

US ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (75-767)
WASHINGTON, DC 20460

EPA REGISTRATION NO.

524-493

PM 25 524-493 P 1725

OCT 23 1996

TERM OF ISSUANCE

NOTICE OF PESTICIDE: REGISTRATION
 REREGISTRATION
(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

NAME OF PESTICIDE PRODUCT

NON 58420 Herbicide

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Mr. Roy G. Danhaus
Monsanto Company
700 14th Street, NW Suite #1100
Washington, DC 20005

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that:

1. Submit and/or cite all data required for the registration/reregistration of your product under FIFRA sec. 3(c)(5) and sec. 4 when the Agency requires all registrants of similar products to submit such data.

2. Make the labeling changes listed below before you release the product for shipment.

a. Add the phrase "EPA Registration No. 524-493".

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

OCT 23 1996

b. PPE for early entry should be coveralls over long-sleeved shirt and long pants, socks and chemical resistant footwear. Wear goggles or face shield and waterproof gloves.

c. Add the following statement to Statement of Practical Treatment:

NOTE TO PHYSICIAN;

Probable mucosal damage may contraindicate the use of gastric lavage.

d. Revise use directions to comply with Atrazine Voluntary Surface Water Exposure Reductions Measures. (Similar to recent amendments concerning EPA Registration Nos. 524-480 and 485.

3. Submit three (3) copies of your final printed labeling before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of labeling is enclosed for your records.

CONCURRENCES

SYMBOL	7505C						
SURNAME	VK Walker						
DATE	10/22/96						

RESTRICTED USE PESTICIDE

due to ground and surface water concerns and oncogenicity concerns. 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. For retail sale to and use only by Certified Applicators, or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

**MON 58420
Herbicide by Monsanto**

Preemergence herbicide for weed control in Field Corn, Production Seed Corn, Silage Corn and Popcorn.

In case of an emergency involving this product or for user safety information on this product, call collect, day or night (314) 694-4000.

**SHAKE WELL BEFORE USING
Complete Directions for Use**

AVOID CONTACT WITH DESIRABLE PLANTS AND TREES SINCE SEVERE INJURY OR DESTRUCTION MAY RESULT.

ACCEPTED
OCT 23 1996
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 524-493

EPA Reg. No.

1996

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 IS PROHIBITED. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATION.

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 OR 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, application to or contact with desirable vegetation, 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.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

DANGER! PELIGRO!

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail).

CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE.

HARMFUL IF SWALLOWED OR INHALED.

MAY CAUSE ALLERGIC SKIN REACTION.

Avoid contact with eyes, skin, or clothing.

Avoid breathing vapor or spray mist.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

FIRST AID: IF IN EYES, Hold eyelids open and flush with a steady gentle stream of water for 15 minutes. Get medical attention if irritation persists.

IF SWALLOWED: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. DO NOT INDUCE VOMITING OR GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

IF ON SKIN: immediately flush with plenty of water while removing contaminated clothing. Sensitized persons should avoid further contact and reuse of contaminated clothing. Get medical attention.

Personal Protective Equipment

Applicators and other handlers must wear: long-sleeved shirt and long pants, waterproof gloves, shoes plus socks and protective eyewear.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standards (WPS) for agricultural herbicides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

User Should:

- * Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- * Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- * Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

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

Environmental Hazards

Atrazine has been identified in limited ground water sampling and there is the possibility that it can leach through the soil to ground water, especially where soils are coarse and the ground water is near the surface. Users are advised not to apply this product to sand and loamy sand soils where the water table (ground water) is near the surface and where these soils are permeable (Well drained).

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

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff and drift from treated areas may be hazardous to aquatic

organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the ground water is shallow, may result in ground water contamination.

Acetochlor has properties that may result in surface water contamination via dissolved runoff and erosion. Practices should be followed to minimize the potential for dissolved runoff and/or runoff erosion.

Physical or Chemical Hazards

Spray solution of this product should be mixed, stored and applied only in stainless steel, aluminum, fiberglass, plastic and plastic-lined steel containers.

DO NOT MIX, STORE OR APPLY THIS THIS PRODUCT OR SPRAY SOLUTIONS OF THIS PRODUCT IN GALVANIZED STEEL OR UNLINED STEEL (EXCEPT STAINLESS STEEL) CONTAINERS OR SPRAY TANKS. This product or spray solutions of this product react with such containers and tanks to produce hydrogen gas which may form a highly combustible gas mixture. This gas mixture could flash or explode, causing serious personal injury, if ignited by open flames, sparks, welder's torch, lighted cigarette or other ignition sources.

ACTIVE INGREDIENTS:*

Acetochlor, [2-chloro-N-ethoxymethyl-N-(2-ethyl-6-methylphenyl)acetamide].....	21.5%
Atrazine, [2-chloro-4-(ethylamino)-6-(isopropylamino)s-triazine] and related triazines	16.1%
Glyphosate, [N-phosphonomethyl)glycine, in the form of its isopropylamine salt	8.1%
INERT INGREDIENTS:	54.3%

100.0%

*Contains 240 grams/liter or 2.0 pounds/gallon of acetochlor, 180 grams/liter or 1.5 pounds/gallon of atrazine and related compounds and 90 grams/liter or 0.75 pound/gallon of glyphosate, in the form of its isopropylamine salt which is equivalent to 0.56 pounds/gallon of the acid, glyphosate.

This product is protected by U.S. Pat. No. 4,256,481 and U.S. Patent No. 4,405,531. Other patents pending. No license is granted under any non-U.S. patent(s)

DIRECTION FOR USE

It is a violation of Federal Law to use this product in any manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours. Exception: if the product is soil injected or soil-incorporated, the Worker Protection Standard under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is: coveralls, waterproof gloves, shoes plus socks and protective eyewear.

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

Storage and Disposal

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

DISPOSAL: Wastes resulting from the use of this product that cannot be used or chemically reprocessed should be disposed of in a landfill approval for pesticide disposal or in accordance with applicable Federal, state or local procedures.

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

(See the individual container label for disposal information.)

GENERAL INFORMATION

This product, applied alone or in tank mixtures, is recommended for the preemergence and postemergence control of many annual grasses and broadleaf weeds in corn grown under NO-TILL or other minimum tillage practices. This product will also provide reduced competition from certain emerged perennial weeds.

MOISTURE CONDITIONS

Rainfall or sprinkler irrigation within 2 hours after application may reduce control of emerged weeds.

Moisture in the form of rainfall or irrigation is required after application to move this product into the weed germination zone for preemergence weed control. The amount of moisture required depends on the soil moisture content at the time of application, soil type, and plant residues. Performance is improved when 1/3 to 3/4 inch of moisture is received within one week after application and prior to weed emergence. High intensity or excessive rainfall or irrigation after application may reduce preemergence weed control on coarse soils.

READ AND CAREFULLY OBSERVE PRECAUTIONARY STATEMENTS AND ALL OTHER INFORMATION APPEARING ON THE LABELING OF ALL PRODUCTS USED IN MIXTURES.

NOTE: Use this product for weed control in corn only. CORN (including sweet corn), MILO (SORGHUM), OR SOYBEANS CAN BE PLANTED THE YEAR FOLLOWING THE USE OF THIS PRODUCT. IF SOYBEANS OR OTHER NONLABELED CROPS ARE TO BE PLANTED THE FOLLOWING YEAR, THERE IS THE POSSIBILITY OF CROP INJURY DUE TO CARRYOVER OF ATRAZINE. Do not plant soybeans in area where furrow irrigation is practiced.

ATTENTION

MIX THIS PRODUCT ONLY IN WATER OR LIQUID NITROGEN FERTILIZER CARRIERS (28 PERCENT OR 32 PERCENT SOLUTIONS ONLY) DO NOT MIX THIS PRODUCT WITH COMPLEX LIQUID FERTILIZERS (10-34-0, FLOWABLES, ETC.), HERBICIDE OILS OR ANY MATERIALS OTHER THAN THOSE LISTED ON THIS LABEL.

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.

DO NOT APPLY THIS PRODUCT TO EMERGED CORN.

DO NOT FEED FORAGE FROM CORN OR GRAZE TREATED AREAS WITHIN 8 WEEKS AFTER APPLICATION.

USE RESTRICTIONS

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the ground water is shallow, may result in ground water contamination. Do not apply to the following soils where depth to

ground water is 30 feet or less: sands with less than 3% organic matter; loamy sands with less than 2% organic matter; or sandy loams with less than 1% organic matter.

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, intermittent streams and rivers, and natural or impounded lakes and reservoirs. This set-back does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticides handling or application equipment or container within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or washwater, and rainwater that may fall on pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain a minimum of 110 percent of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead set-backs and operational containment.

This product may not be applied within 66 feet of all 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.

Do not flood irrigate to apply or incorporate this product.

Product must be used in a manner which will prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

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

Disposal of excess pesticide, spray mixtures or rinsate should be according to label use instructions or according to the state Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA regional office.

Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas. To prevent off-site movement due to runoff or wind erosion:

Avoid treating powdery-dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.

Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered soils.

Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

Do not apply this product using aerial application equipment.

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS PRODUCT TO PREVENT INJURY TO DESIRABLE PLANTS, TREES AND CROPS.

Do not allow the herbicide solution to mist, drip, drift, or splash onto desirable vegetation since minute quantities of this herbicide can cause severe damage or destruction to crops, plants, or other areas on which treatment was not intended. The likelihood of injury occurring from the use of this product is greatest when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow spray drift to occur. When spraying avoid combinations of pressure and nozzle type that will result in splatter or fine particles (mist) which are likely to drift. AVOID APPLYING AT EXCESSIVE SPEED OR PRESSURE.

Keep ground driven spray boom as low as possible above the target surface.

Low humidity and high temperature increases the likelihood of spray drift to sensitive areas. Avoid spraying during conditions of low humidity and/or high temperature. Do not apply during inversion conditions.

Use of this product 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.

On highly erodible soils as defined by the National Resource Conservation Service (NRCS), if conservation tillage is utilized (more than 30 percent plant residue cover), the maximum rate of atrazine is 2 pounds active ingredient per acre, If plant residue is less than 30 percent the maximum rate of atrazine is 1.6 pounds active ingredient per acre. On soils not highly erodible, the maximum rate is 2 pounds active ingredient per acre. The maximum application rate for corn is 2.5 pounds atrazine active

ingredient per acre per calendar year. Where sequential postemergence treatment with appropriately registered product containing atrazine are necessary, do not exceed a total of 2.5 pounds atrazine active ingredient per acre per calendar year. Where there are state local requirements regarding atrazine use (including lower maximum rates and/or higher set-back) which are different from the label, the more restrictive/protective requirements apply.

SOIL TEXTURE

Applicators should evaluate soil and weed conditions carefully to assure that they choose the correct 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 texture groups: COARSE, MEDIUM and FINE. The following is a complete listing of soil textures included in each of these three soil texture 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 texture group for the soil to be treated.

MIXING, SPRAYING AND HANDLING INSTRUCTIONS

NOTE

Direct contact or exposure to this product or spray mixtures of this product should be minimized. The following instructions for transfer, mixing, cleaning or repairing equipment should be followed in order to minimize this exposure. Review the protective clothing requirements as listed in the "PRECAUTIONARY STATEMENTS" section of this label and do not use this product until you have the necessary protection clothing.

2.5 Gallon Containers

Open pouring from these containers can result in exposure from splashing or spilling. Special care in lifting and pouring are strongly recommended.

Bulk Containers

Open pouring from these containers can result in exposure from splashing or spilling and is not recommended. This product should be transferred from these containers to the mix or spray tank using pumps or transfer probes. The probe or pump should not be removed from the container or disconnected until the container is emptied and rinsed. Use the pump or probe system to rinse the

empty container and transfer the rinsate directly to the mix or spray tank.

Equipment Cleaning & Repair

Cleaning and repair of transfer systems and application equipment is a source of exposure to this product. Care should be taken to minimize exposure during cleaning and repair of transfer systems application equipment. Whenever possible, these systems or equipment should be rinsed before being cleaned or repaired.

When repairs must be made during transfer or application, the equipment should be shut down, and special care taken to avoid contact with the pesticide.

Always predetermine the compatibility of this product or labeled mixtures of this product with water carrier or sprayable fluid fertilizer carrier by mixing small proportional quantities in advance. See the "STANDARD SPRAYABLE FLUID FERTILIZER COMPATIBILITY TEST" section in this label to determine the compatibility of this product and labeled tank mixtures recommended for use with sprayable fluid fertilizer carrier.

NOTE: Reduced results may occur if muddy water is used, such as water from ponds or ditches.

Mix this product or labeled tank mixture of this product with the appropriate carrier as follows:

1. Place a 20 to 35-mesh screen or wetting basket over filling port.
2. Through the screen, fill the sprayer tank one-half full with the appropriate 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 FDA for this use. Read and follow all direction for use, cautionary statements and all other information appearing on the selected compatibility agent label. Check for adequate agitation.
4. Add tank mix components. If a wettable powder is used, make a slurry with water, and add it SLOWLY through the screen into the tank. Continue agitation.

If flowable herbicides are used, add slowly through screen into the tank. Mixing and compatibility may be improved when flowable is premixed one part flowable with one part water. Add diluted mixture SLOWLY through the screen into the tank.

5. Premix one part of this product with one part water. Add diluted mixture SLOWLY through the screen into the tank.
6. Complete filling the sprayer tank with water. Remove hose from tank immediately to avoid siphoning back into the water source. Maintain good agitation at all times until the contents of the tank are sprayed.

Maintain good agitation at all times until the contents of the tank are sprayed. NOTE: If spray mixture is allowed to settle at any time, thorough agitation is required to resuspend the mixture before spraying is resumed. Keep bypass line on or near 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. Check for even distribution of spray droplets. For best results with ground application equipment, use flat fan or whirl-chamber nozzle. To reduce loss of 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 one-quart jars with lid or stopper (marked "with" and "without").
2. TEASpoons (for a more exacting test, a five to ten milliliter (ml.) pipette or graduated cylinder is desirable).
3. Sprayable fluid fertilizer to be tested.
4. The herbicide chemicals to be mixed.
5. A compatibility agent (the purpose of the adjuvant is to help keep the fertilizer and crop protection chemical in suspension, if this assistance is needed).

B. Procedure

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

Add One Pint Liquid Fertilizer
To Two 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 five to ten seconds to mix. (1/4 Teaspoon in one pint is the equivalent of two pints per 100 gallons of liquid fertilizer.)

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

WITH

WITHOUT

- To each jar add the appropriate amount of herbicide(s). If more than one is used, add them separately with the wettable powders or dry flowables added first, flowables second and liquid last. Shake gently five to ten 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
Wettable Powders	1 lb.	= 1.5
	2 lb.	= 3
or	3 lb.	= 4.5
Dry Flowables	4 lb.	= 6
	5 lb.	= 7.5

HERBICIDE	RATE/A	Level TEASpoons	Milliliters
emulsifiable	1 pint	= 0.5	or 2.4
Concentrates or	1 quart	= 1	or 4.7
Flowables or	2 quarts	= 2	or 9.5
Liquids or	3 quarts	= 3	or 14.2
Solutions	1 gallon	= 4	or 19.0
	5 quarts	= 5	or 23.8

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 rate, make appropriate changes in the ingredients of the test. Regardless of spray volume, the amount of compatibility agent should be equal to two or three pints (two 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. An emulsifiable concentrate normally will go to the top after standing; 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 the herbicide(s) 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 without the compatibility agent, the herbicide(s) should be premixed with water before adding to the spray tank.

WEEDS CONTROLLED

When applied as directed under conditions described, this product alone or in tank mixtures with other products listed will control or reduce competition from the following EMERGED WEEDS.

For difficult-to-control ANNUAL WEEDS such as fall panicum, barnyardgrass, crabgrass, shattercane and broadleaf signalgrass up to 3 inches tall and smartweed up to 6 inches tall, apply this product at 5 quarts per acre alone or with tank mixture. For other labeled annual weeds, apply 4 quarts per acre when weed are less than 6 inches tall, and 5 quarts per acre when weeds are 6-12 inches tall.

For improved burndown of broadleaf weeds this product may be tank mixed with 2,4-D or dicamba.

PRECAUTIONS, RESTRICTIONS: Applications of 2,4-D or dicamba must be made at least 7 days prior to planting corn. Follow all precautions and restriction on the 2,4-D and dicamba labels

Reduced control of emerged weeds may occur when weeds are under poor growing conditions such as from drought stress, when application follows recent mowing or when excessive amounts of dust cover the plants.

ANNUAL GRASSES

- Barnyardgrass
Echinochloa crus-galli
- Bluegrass, annual
Poa annua
- Brome, downy
Bromus tectorum
- Corn, volunteer
Zea mays
- Crabgrass
Digitaria ischaemum
Digitaria sanguinalis
- Foxtail, giant
Setaria faberi
- Foxtail, green
Setaria viridis
- Foxtail, yellow
Setaria lutescens
- Panicum, fall
Panicum dichotomiflorum
- Sandbur, field
Cenchrus spp.
- Shattercane
Sorghum bicolor
- Signalgrass, broadleaf
Brachiaria spp.
- Wheat, volunteer
Triticum aestivum

ANNUAL BROADLEAVES

- Buttercup, smallflower
Ranunculus abortivus
- Carpetweed
Molluga verticillata

- Chickweed, common
Stellaria media
- Cocklebur
Xanthium strumarium
- Fleabane
Erigeron spp.
- Henbit
Lamium amplexicaule
- Kochia
Kochia scoparia
- Lambsquarters
Chenopodium album
- Lettuce, prickly
Lactuca serriola
- Mustard spp.
Brassica spp.
- Marestail, Horseweed
Conyza canadensis
- Pennycress, field
Thlaspi arvense
- Pigweed; Carelessweed,
redroot
Amaranthus retroflexus
- Pigweed, smooth
Amaranthus hybridus
- Pepperweed, spp
Lepidium spp.
- Ragweed, common
Ambrosia artemisiifolia
- Ragweed, giant
Ambrosia trifida
- Shepherd's purse
Capsella bursa-pastoris
- Smartweed
Polygonum pensylvanicum
- Sunflowers
Helianthus annuus
- Thistle, Russian
Salsola kali
- Velvetleaf, Buttonweed
Abutilon theophrasti
- Waterhemp, Tall
Amaranthus, tuberculatus

This product at 5 quarts per acre applied alone or in tank mixtures with other products listed will REDUCE COMPETITION from the following EMERGED PERENNIAL WEEDS:

PERENNIAL GRASSES

Bluegrass, Kentucky
Poa spp.

Bromegrass, smooth
Bromus inermis

Fescue
Festuca spp.

Muhly, wirestem
Muhlenbergia frondosa

Johnsongrass
Sorghum halepense

Orchardgrass
Dactylis glomerata

Quackgrass
Agropyron repens

Ryegrass, perennial
Lolium perenne

Timothy
Phleum pratense

PERENNIAL BROADLEAVES

Alfalfa
Medicago sativa

Clover, red
Trifolium pratense

Clover, white
Trifolium repens

Dock, curly
Rumex crispus

Milkweed
Asclepias spp.

Mullein, common
Verbascum thapsus

Smartweed, swamp
Polygonum coccineum

Thistle, Canada
Cirsium arvense

This product applied alone or in tank mixture with other products will provide PREEMERGENCE CONTROL of the following weeds:

ANNUAL GRASSES

Barnyardgrass
Echinochloa crus-galli

Crabgrass
Digitaria ischaemum
Digitaria sanguinalis

Foxtail, giant
Setaria faberi

Foxtail, green, robust
purple, robust white
Setaria viridis

Foxtail, yellow
Setaria lutescens

Goosegrass
Elusine indica

Oat, wild
Avena fatua

Panicum, browntop
Panicum fasciculatum

Panicum, fall
Panicum dichotomiflorum

Red, rice
Oryza sativa

Signalgrass, broadleaf
Brachiaria spp.

Sprangletop, red
Leptochloa filiformis

Wheat, volunteer
Triticum aestivum

Witchgrass
Panicum capillare

This product when applied just before or right after planting at a rate of 4 to 5 quarts per acres on a broadcast basis will provide PREEMERGENCE reduced competition from the following HARD-TO-CONTROL weeds.

ANNUAL GRASSES

Cupgrass, woolly
Eriochloa villosa

Panicum, Texas
Panicum texanum

Johnsongrass, seedling
Sorghum halepense

Sandbur, Grassbur
Cenchrus incertus

Millet, proso
Panicum miliaceum

Shattercane, wildcane
Sorghum bicolor

ANNUAL BROADLEAVES

When applied as directed under conditions described, this product alone or in tank mixtures with products listed in the following table will provide preemergence control or reduced competition from the additional grass and broadleaf weeds as indicated. Refer to the "DIRECTIONS FOR USE" section of this label to determine the rate of this product to use alone or in tank mixtures.

- 1 MON-58420
- 2 Bladex™
- 3 Princep™

NOTE: C = Control

R = Reduced Competition

	TANK MIXTURE		
	1	2	3
Beggarweed, Florida <i>Desmodium tortuosum</i>	C	C	C
Carpetweed <i>Mollugo verticillata</i>	C	C	C
Cocklebur* <i>Xanthium pensylvanicum</i>	R	C	C
Jimsonweed <i>Datura stramonium</i>	C	C	C
Kochia <i>Kochia scoparia</i>	C	C	C
Lambsquarters <i>Chenopodium album</i>	C	C	C
Morningglory, annual* <i>Ipomeoea purpurea</i>	R	C	C
Mustard <i>Brassica spp.</i>	C	C	C
Nightshade, black <i>Solanum nigrum</i>	C	C	C
Nightshade, hairy <i>Solanum sarrachoides</i>	C	C	C
Pigweed; Carelessweed, redroot <i>Amaranthus retroflexus</i>	C	C	C
Pigweed, smooth <i>Amaranthus hybridus</i>	C	C	C
Purslane <i>Portulaca oleracea</i>	C	C	C
Pusley, Florida <i>Richardia scabra</i>	C	C	C
Ragweed, common <i>Ambrosia artemisiifolia</i>	C	C	C
Ragweed, giant <i>Ambrosia trifida</i>	R	C	C
Sandbur, field			

Cenchrus spp.	R	C	C
Sicklepod			
<i>Cassia obtusifolia</i>	R	R	R
Sida, prickly, teaweed			
<i>Sida spinosa</i>	C	C	C
Smartweed			
<i>Polygonum pensylvanicum</i>			
<i>Polygonum persicaria</i>	C	C	C
Sunflower, common			
<i>Helianthus annus</i>	R	C	C
Velvetleaf, Buttonweed			
<i>Abutilon theophrasti</i>	C	C	C
Waterhemp			
<i>Amaranthus tuberculatos</i>	C	C	C

*Use the maximum labeled rates to achieve control.

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TMprincep is a registered trademark of the Ciba-Geigy Corporation.

REFER TO SPECIFIC PRODUCT LABELS FOR ADDITIONAL WEEDS CONTROLLED, CROP ROTATION RESTRICTIONS AND CAUTIONARY STATEMENTS.

APPLICATION INFORMATION

SHAKE CONTAINER VIGOROUSLY PRIOR TO MIXING AND USE.

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

Broadcast Treatment-Apply this product and labeled tank mixtures of products in 10 to 20 gallons of water, or 10 to 50 gallons of liquid nitrogen (28 percent or 32 percent solutions only) per acre, before, during or after planting, but **PRIOR TO CROP EMERGENCE**. Application of this product in fluid fertilizer should only be used for treatment of annual weeds less than 6 inches tall. Spray coverage should be uniform and complete. Under conditions of dense stubble or plant residue or very high weed populations, higher rates within the recommended ranges may be needed for best results.

DO NOT APPLY BY AIR.

MIX ONLY WITH CLEAN WATER.

Ammonium Sulfate-The addition of ammonium sulfate in the spray solution may increase the performance of this product and tank mixtures with this product on emerged annual weeds under adverse growing conditions. When using ammonium sulfate, add 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water. Ammonium sulfate should be added to the water in the spray

tank and completely dissolved prior to adding herbicide or surfactant. Do not mix ammonium sulfate in fluid fertilizer solutions.

If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet lines. Nozzle tip plugging may result from the use of low-quality ammonium sulfate. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for 1 minute. If undissolved sediment is observed, pre-dissolve the ammonium sulfate in water and filter prior to addition to the spray tank. Following use of ammonium sulfate, thoroughly rinse the spray system with clean water to reduce corrosion.

NOTE: Additional Surfactant is not required with this product.

**No-Till and Minimum Tillage Systems
FIELD CORN, PRODUCTION SEED CORN,
SILAGE CORN AND POPCORN**

When applied as directed under the conditions described, this product or labeled tank mixtures will control many emerged annual weeds, suppress many emerged perennial weeds and give preemergence control of many annual weeds when corn will be planted directly into previous crop residues. This product or labeled tank mixtures will not control regrowth from perennial weeds or unemerged perennial weeds.

For mixing instructions, see the "MIXING AND SPRAYING INSTRUCTIONS" section of this label.

The higher recommended rates listed for each soil texture grouping should be used when:

PREVIOUS CROP RESIDUES ARE EXTREMELY DENSE

EMERGED WEEDS ARE OVER 6 INCHES TALL

HEAVY INFESTATIONS OF ANNUAL GRASSES OR BROADLEAVES ARE EXPECTED

SOILS CONTAIN MORE THAN 3 PERCENT ORGANIC MATTER

NOTE: The maximum application rate of atrazine is 2.5 pounds active ingredient per acre per calendar year. On highly erodible soils (as defined by the Natural Resource Conservation Service) with less than 30 percent crop residue cover, the maximum rate of atrazine is 1.6 pounds of active ingredient. On soil not highly erodible or on highly erodible soils with more than 30 percent crop residue cover, the maximum rate of atrazine is 2 pounds active ingredient per acres. 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. The maximum application rate of acetochlor for corn is 3 pounds active ingredient per acre per calendar year.

MON-58420 USE RATES

The following table provides the recommended PREEMERGENCE rates for this product in no-till and minimum tillage systems in Corn.

Refer to the "WEEDS CONTROLLED" section of this label for specific rates per acre recommendations on EMERGED weeds and for a list of weeds controlled.

SOIL TEXTURAL GROUP* BROADCAST RATE PER ACRE (QUARTS)
MON 58420

Coarse**	3.5 to 4
Medium	4 to 5
Fine	4 to 5

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

**Refer to the "USE RESTRICTIONS" section of this label for restrictions.

NOTE: PLANT ONLY CORN, SORGHUM OR SOYBEANS* the year following use of this mixture.

* There is a possibility of crop injury due to carryover of atrazine if soybeans are planted the following year. DO NOT plant soybeans the year following use of this product on furrow irrigated corn.

Tank Mixtures

MON 58420 plus ROUNDUP and/or HARNESS and/or ATRAZINE

In cases of heavy weed infestation or hard-to-control weed species found on this label, additional amounts of Roundup® AND/OR Harness® AND/OR atrazine herbicides can be added to the recommended treatment rates to obtain improved control under the following methods of application:

- Postemergence Roundup
- Preemergence Harness and atrazine
- Postemergence and Preemergence Roundup and harness and atrazine

Refer to the respective label booklets for Roundup and Harness and atrazine for specific recommendations regarding the timing of application.

The following table shows the maximum amounts of Roundup OR Harness OR atrazine herbicides, that can be added to specific treatment rates of this product.

RECOMMENDED TANK MIXTURE RATES (QTS./A.)

MON 58420	ROUNDUP®	HARNESS®	ATRAZINE
3.5	2.34	0.71	1.19
4	2.25	0.57	1.0
4.5	2.16	0.43	0.81
5	2.06	0.29	0.63

®Roundup and ®Harness are registered trademarks of Monsanto Company.

Tank Mixtures

CORN

MON 58420 plus BLADEX

OR

MON58420 plus PRINCEP

For additional preemergence control of heavy weed infestation and/or hard-to-control weeds listed in the "WEEDS CONTROLLED" section of this label, refer to the following rate table to determine the recommended rates of these tank mixtures on various soil types.

BROADCAST RATES PER ACRE (QUARTS)**

SOIL TEXTURE GROUP*	MON-58420	+	BLADEX 4L	or	PRINCEP 4L
Course***	3.5 to 4		1.0 to 1.3		0.8 to 1.0
Medium	4 to 5		1.0 to 2.0		1.0 to 1.5
Fine	4 to 5		1.0 to 2.0		1.0 to 1.5

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

**When using 4L formulations use the rates listed. Use equivalent rates when using 90 percent dry flowable formulations. One quart of Bladex 4L or Princep 4L equals 1.1 pounds of the 90 percent dry flowable formulations of these products.

25/25

***On coarse-textured soils containing less than 2% organic matter, use this product plus Bladex only on sandy loam. Do not use on sand and loamy sand with less than 2% organic matter. Refer to the "USE RESTRICTIONS" section of this label for restrictions.

USE THE LOWER RATES RECOMMENDED FOR EACH PRODUCT LISTED WHEN SOILS CONTAIN LESS THAN 3 PERCENT ORGANIC MATTER.

NOTE: PLANT ONLY CORN (including sweet corn), SORGHUM OR SOYBEANS* the year following use of this mixture.

* There is a possibility of crop injury due to carryover of atrazine if soybeans are planted the following year. DO NOT plant soybeans the year following use of these tank mixtures on furrow irrigated corn.

NOTE: Land treated with Princep should not be planted to any crop except corn for one year following treatment as crop injury may occur.

EPA Reg. No.

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

This product is protected by U.S. Patent No. 4,256,481 and U.S. Patent No. 4,405,531. Other patents pending. No license is granted under any non-U.S. patent(s).

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