

23 APR 1992

22. Linda Motop
Sangoz Agro Inc.
1300 Touhy Ave.
Des Plaines, IL 60018

Dear Ms. Motop:

Subject: Probe® 75 Wettable Powder
EPA Registration No. 55947-23
Application Dated April 10, 1992 To Decrease
Dosages and To Update Environmental Hazards and
Warranty Statements, Label Revisions

The proposed amendments to decrease dosages and to update
Environmental hazards and warranty statements are acceptable
under the Federal Insecticide, Fungicide and Rodenticide Act,
as amended, provided that you:

1. Submit/cite all data required for registration/
re-registration of your product under FIFRA section
5(c)(2) when the agency requires all registrants
of similar products to submit such data.
2. Submit five (5) printed copies of the final printed
labeling 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 of the product for shipment
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 (R-7500C)

Enclosure

L.Milison:Diskette+ABC1: 04-22-92

2714

(CONTAINER LABEL)

PROBE[®] HERBICIDE

ACTIVE INGREDIENTS:

Methazole*.....	75.0%
Related Compounds.....	3.9%
INERT INGREDIENTS.....	<u>21.1%</u>
TOTAL	100.0%

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

WARNING
KEEP OUT OF
REACH OF CHILDREN

See Right Side Panel for
Additional Precautionary Statements

E.P.A. reg. No. 55947-23
E.P.A. Est. No. 33550-TN-1

NET CONTENTS:

Sandoz Agro, Inc.
1300 East Touhy Avenue
Des Plaines, Illinois 60018

ACCEPTED
BY THE GOVERNMENT
IN EPA LABEL CASE

23 549 100

55947-23

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

WARNING

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

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

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

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

ENVIRONMENTAL HAZARDS

Do not apply directly to water, 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.

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

Do not apply where runoff is likely to occur.

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 through any type of irrigation system.

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

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.

WARRANTY AND CONDITIONS OF SALE

Sandoz Crop Protection Corporation warrants that the chemical composition of this product conforms to the chemical description on the label and is reasonably fit for the purpose stated on the label when used in accordance with directions under normal conditions of use. Sandoz makes no other warranty, express or implied, concerning the use of this product other than as indicated on the label. Buyer assumes all risks of use, storage or handling of this material not in strict accordance with directions given on the label.

6-1-77

DIRECTIONS FOR USE BOOKLET

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

Not Registered for Use in Arizona or California

Sandoz Agro, Inc.
1300 E. Touhy Ave.
Des Plaines, IL 60018

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PROBE HERBICIDE

I. GENERAL PRECAUTIONS

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

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

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

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

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

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

II. DIRECTIONS FOR USE

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

III. MIXING AND APPLICATION

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

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

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

Do not allow PROBE Herbicide spray mixture to remain in the spray tank overnight because settling could occur and resuspension would be difficult.

A. Band Treatments

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

$$\begin{array}{l} \text{Band Width} \\ \text{in Inches} \end{array} \times \begin{array}{l} \text{Broadcast} \\ \text{Rate} \\ \text{per treated acre} \end{array} = \begin{array}{l} \text{Band Rate} \\ \text{per planted acre} \end{array}$$

$$\begin{array}{l} \text{Row Width} \\ \text{in inches} \end{array}$$

$$\begin{array}{l} \text{Band Width} \\ \text{in Inches} \end{array} \times \begin{array}{l} \text{Broadcast} \\ \text{Volume} \\ \text{per treated acre} \end{array} = \begin{array}{l} \text{Band Volume} \\ \text{per planted acre} \end{array}$$

$$\begin{array}{l} \text{Row Width} \\ \text{in inches} \end{array}$$

B. Compatibility Test

Before mixing PROBE with other herbicides in the spray tank, 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

If herbicide(s) do not ball-up or form flakes, sludge, gels, oily films, layers or other precipitates, then the tested spray mix is compatible. 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 approved for agricultural use is recommended. Rerun the above COMPATIBILITY TEST with a suitable compatibility agent (1/4 teaspoon is equivalent to 2 pints per 100 gallons of spray carrier).

IV. PREEMERGENCE USES

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

A. Rates and Timings

PROBE Herbicide may be applied within 48 hours prior to planting and shallowly incorporated or applied immediately after planting, but before cotton emergence. If applied preemergence and rainfall (or irrigation, minimum of 1/2" of either) is not anticipated before weed emergence, a shallow incorporation may be used for activation. Rainfall sufficient for seed germination is adequate for activation of PROBE.

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

If replanting is necessary do not make a second application of PROBE as injury may result. No more than two post-directed applications of PROBE may be applied following a preemergence application of PROBE. Total amount of Probe applied in a season must not exceed 2 pounds of product per treated acre.

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

SOIL TEXTURE	BROADCAST RATE PER TREATED ACRE (pounds of PROBE Herbicide)	
	Conventional Tillage Systems 2% or less organic matter	Conservation ¹ Tillage Systems 2% or less organic matter
COARSE SOILS		
sand ²	1.3 ²	1.5 - 2.0
loamy sand, and sandy loam.....	1.5 - 2.0	2.0
MEDIUM SOILS		
loam, silt loam, silt, sandy clay loam, and sandy clay.....	2.0	Not Recommended

1. Conservation tillage systems include no-till, minimum till or reduced till systems. Conventional tillage rates should be used if row tillage is used.
2. PROBE may only be used on sand soils when used at the listed rate and applied as a sequential overlay treatment following trifluralin or Prowl applied as a preplant incorporated treatment.

B. Weeds Controlled (Preemergence)

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

<u>Common name</u>	<u>Latin name</u>
Barnyardgrass*	<u>Echinochloa crus-galli</u>
Crabgrass*	<u>Digitaria</u> spp.
Lambsquarter, Common	<u>Chenopodium album</u>
Pigweeds	<u>Amaranthus</u> spp.
Purslane, Common	<u>Portulaca oleracea</u>
Sicklepod	<u>Cassia obtusifolia</u>
Sida, Prickly	<u>Sida spinosa</u>
Spurge, Prostrate	<u>Euphorbia humistrata</u>
Thistle, Russian	<u>Salsola iberica</u>

* Heavy populations of these weeds are best controlled when PROBE is applied as a preemergence overlay treatment following trifluralin or Prowl applied preplant incorporated.

PROBE applied preemergence will suppress the following weeds:

<u>Common name</u>	<u>Latin name</u>
Cocklebur, Common	<u>Xanthium strumarium</u>
Morningglory, Annual	<u>Ipomea</u> spp.
Nightshade, Black	<u>Solanum nigrum</u>
Nightshade, Hairy	<u>Solanum sarrachoides</u>
Sage, Lanceleaf (Mint weed)	<u>Salvia reflexa</u>
Sunflower, Prairie	<u>Helianthus petiolaris</u>
Unicorn-plant (Devil's claw)	<u>Proboscidea louisianica</u>

C. Preemergence Tankmixes and Sequential Overlay Treatments

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

<u>HERBICIDE</u>	<u>MAXIMUM RATE PER TREATED ACRE (lbs. a.i.)</u>
pendimethalin (Prowl)	1.5
trifluralin (Treflan, other brand names)	1.0

Special Preemergence Tankmix for Improved Control of Annual Morningglory, Lanceleaf Sage and Nutsedge.

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

**PROBE Herbicide and ZORIAL Rapid 80®
BROADCAST TANKMIX RATE PER TREATED ACRE¹
(pounds of product)**

SOIL TEXTURE² PROBE HERBICIDE + ZORIAL RAPID 80

COARSE SOILS³

sand and loamy sand.....	Do Not Use
sandy loam.....	1.5 + 0.6

MEDIUM SOILS

loam, silt loam, silt, sandy clay loam, and sandy clay.....	1.5 + 0.6
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FINE SOILS

silty clay loam, clay loam, silty clay, and clay.....	1.5-2.0 + 0.6
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1. The combination should only be used as banded application; use the broadcast rate to calculate band rate based on actual treated area.
2. PROBE herbicide is not recommended for soils containing more than 2% organic matter.
3. Do Not Use this tank mix on soils containing more than 60% sand.

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

The combination cannot be used on soils containing more than 60% sand. The combination should not be used in Gaines Co., TX.

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

V. POSTEMERGENCE USES

A. Rates and Timings

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

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

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

Higher rates and/or sequential follow-up applications may be necessary where initial application is made to dense weed populations, or where weeds are moisture or temperature stressed. Repeat applications may be made as needed, however, the total amount of Probe applied in a season must not exceed 2 pounds product per treated acre for both preemergence and postemergence applications.

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

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

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

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B. Weeds Controlled (Post-Directed)

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

Common name	<u>Latin name</u>
Anoda, Spurred	<u>Anoda cristata</u>
Carpetweed	<u>Mollugo verticillata</u>
Cocklebur, Common	<u>Xanthium strumarium</u>
Lambsquarters, Common	<u>Chenopodium album</u>
Morningglory, Annual	<u>Ipomea spp.</u>
Pigweeds	<u>Amaranthus spp.</u>
Purslane, Common	<u>Portulaca oleracea</u>
Pusley, Florida	<u>Richardia scabra</u>
Sesbania, Hemp	<u>Sesbania exaltata</u>
Sicklepod	<u>Cassia obtusifolia</u>
Sida, Prickly (Teaweed)	<u>Sida sp. nosa</u>
Spurge, Prostrate	<u>Euphorbia humistrata</u>
Spurge, Spotted	<u>Euphorbia supina</u>

C. Postemergence Tankmix and Sequential Overlay Treatments

1. Tankmixes

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

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

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

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

2. Overlay (Sequential) Treatments

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

<u>HERBICIDE</u>	<u>MAXIMUM RATE PER TREATED ACRE (lbs. a.i.)</u>
diuron (Karmex®, other name brands)	1.6
fluometuron (Cotoran®)	2.0
norflurazon (ZORIAL)	2.0
pendimethalin (Prowl®)	1.5
prometryn (Caparol®)	2.8
trifluralin (Treflan®, other brand names)	1.0

Read and follow the label of each of the above products for precautionary statements, directions for use and other restrictions.

REGISTERED TRADEMARKS

Prowl is a registered trademark of American Cyanamid Company.
Caparol and Cotoran are registered trademarks of Ciba-Geigy Corporation, Agricultural Division.
Bladex and Karmex are registered trademarks of E. I. duPont de Nemours and Co., Inc.
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