

PM 25 524-423

LABELING
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 2 1993

Dr Russell P. Schneider
MONSANTO COMPANY
AGENT FOR: MONSANTO AGRICULTURAL COMPANY
700 14TH ST., N.W. SUITE 1100
WASHINGTON, D.C. 20005

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Subject: Label Amendment Submission of 07/16/93 In Response to PR Notice 93-7
EPA Reg. No. 524-423
RAMROD + ATRAZINE FG 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

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Page 2

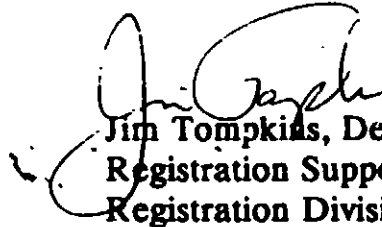
Submit the final printed labeling via the U.S. Postal Service to:

**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

MONSANTO COMPANY
EPA REG. NO.: 524-423 07/16/93
RAMROD + ATRAZINE FG HERBICIDE

ORIGINAL SUBMISSION

Gloves for Mixer/Loaders should be "waterproof".

4 9 19

RAMROD®
+ ATRAZINE DF
Dry Flowable Herbicide by Monsanto

Selective herbicide for preemergence weed control in grain sorghum (milo), field corn, hybrid seed corn and silage corn.

**RESTRICTED USE PESTICIDE
(GROUND AND SURFACE WATER CONCERNS)**

FOR RETAIL SALE AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

THIS PRODUCT IS A RESTRICTED USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS FROM THE USE OF ATRAZINE. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND AND SURFACE WATER.

Complete Directions for Use

•Ramrod is a registered trademark of Monsanto Company.

~~1992-1~~ ~~648-48-000-15/53~~

PRECAUTIONARY STATEMENTS

GENERAL INFORMATION

**MIXING AND SPRAYING
INSTRUCTIONS**

**FLUID FERTILIZER
COMPATIBILITY TEST**

APPLICATION INFORMATION

CULTIVATION INFORMATION

WEEDS CONTROLLED

CROPS

ACCEPTED
with COMMENTS
in EPA Letter Dated

DEC 2 1993

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

524-423

Read the entire label before using this product.

Use only according to label instructions.

Read 'LIMIT OF WARRANTY AND LIABILITY' before buying or using. If terms are not acceptable, return at once unopened.

REFORMULATION OR REPACKAGING IS PROHIBITED.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ('Directions') when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OF MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, of the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Keep out of reach of children.

DANGER!

[REDACTED]

- CAUSES EYE BURNS.**
- HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN.**
- CAUSES NOSE AND THROAT IRRITATION.**
- MAY CAUSE SKIN IRRITATION.**
- MAY CAUSE ALLERGIC SKIN REACTION.**

Do not get in eyes, on skin or on clothing.

~~Users are required to wear long sleeve shirts and long pants or equivalent, chemical resistant gloves and boots (waterproofed). In addition, persons involved in mixing/loading operations are required to use heavy duty chemical resistant gloves or neoprene gloves and a face shield or goggles.~~

Do not breathe dust.

~~Wash thoroughly with soap and water after handling.~~

FIRST AID: IF IN EYES,
immediately flush with plenty of water for at least 15 minutes.
Get medical attention.

~~IF ON SKIN, immediately flush with plenty of water. while removing contaminated clothing. Get medical attention. As soon as soap is available, wash skin thoroughly with soap and water. Wash clothing before reuse. Sensitized persons should avoid further contact and reuse of [REDACTED] contaminated clothing.~~

~~IF INHALED, remove individual to fresh air. Get medical attention if breathing difficulty develops.~~

~~IF SWALLOWED, remove visible particles from mouth and rinse mouth thoroughly with water. Swallow water to dilute. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.~~

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

[REDACTED]

[REDACTED]

7 4 19

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

In case of emergency involving this product, Call Collect, day or night, (314) 694-4000.

ENVIRONMENTAL HAZARDS

There is the possibility that this chemical can leach through the soil to groundwater, especially where soils are coarse and groundwater is near the surface. Users are advised not to apply this product to sand and loamy sand soils where the water table (groundwater) is near the surface and where these soils are permeable (well drained).

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

This product may not be mixed/loaded or used within 50 feet of all wells, including abandoned wells, drainage wells and sink holes. This product may not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-foot buffer or set-back from runoff points must be planted to a crop or seeded with grass or other suitable crop. Where there are state/local requirements regarding atrazine use (including lower maximum

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rates and/or higher set-backs) which are different from the label, the more restrictive/protective requirements apply.

Care must be taken when using this product to prevent back-siphoning into wells, spills or improper disposal of excess pesticide, spray mixture or rinsates.

Following application, and during rainfall events that cause runoff, atrazine may reach surface water bodies, including streams, rivers and reservoirs.

This product is toxic to fish and wildlife. 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 apply where runoff is likely to occur. Do not apply when weather conditions are likely to cause drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms. Do not contaminate water when disposing of equipment washwaters.

PHYSICAL OR CHEMICAL HAZARDS

In case of:
SPILL or LEAK, sweep up, remove and keep away from humans and domestic animals.

ACTIVE INGREDIENTS:

Propachlor, (2-chloro-N-isopropylacetanilide).....	48.0%
Atrazine, [2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine].....	15.5%
Related atrazine compounds.....	0.5%
INERT INGREDIENTS:.....	36.0%
	100.0%

DIRECTIONS FOR USE

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



For more product information, call toll-free 1-800-332-3111.

Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE:

Keep bag closed to prevent spills and contamination.

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DISPOSAL:

Wastes of this pesticide may cause eye burns and may be dangerous. Improper disposal of excess pesticide, spray mixtures or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label use instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Emptied container retains product residue. Observe all labeled safeguards until container is destroyed.

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.

GENERAL INFORMATION

This herbicide mixture is recommended for control of many annual grasses and certain broadleaf weeds. For best results it should be applied to the soil surface before crop or weeds emerge. The seedbed should be fine, firm and free of clods and trash; application should be made within 5 days after the last tillage for weed control. Do not apply when conditions favor drift.

Precipitation or overhead sprinkler irrigation is required after application to move the herbicide treatment into the weed germination zone. The amount of precipitation or overhead sprinkler irrigation required depends on existing soil moisture, soil type and percent organic matter content, but 1/3 to 3/4 inch is normally adequate. Performance is improved when moisture is received within 7 days after application and prior to weed emergence. High intensity or excessive rainfall or excessive irrigation after application may reduce control.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

Flush sprayer with clean water after use and dispose of rinsate according to labeled use or disposal instructions.

Do not use this product in fields where flood irrigation is to be practiced.

DO NOT apply in sprayable fluid fertilizer after crop emergence, since crop injury may result.

Do not graze treated area or feed treated forage to livestock for 21 days following application.

Do not graze or feed sorghum (milo) forage, silage or fodder (stubble) from treated fields to dairy animals.

CORN, SORGHUM OR SOYBEANS CAN BE PLANTED THE YEAR FOLLOWING THE USE OF THIS TANK MIXTURE. IF SOYBEANS OR OTHER NON- Labeled CROPS ARE PLANTED THE FOLLOWING YEAR, THERE IS THE POSSIBILITY OF CROP INJURY DUE TO CARRYOVER OF ATRAZINE.

Do not plant soybeans in areas where furrow irrigation is practiced.

In Texas, on grain sorghum, use only on the fine-textured soils of the Gulf Coast.

Applications made to sorghum growing on alkali soils or where cuts, fills or erosions have exposed calcareous or alkali subsoils may result in crop injury.

SOIL TEXTURE

Applicators should evaluate soil and weed conditions carefully to assure that they choose the lowest effective label rate.

The recommended use rates of this product and the other herbicides labeled for use in tank mixtures with this product generally vary with soil texture. Unless soil texture is specifically named, rate tables throughout this label refer to only three soil textural groups: coarse, medium and fine. The following is a complete listing of soil textures included in each of these three soil textural groups.

SOIL TEXTURAL GROUP	SOIL TEXTURE
COARSE:	sand, loamy sand, sandy loam
MEDIUM:	loam, silt loam, silt, sandy clay loam
FINE:	silty clay loam, clay loam, sandy clay, silty clay, clay

Refer to the above table to determine the corresponding soil textural group for the soil to be treated.

MIXING AND SPRAYING INSTRUCTIONS

Always predetermine the compatibility of this product with water carrier or sprayable fluid fertilizer by mixing small proportional quantities in advance. See the "Standard Sprayable Fluid Fertilizer Compatibility Test" section on this label.

Mix this product with the appropriate carrier as follows:

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1. Place a 20 to 35 mesh screen or wetting basket over the filling port.
 2. Through the screen, fill the sprayer tank one-half full with the carrier.
 3. If a compatibility agent is necessary to improve mixing or to prevent the formation of undesirable and unsprayable gels or precipitates, while agitating, add it to the carrier already in the tank.

Use only compatibility agents cleared by the Federal Food and Drug Administration for this use. Follow the directions for use on the compatibility agent label. Check for adequate agitation.

4. Add the required amount of this product. Continue agitation.
5. Complete filling the sprayer tank with carrier. Remove hose from tank immediately after filling to avoid siphoning back into the carrier source. Maintain good agitation at all times until the contents of the tank are sprayed, otherwise settling, which can lead to clogging, may occur. Close tank valves and drain all lines when spraying is delayed.

Keep by-pass line on or near the bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results, use flat fan or flood jet nozzle. Check for even distribution of spray droplets. To reduce loss of the chemical due to drift of a fine mist, apply at pressures less than 40 psi.

STANDARD SPRAYABLE FLUID FERTILIZER COMPATIBILITY TEST

Herbicides may not always mix evenly throughout a sprayable fluid fertilizer or the components may separate too quickly to make their combined use of practical value. This may be due to certain characteristics of the different fluid fertilizers. A simple test using small quantities of the components is suggested to provide compatibility potential.

The test follows:

A. Materials Required For A Compatibility Test

1. Two 1 quart jars with lid or stopper (marked "'with'" and "'without'").
2. TEAspoons (for a more exacting test, a 5 to 10 milliliter (ml) pipette or graduated cylinder is desirable).
3. A minimum of 1 quart of the sprayable fluid fertilizer to be tested.
4. The herbicide(s) to be mixed.

5. A compatibility agent (the purpose of the adjuvant is to help keep the fertilizer and herbicide(s) in suspension, if this assistance is needed).

B. Procedure

1. Add 1 pint of the sprayable fluid fertilizer that will be used or other herbicide carrier to each jar marked "with" and "without".

Add 1 Pint Liquid Fertilizer
To 2 Quart Jars.

WITH

WITHOUT

2. To the jar marked "with", add 1/4 TEASpoon or 1.2 milliliters of a suitable compatibility agent; shake gently for 5 to 10 seconds to mix. (1/4 TEASpoon in 1 pint is the equivalent of 2 pints per 100 gallons of liquid fertilizer.)

To Jar Marked "With"
Add Compatibility Agent
And Shake to Mix.

WITH

WITHOUT

3. To each jar add the appropriate amount of herbicide(s). If more than one is used, add them separately with the wetttable powders added first, flowable second and liquid last. Shake gently 5 to 10 seconds after each addition.

Add Herbicide(s) To Both Jars
And Shake to Mix.

WITH

WITHOUT

Amount to Be
Added Per Pint Of
Sprayable Fluid Fertilizer
(Assuming Volume is 25 gal/A)

HERBICIDE	RATE/A	Level TEASpoons
This Product	1 lb.	= 1.5
	2 lb.	= 3
	3 lb.	= 4.5
	4 lb.	= 6
	5 lb.	= 7.5

This compatibility test is designed for 25 gallons of spray per acre with the maximum labeled rate of herbicide. For changes in spray volume or herbicide concentration, make appropriate changes in the ingredients of the test. Regardless of spray volume, the amount of compatibility agent should be equal to 2 or 3 pints (2 pints = 1/4 TEASpoon or 1.2 milliliters, three pints = 3/8 TEASpoon

or 1.8 milliliters per pint of sprayable fluid fertilizer) per 100 gallons of liquid fertilizer.

C. Observations and Decisions

1. If the herbicide(s) and the sprayable fluid fertilizer are compatible.
2. If a compatibility agent is necessary.

Five minutes after the final addition and mixing, observe both jars for the formation of large flakes, sludge, gels or other precipitates. Observe if the herbicide(s) cannot be physically mixed with the liquid fertilizer but remains as small oily particles in the solution.

If incompatibility in any form described above occurs in the jar 'with' the compatibility agent added, the liquid fertilizer and the herbicide(s) should not be used together in the same spray tank.

If incompatibility as described above occurs in the jar 'without' the adjuvant but not in the jar 'with' adjuvant, the use of a compatibility adjuvant is recommended.

Both jars should be allowed to stand and be observed periodically for one-half hour. If the separate layers of liquid fertilizer and additives can be resuspended by shaking, commercial application is possible. Wettable powders will either settle to the bottom of the tank or jar, or float to the top, depending upon the density of the fertilizers.

If this product is compatible with fluid fertilizer in the foregoing test without having to use a compatibility agent, fluid fertilizer may be used for the premixing. If it is not compatible, the herbicide(s) should be premixed with water before adding to the spray tank.

APPLICATION INFORMATION

APPLICATION SYSTEMS

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

Ground Broadcast Treatment - Apply this product and the labeled tank mixtures in 10 or more gallons of solution per acre using broadcast boom equipment. The carrier may be either water or sprayable fluid fertilizer as specified for the crop to be treated in the "DIRECTIONS FOR USE" section of this label. Do not apply during periods of gusty winds, when winds are in excess of 15 mph or when other conditions favoring drift exist.

Band Treatment - Apply a broadcast equivalent rate and volume per acre. To determine these:

Band width	Broadcast
------------	-----------

<u>in inches</u>	x	RATE	=	Band RATE
Row width		per acre		per acre
in inches				

Band width		Broadcast		Band VOLUME
<u>in inches</u>	x	VOLUME	=	per acre
Row width		per acre		
in inches				

Mount spray equipment on the planter with nozzles behind press wheel and apply this product at planting time.

NOTE: For band application nozzle placement, refer to the nozzle manufacturer's specification as a guide for determining proper nozzle height.

APPLICATION TIMING AND METHODS

Preemergence Surface Application - This product and all labeled tank mixtures may be applied to the soil surface after planting and prior to either crop or weed emergence, apply within 5 days of last preplant tillage. If weeds emerge after last preplant tillage, rotary hoe or shallowly cultivate immediately to improve performance. Precipitation or overhead sprinkler irrigation is required after application to move the herbicide treatment into the weed germination zone. The amount of precipitation or overhead sprinkler irrigation required depends on existing soil moisture, soil type and percent organic matter content, but 1/3 to 3/4 inch is normally adequate. Performance is improved when moisture is received with 7 days after application and prior to weed emergence. High intensity or excessive rainfall or excessive irrigation after application may reduce control.

Cultivation Information - Delay cultivation after application for as long as possible unless weeds or grasses emerge. Shallowly cultivate or rotary hoe immediately if weeds or grasses emerge. If cultivation is necessary because of soil crusting or compaction, set equipment shallow and minimize lateral soil movement to avoid dilution or displacement of the herbicide treatment. If a band application is used and weeds have emerged in the treated band, set cultivator to throw soil into the row covering the band.

WEEDS CONTROLLED

Applicators should evaluate soil and weed conditions carefully to assure that the lowest effective label rate is chosen.

When applied as directed, under the conditions described, this product **CONTROLS** the following weeds:

- | | |
|-------------------------------|-----------------------------|
| Barnyardgrass | Mustard |
| <i>Echinochloa crus-galli</i> | <i>Brassica spp.</i> |
| Buckwheat, wild | Nightshade, black |
| <i>Polygonum convolvulus</i> | <i>Solanum nigrum</i> |
| Carpetweed | Nightshade, hairy |
| <i>Mollugo verticillata</i> | <i>Solanum sarrachoides</i> |
| Crabgrass | Panicum, fall |

Digitaria spp.
 Foxtail, giant
Setaria faberi
 Foxtail, green
Setaria viridis
 Foxtail, yellow
Setaria lutescens
 Goosegrass
Eleusine indica
 Groundsel
Senecio vulgaris
 Kochia
Kochia scoparia
 Lambsquarters
Chenopodium album

Panicum dichotomiflorum
 Pigweed
Amaranthus spp.
 Purslane
Portulaca oleracea
 Pusley, Florida
Richardia scabra
 Ragweed
Ambrosia artemisiifolia
 Ryegrass, annual
Lolium spp.
 Smartweed
Polygonum
pensylvanicum
Polygonum persicaria

When applied immediately after planting, under the conditions described, this product at a rate of 6.25 to 8.6 pounds per acre REDUCES COMPETITION from the following hard-to-control weeds:

NOTE: For preemergence weed control on highly erodible soils (as defined by the Soil Conservation Service) with less than 30 percent plant residue cover, the maximum rate is 8 pounds of this product per acre (1.6 pounds of atrazine active ingredient per acre).

Buttonweed, Velvetleaf
Abutilon theophrasti
 Cocklebur
Xanthium
strumarium

Jimsonweed
Datura stramonium
 Morningglory, annual
Ipomoea purpurea
 Signalgrass, broadleaf
Brachiaria platyphylla

**FOR WEED CONTROL IN
 GRAIN SORGHUM (milo)
 FIELD CORN, HYBRID SEED CORN
 AND SILAGE CORN**

For preemergence weed control on highly erodible soils (as defined by the Soil Conservation Service) with less than 30 percent plant residue cover, the maximum rate is 8 pounds of this product per acre (1.6 pounds of atrazine active ingredient per acre). On soils not highly erodible or on highly erodible soils with more than 30 percent plant residue cover, the maximum rate is 10 pounds of this product per acre (2 pounds of atrazine active ingredient per acre). If there has been a previous application of a product containing atrazine, do not exceed a total of 2.5 pounds of atrazine active ingredient per acre per calendar year.

Apply this product in water or sprayable fluid fertilizer solutions for control of annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label.

APPROVED APPLICATION SYSTEMS

Ground - Broadcast boom; banded

Reference: The "APPLICATION SYSTEMS" section of this label provides detailed information on the application of this product using the system selected.

APPROVED APPLICATION METHODS

Preemergence Surface - Apply this product after planting, before crop and weed emergence and within 5 days after last preplant tillage operation. See the following table for recommended broadcast rate per acre for preemergence surface applications.

Reference: The "APPLICATION TIMING AND METHODS" section of this label provides detailed information and procedures for the application timing and method selected.

Preemergence Surface Application Rates

SOIL TEXTURAL GROUP*	BROADCAST RATE PER ACRE (POUNDS)**	
	Less than 3% organic matter	More than 3% organic matter
Coarse***	5	6.25
Medium	6.25	7
Fine	6.25 to 7	7 to 8.6

*Refer to the "SOIL TEXTURE" section of this label to determine corresponding soil textural group for the soil to be treated.

**Use the higher rates in the recommended ranges in areas of heavy weed infestations.

***Do not use on grain sorghum on coarse-textured soils with less than 3 percent organic matter

For Corn Only -- This product can be applied until weeds reach the 2-leaf stage but prior to corn emergence. Applications beyond the 2-leaf stage will not provide satisfactory results. Better results will be obtained if rainfall occurs within 5 to 7 days after application. If rainfall does not occur, use shallow cultivation with a rolling cultivator or similar implement to remove emerged weeds. Avoid cultivation methods which will displace the treated soil layer. See the rate table in the preemergence section of this label for the recommended rate for the soil texture and organic matter content to be treated.

For Lister or Deep Furrow Planted Corn -- Apply this product at the higher broadcast rate listed in the rate table in the preemergence section of this label for the soil texture and organic matter content to be treated.

If heavy rains follow application, the treatment on the top and sides of the furrow may not provide weed control as good as that obtained in the bottom of the furrow.

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EPA Reg. No. 524-423

848.45-000.15/53

In case of an emergency involving this product,
Call Collect, day or night, (314) 694-4000.

©MONSANTO COMPANY 1992

MONSANTO COMPANY
AGRICULTURAL PRODUCTS
ST. LOUIS, MISSOURI, 63167 U.S.A.

File 101



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 2 1993

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

Dr Russell P. Schneider
MONSANTO COMPANY
AGENT FOR: MONSANTO AGRICULTURAL COMPANY
700 14TH ST., N.W. SUITE 1100
WASHINGTON, D.C. 20005

Subject: Label Amendment Submission of 07/16/93 In Response to PR Notice 93-7
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Dear Registrant:

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BEST AVAILABLE COPY



Recycled/Recyclable
Printed with Soy/Canada Ink on paper that
contains at least 60% recycled fiber

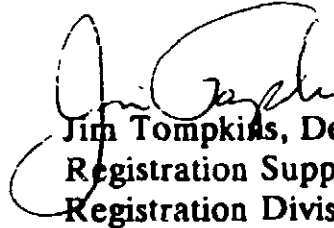
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U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

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

RAMROD®
+ ATRAZINE DF
Dry Flowable Herbicide by Monsanto

Selective herbicide for preemergence weed control in grain sorghum (milo), field corn, hybrid seed corn and silage corn.

**RESTRICTED USE PESTICIDE
(GROUND AND SURFACE WATER CONCERNS)**

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Complete Directions for Use

®Ramrod is a registered trademark of Monsanto Company.

~~1992-1~~

~~848-48-000-15/53~~

PRECAUTIONARY STATEMENTS

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CROPS

ACCEPTED
with COMMENTS
in EPA Letter Dated

DEC 2 1993

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

524-923

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Read the entire label before using this product.

Use only according to label instructions.

Read 'LIMIT OF WARRANTY AND LIABILITY' before buying or using. If terms are not acceptable, return at once unopened.

REFORMULATION OR REPACKAGING IS PROHIBITED.

LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ('Directions') when used in accordance with those Directions under the conditions described therein. NO OTHER EXPRESS WARRANTY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE OF MERCHANTABILITY IS MADE. This warranty is also subject to the conditions and limitations stated herein.

Buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

Buyer and all users are responsible for all loss or damage from use or handling which results from conditions beyond the control of this Company, including, but not limited to, incompatibility with products other than those set forth in the Directions, unusual weather, weather conditions which are outside the range considered normal at the application site and for the time period when the product is applied, as well as weather conditions which are outside the application ranges set forth in the Directions, application in any manner not explicitly set forth in the Directions, moisture conditions outside the moisture range specified in the Directions, or the presence of products other than those set forth in the Directions in or on the soil, crop or treated vegetation.

THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE LIMIT OF THE LIABILITY OF THIS COMPANY OR ANY OTHER SELLER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT (INCLUDING CLAIMS BASED IN CONTRACT, NEGLIGENCE, STRICT LIABILITY, OTHER TORT OR OTHERWISE) SHALL BE THE PURCHASE PRICE PAID BY THE USER OR BUYER FOR THE QUANTITY OF THIS PRODUCT INVOLVED, OR, AT THE ELECTION OF THIS COMPANY OR ANY OTHER SELLER, THE REPLACEMENT OF SUCH QUANTITY, OR, IF NOT ACQUIRED BY PURCHASE, REPLACEMENT OF SUCH QUANTITY. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

Buyer and all users are deemed to have accepted the terms of this LIMIT OF WARRANTY AND LIABILITY which may not be varied by any verbal or written agreement.

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PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Keep out of reach of children.

DANGER! [REDACTED]

[REDACTED]

CAUSES EYE BURNS.
HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN.
CAUSES NOSE AND THROAT IRRITATION.
MAY CAUSE SKIN IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.

Do not get in eyes, on skin or on clothing.

~~Users are required to wear long sleeve shirts and long pants or equivalent, chemical resistant gloves and boots (waterproofed). In addition, persons involved in mixing/loading operations are required to use heavy duty chemical resistant gloves or neoprene gloves and a face shield or goggles.~~

Do not breathe dust.

~~Wash thoroughly with soap and water after handling.~~

FIRST AID: IF IN EYES,
immediately flush with plenty of water for at least 15 minutes.
Get medical attention.

IF ON SKIN, immediately flush with plenty of water. ~~while removing contaminated clothing.~~ Get medical attention. ~~As soon as soap is available, wash skin thoroughly with soap and water. Wash clothing before reuse.~~ Sensitized persons should avoid further contact and reuse of [REDACTED] contaminated clothing.

IF INHALED, remove individual to fresh air. Get medical attention if breathing difficulty develops.

IF SWALLOWED, remove visible particles from mouth and rinse mouth thoroughly with water. Swallow water to dilute. Get medical attention. **NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.**

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

[REDACTED]

[REDACTED]

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

In case of emergency involving this product, Call
Collect, day or night, (314) 694-4000.

ENVIRONMENTAL HAZARDS

There is the possibility that this chemical can leach through the soil to groundwater, especially where soils are coarse and groundwater is near the surface. Users are advised not to apply this product to sand and loamy sand soils where the water table (groundwater) is near the surface and where these soils are permeable (well drained).

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

This product may not be mixed/loaded or used within 50 feet of all wells, including abandoned wells, drainage wells and sink holes. This product may not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-foot buffer or set-back from runoff points must be planted to a crop or seeded with grass or other suitable crop. Where there are state/local requirements regarding atrazine use (including lower maximum

rates and/or higher set-backs) which are different from the label, the more restrictive/protective requirements apply.

Care must be taken when using this product to prevent back-siphoning into wells, spills or improper disposal of excess pesticide, spray mixture or rinsates.

Following application, and during rainfall events that cause runoff, atrazine may reach surface water bodies, including streams, rivers and reservoirs.

This product is toxic to fish and wildlife. 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 apply where runoff is likely to occur. Do not apply when weather conditions are likely to cause drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms. Do not contaminate water when disposing of equipment washwaters.

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PHYSICAL OR CHEMICAL HAZARDS

In case of:

SPILL or LEAK, sweep up, remove and keep away from humans and domestic animals.

ACTIVE INGREDIENTS:

Propachlor, (2-chloro-N-isopropylacetanilide).....	48.0%
Atrazine, [2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine].....	15.5%
Related atrazine compounds.....	0.5%
INERT INGREDIENTS:.....	36.0%
	100.0%

DIRECTIONS FOR USE

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

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

For more product information, call toll-free 1-800-332-3111.

Storage and Disposal

Do not contaminate water, foodstuffs, feed or seed by storage or disposal.

STORAGE:

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Keep bag closed to prevent spills and contamination.

DISPOSAL:

Wastes of this pesticide may cause eye burns and may be dangerous. Improper disposal of excess pesticide, spray mixtures or rinsate is a violation of federal law. If these wastes cannot be disposed of according to label use instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Emptied container retains product residue. Observe all labeled safeguards until container is destroyed.

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.

GENERAL INFORMATION

This herbicide mixture is recommended for control of many annual grasses and certain broadleaf weeds. For best results it should be applied to the soil surface before crop or weeds emerge. The seedbed should be fine, firm and free of clods and trash; application should be made within 5 days after the last tillage for weed control. Do not apply when conditions favor drift.

Precipitation or overhead sprinkler irrigation is required after application to move the herbicide treatment into the weed germination zone. The amount of precipitation or overhead sprinkler irrigation required depends on existing soil moisture, soil type and percent organic matter content, but 1/3 to 3/4 inch is normally adequate. Performance is improved when moisture is received within 7 days after application and prior to weed emergence. High intensity or excessive rainfall or excessive irrigation after application may reduce control.

NOTE: Use of this product in any manner not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences. Keep container closed to prevent spills and contamination.

Flush sprayer with clean water after use and dispose of rinsate according to labeled use or disposal instructions.

Do not use this product in fields where flood irrigation is to be practiced.

DO NOT apply in sprayable fluid fertilizer after crop emergence, since crop injury may result.

Do not graze treated area or feed treated forage to livestock for 21 days following application.

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Do not graze or feed sorghum (milo) forage, silage or fodder (stubble) from treated fields to dairy animals.

CORN, SORGHUM OR SOYBEANS CAN BE PLANTED THE YEAR FOLLOWING THE USE OF THIS TANK MIXTURE. IF SOYBEANS OR OTHER NON- LABELED CROPS ARE PLANTED THE FOLLOWING YEAR, THERE IS THE POSSIBILITY OF CROP INJURY DUE TO CARRYOVER OF ATRAZINE.

Do not plant soybeans in areas where furrow irrigation is practiced.

In Texas, on grain sorghum, use only on the fine-textured soils of the Gulf Coast.

Applications made to sorghum growing on alkali soils or where cuts, fills or erosions have exposed calcareous or alkali subsoils may result in crop injury.

SOIL TEXTURE

Applicators should evaluate soil and weed conditions carefully to assure that they choose the lowest effective label rate.

The recommended use rates of this product and the other herbicides labeled for use in tank mixtures with this product generally vary with soil texture. Unless soil texture is specifically named, rate tables throughout this label refer to only three soil textural groups: coarse, medium and fine. The following is a complete listing of soil textures included in each of these three soil textural groups.

SOIL TEXTURAL GROUP	SOIL TEXTURE
COARSE:	sand, loamy sand, sandy loam
MEDIUM:	loam, silt loam, silt, sandy clay loam
FINE:	silty clay loam, clay loam, sandy clay, silty clay, clay

Refer to the above table to determine the corresponding soil textural group for the soil to be treated.

MIXING AND SPRAYING INSTRUCTIONS

Always predetermine the compatibility of this product with water carrier or sprayable fluid fertilizer by mixing small proportional quantities in advance. See the "Standard Sprayable Fluid Fertilizer Compatibility Test" section on this label.

Mix this product with the appropriate carrier as follows:

1. Place a 20 to 35 mesh screen or wetting basket over the filling port.
2. Through the screen, fill the sprayer tank one-half full with the carrier.
3. If a compatibility agent is necessary to improve mixing or to prevent the formation of undesirable and unsprayable gels or precipitates, while agitating, add it to the carrier already in the tank.

Use only compatibility agents cleared by the Federal Food and Drug Administration for this use. Follow the directions for use on the compatibility agent label. Check for adequate agitation.

4. Add the required amount of this product. Continue agitation.
5. Complete filling the sprayer tank with carrier. Remove hose from tank immediately after filling to avoid siphoning back into the carrier source. Maintain good agitation at all times until the contents of the tank are sprayed, otherwise settling, which can lead to clogging, may occur. Close tank valves and drain all lines when spraying is delayed.

Keep by-pass line on or near the bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be no finer than 50 mesh. Carefully select proper nozzle to avoid spraying a fine mist. For best results, use flat fan or flood jet nozzle. Check for even distribution of spray droplets. To reduce loss of the chemical due to drift of a fine mist, apply at pressures less than 40 psi.

**STANDARD SPRAYABLE FLUID
FERTILIZER COMPATIBILITY TEST**

Herbicides may not always mix evenly throughout a sprayable fluid fertilizer or the components may separate too quickly to make their combined use of practical value. This may be due to certain characteristics of the different fluid fertilizers. A simple test using small quantities of the components is suggested to provide compatibility potential.

The test follows:

A. Materials Required For A Compatibility Test

1. Two 1 quart jars with lid or stopper (marked "with" and "without").
2. TEAspoons (for a more exacting test, a 5 to 10 milliliter (ml) pipette or graduated cylinder is desirable).
3. A minimum of 1 quart of the sprayable fluid fertilizer to be tested.
4. The herbicide(s) to be mixed.

5. A compatibility agent (the purpose of the adjuvant is to help keep the fertilizer and herbicide(s) in suspension, if this assistance is needed).

B. Procedure

1. Add 1 pint of the sprayable fluid fertilizer that will be used or other herbicide carrier to each jar marked "with" and "without".

Add 1 Pint Liquid Fertilizer
To 2 Quart Jars.

WITH

WITHOUT

2. To the jar marked "with", add 1/4 TEASpoon or 1.2 milliliters of a suitable compatibility agent; shake gently for 5 to 10 seconds to mix. (1/4 TEASpoon in 1 pint is the equivalent of 2 pints per 100 gallons of liquid fertilizer.)

To Jar Marked "With"
Add Compatibility Agent
And Shake to Mix.

WITH

WITHOUT

3. To each jar add the appropriate amount of herbicide(s). If more than one is used, add them separately with the wettable powders added first, flowable second and liquid last. Shake gently 5 to 10 seconds after each addition.

Add Herbicide(s) To Both Jars
And Shake to Mix.

WITH

WITHOUT

Amount to Be
Added Per Pint Of
Sprayable Fluid Fertilizer
(Assuming Volume is 25 gal/A)

HERBICIDE	RATE/A	Level TEASpoons
This Product	1 lb. =	1.5
	2 lb. =	3
	3 lb. =	4.5
	4 lb. =	6
	5 lb. =	7.5

This compatibility test is designed for 25 gallons of spray per acre with the maximum labeled rate of herbicide. For changes in spray volume or herbicide concentration, make appropriate changes in the ingredients of the test. Regardless of spray volume, the amount of compatibility agent should be equal to 2 or 3 pints (2 pints = 1/4 TEASpoon or 1.2 milliliters, three pints = 3/8 TEASpoon

or 1.8 milliliters per pint of sprayable fluid fertilizer) per 100 gallons of liquid fertilizer.

C. Observations and Decisions

1. If the herbicide(s) and the sprayable fluid fertilizer are compatible.
2. If a compatibility agent is necessary.

Five minutes after the final addition and mixing, observe both jars for the formation of large flakes, sludge, gels or other precipitates. Observe if the herbicide(s) cannot be physically mixed with the liquid fertilizer but remains as small oily particles in the solution.

If incompatibility in any form described above occurs in the jar 'with' the compatibility agent added, the liquid fertilizer and the herbicide(s) should not be used together in the same spray tank.

If incompatibility as described above occurs in the jar 'without' the adjuvant but not in the jar 'with' adjuvant, the use of a compatibility adjuvant is recommended.

Both jars should be allowed to stand and be observed periodically for one-half hour. If the separate layers of liquid fertilizer and additives can be resuspended by shaking, commercial application is possible. Wettable powders will either settle to the bottom of the tank or jar, or float to the top, depending upon the density of the fertilizers.

If this product is compatible with fluid fertilizer in the foregoing test without having to use a compatibility agent, fluid fertilizer may be used for the premixing. If it is not compatible, the herbicide(s) should be premixed with water before adding to the spray tank.

APPLICATION INFORMATION

APPLICATION SYSTEMS

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

Ground Broadcast Treatment - Apply this product and the labeled tank mixtures in 10 or more gallons of solution per acre using broadcast boom equipment. The carrier may be either water or sprayable fluid fertilizer as specified for the crop to be treated in the "DIRECTIONS FOR USE" section of this label. Do not apply during periods of gusty winds, when winds are in excess of 15 mph or when other conditions favoring drift exist.

Band Treatment - Apply a broadcast equivalent rate and volume per acre. To determine these:

Band width

Broadcast

<u>in inches</u>	x	RATE	=	Band RATE
Row width		per acre		per acre
in inches				

Band width		Broadcast		Band VOLUME
<u>in inches</u>	x	VOLUME	=	per acre
Row width		per acre		
in inches				

Mount spray equipment on the planter with nozzles behind press wheel and apply this product at planting time.

NOTE: For band application nozzle placement, refer to the nozzle manufacturer's specification as a guide for determining proper nozzle height.

APPLICATION TIMING AND METHODS

Preemergence Surface Application - This product and all labeled tank mixtures may be applied to the soil surface after planting and prior to either crop or weed emergence, apply within 5 days of last preplant tillage. If weeds emerge after last preplant tillage, rotary hoe or shallowly cultivate immediately to improve performance. Precipitation or overhead sprinkler irrigation is required after application to move the herbicide treatment into the weed germination zone. The amount of precipitation or overhead sprinkler irrigation required depends on existing soil moisture, soil type and percent organic matter content, but 1/3 to 3/4 inch is normally adequate. Performance is improved when moisture is received with 7 days after application and prior to weed emergence. High intensity or excessive rainfall or excessive irrigation after application may reduce control.

Cultivation Information - Delay cultivation after application for as long as possible unless weeds or grasses emerge. Shallowly cultivate or rotary hoe immediately if weeds or grasses emerge. If cultivation is necessary because of soil crusting or compaction, set equipment shallow and minimize lateral soil movement to avoid dilution or displacement of the herbicide treatment. If a band application is used and weeds have emerged in the treated band, set cultivator to throw soil into the row covering the band.

WEEDS CONTROLLED

Applicators should evaluate soil and weed conditions carefully to assure that the lowest effective label rate is chosen.

When applied as directed, under the conditions described, this product **CONTROLS** the following weeds:

- | | |
|-------------------------------|-----------------------------|
| Barnyardgrass | Mustard |
| <i>Echinochloa crus-galli</i> | <i>Brassica spp.</i> |
| Buckwheat, wild | Nightshade, black |
| <i>Polygonum convolvulus</i> | <i>Solanum nigrum</i> |
| Carpetweed | Nightshade, hairy |
| <i>Mollugo verticillata</i> | <i>Solanum sarrachoides</i> |
| Crabgrass | Panicum, fall |

Digitaria spp.
Foxtail, giant
Setaria faberi
Foxtail, green
Setaria viridis
Foxtail, yellow
Setaria lutescens
Goosegrass
Eleusine indica
Groundsel
Senecio vulgaris
Kochia
Kochia scoparia
Lambsquarters
Chenopodium album

Panicum dichotomiflorum
Pigweed
Amaranthus spp.
Purslane
Portulaca oleracea
Pusley, Florida
Richardia scabra
Ragweed
Ambrosia artemisiifolia
Ryegrass, annual
Lolium spp.
Smartweed
Polygonum
pensylvanicum
Polygonum persicaria

When applied immediately after planting, under the conditions described, this product at a rate of 6.25 to 8.6 pounds per acre REDUCES COMPETITION from the following hard-to-control weeds:

NOTE: For preemergence weed control on highly erodible soils (as defined by the Soil Conservation Service) with less than 30 percent plant residue cover, the maximum rate is 8 pounds of this product per acre (1.6 pounds of atrazine active ingredient per acre).

Buttonweed, Velvetleaf
Abutilon theophrasti
Cocklebur
Xanthium
strumarium

Jimsonweed
Datura stramonium
Morningglory, annual
Ipomoea purpurea
Signalgrass, broadleaf
Brachiaria platyphylla

FOR WEED CONTROL IN
GRAIN SORGHUM (milo)
FIELD CORN, HYBRID SEED CORN
AND SILAGE CORN

For preemergence weed control on highly erodible soils (as defined by the Soil Conservation Service) with less than 30 percent plant residue cover, the maximum rate is 8 pounds of this product per acre (1.6 pounds of atrazine active ingredient per acre). On soils not highly erodible or on highly erodible soils with more than 30 percent plant residue cover, the maximum rate is 10 pounds of this product per acre (2 pounds of atrazine active ingredient per acre). If there has been a previous application of a product containing atrazine, do not exceed a total of 2.5 pounds of atrazine active ingredient per acre per calendar year.

Apply this product in water or sprayable fluid fertilizer solutions for control of annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label.

APPROVED APPLICATION SYSTEMS

Ground - Broadcast boom; banded

Reference: The "APPLICATION SYSTEMS" section of this label provides detailed information on the application of this product using the system selected.

APPROVED APPLICATION METHODS

Preemergence Surface - Apply this product after planting, before crop and weed emergence and within 5 days after last preplant tillage operation. See the following table for recommended broadcast rate per acre for preemergence surface applications.

Reference: The "APPLICATION TIMING AND METHODS" section of this label provides detailed information and procedures for the application timing and method selected.

Preemergence Surface Application Rates

SOIL TEXTURAL GROUP*	BROADCAST RATE PER ACRE (POUNDS)**	
	Less than 3% organic matter	More than 3% organic matter
Coarse***	5	6.25
Medium	6.25	7
Fine	6.25 to 7	7 to 8.6

*Refer to the "SOIL TEXTURE" section of this label to determine corresponding soil textural group for the soil to be treated.

**Use the higher rates in the recommended ranges in areas of heavy weed infestations.

***Do not use on grain sorghum on coarse-textured soils with less than 3 percent organic matter

For Corn Only -- This product can be applied until weeds reach the 2-leaf stage but prior to corn emergence. Applications beyond the 2-leaf stage will not provide satisfactory results. Better results will be obtained if rainfall occurs within 5 to 7 days after application. If rainfall does not occur, use shallow cultivation with a rolling cultivator or similar implement to remove emerged weeds. Avoid cultivation methods which will displace the treated soil layer. See the rate table in the preemergence section of this label for the recommended rate for the soil texture and organic matter content to be treated.

For Lister or Deep Furrow Planted Corn -- Apply this product at the higher broadcast rate listed in the rate table in the preemergence section of this label for the soil texture and organic matter content to be treated.

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If heavy rains follow application, the treatment on the top and sides of the furrow may not provide weed control as good as that obtained in the bottom of the furrow.

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In case of an emergency involving this product,
Call Collect, day or night, (314) 694-4000.

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ST. LOUIS, MISSOURI, 63167 U.S.A.

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