

FILE 52-1108

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U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (7505C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:
524-468

Date of Issuance:
DEC 15 1994

Term of Issuance:
Conditional;
Expires: JUL 31 1997

Name of Pesticide Product:
Manage Herbicide

NOTICE OF PESTICIDE:
 Registration
 Reregistration

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Monsanto Company
700 14th Street, N.W., Suite 1100
Washington, D.C. 20005

Note: Changes in labeling 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 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.

Registration is in no way to be construed as an endorsement or recommendation of this product by the 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 you:

1. Submit data required to change this registration to an unconditional FIFRA sec. 3(c)(5) registration. The required data are listed in item #2 through 7.
2. Submit acceptable aquatic plant studies to fulfill Guideline Series 123-2. We acknowledge that studies to fulfill this requirement have been submitted and are currently pending Agency review.
3. Submit acceptable aquatic organism chronic toxicity studies to fulfill Guideline Series 72-4. These studies must be submitted no later than March 15, 1996.
4. Submit an acceptable protocol for a small scale prospective groundwater monitoring study (S166-1). The protocol must be submitted no later than February 1, 1995. Once the protocol is accepted by the Agency, the study is due within two (2) years of the date of such acceptance. Please refer to the Agency review dated September 16, 1994 regarding the environmental fate and groundwater data for details concerning the requirements for this study.

Signature of Approving Official:

Date:
DEC 15 1994

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5. Submit an acceptable analytical method for detection of residues in meat and meat by-products. We acknowledge that methods to fulfill this requirement has been submitted and are currently pending Agency validation.

6. Submit the following toxicology studies performed on the metabolite 3-chlorosulfonamide acid:

- a. 90-Day feeding study in the rat (§82-1). This study must be submitted no later than March 15, 1996.
- b. Developmental toxicity in the rat [§83-3(a)]. This study must be submitted no later than March 15, 1996.
- c. The three standard mutagenicity studies [84-2(a), 84-2(b), and 84-4]. These studies must be submitted no later than December 15, 1995.

7. Literature search and telephone survey with state and federal field agents and other sources (i.e., Nature Conservancy and Universities) to identify locations of selected endangered plants relative to sorghum/turf sites to be determined by the Environmental Fate and Effects Division. We note that corn and potato surveys are being performed by other registrants and that Monsanto is only responsible for the sorghum/turf surveys. This information is due to the Agency by January 31, 1996. The elements listed below are to be followed for this investigation:

- a. In general, Monsanto will seek to obtain the most specific information available as to where endangered plants are located relative to the use sites and provide as much descriptive information regarding the location of sorghum/turf use and endangered wetland plant sites (i.e., sorghum or turf field located "X" miles from "XX" Road, and endangered wetland plant located 1/2 mile north of Highway "XXX").
- b. Monsanto will contact the Agency before initiating this investigation and provide quarterly interim reports.
- c. Monsanto will identify and call experts that are knowledgeable about specific locations of endangered plant species. Experts are expected to inform Monsanto as to the likelihood of endangered plants being located in a certain county.
- d. If a particular endangered plant has been seen or found in a particular county, Monsanto will probe further until the specific location of the plant is determined.

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- e. Information, such as if the endangered plant is located up or downstream from a use site, should be provided. If a plant is upstream from the use site and falls within the distance of concern (i.e., half a mile from the field), then the Agency may conclude that a "may affect" does not exist in this situation.
- f. Monsanto will promptly notify the agency if an endangered plant is found very near a sorghum or turf field.

8. Make the following label changes before you release the product for shipment:

- a. Revise the EPA Registration Number to read, "EPA Reg. No. 524-468".
- b. Add the restriction "Do not apply by air."
- c. Please note that the groundwater advisory, currently appearing as the second paragraph of the Environmental Hazards section, may be removed from the labeling.
- d. Rewrite the inhalation statement within the Statement of Practical Treatment to read "IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention."

9. Submit one copy of the revised final printed label for the record before you release this 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 the label is enclosed for your records.

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

Enclosure

DK: 305-7546: FNB/PM23		CONCURRENCES					
SYMBOL	7505C						
SURNAME	D. KENNY						
DATE	12/15/94						

ACCEPTED
with COMMENTS
In EPA Letter Dated

DEC 15 1994

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

524-468

Read the entire label before using this product.
Use only according to label instructions.
Read "LIMIT OF WARRANTY AND LIABILITY", which
appears in the label booklet, before buying or using. If
terms are not acceptable, return at once unopened.
REFORMULATION OR REPACKAGING IS
PROHIBITED

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Keep out of reach of children.

CAUTION!

CAUSES EYE IRRITATION
HARMFUL IF SWALLOWED OR INHALED
Avoid contact with eyes or clothing
Avoid breathing dust.

FIRST AID: IF IN EYES, immediately flush with plenty
of water. Get medical attention if irritation persists
IF SWALLOWED, remove visible particles from mouth
and rinse thoroughly with water. Swallow water to
dilute. Get medical attention. NEVER GIVE
ANYTHING BY MOUTH TO AN UNCONSCIOUS
PERSON. **IF INHALED**, remove individual to fresh air.
Seek medical attention if breathing difficulty develops.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear long-sleeved
shirt and long pants and shoes plus socks. 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 or enclosed cabs in
a manner that meets the requirements listed in the
Worker Protection Standard (WPS) for agricultural
pesticides (40 CFR 170.240 (d) (4-6)), the handler PPE
requirements may be reduced or modified as specified
in the WPS.

Manage®

TURF HERBICIDE BY MONSANTO

Water Soluble Powder Pre-measured in a Water Soluble Bag

Manage is a selective herbicide for the control of nutsedge and other weeds in turfgrass.

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.

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

Environmental Hazards

Do not apply directly to water, to areas where surface
water is present or to intertidal areas below the mean
high water mark. Do not contaminate water when
disposing of equipment washwaters.

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 water table
is shallow, may result in ground water contamination.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any
manner inconsistent with its labeling.
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. Refer to supplemental labeling under "Agricultural
Use Requirements" in the Directions for Use section for
information about this standard.

Non-Agricultural Use Requirements

The requirements in this box apply to uses of this
product that are NOT within the scope of the Worker
Protection Standard for agricultural pesticides (40 CFR
Part 170). The WPS applies when this product is used
to produce agricultural plants on farms, forests,
nurseries or greenhouses.

Keep people off treated areas until spray solution has
dried.

For more product information
3111.

Storage and

Do not contaminate water, food
storage or disposal.

STORAGE: Store under cover
120°F). Do not store under

DISPOSAL: Wastes resulting
product that cannot be used
should be disposed of in a
pesticide disposal or in accordance
Federal, state or local procedure.

Emptied foil pouch and cardboard
product residue. Observe all
containers are destroyed. Do not
box.

Completely use water soluble
equipment. Then dispose of
cardboard box in a sanitary
or, if allowed by state and local
If burned, stay out of smoke.

(See label booklet for Complete)

ACTIVE INGREDIENT:

• Methyl 5-[[[4,6-dimethoxy-
carbonylamino]sulfonyl]-3-
pyrazole-4-carboxylate ...

INERT INGREDIENTS:

• Manufactured by Nissan C

EPA Reg. No. 524-UAI
Product is protected by U.S.
© Manage is a registered trademark
Company.

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WATER SOLUBLE POWDER PREMEASURED IN A WATER SOLUBLE BAG

Manage is a selective herbicide for the control of nutsedge and other weeds in turfgrass.

1994-1

A-000.01

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 pamphlet ('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. Notice of these claims may be made by calling 1-800-332-3111.

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.

CAUTION!

CAUSES EYE IRRITATION.
HARMFUL IF SWALLOWED OR INHALED.
Avoid contact with eyes or clothing.
Avoid breathing dust.



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First Aid: IF IN EYES, immediately flush with plenty of water. Get medical attention if irritation persists.

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

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

Personal Protective Equipment (PPE)

Applicators and other handlers must wear long-sleeved shirt and long pants and shoes plus socks. 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 or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations:

Users should:

- * Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- * Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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

Environmental Hazards

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

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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 water table is shallow, may result in ground water contamination.

DIRECTIONS FOR USE

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

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 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.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

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

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NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Keep people off treated areas until spray solution has dried.

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:

Store under cool, dry conditions (below 120° F).
Do not store under moist conditions.

Keep outer foil pouch **TIGHTLY** sealed to prevent moisture from damaging any unused water soluble bags.

DISPOSAL:

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

Emptied foil pouch and cardboard box retain vapor and product residue. Observe all labeled safeguards until containers are destroyed. Do not reuse foil pouch or box.

Completely use water soluble bags in application equipment. Then dispose of empty foil pouch and cardboard box 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

Manage® is a selective turf herbicide for postemergence control of sedges such as purple and yellow nutsedge in established lawns and ornamental turfgrass. Manage may be applied on commercial and residential turf and other non-crop sites including: airports, cemeteries, golf courses, landscaped areas, public recreation areas, residential property, roadsides, school grounds, sod or turf seed farms, and sports fields. This product is harmless to nearby established ornamentals, trees and shrubs when used according to label directions.

TURFGRASSES

When applied as directed under the conditions described, the following established turfgrasses are tolerant to this product:

Cool-Season Grasses

Bentgrass, creeping
Agrostis stolonifera

Fescue, fine
Festuca rubra

Bluegrass, Kentucky
Poa pratensis

Fescue, tall
Festuca arundinacea

Ryegrass, perennial
Lolium perenne

Warm-Season Grasses

Bermudagrass
Cynodon dactylon

St. Augustinegrass
Stenotaphrum secundatum

Centipedegrass
Eremochloa ophiuroides

Zoysiagrass
Zoysia japonica

Ballagrass
Paspalum notatum

Manage® is a registered trademark of Monsanto Company.

WEEDS CONTROLLED

When applied postemergence, this product will control the following weeds:

Purple nutsedge
Cyperus rotundus

Yellow nutsedge
Cyperus esculentus

When applied postemergence, this product will suppress the following weed:

Kyllinga, green
Kyllinga brevifolia

APPLICATION DIRECTIONS
Rates and Timing of Application

For postemergence control of purple or yellow nutsedge found in established turfgrass, apply 1 to 2 ounces by weight of this product per acre (0.031 to 0.062 pounds active ingredient per acre) after nutsedge has reached the 3 to 8 leaf stage of growth. Use the lower rate in light infestations and the higher rate in heavy infestations.

A second treatment may be required 6 to 10 weeks after the initial treatment. As a sequential treatment, when new purple or yellow nutsedge plants have reached the 3 to 8 leaf stage of growth, apply 1 to 2 ounces by weight of this product per acre (0.031 to 0.062 pounds active ingredient per acre). Use the lower rate in light infestations and the higher rate in heavy infestations.

Use 0.5 percent nonionic surfactant concentration (2 quarts per 100 gallons of spray solution). Do not exceed 1 to 2 pints of surfactant per acre. Use only nonionic surfactants which contain at least 80 percent active material.

Refer to the surfactant label and observe all precautions, mixing and application instructions.

APPLICATION EQUIPMENT AND INSTRUCTIONS

Calibrate application equipment prior to application of this product. Application should be uniform and of sufficient volume to avoid streaking or skips. Avoid excessive overlap of the spray.

USE PRECAUTIONS

For optimum results, do not mow turf for 2 days before or 2 days after application.

Allow three (3) hours after application before irrigating.

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

This product may be used on seeded, sodded, or sprigged turfgrass that is well established. Allow the turf to develop a good root system and uniform stand before application.

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Avoid application of Manage when turfgrass or nutsedge is under stress since turf injury and poor nutsedge control may result.

Do not apply as an over-the-top spray to desirable flowers, vegetables, shrubs or trees.

ACTIVE INGREDIENT:

* Methyl 5-[[(4,6-dimethoxy-2-pyrimidinyl) amino] carbonylamino sulfonyl]-3-chloro-1-methyl-1-H-pyrazole-4-carboxylate	50.0%
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INERT INGREDIENTS:	50.0%
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	100.0%
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* Manufactured by Nissan Chemical Industries, Ltd.

Product is protected by U.S. Patent No. 4,668,277.

Manage® is a registered trademark of Monsanto Company.

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

Vertical barcode or scanning artifact consisting of a series of dots.