	
BROX-M + Chlorosulfur on / Metsulfuron -methyl (premix) + nonionic surfactant	3/4-1 ½ pints/A + Use label rate + 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 tank mix partner label for crop rotation and other restrictions.	This tank mix 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.	
BROX-M + Metsulfuron -Methyl (based on 0.60 lbs Al per pound product) + nonionic surfactant	3/4-1 ½ 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 tank mix partner label for crop rotation and other restrictions.	This tank mix 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.	
BROX-M + Dicamba DMA Salt	3/4-1 ½ pints/A + 1/8-1/4 pint/A	FOR USE ON WHEAT ONLY. <b>DO NOT</b> treat barley, oats or rye.  Fall seeded wheat from the 3 leaf stage but before jointing. Spring seeded wheat from the 3 to 5 leaf stage of growth.	This tank mix 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.	
BROX-M + Thifensulfur on-methyl / Tribenuron- methyl (Premix) + nonionic surfactant	3/4-1 ½ pints/A + Use label rate + 1 qt/100 gal of water	Winter wheat. Apply from the 3 leaf stage but before the 3 <sup>rd</sup> node is detectable. Refer to the tank mix partner label for crop rotation and other restrictions.  Spring wheat and barley. Apply after the 3 leaf stage but before the 1 <sup>st</sup> node is detectable. Refer to the tank mix partner label for crop rotation and other restrictions.	This tank mix 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.	
BROX-M + Triasulfuron (based on 0.75 lbs active ingredient per pound product)+ nonionic surfactant	3/4-1 ½ 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 tank mix partner 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.	
BROX-M + Tribenuron- methyl (based on 0.5 lbs active ingredient	3/4-1 ½ 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 tank mix partner label for crop rotation and other restrictions.	This tank mix 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.	

PRODUCT	RATE	APPLICATION TIMING AND SPECIFIC COMMENTS		
PRODUCT RATE		CROP	WEEDS	
per pound product)+ nonionic surfactant				
BROX-M + Clopyralid /MCPA EHE (premix)	3/4-1 1/2 pints/A + Use label rate	Apply to wheat and barley after the crop begins to tiller up to the 1st node detectable.	This tank mix 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.	
BROX-M + Metribuzin (based on 0.75 lbs active ingredient per pound product)	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 tank mix 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.	

# 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.
- **DO NOT** apply more than 2 pints of Brox-M (0.5 lbs bromoxynil / 0.5 lbs. MCPA acid equivalent) per year.
- DO NOT plant rotational crops within 30 days following Brox-M application.
- **DO NOT** apply more than 0.75 lbs. of MCPA acid equivalent per acre per year when applying alone or tank mixing with other products that contain MCPA.

# GRASSES GROWN FOR SEED OR SOD PRODUCTION BROX-M DIRECTIONS

Seedling and Established Grasses

APPLICATIO	N TIMING AND	SPECIFIC CON	MMENTS	
PRODUCT	RATE PER	RATE PER	CROP	WEEDS
	ACRE	1000 SQ FT		
BROX-M	1 to 2 pints	0.375 to 0.75 fl. oz.	Apply to established and newly seeded grasses grown for sod production before the boot stage. Established grasses tolerant to BROX-M include Bentgrasses, Kentucky Bluegrass, Fescues, Ryegrass, Bermudagrass, St. Augustinegrass and Zoysiagrass. BROX-M may also be used on seedling grasses such as Merion, Park, Delta, or common Kentucky Bluegrasses, Pennlawn, Chewings, Illahee or Alta Fescues, Orchardgrass, 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).
BROX-M	Chemigation	0.75 fl. oz.	Apply to established and newly seeded grasses grown for sod production before	,

2 pints/A only	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 BROX-M.	

# RESTRICTIONS AND PRECAUTIONS: GRASSES GROWN FOR SOD PRODUCTION

- DO NOT allow livestock to graze in treated areas or feed treated grasses to livestock.
- **DO NOT** apply BROX-M to grasses grown for seed or sod production with backpack or hand-held application equipment.
- **DO NOT** apply more than 2 pints of Brox-M (0.5 lbs MCPA acid equivalent) per year.
- **DO NOT** plant rotational crops within 30 days following Brox-M application.
- **DO NOT** apply more than 2 applications per year with a minimum retreatment interval of 21 days.
- **DO NOT** apply more than 1.5 lbs acid equivalent per acre per year.

# CONSERVATION RESERVE PROGRAM AREAS (CRP) BROX-M Directions

APPLICATION 7	APPLICATION TIMING AND SPECIFIC COMMENTS				
PRODUCT	RATE	CROP	WEEDS		
BROX-M	1 to 2 pint/A	Apply to grasses from the 3 leaf stage.	Apply 1 pint/A to MOST SUSCEPTIBLE and 1 ½ - 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

- If legumes are included in CRP area planting, severe crop injury may occur to legumes treated with BROX-M.
- **DO NOT** apply BROX-M to CRP areas planted with alfalfa if temperatures are expected to exceed 80°F or severe crop injury may occur. If legumes other than alfalfa have been planted, severe crop injury may occur at any application temperature.
- DO NOT apply more than 2 pints/A of BROX-M to CRP areas that are under seeded with alfalfa.

# FLAX (Linum usitatissimum only) BROX-M Directions

APPLICATION TIMING AND SPECIFIC COMMENTS					
PRODUCT	PRODUCT RATE CROP WEEDS				
BROX-M	0.5 to 0.9 pint/A	Apply to flax that is 2 to 8 inches in height. <b>DO NOT</b> apply to flax during or after the bud stage.	Apply to Most Susceptible weeds that <b>DO NOT</b> exceed the 4 leaf stage, 2 inches in height or 1 inch in diameter, whichever comes first.		

### Restrictions and Precautions: Flax (*Linum usitatissium* only)

- **DO NOT** apply if temperatures are expected to exceed 85°F at application or 3 days following application or crop injury may occur.
- Unacceptable crop injury may occur following BROX-M application to flax grown on high organic, peat type soils.
- Application under high humidity conditions can injure flax.
- Unless otherwise instructed, DO NOT apply BROX-M to flax with crop oil concentrate, surfactants or nitrogen solutions.
- DO NOT use on ornamental flax.
- **DO NOT** apply more than 0.9 pints of Brox-M (0.225 lbs MCPA acid equivalent) per acre in a single growing season.

- **DO NOT** plant rotational crops within 30 days following Brox-M application.
- DO NOT exceed .25 lbs acid equivalent per acre per year.

#### WARRANTY LIMITATIONS AND DISCLAIMER

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the Directions for Use when used under normal conditions. This is the only warranty made on this product. To the extent consistent with applicable law, no other express and no implied warranty of merchantability or fitness for a particular purpose is made outside of this label. Therefore, neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), under abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes, etc.) or under conditions not reasonably foreseeable to or beyond the control of seller.

When buyer or user suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories), buyer or user must promptly notify seller, in writing, of any claims to be eligible to receive either remedy given below. To the extent consistent with applicable law, the exclusive remedy of the buyer or user and the limit of liability of seller will be one of the following, at the election of the seller:

- 1. Refund of purchase price paid by buyer or user for product bought or
- 2. Replacement of amount of product used.

To the extent consistent with applicable law, the seller will not be liable for consequential or incidental damages or losses.

The terms of this Warranty Limitations and Disclaimer cannot be varied by any written or verbal statements or agreements. Any employee or sales agent of the seller is not authorized to vary or exceed the terms of this Warranty Limitations and Disclaimer in any manner.

All product names, trademarks, and registered trademarks are the property of their respective owners.

082021

**LABEL HISTORY** (Not included in final printed labeling)

File Name	Version Mark	Comment
042750-00052.20200305.DRAFT	030520	Updated label according to Bromoxynil Reg. Review Interim Decision
042750-00052.20201007.DRAFT	100720	EPA Label Comments for Reg Review
042750-00052.20210331.DRAFT	033121	EPA Comments
042750-00052.20210820.DRAFT	082021	ESA Language