

OCT 14 1994

Jonathan E. Bryant, Ph.D.  
Sandoz Agro, Inc.  
1300 East Touhy Avenue  
Des Plaines, Illinois 60018

Dear Dr. Bryant:

Subject: WEZDMASTER

EPA Registration No. 55947-24  
Application Dated July 17, 1994, Requesting  
Amended Directions for Use, Use on Cut  
Stumps of Woody Plants and Instructions for  
Mixing with Fluid Fertilizer; and Your  
Letter Dated October 3, 1994

The proposed labeling resubmitted October 3, 1994 and received by this Agency October 11, 1994 has been reviewed and found acceptable for registration under the Federal Insecticide, Fungicide and Rodenticide Act as amended, provided that you:

1. On page 18 reference to "Resistant or tolerant" biotypes must be revised to read: "Tolerant biotypes....." (Delete the words "Resistant or").
2. Submit one (1) copy of the final printed label before releasing the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA, Section 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,

Joanne I. Miller  
Product Manager (23)  
Fungicide-Herbicide Branch  
Registration Division (7505C)

Enclosure

E.wilson:Diskette#ABC9:10-13-94

BEST AVAILABLE COPY

2932

(Container Label)

**WEEDMASTER® Herbicide**

**Active Ingredients:**

Dimethylamine salt of dicamba (3,6-dichloro-*o*-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

**OCT 14 1994**

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

55947-24

**BEST AVAILABLE COPY**

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

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

**Personal Protective Equipment:**

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

**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.

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. After each day of use, clothing or PPE must not be reused until it has been cleaned.

**Engineering Controls Statements:**

**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.

When handlers use 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.

**CONTAINERS GREATER THAN 1 GALLON BUT LESS THAN 5 GALLONS:**

When handlers use a mechanical system (probe and pump), 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.

**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 non-target 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. 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.

**DIRECTIONS FOR USE**

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

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.

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### 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 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
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

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.

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(Directions for Use Booklet)

## **WEEDMASTER<sup>(R)</sup> HERBICIDE**

### **DIRECTIONS FOR USE**

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

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 interval. 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 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
- Waterproof 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.

Weedmaster<sup>®</sup> is a Registered Trademark of Sandoz Ltd.

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(Directions for Use Booklet Contents)

**WEEDMASTER® Herbicide**

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Dimethylamine salt of dicamba (3,6-dichloro-*o*-anisic acid)\* . . . . . 12.4%

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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 or if a temperature inversion exists. 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

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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

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 table below is based on the assumption that the spot treatment rate equates to 60 gallons per acre on the broadcast basis.)

### KNAPSACK SPRAYER DILUTION INSTRUCTIONS

Sprayer Capacity (Gallons of water)	Fluid Ounces* of Weedmaster to add per filled tank
1 gallon	1 oz.
2 1/2 gallon	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.

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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 COMPATABILITY TEST described below. Sprayable liquid fertilizer (28-0-0 or 32-0-0) should be mixed with Weedmaster in the following manner:

- 1) Always complete jar compatibility test with fertilizer formulations.
- 2) Add to the spray tank all the Weedmaster required.
- 3) Add water to the spray tank at 10 times the amount of Weedmaster. System should be under constant agitation.
- 4) Then add non ionic surfactant or Prepoll at .25 to .5% v/v of the total of Weedmaster plus the 10X water added to the tank.
- 5) Finally, add the fertilizer carrier to the spray tank with agitation to the final desired level.
- 6) Spray within 24 hours.

### 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 (INCLUDING PASTURE FOR HAY), RANGELAND  
AND GENERAL FARMSTEAD (Non-Cropland Only)  
IMPORTANT**

WEEDMASTER Herbicide is recommended for use for pasture (including pasture grown for hay), rangeland, general farmstead (Non-cropland only) weed and brush control, or use in State Recognized Noxious Weed areas (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 or hay only. Newly seeded areas, including small grains grown for pasture, or hay, 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.

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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.

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**WEED STAGE/APPLICATION STAGE**

WEED	WEEDMASTER RATE (pints/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. <sup>1</sup>					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"		

<sup>1</sup> May require repeat applications.

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**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 <sup>1</sup>						spring or fall
Dock, Curly			prior to bolting		after bolting	
Dogfennel (Cypressweed, Rosinweed)				10-15"		
Elderberry <sup>2</sup>						actively growing
Eupatorium, Late (Thoroughwort)				10-15"		
Fleabane, Annual		1-4"	4-8"	8"		
Goldenrod, Missouri				3" to flower		

<sup>1</sup> May require repeat applications.

<sup>2</sup> Recommended rate will provide Top Growth Suppression only.

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**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 <sup>1</sup>						flower or berry
Ivy, Poison				spring or fall		
Knapweed, Black <sup>2</sup>						actively growing
Knapweed, Russian <sup>2</sup>						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-break
Morningglory, Tall		pre-flower		post-flower		
Mustards, Annual			rosette	early bolt		
Nightshade, Silverleaf <sup>1</sup>						full flower early berry

<sup>1</sup> May require repeat applications.

<sup>2</sup> Recommended rate will provide Top Growth Suppression only.

<sup>3</sup> 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.

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**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 <sup>3</sup>						actively growing
Pigweed, Redroot (Carelessweed)		<3"	3-10"	>10"		
Poorjoe		prior to flowering		mature		
Prickly Lettuce				rosette		actively growing
Rabbitbrush <sup>2</sup>						actively growing
Ragweed, Common Western, Lanceleaf	1-3"	3-6"	6-10"	>10"		
Ragwort, Tansy				rosette		
Redvine <sup>2</sup>						actively growing
Sage, Fringed <sup>2</sup>						actively growing
Sneezeweed, Bitter (Bitterweed)		1-4"	prior to flowering	flower		

<sup>1</sup> May require repeat applications.

<sup>2</sup> Recommended rate will provide Top Growth Suppression only.

<sup>3</sup> 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.

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**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 <sup>2</sup>						actively growing
Spurge, Leafy <sup>2</sup>						actively growing
Sunflower		1-3"	3-6"	6-24"		
Thistle, Bull			rosette	bolting		
Thistle, Canada <sup>2</sup>						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 <sup>1</sup>						rosette

<sup>1</sup> May require repeat applications.

<sup>2</sup> 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 (Including pasture for hay), Fencerows, and General Farmstead (Non-cropland only)**

Weedmaster herbicide may be applied using water or oil and water emulsions in spot application to control undesirable 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. Mix in the following proportions:

Total mix (gals)	Water (gals)	Emulsifier (lbs)	Weedmaster (pts)	Diesel (gals)
10	8.75	1.5	2.0	1.0
50	43.75	7.5	10	5
100	87.5	15	20	10

\* Some emulsifiers are more effective than others. Mixture should remain milky colored without oily layer on top when under agitation. If oily layer forms, increase the amount of emulsifier or change to a more effective emulsifier.

Do not exceed 40 gallons of spray solution per treated acre per application. Forty gallons of spray solution contains 1.0 lbs. ae dicamba and 2.87 lbs ae 2,4-D. Spray individual plants to wet. Do not allow this spray mixture to come in contact with desirable vegetation.

### Cut Surface Treatments

WEEDMASTER Herbicide may be applied as a cut surface treatment for control of unwanted trees and prevention of sprouts of cut trees. Use WEEDMASTER Herbicide in a undiluted state.

**FRILL OR GIRDLE TREATMENTS:** Make a continuous cut or a series of overlapping cuts using an axe to girdle tree trunk. Spray or paint cut surface with WEEDMASTER Herbicide.

**STUMP TREATMENTS:** Spray or paint freshly cut surface with WEEDMASTER Herbicide. The cambium layer (the area adjacent to the bark) should be thoroughly wet. Treat stumps within 6 hours after cutting.

**TREE AND VINES 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	Poplar
Creosotebush	Rabbitbrush
Dawberry	Redcedar, Eastern
Dogwood	Rose, McCartney
Elm	Rose, Multiflora
Grape	Sagebrush, Fringe
Greenbriar	Sassafras
Hawthorn (thornapple)	Spruce
Hemlock	Sumac
Hickory	Sweetgum
Honeylocust	Sycamore
Honeysuckle	Terbush
Hornbeam	Willow
Huckleberry	Witchhazel
Huisache	Yaupon
Ivy, Poison	Yucca

**PREPLANT APPLICATION DIRECTIONS  
FOR BROADLEAF CONTROL IN  
CROPLAND ROTATED TO WHEAT  
(POST HARVEST/ FALLOW/ STUBBLE/ SET-A-SIDE)  
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

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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.

<u>Weed Type &amp; Stage</u>	<u>Broadcast rate per Treated Acre</u> <u>Amount</u>
<b>Annual</b>	
small, actively growing (less than 4 inches)	1 - 1 1/2 pints
) established weed growth (greater than 4 inches)	1 1/2 - 3 pints
<b>Biennial</b>	
rosette diameter	
3 inches or less	1 1/2 - 2 pints
3 inches or more	2 - 4 pints
greater than 4 inches, tillering bolted or flowering	4 pints
<b>Perennial</b>	
) suppression or top growth control	2 - 4 pints
seasonal control	4 - 8 pints

Add 0.5% v/v of an agriculturally-approved surfactant to WEEDMASTER Herbicide when used alone or in a tank mix. The addition of a surfactant will enhance spray coverage and the herbicide's penetration of weed foliage.

Retreatments may be made as needed; however, do not exceed a total of 8 pints of WEEDMASTER Herbicide per treated acre.

### 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,

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rates and timings, weeds controlled, geographic or other restrictions. Add 0.5% v/v of an agriculturally-approved surfactant to all tank mixes.

<u>HERBICIDE</u>	<u>RATE PER TREATED ACRE (lbs. a.i.)</u>
atrazine	1/2 to 3
chlorsulfuron (Glean®)	0.016 to 0.024
cyanazine	1-3/5 to 3-1/5
glyphosate (Roundup®)	1/4 to 2
metribuzin	1/3 to 3/4
paraquat	1/2 to 1

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

If small grains are grown for pasture or hay only, refer to the PASTURE (INCLUDING PASTURE FOR HAY), RANGELAND AND GENERAL FARMSTEAD (Non-cropland only) 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
- Bittercress, Small-flower
- Chickweed, Common
- Cockle, Cow<sup>1</sup>
- Cocklebur, Common<sup>1</sup>
- Eveningprimrose, Common
- Flax
- Henbit<sup>1</sup>
- Knotweed<sup>1</sup>
- Kochia
- Lambsquarters, Common
- Mallow, Common<sup>1</sup>
- Mustards
- Nightshade, Black<sup>1</sup>
- Pennycress, field
- Pigweed, Redroot (Carelessweed)
- Pigweed, Rough
- Purslane, Common<sup>1</sup>
- Ragweed, Common
- Shepherdspurse
- Smartweed, Pennsylvania<sup>1</sup>
- Sowthistle, Annual<sup>1</sup>
- Sunflower
- Tansymustard
- Thistle, Russian
- Velvetleaf<sup>1</sup>

<sup>1</sup>Use higher rate or tank mixes for control of noted (1) annuals.

Weedmaster can be used to control sulfonyl urea resistant or tolerant weeds. Resistant or tolerant biotypes of the following weeds are known to occur: Kochia; Russian thistle; Prickly lettuce; Common lambsquarter. Consult County Extension Agents for programs to prevent tolerant weeds from multiplying.

**RATES AND TIMINGS**

**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.**

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.

**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 pint<sup>1</sup> WEEDMASTER herbicide with:

Herbicide	Amount of product <sup>2 3 4</sup>
2,4-D Amine or Ester (4 lb/gal)	8-12 oz
MCPA (4 lb/gal)	8-12 oz
bromoxynil (Buctril 2 lb/gal)	16-24 oz
metribuzin (Sencor <sup>®</sup> )	1.5 - 10 oz
diuron (Karmex 80 WP)	1/2-1.5 lbs
sulfonylureas	
Express <sup>®</sup>	1/6 - 1/3 oz
Harmony <sup>®</sup> Extra	.3 - .6 oz
Amber	.14 - .28 oz
Finesse	.1 - .2 oz
Ally	1/20 - 1/10 oz
Glean	1/12 - 1/6 oz

<sup>1</sup> Use the 3/4 to 1 pint rate of Weedmaster for difficult to control weeds noted by an asterisk in the Weeds Controlled section on page XXX.

<sup>2</sup> Based on 4 pounds per gallon formulations of MCPA and 2,4-D.

<sup>3</sup> If additional residual weed control is desired, weeds have bolted or a high population of the weeds are present, select the higher rate recommendations.

<sup>4</sup> Read and follow the label of each tankmix product used for precautionary statements, weeds controlled, geographic and other restrictions.

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:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast RATE per treated acre} = \text{Band RATE per treated acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast VOLUME per treated acre} = \text{Band VOLUME per treated acre}$$

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

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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

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

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

- Personal Protective Equipment:**  
 Applicators and other handlers must wear:
- Long-sleeved shirt and long pants
  - Waterproof gloves
  - Shoes plus socks
  - Protective eyewear

**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.

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. After each day of use, clothing or PPE must not be reused until it has been cleaned.

**Engineering Controls Statements:**

**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.

When handlers use 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.

**CONTAINERS GREATER THAN 1 GALLON BUT LESS THAN 5 GALLONS:**

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.

**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. 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.

**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.

**REGISTERED TRADEMARKS**

Glean<sup>®</sup>, Lexone<sup>®</sup>, Karmex<sup>®</sup>, Sinbar<sup>®</sup>, Amber<sup>®</sup>, Ally<sup>®</sup>, Express<sup>®</sup>, Finesse<sup>®</sup>, and Harmony<sup>®</sup> Extra are registered trademarks of E.I. DuPont de Nemours & Co., Inc.

Roundup<sup>®</sup> is a registered trademark of Monsanto Agricultural Products Company.

Sencor<sup>®</sup> is a registered trademark of Mobay Chemical Corporation.

Evik<sup>®</sup> and are registered trademarks of Ciba Corporation, Agricultural Division.

Asulox<sup>®</sup> is a registered trademark of Rhone-Poulenc Inc.

Dalapon<sup>®</sup> is a registered trademark of SDS Biotech Corporation.

Fenatrol<sup>®</sup> Sugarcane is a registered trademark of Union Carbide Agricultural Products Co., Inc.

Weedmaster<sup>®</sup> is a registered trademark of Sandoz Ltd.