



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

EPA Reg. Number:
55947-150

Date of Issuance:
NOV 19 1972

NOTICE OF PESTICIDE:
 Registration
 Reregistration

(under FIFRA, as amended)

Term of Issuance:
Conditional

Name of Pesticide Product:
Guardsman Herbicide

Name and Address of Registrant (include ZIP Code):

Sandoz Corp. Protection Corp.
1300 East Touhy Avenue
Des Plaines, IL 60018

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

2. Make the following label changes listed below before you release the product for shipment:

a. Add the phrase, "EPA Reg. No. 55947-150".

b. On the top front panel a box should be placed around the Restricted Use Statements. Refer to PR Notice 93-1.

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Signature of Approving Official:

IS/

Date:

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c. In the Environmental Hazards section move "Atrazine is toxic to aquatic invertebrates" before the statement "Do not apply directly to water..."

3. Submit one (1) copy of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 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.

Cynthia Giles-Parker
Product Manager (22)
Fungicide-Herbicide Branch
Registration Division (7505C)

Enclosure

30703
Jacket

PROPOSED LABEL GUARDSMAN®
(FIELD CORN, SEED CORN AND POPCORN)

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RESTRICTED USE PESTICIDE (GROUND AND SURFACE WATER CONCERNS)

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.

THIS PRODUCT IS A RESTRICTED USE HERBICIDE DUE TO GROUND AND SURFACE WATER CONCERNS.

GUARDSMAN® Herbicide

FOR WEED CONTROL IN FIELD CORN, SEED CORN AND POPCORN

ACTIVE INGREDIENTS:

Dimethenamid: 2-chloro-N-[(1-methyl-2-methoxy) ethyl]-N-(2,4-dimethyl-thien-3-yl)-acetamide . . . 25.1 %

Atrazine: 2-chloro-4-ethylamino-6-isopropyl-amino-s-triazine 28.8 %

INERT INGREDIENTS: 46.1 %

TOTAL 100.0%

GUARDSMAN contains 2.33 pounds of dimethenamid and 2.67 pounds of atrazine per gallon.

Net Contents:
EPA No. 55947-
EPA Est. No. 55947-TX-1

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KEEP OUT OF REACH OF CHILDREN

CAUTION

See next page for additional precautionary statements and statement of practical treatment.

SHAKE BEFORE USING

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.

SANDOZ AGRO, INC.
1300 E. Touhy Avenue, Des Plaines, IL 60018

GUARDSMAN® Herbicide

FOR WEED CONTROL IN FIELD CORN, SEED CORN AND POPCORN

CAUTION

HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH THE SKIN. CAUSES EYE IRRITATION. AVOID BREATHING VAPOR OR SPRAY. AVOID CONTACT WITH SKIN, EYES, OR CLOTHING. PROLONGED OR FREQUENT REPEATED SKIN CONTACT MAY CAUSE ALLERGIC REACTIONS IN SOME INDIVIDUALS. WASH THOROUGHLY WITH SOAP AND WATER AFTER HANDLING.

IF SWALLOWED: CALL A PHYSICIAN OF 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: WASH WITH PLENTY OF SOAP AND WATER. GET MEDICAL ATTENTION.

IF IN EYES: FLUSH WITH PLENTY OF WATER. CALL A PHYSICIAN IF IRRITATION PERSISTS.

Personal Protective Equipment:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical resistance category section chart.

Applicators and other handlers (other than mixers and loaders) must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton.
- Chemical-resistant footwear plus socks

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Mixers and loaders must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton.
- Chemical-resistant footwear plus socks
- Protective eyewear

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.

Engineering controls statements:

When handlers use closed systems, enclosed cabs, or aircraft 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.
- 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.

ACCEPTED
with COMMENTS
in EPA Letter Dated

NOV 19 1993

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

55947-150

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ENVIRONMENTAL HAZARDS

DO NOT APPLY DIRECTLY TO WATER OR TO AREAS WHERE SURFACE WATER IS PRESENT OR TO INTERTIDAL AREAS BELOW THE MEAN HIGH WATER MARK. DO NOT CONTAMINATE WATER BY DISPOSAL OF EQUIPMENT WASHWATERS OR RINSATE. DO NOT APPLY WHEN WEATHER CONDITIONS (GUSTY WINDS, HIGH TEMPERATURES, LOW HUMIDITY, AND WHEN A TEMPERATURE INVERSION EXISTS) FAVOR DRIFT FROM TREATED AREAS.

DIMETHENAMID HAS PROPERTIES THAT MAY RESULT IN GROUNDWATER CONTAMINATION. APPLICATION IN AREAS WHERE SOILS ARE PERMEABLE OR COARSE AND GROUNDWATER IS NEAR THE SURFACE COULD RESULT IN GROUNDWATER CONTAMINATION. FOLLOWING APPLICATION AND DURING RAINFALL EVENTS THAT CAUSE RUNOFF, THIS CHEMICAL MAY REACH SURFACE WATER BODIES INCLUDING STREAMS, RIVERS AND RESERVOIRS.

GUARDSMAN HERBICIDE CONTAINS THE ACTIVE INGREDIENT ATRAZINE. ~~ATRAZINE IS TOXIC TO AQUATIC INVERTEBRATES.~~ ATRAZINE CAN LEACH THROUGH SOIL AND HAS BEEN FOUND TO RESULT IN CONTAMINATION OF WATER SUPPLIES BY WAY OF GROUNDWATER. THEREFORE, GROWERS ARE ADVISED TO AVOID USE OF GUARDSMAN IN WELL-DRAINED LOAMY-SAND TO SAND SOILS, PARTICULARLY IN AREAS HAVING HIGH GROUNDWATER TABLES.

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 SINKHOLES. THIS PRODUCT MAY NOT BE MIXED OR LOADED WITHIN 50 FEET OF INTERMITTENT STREAMS OR RIVERS, NATURAL OR IMPOUNDED LAKES AND RESERVOIRS. THIS PRODUCT MAY NOT BE APPLIED AERIALY OR BY GROUND WITHIN 66 FEET OF THE POINTS WHERE FIELD SURFACE WATER RUN-OFF 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 RUN-OFF POINTS MUST BE PLANTED TO CROP OR SEEDED WITH GRASS OR OTHER SUITABLE CROP.

CARE MUST BE TAKEN WHEN USING THIS PRODUCT TO PREVENT 1) BACK SIPHONING INTO WELLS, 2) SPILLS OR 3) IMPROPER DISPOSAL OF EXCESS PESTICIDE, SPRAY MIXTURES OR RINSATES.

CHECK VALVES OR ANTISIPHONING DEVICES MUST BE USED ON ALL MIXING EQUIPMENT.

PHYSICAL OR CHEMICAL HAZARDS

DO NOT USE OR STORE NEAR HEAT OR OPEN FLAME.

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DIRECTIONS FOR USE

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

Do not apply this product 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
- Chemical-resistant gloves, such as barrier laminate or butyl rubber or nitrile rubber or neoprene rubber or polyvinyl chloride (PVC) or viton.
- Chemical-resistant footwear plus socks

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PROPOSED LABEL GUARDSMAN●
(FIELD CORN, SEED CORN AND POPCORN)

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Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or higher set-backs) which are different from this label, the more restrictive/protective requirements apply.

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

IMPORTANT: Read the Limited Warranty and Liability and all applicable Directions for Use before using this product.

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| Order and Contents of Label Use Directions |
| GENERAL INFORMATION WEED SPECIES CONTROLLED USE METHODS AND TIMINGS Preplant Surface Preplant Incorporated Preemergence Early Postemergence |
| CORN USE PROGRAMS Use Rates in Field Corn, Seed Corn, and Popcorn Tank Mixtures and Sequential Uses in Corn |
| MIXING AND APPLICATION DIRECTIONS Mixing Spray Solutions Ground or Aerial Applications Use of Spray Adjuvants Compatibility Testing Dry Bulk Fertilizer Applications |
| ROTATIONAL CROPS |
| STORAGE AND CONTAINER DISPOSAL |
| LIMITED WARRANTY AND LIABILITY |

GENERAL INFORMATION

Guardsman is a selective preemergence herbicide for control of most annual grasses, certain annual broadleaf weeds and sedges in field corn, seed corn or popcorn. This product will provide most effective weed control when applied (by ground or aerial equipment), and subsequently incorporated into soil by rainfall, sprinkler irrigation, or mechanical tillage prior to weed seedling emergence from soil.

Guardsman is recommended for preplant incorporated, preplant surface, preemergence or early postemergence treatment. Guardsman application may be made using either water or fluid fertilizer as the spray carrier or it may be impregnated on and applied with dry bulk fertilizer. Sprayable fluid fertilizer as a carrier is not recommended for use after crop emergence.

Observe all precautionary statements and limitations on labeling of all products used in tank mixtures. Tank mix recommendations are for use only in states and on application sites where the tank mix product is registered.

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

Single or split applications of Guardsman may not exceed a total of 5 pints per acre in one crop year.

Recommended use rates of this product vary by soil type. The most accurate indicator of appropriate use rate for Guardsman is the Cation Exchange Capacity (CEC) of the soil to be treated. CEC values are available in standard soil testing procedures. If CEC values are not available, the recommended use rate of Guardsman may be determined using the soil texture and organic matter. Soil texture groupings used in this label are coarse, medium and fine. Soil textures included in these groupings are as follows:

| COARSE | MEDIUM | FINE |
|----------------------------------|--|--|
| Sand Loamy Sand Sandy Loam | Silt Silt Loam Loam Sandy Clay Loam | Sandy Clay Silty Clay Silty Clay Loam Clay Loam Clay |

Guardsman use rates, by either soil CEC values or by soil texture and organic matter, are given in specific crop use sections of this label. When use rates are expressed in ranges use the lower end of the rate range for lower CEC values and use the higher end of the rate range for higher CEC values. If texture and organic matter are used to determine use rates, use the lower end of the rate range for more coarsely textured soils low in organic matter and the higher end of the rate range for more finely textured soils that are high in organic matter.

WEED SPECIES CONTROLLED BY GUARDSMAN HERBICIDE

Guardsman herbicide applied at recommended rates and application timings will control many annual grass and broadleaf weeds**.

Annual Grasses

Barnyardgrass
Broadleaf Signalgrass
Crabgrass,
Smooth
Large
Foxtail,
Giant
Green
Yellow
Goosegrass
Johnsongrass (seedling)*
Fall Panicum
Red Rice
Southwestern Cupgrass
Texas Panicum*
Wild Oats
Witchgrass

Sedge

Yellow Nutsedge*
Rice Flatsedge

Annual Broadleaves

Carpetweed
Cocklebur*
Common Purslane
Florida Pusley
Jimsonweed
Kochia
Lambsquarters
Morningglory,
Annual
Mustards
Nightshade,
Black
Eastern Black
Hairy
Palmer Amaranth
Pigweed,
Prostrate
Redroot
Smooth
Tumble
Ragweed,
Common
Giant*
Smartweed
Spurge,
Nodding
Spotted
Tall Waterhemp
Velvetleaf*
Wild Buckwheat

- * For best control of these species use the highest recommended rate by soil type. If dry conditions exist near application or excessive rainfall occurs early in season, a postemergence herbicide and/or cultivation may be required to aid in control of these weeds.
- ** Some weed species may have triazine resistant biotypes that will not be controlled adequately by this product. If resistant biotypes are suspected use an alternate program or use non-triazine products such as Banvel or Clarity Herbicide in combination or sequentially with this product.

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ADDITIONAL WEED SPECIES PARTIALLY CONTROLLED. Guardsman will provide partial control or suppression of woolly cupgrass, wild proso millet, shattercane and sandbur. Control of these species will generally not be commercially acceptable. To complement control Guardsman should be used in tank mixtures or sequential applications with other herbicides that provide additional control of these weed species.

GUARDSMAN HERBICIDE USE METHODS AND TIMINGS

Guardsman may be applied preplant surface, preplant incorporated, preemergence or early postemergence to field corn, seed corn or popcorn. Best weed control will result when applied (by ground or aerial equipment), and subsequently incorporated into soil by rainfall, sprinkler irrigation, or mechanical tillage prior to weed seedling emergence from soil.

PREPLANT SURFACE APPLICATIONS

For use in minimum tillage or no-tillage production systems, application of Guardsman alone or in tank mixtures may be made up to 45 days before planting. When making early preplant applications (15 to 45 days prior to planting) use the highest rate recommended for the specific soil type. Early preplant applications are not recommended for use on coarse textured soils or in areas where average annual rainfall (or rainfall + irrigation) typically exceeds 40 inches. Early preplant applications may be applied as part of a split application program where the second application is made after planting (use 2/3 of Guardsman rate early followed by 1/3 of rate after planting). A split application is recommended when initial application is made more than 30 days prior to planting. Tank mixtures with postemergence herbicides such as Roundup® or Gramoxone Extra® must be used when weeds are present at the time of application.

PREPLANT INCORPORATED APPLICATIONS

Apply Guardsman and incorporate into the upper (1-2 inch) soil surface up to two weeks before planting. Use a harrow, rolling cultivator, finishing disk, or other implement capable of giving uniform shallow incorporation. Avoid deeper incorporation or reduced weed control may result.

PREEMERGENCE SURFACE APPLICATIONS

Broadcast treatment uniformly to the soil surface after planting and before crop emergence. Rainfall, sprinkler irrigation, or shallow mechanical incorporation after application is required to move this product into the upper soil surface where weed seeds germinate. If adequate rainfall or irrigation does not occur and weed seedling emergence begins, a shallow cultivation or rotary hoeing will improve

performance.

EARLY POSTEMERGENCE APPLICATIONS

Guardsman may be used in early postemergence applications up to 8 inch tall corn. Application must be made before weeds are greater than 1.5 inches tall or in a tank mixture with products that control the emerged weeds. Note restrictions and use directions on tank mix product labels.

GUARDSMAN HERBICIDE FIELD CORN, SEED CORN OR POPCORN USE PROGRAMS

Guardsman may be used as a preplant surface applied, preplant incorporated, preemergence or early postemergence (up to 8 inches tall) treatment to corn. Corn, as used in this label, refers to field corn (grown for grain, silage or seed) and popcorn. Before application to seed corn or popcorn, first verify with your local seed company (supplier) the Guardsman selectivity on your inbred line or popcorn variety. This precaution will help avoid potential injury to sensitive varieties.

Do not apply this product to sweet corn.

Corn may be grazed or fed to livestock at 40 or more days after application of Guardsman Herbicide.

GUARDSMAN USE RATES IN FIELD CORN, SEED CORN, AND POPCORN

Recommended broadcast use rates for Guardsman when used alone or in tank mix combinations and/or sequential applications with other herbicides in corn are given in the following tables*. Cation exchange capacity (CEC) of soil is the preferred method for determining use rate. If CEC is not known, select use rate based on soil texture and organic matter content. If Guardsman is used in early preplant applications, and/or used on soils with heavy surface plant residue add 0.5 pints per acre to the rates given in the following tables. Do not exceed 4.75 pints per acre on highly erodible soils with less than 30% plant residue cover prior to crop emergence. Do not exceed 5 pints per acre per crop year on any soil.

| Use rate determined by cation exchange capacity (CEC) of soil. | | | | | |
|--|-----|-------|-------|-------|------------|
| Cation Exchange Capacity (CEC) of Soil | < 5 | 5-9 | 10-14 | 15-20 | > 20 ** |
| Guardsman Use Rate (Pints/acre) | 2.5 | 3-3.5 | 3.5-4 | 4-4.5 | 5 |

| Use rate determined by soil texture and organic matter content. | | |
|---|-------------------------------------|--------------|
| | Guardsman Use Rate (Pints Per Acre) | |
| | Organic Matter | |
| Soil Texture | Less than 3% | 3% or more** |
| Coarse | 2.5 to 3 | 3 to 3.5 |
| Medium | 3 to 4.0 | 4 to 4.5 |
| Fine | 4 to 4.5 | 4.5 to 5 |

* See tank mix descriptions below for the recommended use rate ranges of other herbicides used in combination with Guardsman. Refer to tank mix section of companion product labels for actual use rate by soil type, weed species and weed or crop growth stage.

** On soils with 8% to 20% organic matter, use 5 pints per acre of Guardsman. Guardsman is not recommended for use on soils with more than 20% organic matter.

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GUARDSMAN TANK MIXTURES AND SEQUENTIAL USE PROGRAMS IN CORN

Guardsman may be applied prior to, in tank mix with, or following the use of one or more of the following herbicides: Accent®, atrazine, Banvel®, Beacon®, Bladex®, Clarity®, Frontier®, Gramoxone® Extra, Marksman®, Princep®, Prowl®, Pursuit®, Roundup®, or 2,4-D. Guardsman use rates for herbicide combination programs and specific tank mixtures are presented in the above label section, Guardsman Use Rates in Field Corn, Seed Corn and Popcorn.

Guardsman contains 2.67 pounds active of atrazine per gallon (0.334 lbs ai per pint). When tank mixing or making sequential applications with atrazine or Marksman do not exceed the following total combined amounts of atrazine:

| | |
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| <u>Prior to corn emergence</u> | |
| 1.6 lbs ai/a | - Highly erodible soils with less than 30% plant residue cover |
| 2.0 lbs ai/a | - Other soils |
| <u>After corn emergence</u> | |
| 2.0 lbs ai/a | - Any soil |
| <u>Prior to and after corn emergence (sequential applications)</u> | |
| 2.5 lbs ai/a | - Any soil |

When using tank mix or sequential applications with Guardsman, always read the companion product label(s) to determine specific use rates by soil types, weed species, and weed or crop growth stage. In addition, follow precautions and restrictions including state and local use restrictions that may apply to specific products.

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| Guardsman may be tank mixed with one or more of the following herbicide combination programs. | |
| <u>GUARDSMAN plus</u> <u>BANVEL (0.5 TO 1.0 PTS/A)</u> or <u>CLARITY (8 TO 16 FL OZ/A)</u> or <u>MARKSMAN (2 TO 3.5 PTS/A)</u> | Application may be made preplant surface or preemergence in minimum or no tillage corn in all soil types. Preemergence applications may be used in all tillage systems where corn is grown on soils with CEC greater than 15, or medium and fine textured soils with 2.5% or more organic matter (for best performance make application just prior to corn emergence). Early postemergence (up to 8 inch tall corn) applications may be made on all soil types. This treatment must be combined with a herbicide that provides postemergence control of grass weeds if they are greater than 1.5 inches tall at the time of application. Marksman contains atrazine. Do not exceed the maximum amount of atrazine allowed for the specific condition. |

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| <p><u>GUARDSMAN plus</u> <u>FRONTIER (4 TO 12 FL OZ/A)</u></p> | <p>Applications may be made preplant surface, preplant incorporated, preemergence or early postemergence (up to 8 inch tall corn). Frontier herbicide may be added for improved annual grass control and/or for reducing atrazine use rate. Do not exceed 1.5 lb ai/a of dimethenamid (dimethenamid active is 0.29 lb ai/pint in Guardsman and 0.06 lb ai/fl oz in Frontier).</p> |
| <p><u>GUARDSMAN plus</u> <u>ATRAZINE (0.5 TO 1.0 LBS AI/A)</u></p> | <p>Application may be made preplant surface, preplant incorporated, preemergence or early postemergence (up to 8 inch tall corn). This treatment must be combined with a herbicide that provides postemergence control of weeds if they are greater than 1.5 inches tall at the time of application. Crop oil concentrate may be added to this mixture to aid in control of emerged weeds. Do not add crop oil concentrate if this mixture is combined with other herbicides for early postemergence applications. Do not exceed the maximum amount of atrazine allowed for the specific condition.</p> |
| <p><u>GUARDSMAN plus</u> <u>BLADEX (1.25 TO 3.0 LBS AI/A)</u></p> | <p>Application may be made preplant surface, preplant incorporated, or preemergence to corn. This mixture is not recommended for use on soils with CEC less than 5 or on sand or loamy sand soils with organic matter less than 1%.</p> |
| <p><u>GUARDSMAN plus</u> <u>PROWL 3.3 EC(1.8 TO 3.6 PTS/A)</u></p> | <p>Application may be made preemergence to early postemergence (up to 3 inch tall corn) but before weeds are greater than 1.5 inches tall.</p> |
| <p><u>GUARDSMAN plus</u> <u>PRINCEP (1 LB AI/A)</u></p> | <p>Application may be made preplant surface, preplant incorporated or preemergence to corn.</p> |
| <p><u>GUARDSMAN plus</u> <u>PURSUIT 2.0 SL (4 FL OZ/A)</u></p> | <p><u>Use only on Pursuit resistant (IR) or tolerant (IT) corn varieties.</u> Application may be made preplant surface, preplant incorporated, preemergence or early postemergence (up to 3 inch tall weeds).</p> |
| <p><u>GUARDSMAN plus</u> <u>GRAMOXONE EXTRA (1.5 TO 3.0 PTS/A)</u></p> <p><u>OR</u> <u>ROUNDUP</u> <u>(GLYPHOSATE - 0.5 TO 4.0 LBS AI/A)</u></p> | <p>Application may be made preplant surface or preemergence to control emerged weeds in minimum or no tillage corn. Applications must be made prior to corn emergence. To improve control of emerged broadleaf weeds, herbicides such as Banvel and/or 2,4-D should be added to this mixture.</p> |

Tank mixture for postemergence use in corn.

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| <p><u>GUARDSMAN plus</u> <u>ACCENT 75WDG(1/4 TO 2/3 OZ/A)</u></p> | <p>Application may be made from emergence up to 8 inch tall corn when weeds are emerged and actively growing. Use the lower rates (1/4 to 1/3 oz) of Accent for control of foxtail, barnyardgrass, fall panicum or seedling Johnsongrass when all are less than 3 inches tall. Guardsman at reduced use rates: 2 to 2.5 pints/acre - on soils with CEC less than 10 (coarse soils or medium and fine textured soils with less than 3% organic matter), or 2.5 to 3.5 pints/acre - on soils with CEC of 10 or more (medium or fine textured soils with 3% or more organic matter) may be used in this mixture. Addition of Banvel, Clarity or Marksman herbicide to this mixture will provide burndown and residual control of broadleaf weeds. Add non-ionic surfactant at .25% v/v plus 4 % v/v liquid fertilizer (28, 30 or 32 % UAN). Other herbicides are not recommended for use with this mixture.</p> |
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MIXING AND APPLICATION DIRECTIONS

MIXING OF SPRAY SOLUTIONS

Guardsman is a concentrated liquid herbicide that can be mixed for application in water, sprayable fluid fertilizer, or it may be impregnated on dry bulk fertilizer. When herbicide tank mixtures or mixtures with sprayable fluid fertilizer are to be used, a compatibility test should be conducted prior to tank mixing (SEE COMPATIBILITY TEST section in this label).

When loading a spray tank for application of Guardsman (applied alone or in tank mixtures with other products) use the following order for mixing:

1. Thoroughly clean spray tank prior to use.
2. Fill sprayer tank one-half full of either water or sprayable fluid fertilizer.
3. Start sprayer agitation system and continue agitating throughout mixing and application.
4. If compatibility test indicated the need for addition of a compatibility agent, add the amount recommended on the label of the selected compatibility agent.
5. If tank mixing with wettable powder or dry flowable products, make a slurry of these products with water and add slowly to spray tank.
6. If tank mixing with a flowable formulation, add this product slowly to spray tank.
7. Add Guardsman herbicide to spray tank.
8. If tank mixing with emulsifiable concentrates or soluble liquid products add these products to spray tank.
9. If tank mixing with Gramoxone Extra or Roundup add these products as remainder of spray tank is filled with carrier.
10. If adding spray adjuvants, add them after all other products have been mixed.

GROUND or AERIAL APPLICATIONS

Apply the recommended rates of Guardsman in 2 or more gallons of spray solution per acre. Actual minimum spray volume per acre is determined by spray equipment used for application. Application must be made in adequate volume to provide accurate and uniform distribution of spray particles over treated area and to avoid drift of spray particles to non-target areas. In addition, when Guardsman is used in tank mixtures, spray volume used must be no less than the minimum volume required by the tank mix product. Use nozzle screens no finer than 50 mesh when spraying tank mixtures with wettable powder or flowable formulations.

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Guardsman may be applied as a band treatment. Use rates within the treated area of the band must not exceed the use rates given for broadcast application. Use the formula below to determine the appropriate amount of product and volume of carrier needed per acre of field.

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast Rate per acre} = \text{Band Rate per acre}$$

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \text{Broadcast Volume per acre} = \text{Band Volume per acre}$$

USE OF SPRAY ADJUVANTS

Spray adjuvants have little or no influence on performance of Guardsman when applications are made prior to weed emergence. To improve burndown of emerged weeds; surfactants and/or low rate fertilizer (28%, 30% or 32% UAN or ammonium sulfate), or crop oil concentrate may be used with Guardsman or Guardsman tank mixes applied preplant, preemergence or early postemergence to the crop. Crop oil concentrates are allowed after crop emergence only when Guardsman is used alone or in tank mixtures with atrazine.

COMPATIBILITY TESTING

A compatibility test is recommended for applications with liquid fertilizer. Before mixing products in the spray tank, small amounts of all products can be mixed in proportionate quantities to determine compatibilities. The amounts of carrier and products in this compatibility test are based on a spray volume of 25 gallons per acre. Make appropriate changes in amounts for your specific spray volume.

To conduct this test begin by adding one pint of the liquid fertilizer solution to a one quart container. Then add, in sequence as given above, 1 1/2 level teaspoons per lb. use rate for dry formulated products and 1/2 teaspoon per pint use rate of liquid formulated products. Agitate materials by covering and gently shaking container for 5 to 10 seconds between each product addition.

If herbicide(s) do not ball-up or form flakes, gels, sludge, oily film or layers, or other precipitates, then the tested spray mix is compatible. Incompatibility in any of the above described forms will normally occur within 5 minutes after mixing. If components are incompatible, the use of a compatibility agent is recommended. Rerun the above compatibility test with a suitable compatibility agent (1/4 teaspoon in test is equivalent to a use rate of 2 pints per 100 gallons of spray volume). If the mixture is then compatible, use the

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compatibility agent as directed on its label. If the mixture is still incompatible, the liquid fertilizer and herbicide(s) should not be mixed for use in the same spray tank.

DRY BULK FERTILIZER APPLICATIONS

Guardsman may be impregnated or coated onto dry bulk granular fertilizer carriers for preplant surface, preplant incorporated or preemergence applications. Impregnation or coating may be conducted by either the in-plant bulk system or the on-board system. Guardsman may also be applied in herbicide tank mixtures where the tank mix companion product is also registered for these application systems. Individuals or agents selling Guardsman in these application systems are responsible for following all state and local regulations regarding fertilizer/herbicide blending.

Addition of a drying agent may be necessary if the fertilizer/herbicide blend is too wet for uniform application due to high humidity, high urea concentration, and/or low fertilizer use rate. Slowly add the drying agent to the blend until a flowable mixture is obtained. Drying agents are not recommended for use with on-board impregnation systems.

Under some conditions fertilizer impregnated with Guardsman may clog air tubes or deflector plates on pneumatic application systems. Mineral oil may be added to Guardsman before blending with fertilizer to reduce plugging. Do not use drying agents when mineral oil is used. To avoid separation of Guardsman and mineral oil mixes in cold temperatures either keep mixture heated or agitated prior to blending with fertilizer. Mineral oil may be used at in-plant blending stations or on-board injection systems.

Apply 200 to 750 pounds of fertilizer/herbicide blend per acre. Application must be made uniformly to the soil to prevent possible crop injury and offer satisfactory weed control. Impregnated fertilizer spread at half rate and overlapped to obtain a full rate will offer a more uniform distribution. A shallow (1-2 inch) incorporation is desirable for improved weed control. Deeper incorporation may result in unsatisfactory weed control.

Formula to determine herbicide rate(s):

| | | |
|--------------------------------|----------|-------------------|
| Pints or Pounds Herbicide/Acre | | Pints or Pounds |
| ----- | X 2000 = | of Herbicide Per |
| Pounds of Fertilizer/Acre | | Ton of Fertilizer |

INCOMPATIBLE MIXTURES - DO NOT impregnate Guardsman or Guardsman mixes on ammonium nitrate, potassium nitrate, or sodium nitrate fertilizers or fertilizer blends. Single superphosphate (0-20-0) and triple superphosphate (0-46-0) may be impregnated only with Guardsman alone.

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ROTATIONAL CROPS

If the corn crop treated with Guardsman is lost to adverse weather or for other reasons, the area treated may be replanted to corn immediately. If the original Guardsman treatment was broadcast do not make a second application of Guardsman. If the original application was banded and the second crop is planted in the row middles a second band application may be applied. Corn, sorghum, soybeans, cotton or peanuts may be planted the year following treatment. Injury may occur to soybeans planted on soils having a calcareous surface layer. Do not graze or feed forage or fodder from cotton to livestock. Do not plant sugarbeets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small seeded legumes and grasses the year following application, or injury may occur.

Guardsman used in tank mixtures: Refer to the labels of tank mix products for additional rotation crop information and restrictions.

STORAGE AND CONTAINER DISPOSAL

Prohibitions

Do not contaminate water, food, or feed by storage or disposal.

Storage

Store in original container away from fertilizer, feed, or foodstuffs and separated from other pesticides.

Pesticide Disposal

Spillage or leakage should be contained and absorbed with clay granules, sawdust or equivalent material for disposal. Pesticide, spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to Federal, State or local procedures under Subtitle C of the Resource Conservation and Recovery Act.

Plastic Containers

Triple rinse (or equivalent) and add rinsate to spray tank. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If containers are burned, do not inhale smoke.

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LIMITED WARRANTY AND LIABILITY

NOTICE: Read this Limitation of Warranty and Limitation of Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Sandoz or seller. All such risks shall ~~be~~ assumed by buyer or user.

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(FIELD CORN, SEED CORN AND POPCORN)

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