51036-254 PM-25 10-7-98 1/18

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

OCT 7 1998

Lee Tharrington
Registrations Assistant
MICRO FLO COMPANY
P. O. Box 5948
Lakeland, FL 33807

Dear Registrant:

SUBJECT: Submission of Label Amendment
Bromox/MCPA 2-2
EPA Reg. 51036-254
Your Submission Dated June 30, 1997

The amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), is acceptable provided that you:

1. Make the following labeling changes listed below before you release the product for shipment bearing the amended labeling:

a. Add the following just below the "Ingredient Statement":

"Contains Petroleum Distillate"

b. On page 2 and 5, change the heading "Caution" to "Notice or Important".

c. On page 13, under the "Tank Mixture Recommendation" "restrictions and precautions" change the following:

-Do not graze treated.....within 30 days to "45" days after application.
-Do not apply when crops under moisture stress to "Do not apply when crops are under moisture stress"

CONCURRENCES								
SYMBOL ▸	7505C							
SURNAME ▸	MINOR, E.							
DATE ▸	Oct 7, 1998							

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d. On page 14, under the "restrictions and precautions" change the following:

-Do not allow livestock to graze .... treated grasses to livestock. to "Do not allow livestock to graze.....treated grasses, forage, hay, straw, silage, or seed to livestock."

3. Submit one (1) copy of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA Sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the labeling is enclosed for your records.

Sincerely yours,

Jim Tompkins
Product Manager (25)
Herbicide Branch
Registration Division (7505C)

Enclosure

BROMOX/MCPA 2 - 2

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-hydroxybenzonitrile)	31.7%
Isooctyl (2-ethylhexyl) ester of 2-methyl-chlorophenoxyacetic acid**	34.0%
INERT INGREDIENTS:	34.3%
TOTAL	100.0%

* 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.

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.)

STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Get medical attention. Do not induce vomiting, contains petroleum distillates. Do not give anything by mouth to an unconscious person.
IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.
IF IN EYES: Flush with water for 15 minutes. Get medical attention.

EPA Reg. No. 51036-254

EPA Est. No. 51036-GA-1

ACCEPTED
with COMMENTS
In EPA Letter Dated

OCT 7 1998

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 51036-254

Manufactured by:
MICRO FLO COMPANY
P.O. BOX 5948
LAKELAND, FL 33807

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:

1. Coveralls over a long-sleeved shirt and long pants
2. Chemical-resistant gloves such as barrier laminate, butyl rubber, nitrile rubber, or viton gloves
3. Chemical-resistant apron when cleaning equipment
4. Protective eyewear

5. Chemical-resistant headgear for overhead exposure
6. 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 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
BROMOX/MCPA 2 - 2 Herbicide contains low volatile isooctyl (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 BROMOX/MCPA 2 - 2.

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:

1. Coveralls over long-sleeved shirt and long pants
2. Chemical-resistant gloves such as nitrile, viton or barrier laminate
3. Chemical-resistant footwear plus socks
4. Chemical-resistant headgear for overhead exposure
5. Protective eyewear

STORAGE AND DISPOSAL

STORAGE

Do not contaminate water, food or feed by storage or disposal. Store at temperatures above 3^{0}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

After use, return the container to the point of purchase or designated locations. This container must only be refilled with BROMOX/MCPA 2 - 2 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

BROMOX/MCPA 2 - 2 is formulated as an emulsifiable concentrate containing the equivalent of 2 pounds per gallon of octanoic acid ester of bromoxynil and 2 pounds per gallon of isooctyl (2-ethylhexyl) ester of MCPA. BROMOX/MCPA 2 - 2 is a selective postemergence herbicide for control of important broadleaf weeds infesting small grains (wheat, barley, oats, rye), conservation reserve program areas, grass grown for seed and flax. Optimum weed control is obtained when BROMOX/MCPA 2 - 2 is applied to actively growing

weed seedlings. BROMOX/MCPA 2 - 2 is primarily a contact herbicide, therefore thorough coverage of the weed seedlings is essential for optimum control.

BROMOX/MCPA 2 - 2 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 BROMOX/MCPA 2 - 2 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.

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.

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

TANK MIXTURES: BROMOX/MCPA 2 - 2 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 BROMOX/MCPA 2 - 2 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 BROMOX/MCPA 2 - 2 and add water to the spray tank to the desired level. If tank mixing with other product types, add the BROMOX/MCPA 2 - 2 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 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 BROMOX/MCPA 2 - 2 .

SPRAYABLE LIQUID FERTILIZERS AND SPRAY ADDITIVES
BROMOX/MCPA 2 - 2 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 BROMOX/MCPA 2 - 2. 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 BROMOX/MCPA 2 - 2 is evenly mixed with the fertilizer. Leaf burn may occur when BROMOX/MCPA 2 - 2 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 BROMOX/MCPA 2 - 2 . Do not apply fertilizers or spray additives with BROMOX/MCPA 2 - 2 if leaf burn is a major concern due to environmental conditions, crop or variety sensitivity to BROMOX/MCPA 2 - 2.

APPLICATION PROCEDURES
BROMOX/MCPA 2 - 2 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 ~~minimum~~ spray pressure of **40-60** ~~30~~ psi ~~at the nozzle tips~~ are recommended. Other nozzle types **and lower spray pressures** that produce course 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 BROMOX/MCPA 2 - 2 may be reduced. In general, a ~~minimum~~ 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** ~~and subsequent~~ 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.

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 GPA may be used if crop canopy and weed density allow adequate spray coverage at that gallonage.

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

BROMOX/MCPA 2 - 2 Herbicide can be applied through sprinkler irrigation systems to small grains and grasses grown for seed.

Apply BROMOX/MCPA 2 - 2 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 BROMOX/MCPA 2 - 2 Herbicide.
9. BROMOX/MCPA 2 - 2 Herbicide should be applied continuously for the duration of the water application with center pivot and continuous lateral move systems. Application of BROMOX/MCPA 2 - 2 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 BROMOX/MCPA 2 - 2 Herbicide is diluted in the supply tank, fill the tank with half of the water amount desired, add the BROMOX/MCPA 2 - 2 and then add remaining water amount with agitation. Always dilute with at least 4 parts water to 1 part BROMOX/MCPA 2 - 2.
13. Start the sprinklers and then inject BROMOX/MCPA 2 - 2 Herbicide into the irrigation line. BROMOX/MCPA 2 - 2 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 BROMOX/MCPA 2 - 2 Herbicide label for detailed information on application rates and timings.

CHEMIGATION USER PRECAUTIONS

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

Do not apply when conditions favor drift, when system connections or fittings leak, or

when nozzles do not provide uniform distribution.

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

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

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

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

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

GENERAL WEED LIST
Postemergence application of BROMOX/MCPA 2 - 2 Herbicide will control the following weeds when sprayed in the seedling stage. Maximum weed stage of growth is listed under BROMOX/MCPA 2 - 2 RECOMMENDATIONS.

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 corniculatum)*
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)*
[1]Sunflower	*(Helianthus annuus)*
Tall Waterhemp	*(Amaranthus tuberculatus)*
Tartary buckwheat	*(Fagopyrum tataricum)*
Tumble mustard	*(Sisymbrium altissimum)*
Wild buckwheat	*(Polygonum convolvulus)*
Wild mustard	*(Sinapis arvensis)*
Yellow rocket	*(Barbarea vulgaris)*

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

SUSCEPTIBLE BROADLEAF WEED SPECIES

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 terrestis)*
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)*

BROMOX/MCPA 2 - 2 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.

WHEAT, BARLEY, OATS AND RYE
BROMOX/MCPA 2 - 2 RECOMMENDATIONS

	APPLICATION	TIMING AND SPECIFIC	COMMENTS
PRODUCT	RATE	CROP	WEEDS
BROMOX/ MCPA 2 - 2	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 ~~after~~** the 3 leaf stage but before the crop reaches the boot stage.	MOST SUSCEPTIBLE BROADLEAF WEEDS Apply to weeds up to the 8 leaf stage or 4 inches in height, whichever comes first. If weed forms rosette, apply before weeds exceed 2 inches in diameter.

1 1/2 - 2 pints/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** ~~after~~ the 3 leaf stage but before the crop reaches the boot stage.	~~MOST SUSCEPTIBLE and~~ 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	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** ~~after~~ the 3 leaf stage but before the crop reaches the boot 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** ~~after~~ 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** ~~after~~ 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** ~~after~~ 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 BROMOX/MCPA 2-2 with Roundup[9] or Roundup + 2,4-D such as Weedone[6] or Weedar[6] brand herbicides.**

BROMOX/MCPA 2 - 2 TANK MIXTURE RECOMMENDATIONS

		APPLICATION TIMING	AND SPECIFIC COMMENTS
PRODUCT	RATE	CROP	WEEDS
BROMOX/MCPA 2 - 2 + Rhonox[10] (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.
BROMOX/MCPA 2 - 2 + Glean[5] + 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 ~~after~~** the 3 leaf stage but before the crop reaches the boot stage. Refer to Glean 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.

BROMOX/MCPA 2 - 2 + Finesse[5] + 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 ~~after~~** the 3 leaf stage but before the crop reaches the boot stage. Refer to Finesse 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.
BROMOX/MCPA 2 - 2 + Ally[5] + 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 ~~after~~** the 3 leaf stage but before the crop reaches the boot stage. Refer to Ally 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.
BROMOX/MCPA 2 - 2 + Banvel[7]	3/4 - 1 1/2 pints/A + 1/8 - 1/4 pint/A	Fall seeded wheat **from ~~after~~** 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.
BROMOX/MCPA 2 - 2 + Harmony Extra[5] + 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 ~~after~~** 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 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.

BROMOX/MCPA 2 - 2 + Amber[8] + 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 ~~after~~** 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.
BROMOX/MCPA 2 - 2 + Express[5] + 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 ~~after~~** the 3 leaf stage but before the flag is visible. Refer to the Express 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.
BROMOX/MCPA 2 - 2 + Curtail[4] or Curtail M[4]	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 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.
BROMOX/MCPA 2 - 2 + metribuzin (Sencor[2] or Lexone[5])	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.

BROMOX/MCPA 2 - 2 + Avenge[1]	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 tank mix 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. Average 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.).
BROMOX/MCPA 2 - 2 + Assert[1]	1 - 1 1/2 pints/A + 1 ~~1 1/5~~ - 1 1/2 pints/A	Apply to wheat and barley **from** ~~after~~ the 3 leaf **stage** but before boot **stage.** Refer to **Assert label** for crop rotation **and** other **restrictions.**	This tank mix will provide wild oat control in addition to **broadleaf weeds** ~~broadleaves~~. Apply to wild oats **at** ~~in~~ the 1-4 leaf stage and **broadleaf weeds** ~~broadleaves that do not exceed the 8 leaf stage or rosettes of~~ **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 30 days** after application.
- Do not apply when crops 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.

CONSERVATION RESERVE PROGRAM AREAS (CRP)
BROMOX/MCPA 2 - 2 RECOMMENDATIONS

		APPLICATION TIMING AND SPECIFIC COMMENTS	
PRODUCT	RATE	CROP	WEEDS
BROMOX/ MCPA 2 - 2	1 - 2 pints/A	Apply to grasses **from** ~~after~~ 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 BROMOX/MCPA 2 - 2.

GRASSES GROWN FOR SEED PRODUCTION
BROMOX/MCPA 2 - 2 RECOMMENDATIONS
Seedling and Established Grasses

PRODUCT	RATE Per Acre	RATE Per 1000 Sq. Ft.	APPLICATION TIMING AND CROP	SPECIFIC COMMENTS WEEDS
BROMOX/ MCPA 2 - 2	1 - 2 pints	0.375 ~~0.6~~ - 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 BROMOX/MCPA 2 - 2 include bentgrasses, Kentucky Bluegrass, Fescues, Ryegrass, Bermudagrass, St. Augustine grass and Zoysiagrass. BROMOX/MCPA 2 - 2 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).
BROMOX/ MCPA 2 - 2	**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 BROMOX/MCPA 2-2.**	

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 BROMOX/MCPA 2 - 2 to grasses grown for seed production with backpack or hand-held application equipment.

FLAX (Linum usitatissimum only)
BROMOX/MCPA 2-2 RECOMMENDATIONS

PRODUCT	RATE	APPLICATION TIMING AND SPECIFIC COMMENTS	
		CROP	WEEDS
BROMOX/MCPA 2-2	0.9 pint/A	Apply to flax that is 2 to 8 inches in height. Do not apply BROMOX/MCPA 2-2 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 BROMOX/MCPA 2-2 application to flax grown on high organic, peat type soils.**
- **Application under high humidity conditions can injure flax.**
- **Unless otherwise instructed, do not apply BROMOX/MCPA 2-2 with crop oil concentrate, surfactants or nitrogen solutions.**
- **Do not use on ornamental flax.**

LIMITED WARRANTY AND DISCLAIMER

The manufacturer warrants that this product conforms to the chemical description on the label; that this product is reasonably fit for the purposes set forth in the directions for use when it is used in accordance with such directions; that the directions, warnings, and other statements on this label are based upon responsible experts' evaluation of reasonable tests of effectiveness, of toxicity to laboratory animals and to plants, and of residues on food crops, and upon reports of field experience. Tests have not been made on all varieties or in all states or under all conditions. THE MANUFACTURER NEITHER MAKES NOR INTENDS, NOR DOES IT AUTHORIZE ANY AGENT OR REPRESENTATIVE TO MAKE, ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, AND IT EXPRESSLY EXCLUDES AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR, ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS, WARNINGS OR CAUTIONS.

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