

1 PROBE HERBICIDE

2 ACTIVE INGREDIENTS:

3	Methazole*.....	75.0%
4	Related Compounds.....	3.9%
5	INERT INGREDIENTS.....	21.1%
6	TOTAL	100.0%

7 \*2-(3,4-dichlorophenyl)-4-methyl-1,2,4-oxadiazolidine-3, 5-dione.

8 WARNING  
 9 KEEP OUT OF  
 10 REACH OF CHILDREN

11 See left Side Panel for  
 12 Additional Precautionary Statements

13 E.P.A. reg. No. 55947-23  
 14 E.P.A. Est. No. 1517500-40-AA

15 NET CONTENTS:

16 Sandoz Crop Protection Corporation  
 17 1300 East Touhy Avenue  
 18 Des Plaines, Illinois 60018

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**PROBE HERBICIDE**

A selective herbicide for use in cotton.

**DIRECTIONS FOR USE**

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

This labeling must be in the possession of the user at the time of the pesticide application.

EPA Reg. No. 55947-23

Sandoz Crop Protection Corporation  
1300 East Touhy Avenue  
Des Plaines, Illinois 60018

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1 PRECAUTIONARY STATEMENTS  
2 HAZARDS TO HUMANS AND DOMESTIC ANIMALS

3 WARNING

4 Harmful if swallowed, inhaled or absorbed through the skin or eyes.  
5 Do not get in eyes, on skin or on clothing. Avoid breathing dust  
6 or spray mist. Keep out of the reach of children. Avoid  
7 contamination of feed and foodstuff.

8 In case of skin contact, wash immediately with soap and water.  
9 Skin contact may result in acneform reaction. For eyes, flush with  
10 plenty of water for at least 15 minutes and get medical attention.

11 Wear impervious gloves and protective clothing when handling. Wash  
12 hands, arms and face thoroughly with soap and water before eating  
13 or smoking. Wash all contaminated clothing with detergent and hot  
14 water before re-use.

15 Do not contaminate domestic or irrigation waters. Observe all  
16 precautions on labels of all products used in tank mixtures.

17 ENVIRONMENTAL HAZARDS

18 Do not apply directly to water or wetlands. Do not contaminate  
19 water by cleaning or equipment or disposal of wastes.

20 Do not apply when weather conditions favor drift from areas  
21 treated.

22 Do not apply where runoff is likely to occur.

23 DIRECTIONS FOR USE

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

26 Refer to the Use Directions Booklet attached to this container for  
27 proper use directions and additional precautionary statements.  
28 Apply this product only as directed on the label.

29 For additional copies of the Use Directions Booklet, write to the  
30 manufacturer.

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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, moistened, and carefully swept up avoiding inhalation of dust. Wash area of spill with detergent and water.

### Pesticide Disposal

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

### Container Disposal

Plastic containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Plastic bags: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**LIMITED WARRANTY AND LIABILITY**

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**NOTICE:** Read this Limited Warranty and Liability before buying or using this product. If the terms are not acceptable, return it at once unopened.

It is critical that this product be used and mixed only as specified on the label. The laws of a State may make some or all of this paragraph inapplicable or may give you rights in addition to your rights hereunder. Except to the extent prohibited by applicable law, the exclusive remedy of the user or buyer and the limit of liability of this Company or any other Seller for any and all losses, personal injuries or damages resulting from the use of this product, shall be the purchase price paid by the user or buyer for the quantity of product involved. Except to the extent prohibited by State law, there is no warranty, and this Company and other Sellers disclaim all liability for losses, personal injury or damages: (i) arising from any use of this product in a manner or for a purpose not recommended in its label directions, or from mixing this product before use with any substance except as recommended by the product's label, (ii) arising from handling or storage in violation of label instructions, (iii) for all indirect, special or consequential damages, (iv) when not reported to this Company within one year of discovery, and (v) arising from product not used within the Labels-designated shelf life of four years from date of purchase, whichever first occurs. **THERE ARE NO IMPLIED WARRANTIES AND NO WARRANTIES OR MERCHANTABILITY OR FITNESS.**

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1 **PROBE HERBICIDE**

2 **I. GENERAL PRECAUTIONS**

3 The following directions apply to all uses of PROBE Herbicide.  
4 Additional precautions and restrictions are noted in each specific  
5 use section.

6 Do not graze or feed forage from treated areas to livestock.  
7 PROBE is not recommended on alkali soils (pH > 8.0), or shallow  
8 soils with calcareous subsoils or out-croppings as crop injury may  
9 result.

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

14 Do not rotate with any other crops within one year of treatment,  
15 except cover crops, which must be plowed under and not grazed.

16 Consult your local or state authorities for possible application  
17 restrictions and advice concerning special local use situations.

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

19 **II. DIRECTIONS FOR USE**

20 PROBE is a selective herbicide for use in cotton. This product can  
21 be used postemergence as a directed spray in all areas and  
22 preemergence west of the Mississippi River. Post-directed appli-  
23 cations can be made from when the cotton is 3 inches tall (early  
24 post) through lay-by.

25 **III. MIXING AND APPLICATION**

26 PROBE Herbicide should be applied in water solutions. Clean and  
27 calibrate the sprayer. Premix the proper amount of PROBE 75 WDG  
28 with a small amount of water. Add this mixture to the spray tank  
29 already filled with 3/4 of the required volume of water. Maintain  
30 agitation while filling the remaining water and spraying. If spray  
31 mixture is allowed to settle at any time, thorough agitation is  
32 required to re-suspend the mixture before spraying is resumed.  
33 Keep by-pass line on and near bottom of tank to minimize foaming.  
34 Ground equipment with 50 mesh or coarser screens in the nozzles and  
35 in-line strainers should be used.

36 PROBE Herbicide may be applied as a directed, broadcast or band  
37 treatment. Apply the equivalent of 20-40 gallons of water carrier

1 per acre on a broadcast basis.

2 Thoroughly clean the sprayer immediately after use by flushing the  
3 system with water containing a detergent.

4 **A. Band Treatments**

5 PROBE Herbicide may be applied as a band treatment. Use the  
6 formulas below to determine the appropriate rate and volume per  
7 treated acre.

$$\begin{array}{rcl}
 8 & \text{Band Width} & \\
 9 & \text{in Inches} & \times \\
 10 & \text{Row Width} & \\
 11 & \text{in inches} & \\
 & & \text{Broadcast} \\
 & & \text{Rate} \\
 & & \text{per treated acre} \\
 & & = \\
 & & \text{Band Rate} \\
 & & \text{per planted acre}
 \end{array}$$

$$\begin{array}{rcl}
 12 & \text{Band Width} & \\
 13 & \text{in Inches} & \times \\
 14 & \text{Row Width} & \\
 15 & \text{in inches} & \\
 & & \text{Broadcast} \\
 & & \text{Volume} \\
 & & \text{per treated acre} \\
 & & = \\
 & & \text{Band Volume} \\
 & & \text{per planted acre}
 \end{array}$$

16 **B. Compatibility Test**

17 Before mixing PROBE with other herbicides in the spray tank, it is  
18 advisable to test compatibility by mixing all components in a small  
19 container in proportionate quantities (see following table).

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

22	HERBICIDE	RATE	LEVEL
23	FORMULATIONS	PER ACRE	TEASPOONS
24	Dry	1 lb.	1-1/2
25	Liquid	1 pt.	1/2
26			

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

31 If components are incompatible, the use of a compatibility agent  
32 approved for agricultural use is recommended. Rerun the above  
33 COMPATIBILITY TEST with a suitable compatibility agent. (1/4  
34 teaspoon is equivalent to 2 pints per 100 gallons of spray  
35 carrier).



1 **IV. PREEMERGENCE USES**

2 (Recommended for use only in cotton growing areas west of the  
3 Mississippi River)

4 **A. Rates and Timings**

5 PROBE Herbicide may be applied within 48 hours prior to planting  
6 and shallowly incorporated or applied immediately after planting,  
7 but before cotton emergence. If applied preemergence and rainfall  
8 (or irrigation) is not anticipated before weed emergence, a shallow  
9 incorporation may be used for activation. Rainfall sufficient for  
10 seed germination is adequate for activation of PROBE.

11 This product may be applied to flat planted, bedded, or furrow  
12 planted cotton. A band application must be used where cotton is  
13 planted in the bottom of the furrow. The width of the band appli-  
14 cation cannot exceed the width of the furrow bottom.

15 If replanting is necessary do not make a second application of  
16 PROBE as injury may result. No more than two post-directed appli-  
17 cations of PROBE may be applied following a preemergence applica-  
18 tion of PROBE. Total amount of Probe applied in a season must not  
19 exceed 4 pounds of product per treated acre.

20 Use the following table to determine the recommended application  
21 rate based on soil texture and organic matter content:

22 **BROADCAST RATE PER TREATED ACRE**  
23 (pounds of PROBE Herbicide)

SOIL TEXTURE	Conventional Tillage Systems		Conservation Tillage Systems <sup>1</sup>	
	2% or less organic matter	greater than 2% but less than 4% organic matter	2% or less organic matter	greater than 2% organic matter
<b>COARSE SOILS</b>				
sand	1.3 <sup>2</sup>	Do Not Use	1.5 - 2.0	Do Not Use
loamy sand, and sandy loam.....	1.5 - 2.0	2.0 - 2.5	2.0 - 2.5	Not Recommended
<b>MEDIUM SOILS</b>				
loam, silt loam, silt, sandy clay loam, and sandy clay.....	2.0 - 2.5	2.5 - 3.3	2.5 - 3.3	Not Recommended
<b>FINE SOILS</b>				
silty clay loam, clay loam, silty clay, and clay.	2.5 - 3.3	Not Recommended	Not Recommended	Not Recommended

45 1. Conservation tillage systems include no-till, minimum till or reduced till systems. Conventional tillage  
46 rates should be used if row tillage is used.

47 2. PROBE may only be used on sand soils when used at the listed rate and applied as a sequential overlay  
48 treatment following trifluralin or Prowl applied as a preplant incorporated treatment.  
49

1 **B. Weeds Controlled (Preemergence)**

2 PROBE will control the following weed species when applied  
3 according to preemergence label directions:

4	<u>Common name</u>	<u>Latin name</u>
5	barnyardgrass*	Echinochloa crus-galli
6	common purslane	Portulaca oleracea
7	common lambsquarter	Chenopodium album
8	crabgrass*	Digitaria spp.
9	pigweeds	Amaranthus spp.
10	prickly sida	Sida spinosa
11	prostrate spurge	Euphorbia humistrata
12	Russian thistle	Salsola iberica
13	sicklepod	Cassia obtusifolia

14 \* Heavy populations of these weeds are best controlled when PROBE  
15 is applied as a preemergence overlay treatment following triflu-  
16 ralin or Prowl applied preplant incorporated.

17 PROBE applied preemergence will suppress the following weeds:

18	<u>Common name</u>	<u>Latin name</u>
19	annual morningglory	Ipomea spp.
20	black nightshade	Solanum nigrum
21	common cocklebur	Xanthium strumarium
22	hairy nightshade	Solanum sarrachoides
23	lanceleaf sage (mint weed)	Salvia reflexa
24	prairie sunflower	Helianthus petiolaris
25	unicorn-plant (devil's claw)	Proboscidea louisianica

26 **C. Preemergence Tankmixes and Sequential Overlay Treatments**

27 PROBE Herbicide may be applied preemergence as a sequential overlay  
28 treatment following application of one of the following herbicides.  
29 PROBE may also be tankmixed with one of these herbicides if applied  
30 as a shallow but throughly incorporated preplant treatment:

31		MAXIMUM RATE PER
32	<u>HERBICIDE</u>	<u>TREATED ACRE (lbs. a.i.)</u>
33	pendimethalin (Prowl)	1.5
34	trifluralin (Treflan, other brand names)	1.0
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1 **Special Preemergence Tankmix for Improved Control of Annual**  
2 **Morningglory, Lanceleaf Sage and Nutsedge.**

3 PROBE Herbicide may be tankmixed with ZORIAL Rapid 80 for improved  
4 control of annual morningglory, lanceleaf sage and nutsedge (yellow  
5 and purple). Application rates for this combination are as follows:

6 **PROBE Herbicide and ZORIAL Rapid 80**  
7 **BROADCAST TANKMIX RATE PER TREATED ACRE<sup>1</sup>**  
8 **(pounds of product)**

9 **SOIL TEXTURE<sup>2</sup> PROBE HERBICIDE + ZORIAL RAPID 80**

10 **COARSE SOILS**

11  
12 sand, loamy sand, and  
13 sandy loam..... Do Not Use  
14

15 **MEDIUM SOILS**

16  
17 loam, silt loam, silt,  
18 sandy clay loam, and  
19 sandy clay..... 1.5 + 0.6  
20

21 **FINE SOILS**

22  
23 silty clay loam, clay loam,  
24 silty clay, and clay..... 1.5-2.0 + 0.6

- 25 1. The combination should only be used as banded application; use the  
26 broadcast rate to calculate band rate based on actual treated area.  
27 2. PROBE herbicide is not recommended for soils containing more than 4%  
28 organic matter.  
29

30 The PROBE + ZORIAL combination may be tankmixed with Prowl and  
31 applied preemergence or applied as a sequential overlay following  
32 a trifluralin or Prowl application.

33 The combination cannot be used on coarse textured soils including  
34 sand, loamy sand or sandy loam. The combination should not be used  
35 in Gaines Co., TX.

36 The combination should only be used as a banded application and for  
37 up to 2 consecutive seasons to reduce carryover potential. For 16  
38 months following the last ZORIAL application, treated acreage may  
39 only be rotated to cotton or soybeans. See the ZORIAL use  
40 directions for additional use precautions.

1 **V. POSTEMERGENCE USES**

2 **A. Rates and Timings**

3 PROBE Herbicide may be applied as a post-directed spray when cotton  
4 is 3 inches or greater in height through lay-by. Do not exceed 1.0  
5 lb. of PROBE Herbicide on cotton less than 6 inches in height.

6 Best control is obtained when weeds are small (< 2 inches). Lower  
7 recommended rates can also be used when weeds are small.

8 Minimize contact with cotton foilage and maximize contact with  
9 weeds by directing herbicide spray to the base of cotton plants.

10 Higher rates and/or sequential follow-up applications may be  
11 necessary where initial application is made to dense weed  
12 populations, or where weeds are moisture or temperature stressed.  
13 Repeat applications may be made as needed, however, the total  
14 amount of Probe applied in a season must not exceed 4 pounds  
15 product per treated acre for both preemergence and postemergence  
16 applications.

17 The following table lists the recommended rate of application for  
18 post-directed applications:

19	Crop Height <sup>1</sup>	Weed Height	Broadcast Rate Per Acre <sup>2</sup>	Band Rate Per Acre <sup>3</sup>
20	(inches)	(inches)	(pounds of PROBE Herbicide)	
21	3 to 6"	< 2"	0.66	0.20
22		2-3"	1.00	0.32
23	>6" to Lay-by	0-3"	2.00	0.79

- 24
- 25 1. Do not exceed 1.0 pound of PROBE Herbicide on cotton less than 6 inches tall.
- 26 2. Use an agriculturally approved non-ionic surfactant at 0.25% v/v.
- 27 3. Band rate is based on a 12 inch band with 38 inch row spacing. Band rate must
- 28 be adjusted for other band widths or row spacings (See section III-A for band
- 29 formula).
- 30

1 **B. Weeds Controlled (Post-Directed)**

2 When applied as a directed postemergence spray according to label  
3 directions, PROBE Herbicide will control the following broadleaf  
4 weeds:

5	<u>Common name</u>	<u>Latin name</u>
6	annual morningglory	Ipomea spp.
7	carpetweed	Mollugo verticilliata
8	common purslane	Portulaca oleracea
9	common cocklebur	Xanthium strumarium
10	common lambsquarters	Chenopodium album
11	Florida pusley	Richardia scabra
12	hemp sesbania	Sesbania exaltata
13	pigweeds	Amaranthus spp.
14	prickly sida (teaweed)	Sida spinosa
15	prostrate spurge	Euphorbia humistrata
16	sicklepod	Cassia obtusifolia
17	spotted spurge	Euphorbia supina
18	spurred anoda	Anoda cristata

19  
20

21 **C. Postemergence Tankmix and Sequential Overlay Treatments**

22  
23

1. Tankmixes

24 PROBE Herbicide may be tank mixed with one or more of the follow-  
25 g herbicides for control of grasses and improved control of  
26 broadleaf weeds. Read and follow the label of each tank mix  
27 product used for precautionary statements, directions for use,  
28 rates and timings and other restrictions. Use an agriculturally  
29 approved non-ionic surfactant with all PROBE Herbicide  
30 postemergence tank mix applications.

31 PROBE Herbicide plus DSMA. Apply after cotton is three inches high  
32 and before the first bloom. Do not make more than two  
33 applications. Use 3.6 lbs. a.i. DSMA per treated acre.

34 PROBE Herbicide plus MSMA. Apply after cotton is three inches high  
35 and before the first bloom. Do not make more than two applications.  
36 Use 2.0 lbs. a.i. MSMA per treated acre.

37 PROBE Herbicide plus cyanazine (Bladex). Apply after the cotton  
38 is six inches high. Use 0.6 to 1.0 lb. a.i. cyanazine per treated  
39 acre.

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1 **2. Overlay (Sequential) Treatments**

2 PROBE Herbicide may be applied to ground previously treated with  
3 one or more of the following herbicides:

4		MAXIMUM RATE PER
5	<u>HERBICIDE</u>	<u>TREATED ACRE (lbs. a.i.)</u>
6	diuron (Karmex, other name brands)	1.6
7	fluometuron (Cotoran)	2.0
8	norflurazon (ZORIAL)	2.0
9	pendimethalin (Prowl)	1.5
10	prometryn (Caparol)	2.8
11	trifluralin (Treflan, other brand names)	1.0
12		

13 Read and follow the label of each of the above products for  
14 precautionary statements, directions for use and other restric-  
15 tions.

16 **REGISTERED TRADEMARKS**

17 Prowl is a registered trademark of American Cyanam<sup>ic</sup> Company.

18 Caparol and Cotoran are registered trademarks of Ciba-Geigy  
19 Corporation, Agricultural Division.

20 Bladex and Karmex are registered trademarks of E. I. duPont de  
21 Nemours and Co., Inc.

22 Treflan is a registered trademark of Elanco Products Company, (a  
23 division of Eli Lilly and Co.).

24 PROBE Herbicide and ZORIAL Rapid 80 are registered trademarks of  
25 Sandoz Ltd.