

Reg # 55947-24

PM-25 / CERESA

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460
MAR 17 1994

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Nancy Huebl
SANDOZ AGRO INC
1300 EAST TOUHY AVE
DES PLAINES, IL 60018

Subject: Label Amendment Submission of 08/11/93 in Response to PR Notice 93-7
EPA Reg. No. 55947-24
WEEDMASTER HERBICIDE

Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling
- AND
- WITHIN one year from date of this acceptance.



Recycled/Recyclable
Printed with Soy/Canola Ink on paper that
contains at least 50% recycled fiber

2934

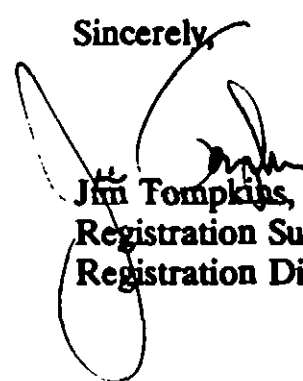
Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief
Registration Support Branch
Registration Division (7505W)

Attachment

SANDOZ AGRO INC.
WEEDMASTER HERBICIDE
55947-24 08/11/93
Original Submission

EPA has determined that a "closed" mechanical transfer system is not required for 2,4-D products. In the personal protective equipment section of your amended labeling, you may revise the statement to read as follows:

CONTAINERS GREATER THAN 1 GALLON BUT LESS THAN 5 GALLONS:
"Mixers and loaders who do not use a mechanical system (probe and pump) to transfer the contents of this container must wear coveralls or a chemical-resistant apron in addition to the other required PPE."

EPA has determined that a "closed" mechanical transfer system is not required for 2,4-D products. In the personal protective equipment section of your amended labeling, you may revise the statement to read as follows:

CONTAINERS 5 GALLONS OR MORE: "A mechanical system (probe and pump) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal. If the mechanical system is used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4)], the handler PPE requirements may be reduced or modified as specified in the WPS."

Add the following sentence to the paragraph on laundering PPE: "After each day of use, clothing or PPE must not be reused until it has been cleaned." Please refer to the special 2,4-D guidance issued by EPA on September 13, 1993 (page 4) for placement of the sentence.

Please conform with the special 2,4-D guidance issued by EPA on September 13, 1993 for adding WPS statements.

The glove requirement for "applicators and other handlers" in the "Personal Protective Equipment" section on your proposed labeling is missing or incorrect. Remove the incorrect requirement (if any) and add "Waterproof gloves". The exact location is shown in Sections A and B on Part 1 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

Remove the statement "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

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SANDOZ AGRO INC.
WEEDMASTER HERBICIDE
55947-24 08/11/93
Original Submission

during application." from its current position within the Agricultural Use Box and place it above the Agricultural Use Box.

The bodywear requirement for early entry in the Agricultural Use Requirements box on your proposed labeling is missing or incorrect. Remove the incorrect requirement (if any) and add "Coveralls". The exact location is shown in Sections F and G on Part 2 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

The glove requirement for early entry in the Agricultural Use Requirements box on your proposed labeling is missing or incorrect. Remove the incorrect requirement (if any) and add "Waterproof gloves". The exact location is shown in Sections F and G on Part 2 of the Product Worksheet in Supplement Three-A to PR Notice 93-7.

Delete the crossed-out statements on your proposed label. They are redundant statements or phrases.

Correct the typographical errors circled on your proposed label.

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(Container Label)

WEEDMASTER® Herbicide

Active Ingredients:

Dimethylamine salt of dicamba (3,6-dichloro- <i>o</i> -anisic acid)*	12.4%
Dimethylamine salt of 2,4-dichlorophenoxyacetic acid**	35.7%

Inert Ingredients:	51.9%
TOTAL	100.0%

*This product contains 10.3% 3,6-dichloro-*o*-anisic acid (dicamba) or 1 pound per gallon (120 g/L).

**This product contains 29.6% 2,4-dichlorophenoxyacetic acid (2,4-D) or 2.87 lbs. per gallon (344 g/L).

**Isomer specific by AOAC method 978.05, 15th Edition.

**SHAKE WELL BEFORE USING
KEEP OUT OF REACH OF CHILDREN
CAUTION**

See side panel for additional precautionary statements.

EPA Reg. No. 55947-24
Net Contents: _____

EPA Est. No. 55947-TX-1
Sandoz Agro, Inc.
Des Plaines, IL 60018

ACCEPTED
with COMMENTS
In EPA Letter Dated

MAR 17 1994

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

55947-24

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. ~~When handling this product, wear chemical-resistant gloves.~~ In case of contact, wash exposed skin with plenty of soap and water; for eyes, flush with water for 15 minutes and get medical attention. If swallowed, drink 1 or 2 glasses of water and induce vomiting by sticking finger down back of throat. Never induce vomiting or give anything by mouth to an unconscious person.

~~When mixing, loading, or applying this product or repairing or cleaning equipment used with this product, wear eye protection (face shield or safety glasses), chemical-resistant gloves, long-sleeved shirt, long pants, socks and shoes. For aerial applicators in enclosed cockpits and applicators applying this product from a tractor that has a completely enclosed cab, eye protection is not required.~~

~~Wash hands, face and arms with soap and water as soon as possible after mixing, loading, or applying this product. Wash hands, face and arms with soap and water before eating, smoking, or drinking. Wash hands and arms before using toilet. After work, remove all clothing and shower using soap and water. Do not reuse clothing worn during the previous day's mixing and loading or application of this product without cleaning first. Clothing must be kept and washed separately from other household laundry. Remove saturated clothing as soon as possible and shower.~~

Personal Protective Equipment:

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear
- ~~Chemical-resistant apron when mixing or loading~~

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.

BEST AVAILABLE COPY

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.

The closed system 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.

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. Then wash thoroughly and put on clean clothing.

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 product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. 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 contaminate water when disposing of equipment washwaters. Apply this product only as directed on label.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

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DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

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 interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear

If the volume of this container is less than 5 gallons, all persons engaged in open pouring of this product must also wear coveralls or a chemical-resistant apron.

If the volume of this container is 5 gallons or more, a mechanical system (probe and pump) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal.

Do not apply this product through any type of irrigation system.

Refer to the DIRECTIONS FOR USE booklet attached to this container for proper use directions and additional precautionary statements.

STORAGE AND DISPOSAL

PROHIBITIONS

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

STORAGE

Store in original container in a well-ventilated area separately from fertilizer, feed and foodstuffs. Avoid cross-contamination with other pesticides. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.

PESTICIDE DISPOSAL

Pesticide wastes are toxic. Triple rinse pesticide from containers and use rinsates in the pesticide application. Improper disposal of excess pesticide, spray mixture, or rinsate, is a violation of Federal Law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL

Plastic or Metal: After triple rinsing (or equivalent), offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities, such as burning of plastic containers. If burned, stay out of smoke.

LIMITATION OF WARRANTY AND LIMITATION OF LIABILITY

NOTICE: Read this Limitation of Warranty and Limitation of Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Sandoz or seller. All such risks shall be assumed by buyer or user. Sandoz warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, under normal use conditions, subject to the risks described above. **Sandoz makes no other express or implied warranty of fitness or of merchantability or any other express or implied warranty.** In no event shall Sandoz or seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **The exclusive remedy of the user or buyer, and the exclusive liability of Sandoz or seller for any and all claims, losses, injuries or damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use or handling of this product, shall be the return of the purchase price of the product or, at the election of Sandoz or seller, the replacement of the product.** Sandoz and seller offer this product, and buyer and user accept it, subject to the foregoing limitations of warranty and limitation of liability, which may not be modified by any oral or written agreement.

(Directions for Use Booklet)

**WEEDMASTER
HERBICIDE**

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

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 interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves
- Shoes plus socks
- Protective eyewear

THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF THE PESTICIDE APPLICATION

E.P.A. Reg. No., 55947-24.

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(Directions for Use Booklet Contents)

WEEDMASTER® Herbicide

Active Ingredients:

Dimethylamine salt of dicamba (3,6-dichloro- <i>p</i> -anisic acid)*	12.4%
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Inert Ingredients:	51.9%
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**Isomer specific by AOAC method 978.05, 15th Edition.

**SHAKE WELL BEFORE USING
KEEP OUT OF REACH OF CHILDREN
CAUTION**

See additional precautionary statements at end of label booklet.

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**BEFORE USING WEEDMASTER® HERBICIDE
READ AND FOLLOW ALL PRECAUTIONS APPEARING
ON THE CONTAINER AND IN THIS BOOKLET**

IMPORTANT

The following directions apply to all uses of WEEDMASTER Herbicide.

Do not contaminate irrigation ditches or water used for domestic purposes.

SENSITIVE CROP PRECAUTIONS: WEEDMASTER Herbicide may cause injury to desirable trees and plants, particularly beans, cotton, flowers, fruit trees, grapes, ornamentals, peas, potatoes, soybeans, sunflowers, tobacco, tomatoes and other broadleaf plants when contacting their roots, stems or foliage. These plants are most sensitive to WEEDMASTER Herbicide during their development or growing stage. FOLLOW THE PRECAUTIONS LISTED BELOW WHEN USING WEEDMASTER HERBICIDE.

Do not treat areas where either possible downward movement into the soil or surface washing may cause contact of WEEDMASTER Herbicide with the roots of desirable plants such as trees and shrubs.

- Avoid making applications when spray particles may be carried by air currents to areas where sensitive crops and plants are growing. Do not spray near sensitive plants if wind is gusty or in excess of 5 mph and moving in the direction of nearby sensitive crops. However, always make applications when there is some air movement to determine the direction and distance of possible spray drift. Leave an adequate buffer zone between area to be treated and sensitive plants. Coarse sprays are less likely to drift out of the target area than fine sprays. Agriculturally-approved drift-reducing additives may be used.
- Do not use aerial equipment or apply WEEDMASTER Herbicide when sensitive crops and plants are growing in the vicinity of area to be treated.
- To avoid injury to desirable plants, equipment used to apply WEEDMASTER Herbicide should be thoroughly cleaned (see PROCEDURE FOR CLEANING SPRAY EQUIPMENT on page 6) before reusing to apply any other chemicals.

Crops growing under stress conditions such as drought, poor fertility, or foliar damage due to hail, wind or insects, can exhibit various injury symptoms that may be more pronounced if herbicides are applied.

Consult your local or state authorities for possible application restrictions and advice concerning these and other special local use situations. Tank mix recommendations are for use only in States where the tank mix product and application site are registered.

Do not apply this product through any type of irrigation system.

MIXING AND APPLICATION

If the volume of this container is less than 5 gallons, all persons engaged in open pouring of this product must also wear coveralls or a chemical-resistant apron.

If the volume of this container is 5 gallons or more, a mechanical system (probe and pump) must be used for transferring the contents of this container. If the contents of a non-refillable pesticide container are emptied, the probe must be rinsed before removal.

WEEDMASTER Herbicide may be applied broadcast using either ground or aerial equipment. When using ground equipment, apply 5 to 40 gallons of diluted spray per treated acre. Volume of spray applied will depend on the height, density, and type of weeds or brush being treated and on the equipment being used. When using aerial equipment, apply 3 to 10 gallons of diluted spray per treated acre.

WEEDMASTER Herbicide may be applied to individual clumps or small areas (SPOT TREATMENT) of undesirable vegetation using handgun or similar types of application equipment. Apply diluted sprays to allow complete wetting (up to runoff) of foliage and stems. For knapsack or other small capacity sprayers utilize the table below to calculate material needed. (The below table is based on the assumption that the spot treatment rate equates to 60 gallons per acre on the broadcast basis.)

KNAPSACK SPRAYER DILUTION INSTRUCTIONS

<u>Sprayer Capacity</u> <u>(Gallons of water)</u>	<u>Fluid Ounces*</u> <u>of Weedmaster to</u> <u>add per filled tank</u>
1 gallon	1 oz.
2-1/2 gallons	2.5 oz.
3 gallons	3 oz.
5 gallons	5 oz.

The addition of a surfactant can help improve control. Add 1/2% (.005) by volume. For example, 5 gallons (40 pts./640 fl. oz.) of herbicide solution would require .2 pt. (3.2 fl. oz.) of surfactant.

*1 fluid ounce = 2 tablespoons and 1 cup (liquid) = 16 tablespoons

Select nozzles designed to produce minimal amounts of fine spray particles. Spray with nozzles as close to the weeds as is practical for good weed coverage.

WEEDMASTER Herbicide should not be applied during periods of gusty wind or when wind is in excess of 15 mph as uneven spray coverage may occur.

Avoid disturbing (e.g. cultivating or mowing) treated areas for at least 7 days following application.

WEEDMASTER Herbicide is a water-soluble formulation that may be applied used alone or in tank mixes to improve weed control. Applications may be made using water or sprayable fluid fertilizer. If sprayable fluid fertilizer is used as the herbicide carrier, always determine mixture compatibility using the COMPATIBILITY TEST described below.

COMPATIBILITY TEST

Before mixing WEEDMASTER with sprayable fluid fertilizer, whether alone or with tank mixes with other herbicides, it is advisable to test compatibility by mixing all components in a small container in proportionate quantities (see following table).

Amount of Herbicide to Add to One Pint
of Spray Carrier
(Assuming Volume is 25 Gallons per Acre)

HERBICIDE FORMULATIONS*	RATE PER ACRE	LEVEL TEASPOONS
Dry	1 lb.	1 1/2
Liquid	1 pt.	1/2

* Tank mix partners may be dry or liquid formulations.

If herbicide(s) do not ball-up or form flakes, sludge, gels, oily films or layers, or other precipitates, then the tested spray mix is compatible. Usually, incompatibility in any of the above described forms will occur within 5 minutes after mixing.

If components are incompatible, the use of a compatibility agent is recommended. Rerun the above COMPATIBILITY TEST with a suitable compatibility agent (1/4 teaspoon is equivalent to 2 pints per 100 gallons of fluid fertilizer).

PROCEDURE FOR CLEANING SPRAY EQUIPMENT

The steps listed below are suggested for thorough cleaning of spray equipment following application of WEEDMASTER Herbicide.

- 1) Hose down thoroughly the inside as well as outside surfaces of equipment while filling the spray tank half full of water. Flush by operating sprayer until the system is purged of the rinse water.
 - 2) Fill tank with water while adding 1 quart of household ammonia for every 25 gallons of water. Operate the pump to circulate the ammonia solution through the sprayer system for 15 to 20 minutes and discharge a small amount of the ammonia solution through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
 - 3) Flush the solution out of the spray tank through the boom.
 - 4) Remove the nozzles and screens and flush the system with two full tanks of water.
- REFER TO THE STORAGE AND DISPOSAL SECTION FOR INSTRUCTIONS CONCERNING DISPOSAL OF WASTE AND CLEANING RINSES.

PASTURE RANGELAND AND NON-CROPLAND IMPORTANT

WEEDMASTER Herbicide is recommended for use for pasture, rangeland, general farmstead weed and brush control and for use on non-cropland areas such as fence rows, roadways, rights-of-way (utility, railroad, highway, pipeline), non-selective forest brush control (including site preparation*), non-irrigation ditchbanks, wasteland and other non-cropland areas.

WEEDMASTER Herbicide uses described in this section also pertain to small grains (such as barley, forage sorghum, oats, rye, sudangrass or wheat) grown for pasture only. Newly seeded areas, including small grains grown for pasture, may be injured if rates of **WEEDMASTER Herbicide** greater than 2 pints/A are applied.

Do not use on bentgrass, susceptible grass pastures (such as carpetgrass, buffalograss or St. Augustine grass) lespedeza, wild winter peas, vetch, clover and alfalfa pastures as injury will occur. For pasture renovations, wait 3 weeks per quart per acre of **WEEDMASTER Herbicide** used before interseeding or injury may occur.

If grasses are grown for seed or for seed-down purposes, do not apply after grass reaches the joint stage. Do not use seed from treated grasses for feed or food purposes.

Grazing and feeding restrictions - Non-lactating animals

Remove meat animals from treated areas 30 days prior to slaughter. There is no waiting period between treatment and grazing for non-lactating animals.

Grazing and feeding restrictions - Lactating animals

Do not graze lactating dairy animals within 7 days of treatment. Treated grasses may be harvested for dry hay but do not harvest within 37 days of treatment.

Adjuvants or other spray additives (emulsifiers, surfactants, wetting agents, drift control agents, or penetrants) may be used for wetting, penetration, or drift control. Spray additives must be agriculturally approved when used in pasture applications. If spray additives are used, read and follow all use recommendations and precautions on product label.

* Do not use in Arizona in forests grown for commercial timber production.

WEEDS CONTROLLED, RATES AND TIMINGS

Application rates and timings of WEEDMASTER Herbicide are given on pages XXX. When perennial weeds are reaching maturity, mowing and allowing some regrowth will enhance control. Difficult to control weeds may require repeat applications. Do not exceed a total of 2 gallons per acre WEEDMASTER Herbicide per calendar year.

WEED STAGE/APPLICATION STAGE

WEED	WEEDMASTER RATE (plnts/acre)					
	0.5	1.0	1.5	2.0	3.0	4.0
Beebalm, Spotted				pre-bloom	post-bloom	
Bindweed, Field						actively growing
Broomweed	1-3"	3" branching		branching		after branching
Buckeye Spp. ¹					full leaf	
Buffalobur				1-6"		flowering
Burdock Spp.		pre-flower				
Buttercup Spp.		pre-flower		post-flower		
Chickweed, Common		seedling	1-3"	over 3"		
Chicory				rosette	early bolting	
Clover, Bur			prior to flowering	mature		
Cocklebur, Common		1-6"	6-12"	12-30"		

¹ May require repeat applications.

WEEDS CONTROLLED, RATES AND TIMINGS (con't)

WEED STAGE/APPLICATION STAGE

WEED	WEEDMASTER RATE (pints/acre)					
	0.5	1.0	1.5	2.0	3.0	4.0
Coreopsis, Plains		1-6"		prior to flowering		
Croton, Woolly (Doveweed, Goatweed)	1-4"	4-12"	12-30"			
Dandelion, Common		rosette		bolting		
Dewberry, Southern ¹						spring or fall
Dock, Curly			prior to bolting		after bolting	
Dogfennel (Cypressweed, Rosinweed)				10-15"		
Elderberry ²						actively growing
Eupatorium, Late (Thoroughwort)				10-15"		
Fleabane, Annual		1-4"	4-8"	8"		
Goldenrod, Missouri				3" to flower		

¹ May require repeat applications.

² Recommended rate will provide Top Growth Suppression only.

WEEDS CONTROLLED, RATES AND TIMINGS (con't)

WEED STAGE/APPLICATION STAGE

WEED	WEEDMASTER RATE (pints/acre)					
	0.5	1.0	1.5	2.0	3.0	4.0
Goldenweed, Common						actively growing
Groundsel, Texas (Yellowtop)		rosette	post bolting			
Henbit			pre-flower		flower	
Honeysuckle, Hairy					spring or fall	
Horsenettle, Carolina ¹						flower or berry
Ivy, Poison				spring or fall		
Knapweed, Black ²						actively growing
Knapweed, Russian ²						actively growing
Knapweed, Spotted						actively growing
Knotweed Spp.		<3"runners		>3" runners		
Kochia		1-6"	6-10"	10-20"		
Lambsquarters, Common		1-6"	6-10"	10-20"		
Mesquite						45-90 days after bud-beak
Morningglory, Tall		pre-flower		post-flower		
Mustards, Annual			rosette	early bolt		
Nightshade, Silverleaf ¹						full flower early berry

¹ May require repeat applications.

² Recommended rate will provide Top Growth Suppression only.

³ For improved root kill of woody species such as Mesquite and Eastern Persimmon, spray 4 pt/A of WEEDMASTER each year for three consecutive years.

WEEDS CONTROLLED, RATES AND TIMINGS (con't)

WEED STAGE/APPLICATION STAGE

WEED	WEEDMASTER RATE (pints/acre)					
	0.5	1.0	1.5	2.0	3.0	4.0
Pennycress, Field				rosette		
Pepperweed, Virginia		1-3"	3-6"	after branching		full leaf
Persimmon, Eastern ¹						actively growing
Pigweed, Redroot (Carelessweed)		<3"	3-10"	>10"		
Poorjoe		prior to flowering		mature		
Prickly Lettuce				rosette		actively growing
Rabbitbrush ²						actively growing
Ragweed, Common Western, Lanceleaf	1-3"	3-6"	6-10"	>10"		
Ragwort, Tansy				rosette		
Redvine ²						actively growing
Sage, Fringed ²						actively growing
Sneezeweed, Bitter (Bitterweed)		1-4"	prior to flowering	flower		

¹ May require repeat applications.

² Recommended rate will provide Top Growth Suppression only.

³ For improved root kill of woody species such as Mesquite and Eastern Persimmon, spray 4 pt/A of WEEDMASTER each year for three consecutive years.

WEEDS CONTROLLED, RATES AND TIMINGS (con't)

WEED STAGE/APPLICATION STAGE

WEED	WEEDMASTER RATE (pints/acre)					
	0.5	1.0	1.5	2.0	3.0	4.0
Smartweed, Pennsylvania		<4"				
Smartweed, Perennial						actively growing
Sorrel, Red (Sour Dock, Sheep Sorrel)		rosette	bolting	flower		
Sowthistle, Perennial ²						actively growing
Spurge, Leafy ²						actively growing
Sunflower		1-3"	3-6"	6-24"		
Thistle, Bull			rosette	bolting		
Thistle, Canada ²						actively growing
Thistle, Musk				rosette bolting		
Thistle, Plumeless			rosette	bolting		
Velvetleaf		<6"	6-20"	>20"		
Vetch, Hairy		1-4"	4-8"	8" full flower		
Yankee weed (Rosinweed)				10-18"		
Yellow Starthistle ¹						rosette

¹ May require repeat applications.

² Recommended rate will provide Top Growth Suppression only.

For increased control of weeds such as Blackberry and Dewberry, WEEDMASTER Herbicide may be tank mixed with ALLY (1/10 - 2/10 ounces per acre), if labelled for the use site. Read and follow all labelled directions of use for ALLY.

Spot Application In Pastures and Non-Cropland

Weedmaster herbicide may be applied using water or oil and water emulsions in spot application to control undersirable vegetation using handgun or similar types of application equipment. Before using, read and follow grazing and feeding restrictions on page XXX.

To prepare oil and water emulsions, mix in the following order. Water, emulsifier, chemical and oil. To prepare a ten gallon mixture, add 8.75 gallons of water, 1.5 ozs. emulsifier, 1 quart Weedmaster Herbicide, and 1 gallon #2 diesel fuel. Adjust amounts of materials used proportionately to the amount of final spray solution desired. Do not exceed 20 gallons of spray solution per acre per application. Twenty gallons of spray solution contains 0.5 lbs. ae dicamba and 1.44 lbs ae 2,4-D. Do not allow this spray mixture to come in contact with desirable vegetation.

Weeds Controlled:

- | | |
|-----------------------|------------------------|
| Alder | Kudzu |
| Ash | Locust, Black |
| Aspen | Maple |
| Basswood | Mesquite |
| Beech | Oak |
| Blackberry | Oak, Poison |
| Blackgum | Olive, Russian |
| Cedar | Persimmon, Eastern |
| Cherry | Pine |
| Chinquapin | Plum, Sand (Wild Plum) |
| Cottonwood | Popular |
| Creosotebush | Rabbitbrush |
| Dewberry | Redcedar, Eastern |
| Dogwood | Rose, McCartney |
| Elm | Rose, Multiflora |
| Grape | Sagebrush, Fringe |
| Greenbriar | Sassafras |
| Hawthorn (thornapple) | Spruce |
| Hemlock | Sumac |
| Hickory | Sweetgum |
| Honeylocust | Sycamore |
| Honeysuckle | Tarbush |
| Hornbeam | Willow |
| Huckleberry | Witchhazel |
| Huisache | Yaupon |
| Ivy, Poison | Yucca |

**BETWEEN CROPPING APPLICATION (BCA)
FOR BROADLEAF CONTROL IN
CROPLAND ROTATED TO WHEAT**

IMPORTANT

Before using this product, read and carefully observe all applicable directions, restrictions, and precautionary statements in this booklet and on the container label.

WEEDS CONTROLLED

WEEDMASTER Herbicide, when applied at the recommended rates, will control the ANNUAL and BIENNIAL weeds and suppress the PERENNIAL weeds listed below.

ANNUALS

- Buckwheat, Wild
- Cockle, Cow
- Cocklebur, Common
- Knotweed
- Kochia
- Lambsquarters, Common
- Lanceleaf Sage
- Mallow, Common
- Mustards
- Nightshade, Black
- Pigweed, Redroot (Carelessweed)
- Pigweed, Rough
- Purslane, Common

ANNUALS (cont.)

- Ragweed, Common
- Smartweed, Pennsylvania
- Sowthistle, Annual
- Sunflower
- Tansymustard
- Thistle, Russian
- Velvetleaf
- Western Salsify

BIENNIALS

- Carrot, Wild
- Ragwort, Tansy
- Thistle, Bull
- Thistle, Musk
- Thistle, Plumeless
- Star Thistle, Yellow

PERENNIALS

- Bindweed, Field
- Dock, Curly
- Thistle, Canada

RATES AND TIMINGS

Application may be made to fallow land, wheat stubble or land to be rotated to wheat. Application should be made to emerged and actively growing weeds. Use higher rate when treating dense vegetative growth. Avoid disturbing treated areas for seven days following application.

Wheat injury may occur if the interval between application and planting is less than 10 days for each pint per acre of WEEDMASTER Herbicide used. Exclude days when ground is frozen.

**FALL AND SPRING SEEDED WHEAT
(NOT UNDERSEEDED TO LEGUMES)
IMPORTANT**

If small grains are grown for pasture only, refer to the PASTURE, RANGELAND AND NONCROPLAND section.

Do not graze or harvest for livestock feed prior to crop maturity.

WEEDS CONTROLLED

WEEDMASTER herbicide, when applied at recommended rates, will control ANNUAL and BIENNIAL broadleaf weeds commonly found in small grains, such as:

- | | |
|-------------------------|---------------------------------|
| Buckwheat, Wild | Pennycress, field |
| Chickweed, Common | Pigweed, Redroot (Carelessweed) |
| *Cockle, Cow | Pigweed, Rough |
| *Cocklebur, Common | *Purslane, Common |
| Eveningprimrose, Common | Ragweed, Common |
| Flax | Shepherdspurse |
| *Henbit | *Smartweed, Pennsylvania |
| *Knotweed | *Sowthistle, Annual |
| Kochia | Sunflower |
| Lambsquarters, Common | Tansymustard |
| *Mallow, Common | Thistle, Russian |
| Mustards | *Velvetleaf |
| *Nightshade, Black | |

Use higher rate or tank mixes for control of noted () annuals.

RATES AND TIMINGS

Application of WEEDMASTER herbicide may be made after wheat is fully tillered to emerged and actively growing weeds. See specific crop for timing restrictions. For best performance, make application when weeds are in the 2-3 leaf stage and rosettes are less than 2 inches across. Use the higher level of listed rate ranges when treating more mature weeds or dense vegetative growth.

WEEDMASTER HERBICIDE MUST BE APPLIED TO FALL SEEDED WHEAT AFTER IT IS FULLY TILLERED PRIOR TO THE JOINTING STAGE. APPLICATIONS TO SPRING SEEDED WHEAT MUST BE MADE BEFORE WHEAT EXCEEDS THE 5 LEAF STAGE.

**BROADCAST RATE PER TREATED ACRE:
3/4 - 1 pint**

TANK MIX TREATMENTS

For control of grasses or additional broadleaf weeds, WEEDMASTER herbicide may be tank mixed with the herbicides listed in the table below. Read and follow the label of each tank mix product used for precautionary statements, directions for use, weeds controlled, geographic and other restrictions.

BROADCAST RATE PER TREATED ACRE:

Apply 1/2 - 1 pint¹ WEEDMASTER herbicide with:

Herbicide	amount of product ²	lb. a.i.
2,4-D Amine or Ester	1/3 - 1/2	1/4
MCPA	1/2 - 3/4 pint	1/4 - 3/8
bromoxynil	Consult Product Labels for Rate Recommendations	
metribuzin (Sencor [®])	•	•
sulfonyleureas (Amber, Ally [®] , Express [®] , Finesse [®] , Glean [®] , Harmony [®] Extra)	•	•
diuron (Karmex [®] 80WP)	•	•

¹ Use the 1 pint rate of Weedmaster for difficult to control weeds noted by an asterisk in the Weeds Controlled section on the previous page.

² Based on 4 pounds per gallon formulations of MCPA and 2,4-D.

In spring seeded wheat, 1/2 pint of WEEDMASTER should be tank mixed with the 1/3 pint rate of 2,4-D only. In spring seeded wheat, if the higher rate of 1 pint WEEDMASTER is used, do not tank mix with 2,4-D.

SUGARCANE

IMPORTANT

Consult your local or state authorities for possible application restrictions, especially concerning aerial applications and advice concerning special local use situations.

WEEDS CONTROLLED

WEEDMASTER Herbicide, when applied at recommended rates, will control the ANNUAL and PERENNIAL broadleaf weeds commonly found in sugarcane, such as:

ANNUALS

Burclover, California
Buttercup
(Ranunculus Spp.)
Chickweed, Common
Clovers, Annual
Cocklebur, Common
Eveningprimrose, Cutleaf
Fleabane, Annual
Geranium, Carolina
Henbit
Lettuce, Prickly
Pepperweed, Virginia

ANNUALS (cont.)

Pigweed, Prostrate
Pigweed, Redroot
(Carelessweed)
Pigweed, Smooth
Purslane, Common
Ragweed, Common
Shepherdspurse
Sida, Prickly
(Teaweed)
Sowthistle, Annual
Spurge, Prostrate

PERENNIALS

Aster, Spp.
Bindweed, Field
Chickweed, Mouseear
Dandelion, Common
Dock, Curly
Dogfennel
Garlic, Wild
Goldenrod Spp.
Groundsel, Cressleaf
Onion, Wild
Sowthistle, Perennial

APPLICATION DIRECTIONS

DO NOT USE AERIAL APPLICATION EQUIPMENT IF SENSITIVE CROPS ARE GROWING IN THE VICINITY OF THE AREA TO BE TREATED. When band treatments are desired, apply an equivalent rate and volume per acre by using the formula below:

$$\begin{array}{l} \text{Band width} \\ \text{in inches} \\ \text{Row width} \\ \text{in inches} \end{array} \times \begin{array}{l} \text{Broadcast} \\ \text{RATE per} \\ \text{treated acre} \end{array} = \begin{array}{l} \text{Band RATE per} \\ \text{treated acre} \end{array}$$

$$\begin{array}{l} \text{Band width} \\ \text{in inches} \\ \text{Row width} \\ \text{in inches} \end{array} \times \begin{array}{l} \text{Broadcast} \\ \text{VOLUME per} \\ \text{treated acre} \end{array} = \begin{array}{l} \text{Band VOLUME per} \\ \text{treated acre} \end{array}$$

Application of WEEDMASTER Herbicide can be made any time after the weeds have emerged and are actively growing but prior to the close-in stage of sugarcane. When possible, direct the spray beneath the sugarcane canopy in order to minimize the likelihood of crop injury. The use of directed sprays will also aid in maximizing spray coverage of weed foliage. Application rates and timing are given below. Use the higher level of listed rate ranges when treating dense vegetative growth.

- For control of listed ANNUAL broadleaf weeds, apply 1 quart of WEEDMASTER Herbicide per treated acre.
- For suppression of listed PERENNIALS, apply 1 - 2 quarts of WEEDMASTER Herbicide per treated acre.
- For control of listed PERENNIAL broadleaf weeds, apply 2 - 3 quarts of WEEDMASTER Herbicide per treated acre.

Retreatments may be made as needed, however, do not exceed 8 quarts of WEEDMASTER Herbicide per treated acre during a growing season.

TANK MIX TREATMENTS

WEEDMASTER Herbicide may be tank mixed with one or more of the following herbicides for control of grasses or additional broadleaf weeds. Read and follow the label of each tank mix product used for precautionary statements, directions for use, rates and timings, weeds controlled, geographic and other restrictions.

HERBICIDE	RATES PER TREATED
	ACRE (lbs. a.i.)
ametryn (Evik®)	2/5 to 8
asulam (Asulox®)	2 to 3-1/3
atrazine	2/5 to 4
dalapon (Dalapon®)	3-1/2 to 8-1/2
fenac (Fenatrol® Sugarcane)	2.7 - 6.0
metribuzin (Sencor®, Lexone®)	0.75 to 3.0
terbacil (Sinbar®)	1.6 to 3.2

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Harmful if swallowed. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. ~~When handling this product, wear chemical-resistant gloves.~~ In case of contact, wash exposed skin with plenty of soap and water; for eyes, flush with water for 15 minutes and get medical attention. If swallowed, drink 1 or 2 glasses of water and induce vomiting by sticking finger down back of throat. Never induce vomiting or give anything by mouth to an unconscious person.

~~When mixing, loading, or applying this product or repairing or cleaning equipment used with this product, wear eye protection (face shield or safety glasses), chemical-resistant gloves, long-sleeved shirt, long pants, socks and shoes. For aerial applicators in enclosed cockpits and applicators applying this product from a tractor that has a completely enclosed cab, eye protection is not required.~~

~~Wash hands, face and arms with soap and water as soon as possible after mixing, loading, or applying this product. Wash hands, face and arms with soap and water before eating, smoking, or drinking. Wash hands and arms before using toilet. After work, remove all clothing and shower using soap and water. Do not reuse clothing worn during the previous day's mixing and loading or application of this product without cleaning first. Clothing must be kept and washed separately from other household laundry. Remove saturated clothing as soon as possible and shower.~~

Personal Protective Equipment:

~~Applicators and other handlers must wear:~~

- ~~• Long-sleeved shirt and long pants~~
- ~~• Chemical-resistant gloves~~
- ~~• Shoes plus socks~~
- ~~• Protective eyewear~~
- ~~• Chemical-resistant apron when mixing or loading~~

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~~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.~~

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.~~

~~The closed system 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.~~

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. Then wash thoroughly and put on clean clothing.
- 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 product is toxic to aquatic invertebrates. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. 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 contaminate water when disposing of equipment washwaters. Apply this product only as directed on label.

Most cases of groundwater contamination involving phenoxy herbicides such as 2,4-D have been associated with mixing/loading and disposal sites. Caution should be exercised when handling 2,4-D pesticides at such sites to prevent contamination of groundwater supplies. Use of closed systems for mixing or transferring this pesticide will reduce the probability of spills. Placement of the mixing/loading equipment on an impervious pad to contain spills will help prevent groundwater contamination.

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STORAGE AND DISPOSAL

PROHIBITIONS

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

STORAGE

Store in original container in a well-ventilated area separately from fertilizer, feed and foodstuffs. Avoid cross-contamination with other pesticides. Spillage or leakage should be contained and absorbed with clay granules, sawdust, or equivalent material for disposal.

PESTICIDE DISPOSAL

Pesticide wastes are toxic. Triple rinse pesticide from containers and use rinsates in the pesticide application. Improper disposal of excess pesticide, spray mixture, or rinsate, is a violation of Federal Law and may contaminate groundwater. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL

Plastic or Metal: After triple rinsing (or equivalent), offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities, such as burning of plastic containers. If burned, stay out of smoke.

LIMITATION OF WARRANTY AND LIMITATION OF LIABILITY

NOTICE: Read this Limitation of Warranty and Limitation of Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Sandoz or seller. All such risks shall be assumed by buyer or user. Sandoz warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, under normal use conditions, subject to the risks described above. Sandoz makes no other express or implied warranty of fitness or of merchantability or any other express or implied warranty. In no event shall Sandoz or seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. The exclusive remedy of the user or buyer, and the exclusive liability of Sandoz or seller for any and all claims, losses, injuries or damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use or handling of this product, shall be the return of the purchase price of the product or, at the election of Sandoz or seller, the replacement of the product. Sandoz and seller offer this product, and buyer and user accept it, subject to the foregoing limitations of warranty and limitation of liability, which may not be modified by any oral or written agreement.

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