

PM 25

7969-136

7/7/96

1/23



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

JUL 17 1996

Mr. Jonathan E. Bryant, Ph.D.  
Sandoz Agro, Inc.  
1300 East Touhy Avenue  
Des Plaines, Illinois 60018

Subject:

EPA Registration Number ~~55947-39~~ *Transferred to 7969-136*  
Label Amendments  
Your submission dated May 17, 1996

Dear Mr. Bryant:

The above mentioned amendments submitted in connection with registration under FIFRA have been reviewed and are acceptable. A stamped copy of the labels are enclosed for your records.

Sincerely,

*Janet A. Wilfong*  
*for*

Robert J. Taylor  
Product Manager (25)  
Fungicide-Herbicide Branch  
Registration Division (7505C)



Recycled/Recyclable  
Printed with Soy/Canola Ink on paper that  
contains at least 50% recycled fiber

**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. 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.

**MARKSMAN® HERBICIDE**

**FOR WEED CONTROL IN CORN, GRAIN SORGHUM and FALLOW SYSTEMS**

**Active Ingredients:**

Potassium salt of dicamba (3,6-dichloro-*o*-anisic acid) ..... 13.42%

Atrazine ..... 22.23%

**Inert Ingredients:** ..... 64.35%

**TOTAL**..... 100.00%

\*This product contains 11.45% 3,6-dichloro-*o*-anisic acid (dicamba) which equals 1.1 pounds per gallon (132 g/L), or 0.14 pounds per pint.

\*\*This product contains 22.23% 2-chloro-4-ethylamino-6- isopropyl/amino-*s*-triazine (atrazine) which equals 2.1 pounds per gallon (252 g/L), or 0.26 pounds per pint.

**SHAKE BEFORE USING  
KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

See side panel for additional precautionary statements

EPA Reg. No. 55947-39

EPA Est. No.

Net Contents: \_\_\_\_\_

Sandoz Agro, Inc.

Des Plaines, IL 60018

**ACCEPTED  
with COMMENTS  
In EPA Letter Dated**

JUL 17 1996

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

55947-39 Transferred to 7969-136

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

Harmful if swallowed. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Wash thoroughly after handling. In case of contact, wash skin with soap and water; for eyes, flush with water for 15 minutes and get medical attention.

**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

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.

**ENVIRONMENTAL HAZARDS**

Keep out of lakes, streams or ponds. This product is toxic to aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Run-off and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters. Apply this product only as directed on label.

Ground water 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 and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 ft. 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 crop or seeded with grass or other suitable crop.

**DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at the time of the pesticide application.

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

Refer to the DIRECTIONS FOR USE booklet attached to this container for proper use directions and additional precautionary statements.

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.

5/23

### 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 48 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

Before applying MARKSMAN® HERBICIDE, read all directions and precautions appearing on the container label and this booklet. Failure to follow all directions and precautions may result in unsatisfactory weed control, crop injury, or illegal residues.

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.

### GENERAL INFORMATION

MARKSMAN Herbicide is intended for control and suppression of annual broadleaf and perennial broadleaf weeds. MARKSMAN Herbicide may be applied preplant through early post-emergence on field corn, seed corn, popcorn and silage corn, early post-emergence on grain sorghum, and as a post-harvest treatment in fallow (wheat/fallow/wheat) and ecofallow (wheat/corn or sorghum/fallow) rotations.

Ground and Surface Water Advisory:

9/23

MARKSMAN Herbicide contains the active ingredient atrazine. 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 MARKSMAN Herbicide in well-drained loamy-sand to sand soils, particularly in areas having high groundwater tables. Consult with your state or county extension agent for alternative recommendations such as Banvel® Herbicide alone or in combination with a non-triazine herbicide.

Check valves or anti-siphoning devices must be used on all mixing equipment to prevent back-siphoning into wells or bulk storage tanks. See the storage and disposal section at the end of this booklet regarding proper disposal of excess pesticide, spray mixtures and rinsates.

Do not apply this product through any type of irrigation system. Do not contaminate irrigation ditches or water used for domestic purposes.

Mixing and Application:

MARKSMAN Herbicide is a water-dispersible formulation that can be applied in water on corn, sorghum, or fallow. Sprayable fluid fertilizer may be used for preemergence application on corn. Fluid fertilizer may damage corn if applied after corn emergence. If a fluid fertilizer will be used, a compatibility test (see Compatibility Test) should be made prior to tank mixing.

Ground or aerial application equipment which will give good spray coverage of weed foliage should be used.

Rainfall or irrigation occurring within 4 hours after postemergence applications may reduce the effectiveness of MARKSMAN Herbicide.

Apply 10 to 50 gallons of diluted spray per treated acre when using ground application equipment or 2 to 10 gallons of diluted spray per treated acre when using aerial application equipment. Use the higher spray volumes when treating dense or tall vegetation.

MARKSMAN Herbicide should not be applied during periods of gusty wind or when wind is in excess of 15 mph as uneven spray coverage may occur.

Sensitive Crop Precautions:

MARKSMAN Herbicide may cause injury to desirable broadleaf plants or trees when contacting their roots, stems or foliage. To avoid potential off-target herbicide movement:

Do not apply MARKSMAN Herbicide in the general vicinity of tobacco, tomatoes, or other highly sensitive plants.

Do not use aerial applications if broadleaf crops are growing in the vicinity of the area to be treated.

Do not make applications when winds are moving toward sensitive crops, inversions are present, or high temperatures (above 85° F) are expected on the day of application.

7/23

Marksman label revision May 1996

Use nozzles designed to produce large spray droplets such as Delavan Raindrops, Spraying Systems XR flat fans or large capacity flood nozzles such as Delavan D-10, Spraying Systems TK-10 - or greater capacity. Use spray pressure of 30 psi or less and 10 gpa or more; unless otherwise required by the manufacturer of drift reducing nozzles.

An agriculturally approved drift control agent may be added to further reduce the potential of physical drift at the time of application.

Consult your state and local authorities for possible other application restrictions and advice.

Tank Mixing:

To ensure a uniform mixture when MARKSMAN Herbicide is tank mixed with one or more other products, follow this procedure: Fill the spray tank approximately one-third full with water and with the agitator operating, add the recommended amount of ingredients using the following order: dry formulations (e.g. wettable powders, dry flowables) first, and liquid suspensions (e.g. flowables) next. Mix thoroughly and fill the tank to one-half full with continuous agitation. Add Emulsifiable Concentrate formulations last while maintaining agitation and then complete filling the spray tank with water. If a surfactant is to be used, add it last. If a drift control agent is to be used, follow the directions for mixing on the specific product label.

Band Treatments:

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

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

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

Compatibility Test:

Before mixing in the spray tank, it is advisable to test compatibility by mixing all components in a small container in proportionate quantities (see following table).

8/23

Amount of Component to Add to One Pint  
of Spray Carrier  
(Assuming Volume is 25 Gallons Per Acre)

<u>COMPONENT FORMULATIONS</u>	<u>RATE PER ACRE</u>	<u>LEVEL TEASPOONS</u>
Dry	1 lb.	1 1/2
Liquid	1 pt.	1/2

If components do not ball-up or form flakes, sludge, gels, oily films or layers, or other precipitates, then the tested spray mix is compatible. Usually incompatibility in any of the above described forms will occur within 5 minutes after mixing.

If components are incompatible, the use of an agriculturally approved compatibility agent is recommended. Rerun the above COMPATIBILITY TEST with a suitable compatibility agent (1/4 teaspoon per pint is equivalent to 2 pints per 100 gallons of fluid fertilizer).

Procedure for Cleaning Spray Equipment:

Before preparing spray mixture, be sure all equipment is clean to prevent uneven applications, clogged nozzles or crop injury. Thoroughly clean equipment following applications of MARKSMAN Herbicide. Avoid allowing dry sediment formation within spray tank.

The steps listed below are suggested for thorough cleaning of spray equipment following applications of MARKSMAN Herbicide or tank mixes of MARKSMAN Herbicide.

1. Hose down thoroughly the inside as well as outside surfaces of equipment while filling the spray tank half full of water. Preferably, inside surfaces should be rinsed using a multi-directional nozzle such as Spray Systems Tank Rinsing Nozzle 27500E-TEF®. Flush by operating sprayer until the system is purged of all rinse water.
2. Fill tank with water while adding a commercially available tank cleaning agent such as Nutra-Sol®, Incide-out® or Loveland Tank and Equipment Cleaner®. Carefully read and follow tank cleaning agent label directions. Operate the pump to circulate the cleaning solution through the sprayer system for 15 to 20 minutes and discharge a small amount through the boom and nozzles. Let the solution stand for several hours, preferably overnight.
3. Completely flush the cleaning solution out of the spray tank.
4. Remove nozzles and screens. Fill tank with clean water and circulate through the sprayer system for 15 to 20 minutes. Discharge a small amount through boom lines.
5. Completely flush rinse water out of the spray tank.



9/23

**GENERAL WEED LIST**

This is a general list of weed species which may be treated with MARKSMAN Herbicide as recommended under the rates and timing sections of specific crop uses listed in this label. MARKSMAN Herbicide, when applied at recommended rates, will control many ANNUAL broadleaf weeds and give growth suppression of many PERENNIAL broadleaf weeds including:

Annuals

- Buckwheat, Wild
- Burcucumber
- Chickweed, Common
- Clover, (Annual)
- Cocklebur, Common
- Cucumber, Wild
- Mares Tail (Horseweed)
- Jimsonweed
- Kochia
- Kochia (Triazine Resistant)
- Kochia (Sulfonylurea Resistant)
- Ladysthumb
- Lambsquarters, Common
- Lambsquarters,  
(Triazine Resistant)
- Mallow, Common
- Mallow, Venice
- Morningglory, Ivyleaf
- Morningglory, Tall
- Mustard, Wild
- Mustard, (Yellowtops)
- Nightshade, Black
- Pigweed, Prostrate
- Pigweed, Redroot  
(Carelessweed)
- Pigweed, Rough
- Pigweed, Smooth
- Pigweed (Triazine Resistant)
- Pigweed, Tumble
- Puncturevine
- Purslane, Common
- Ragweed, Common (Buffaloweed)
- Ragweed, Giant
- Ragweed, Lance-Leaved
- Sicklepod
- Sida, Prickly (Teaweed)
- Smartweed, green
- Smartweed, Pennsylvania
- Spanishneedles

10/23

Marksman label revision May 1996

Spurge, Prostrate  
Sunflower, Common (Wild)  
Sunflower, Volunteer  
Tansymustard  
Thistle, Russian  
Velvetleaf  
Waterhemp

Perennials

Alfalfa  
Artichoke, Jerusalem  
Bindweed, Field.  
Bindweed, Hedge  
Canada thistle  
Clovers, (Perennials)  
Dandelion, Common  
Dock, Broadleaf (Bitterdock)  
Dock, Curly  
Dogbane, Hemp  
Horsenettle, Carolina  
Lespedeza  
Milkweed, Common  
Ragweed, Western  
Smartweed, Swamp  
Sowthistle  
Trumpet creeper  
Vetch

ROTATIONAL CROPS

- 1) In cases of treated crop failure the area may be replanted to either corn or sorghum during the same cropping season. If corn is replanted, do not apply MARKSMAN or BANVEL until after emergence. Consult label of each product for application directions and do not exceed the maximum yearly use rate for MARKSMAN or BANVEL. If sorghum is the replanted crop *either BANVEL or MARKSMAN can be used* as a postemergence application - follow each label's directions; do not exceed the maximum yearly use rate.
- 2) If applied after June 10th, rotation with crops other than corn or sorghum the following spring, may result in crop injury.
- 3) In the High Plains and inter-mountain areas of the West, where rainfall is sparse and erratic or where irrigation is required, use only when corn or sorghum is to follow corn or sorghum, or when a crop of untreated corn or sorghum is to precede other rotational crops.

9/23

- 4) For soils containing a calcareous surface layer, such as those found in eastern parts of the Dakotas, KS, western MN, NE, injury may occur to soybeans planted the year following application. On soils containing a calcareous surface layer, small grain injury could occur.
- 5) Small grains may be planted 10 months following treatment. 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.

**FIELD, SEED\*, POPCORN\* AND SILAGE CORN**

Observe all previously noted precautions, mixing and application instructions as well as the following:

\*Do not apply MARKSMAN Herbicide to seed corn or popcorn without first verifying with your local seed corn company (supplier) the selectivity of MARKSMAN Herbicide on your inbred line or variety of popcorn. This precaution will help avoid potential injury of sensitive varieties.

MARKSMAN Herbicide is not registered for use on sweet corn.

Direct contact of MARKSMAN Herbicide with corn seed must be avoided in preplant or preemergence applications. If corn seeds are less than 1 1/2 inches below the soil surface, delay application until corn has emerged.

Corn growing under stress conditions such as low temperatures, drought, poor fertility, excessive moisture, or foliar damage due to hail, wind or insects, can exhibit various injury symptoms that may be more pronounced if herbicides are applied.

An agricultural approved surfactant, crop oil or sprayable fluid fertilizer (such as 1/2-1 gallon per acre of 28%, 30%, or 32% urea ammonium nitrate), or ammonium sulfate (2 - 2 1/2 lb. per acre) may be added to spray mix to improve postemergence weed control, particularly on drought stressed weeds.

The use of adjuvants containing penetrants such as petroleum based oils after corn emergence may cause crop injury.

Corn may be harvested or grazed for feed once the crop has reached the ensilage (milk stage) or later in maturity.

A maximum of two applications of MARKSMAN Herbicide may be made through the 5 leaf stage or 8 inches tall, whichever occurs first. Application must be separated by two weeks or more. Do not exceed 5 1/4 pints per acre per year (a total of 0.75 pounds dicamba and 1.37 pounds atrazine).

MARKSMAN Herbicide may be applied before or after BANVEL Herbicide. Applications must be separated by two weeks or more. Maximum rate for sequential applications is Marksman at

12/123

Marksman label revision May 1996

3 1/2 pints per acre followed by Banvel at 1/2 pint or Banvel at 1 pint per acre followed by Marksman at 1 3/4 pints per acre.

To reduce the amount of atrazine used per acre, MARKSMAN Herbicide at 2 pints per acre may be tank mixed with 1/2 pint per acre of BANVEL Herbicide. Do not apply this tank mix on coarse textured soils or any soils with less than 2% organic matter prior to corn emergence.

Weeds Controlled

MARKSMAN Herbicide will control many ANNUAL broadleaf weeds or give growth suppression of many PERENNIAL broadleaf weeds commonly found in corn (Refer to the GENERAL WEED LIST section of this booklet.

Rates and Timings:

**- Preplant and Preemergence In No Tillage Corn**

Applications of MARKSMAN Herbicide may be made before, during, or after planting for control of emerged and actively growing broadleaf weeds. Apply MARKSMAN Herbicide at the use rate of 3 1/2 pints per acre on medium or fine textured soils containing 2.0% or greater organic matter. Use 2 pints per acre on coarse soils (sand, sandy loam, and loamy sand) or medium and fine textured soils with less than 2% organic matter.

When planting into a legume sod (e.g. alfalfa or clover), apply MARKSMAN Herbicide after 4-6 inches of regrowth has occurred. For added control of dandelion or plantain, 2,4-D at 1/4 to 1/2 lbs. a.i. per acre may be tankmixed with MARKSMAN Herbicide.

**- Preemergence in Conventional or Reduced Tillage Corn**

MARKSMAN Herbicide may be applied after planting and prior to corn emergence. Application of 3 1/2 pints per treated acre may be made to medium or fine textured soils which contain 2% or greater organic matter. DO NOT apply to coarse textured soils (sand, loamy sand or sandy loam) or any soil with less than 2% organic matter until after corn emergence (see Early Postemergence uses below).

Preemergence application of MARKSMAN Herbicide does not require mechanical incorporation to become active. A shallow mechanical incorporation is recommended if application is not followed by adequate rainfall or sprinkler irrigation. Avoid tillage equipment (e.g., drags, harrows) which concentrate treated soil over seed furrow, as seed damage could result.

**Early Postemergence  
(All Tillage Systems)**

MARKSMAN Herbicide at 3 1/2 pints per treated acre may be applied during the period from corn emergence through the 5 leaf stage or 8 inches tall, whichever occurs first. Reduce the rate to 2.0 pints per treated acre for corn grown on coarse textured soils (sand, sandy loam, and loamy sand).

13/23

**Overlay  
(Sequential Treatments)**

MARKSMAN Herbicide may be applied to ground previously treated with one or more of, but not limited to, the following herbicides registered for use in corn:

Herbicide	Maximum Rate Per Treated Acre (Lb ai)
Acetochlor (Surpass®, Harness® Plus)	3
Alachlor (Lasso®)	4
Atrazine*	*
Butylate (Sutan®)	6
clopyralid	0.188
Cyanazine (Bladex®)	4
Dimethenamid (Frontier®)	1 1/2
EPTC (Eradicane®)	6
Flumetsulam (Broadstike®)	0.068
Glyphosate (Roundup®)	5
halosulfuron (Battalion®)	0.094
Metolachlor (Dual®)	3
Paraquat (Gramoxone®)	1
Pendimethalin (Prowl®)	2
Propachlor (Ramrod®)	6

\* Maximum Pounds ai Per Treated Acre for Atrazine

For all soil applications prior to crop emergence On Highly Erodible Soils (as defined by the SCS)

If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, the maximum rate is 2 pounds ai/A.

If the soil coverage with plant residue is less than 30% at planting, a maximum of 1.6 pounds ai/A can be applied.

On Soils Not Highly Erodible

The maximum rate which can be applied is 2 pounds ai/A.

For Postemergence Application

If no atrazine was applied prior to corn emergence, the maximum rate is 2 pounds ai/A.

If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 pounds ai/A per calendar year.

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

**Tank Mix Treatments**

14/23

Marksman label revision May 1996

MARKSMAN Herbicide may be applied prior to, during, or after planting, but before the corn exceeds 8 inches tall. MARKSMAN Herbicide may be tank mixed with one or more of the following herbicides for control of grasses or additional broadleaf weeds. When tank mixing MARKSMAN Herbicide with other products, read the label of each tank mix partner for precautionary statements, directions for use and other restrictions. Also, read the General Information Tank Mixing section given earlier in this label.

#### MARKSMAN Herbicide Plus Accent®

Application may be made after grass weed emergence but before corn is greater than 8 inches tall. Use 2/3 to 1 1/3 ounces of Accent 75 DF per treated acre. Use a non-ionic surfactant at 0.25% v/v and sprayable fluid fertilizer (such as 28%, 30%, or 32% urea ammonium nitrate) at 4% v/v with this tank mixture.

15/23

### **MARKSMAN Herbicide Plus Atrazine**

Application may be made before corn exceeds 8 inches in height. Consult the maximum poundage of atrazine allowed on page \_\_\_ for maximum rates. For improved suppression of newly emerged annual grasses, crop oil concentrate may be added to this mixture if corn does not exceed 5 inches in height. Do not apply preemergence to peat, muck and high organic clay soils.

### **MARKSMAN Herbicide Plus Bladex (cyanazine)**

Application may be made before grasses are 1 1/2 inches tall and the corn is not beyond the four leaf stage. Use 1 1/4 - 4 lbs. ai Bladex per treated acre for preemergence and 1 1/4 - 2 lbs. ai for postemergence treatments. **AFTER CORN EMERGENCE, USE ONLY THE BLADEX 90DF FORMULATIONS.**

### **MARKSMAN Herbicide Plus Dual (metolachlor)**

Application may be made until grasses reach the two-leaf stage and before corn is greater than 3 inches tall. Applications prior to crop emergence may only be made on medium to fine textured soils containing 2 1/2% or greater organic matter. Use 1 1/2 - 2 1/2 lbs. ai Dual per treated acre.

### **MARKSMAN Herbicide Plus Frontier (dimethenamid)**

Apply Frontier at 13 - 25 fluid ounces per acre for preemergence grass control. Applications can be made during or after planting before corn exceeds 8 inches in height. This treatment must be combined with a herbicide that provides postemergence control of grass weeds if they are greater than 1 inch tall at the time of application.

### **MARKSMAN Herbicide Plus Gramoxone (paraquat)**

Application may be made to emerged weeds, but before corn emerges. Use 1/4 - 1 lb. ai Gramoxone per treated acre.

### **MARKSMAN Herbicide Plus Surpass or Harness Plus (acetochlor)**

Apply Harness Plus or Surpass at 1 1/2 - 3 pounds ai per acre. Applications may be made during or after planting and before corn emergence. Applications may only be made on medium or fine textured soils containing 2 1/2 % organic matter or greater.

### **MARKSMAN Herbicide Plus Lasso (alachlor)**

Application may be made until grasses reach the two-leaf stage and before corn is greater than 3 inches tall. Applications prior to crop emergence may only be made to fine textured

16/23

soils containing 2 1/2% or greater organic matter. Apply 2 1/2 - 3 lbs. ai Lasso per treated acre.

**MARKSMAN Herbicide Plus Prowl (pendimethalin)**

Application may be made after planting and before corn exceeds the two-leaf stage, and grass weeds are no more than one inch tall. Application prior to crop emergence should only be made on medium to fine textured soils containing 2 1/2% or more organic matter. Use 3/4 to 1 1/2 lb ai Prowl per treated acre.

**MARKSMAN Herbicide Plus Roundup (glyphosate)**

Application may be made to emerged weeds, but before corn emerges. Use 1 - 3 lbs. ai Roundup per treated acre.

**MARKSMAN Herbicide Plus Stinger (clopyralid)**

For annual broadleaf and Canada thistle weed control, applications may be made anytime after corn emergence through 5 leaf or 8 inch tall corn. Apply when the majority of the thistle plants have emerged and are at least 4 inches in height, but before bud stage. Use MARKSMAN plus 1 1/2 - 3 fl oz/A Stinger through 8 inch or 5 leaf corn. Use higher rates listed for stand reduction of larger thistle plants or heavier infestations. Lower rates listed may provide seasonal thistle suppression only.

---

**GRAIN SORGHUM**

---

Observe all previously noted precautions, mixing and application instructions as well as the following:

Applications of MARKSMAN Herbicide to sorghum during periods of rapid growth may result in temporary leaning of plants or rolling of leaves. These effects are usually outgrown within 10-14 days.

On coarse soils, injury to sorghum may occur if heavy rain immediately follows application.

Do not apply to furrow planted sorghum until level (plowed in).

**Make no more than one application of MARKSMAN Herbicide per growing season.**

Postemergence application must be made before sorghum reaches 8 inches in height.

Delay harvest until 30 days after treatment.

Do not apply MARKSMAN Herbicide to sorghum grown for seed production.

Sorghum may be harvested or grazed for feed once the crop has reached the mature grain stage.



17/23

### WEEDS CONTROLLED

MARKSMAN Herbicide, when applied at the recommended rates and timings for grain sorghum, will control many ANNUAL broadleaf weeds (e.g. pigweed) and will reduce the competition from established PERENNIAL broadleaf weeds as well as control their seedlings. Consult General Weed List for a complete list of weeds controlled.

For best performance, make application when weeds are small (less than 3 inches tall) and actively growing.

### Rates and Timings

MARKSMAN Herbicide application in grain sorghum (milo) should be made between the 2-5 leaf stage (about 2-8 inch tall) of the sorghum.

BROADCAST RATE PER TREATED ACRE: (1 1/2 to 2 pints.)

Use 1 1/2 pints MARKSMAN Herbicide for control of redroot pigweed that are less than 3 inches tall and are actively growing. Use 2 pints of MARKSMAN Herbicide for control of all other listed broadleaf weeds.

Do not add crop oil. Do not add surfactant unless possible crop injury is acceptable.

### Overlay (Sequential) Treatments

MARKSMAN Herbicide may be applied to ground previously treated with the following herbicides:

Herbicide	Maximum rate of listed compound per treated acre (lb ai)
Alachlor (Lasso) (Screen®-treated seed)	4
Atrazine*	*
Metolachlor (Dual) (Concep®-treated seed)	2 1/2
Propachlor (Ramrod)	5

\* Maximum Pounds ai Per Treated Acre for Atrazine

### For all soil applications prior to crop emergence

#### On Highly Erodible Soils (as defined by SCS)

If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, the maximum rate is 2 pounds ai/A.

If the soil coverage with plant residue is less than 30% at planting, a maximum of 1.6 pounds ai/A can be applied

18/23

On Soils Not Highly Erodible

The maximum rate which can be applied is 2 pounds ai/A.

For Postemergence Application

If no atrazine was applied prior to sorghum emergence, the maximum rate is 2 pounds ai/A. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 pounds ai/A per calendar year.

**Tank Mix MARKSMAN Herbicide Plus Atrazine**

MARKSMAN Herbicide may be tank mixed with atrazine for added residual or for grass control in sorghum. Read and follow the label of each product used for precautionary statements, directions for use, rates and timings, and other restrictions.

Use tank mix on medium or fine soils only. Add 1/2 lb ai atrazine per treated acre for added residual broadleaf weed control. Add 1 1/2 lb ai atrazine per treated acre for control of emerged grasses less than 1 1/2 inches tall. Do not add crop oil or surfactant to this combination or crop injury may result. Atrazine carryover may injure small grains and broadleaf crops if the total rate of atrazine exceeds the rate recommended for that specific geographic area or crop rotation.

---

**POST-HARVEST ON FALLOW GROUND**

---

MARKSMAN Herbicide may be applied from summer to fall after wheat harvest to fallow ground in wheat/fallow/wheat or wheat/corn or sorghum/fallow (Eco-Fallow) rotations. Observe all previously noted precautions, mixing and application instructions, as well as the following:

Do not graze or feed forage from treated areas to livestock.

Do not plant any crop other than those listed on this label within 18 months following treatment.

Agriculturally approved spray adjuvants such as surfactants, crop oil concentrates, or fluid fertilizers are recommended for use with MARKSMAN Herbicide when applied to emerged weeds.

For Eco-Fallow systems, plant corn or sorghum in spring after treatment with minimum soil disturbance. Use a surface planter or a planter leaving a shallow furrow. If weeds are present at planting, remove them with a sweep plow or other suitable implement before planting.

**Weeds Controlled**

MARKSMAN Herbicide, when applied at recommended rates and timings for fallow applications, will control many ANNUAL broadleaf weeds and will give growth suppression of many PERENNIAL broadleaf weeds as well as control their seedlings. Refer to the General

19/23

Weed List in the General Information Section of this booklet for a complete list of weeds controlled.

### Rotational Crop Precautions

The application rates and timings in this label pertain only to a cropping system of WHEAT/FALLOW/WHEAT (Post-Harvest Fallow) or WHEAT/CORN or SORGHUM/FALLOW (Eco-Fallow). If any other crop is to be substituted for wheat, corn, sorghum or the fallow period, refer to the crop rotation restrictions in the General Information section of this label.

To avoid injury to crops planted after application(s) of Marksman Herbicide, specific restrictions for post harvest fallow or eco-fallow application(s) are:

- 1) Use only on silt loam or finer-textured soils.
- 2) Do not treat erodible hillsides, caliche, and rocky outcroppings, or exposed calcareous subsoil.
- 3) Do not treat soils of the Rosebud and Canyon series in Western NE and adjoining counties in CO and WY.
- 4) Do not treat soils with calcareous surface layers.
- 5) Avoid overlapping spray swaths during treatment application.

### Wheat/Fallow/Wheat

MARKSMAN Herbicide MAY BE USED FOR WHEAT/FALLOW/WHEAT SYSTEMS IN: CO, KS, NE, OK, SD, TX, & WY

### Rates and Timings:

For preemergence or postemergence control or suppression of the weed species listed in this booklet apply MARKSMAN Herbicide at 2 to 3 1/2 pints per treated acre as a broadcast treatment. For best performance, make application soon after wheat harvest prior to or soon after weed emergence. A split application of MARKSMAN Herbicide may be used, but only in the summer to fall after wheat harvest and may not exceed the the maximum labeled rate of 3 1/2 pints per treated acre.

### Wheat/Corn or Sorghum/Fallow (Eco-Fallow)

MARKSMAN Herbicide MAY BE USED FOR WHEAT/CORN OR SORGHUM/FALLOW (ECO-FALLOW) SYSTEMS IN: CO, KS, NE, OK & TX

### Rates and Timings

#### Preemergence or Postemergence

For control of annual broadleaf or grass weeds following wheat and in to the following corn or sorghum crop (when grown under minimum tillage), apply 2 to 11 pints/Acre of MARKSMAN Herbicide after wheat harvest. For best performance make application within 10 days following wheat harvest. Use the higher rates in the rate range for added grass control and longer residual weed control. A split application of MARKSMAN Herbicide may be used but only in

20/23

Marksman label revision May 1996

summer to fall after wheat harvest and may not exceed the maximum labeled rate of 11 pints/Acre (2.8 pounds atrazine/Acre).

**TANK MIX TREATMENTS: Post Harvest Fallow and Eco-Fallow**

MARKSMAN Herbicide may be tank mixed with one or more of the following herbicides for control of grasses or additional broadleaf weeds. When tankmixing MARKSMAN Herbicide with other products, read the label of each tank mix partner for precautionary statements, directions for use and other restrictions.

**MARKSMAN Herbicide Plus Banvel**

BANVEL Herbicide at 1 pint per treated acre may be tankmixed with MARKSMAN Herbicide for additional suppression of broadleaf perennial species that are actively growing at the time of application.

**MARKSMAN Herbicide plus 2,4-D**

2,4-D amine or ester at 1/8 to 1 lb ai per treated acre may be tankmixed with MARKSMAN Herbicide for improved postemergence burndown of annual or perennial broadleaf weeds. Burndown activity will particularly be enhanced on weeds growing under drought conditions or weeds that have been "topped" during the harvest operation.

**MARKSMAN Herbicide plus Roundup or Roundup RT®**

Roundup at 1 pint per treated acre may be tank mixed with MARKSMAN Herbicide for added postemergence control of grass or broadleaf weeds.

**MARKSMAN Herbicide plus Atrazine**

In areas such as Oklahoma and Texas where a higher ratio of atrazine to dicamba is desired, atrazine can be tankmixed with MARKSMAN Herbicide. Consult the table showing the maximum amount of atrazine that can be applied on page \_\_\_\_.

**MARKSMAN Herbicide plus Landmaster BW® or Landmaster II®**

Landmaster at 27 to 54 ounces product per treated acre may be tank mixed with MARKSMAN Herbicide added for postemergence control of grass and broadleaf weeds.

**MARKSMAN Herbicide plus Fallow Master®**

Fallow Master at 32 to 44 ounces product per treated acre may be tank mixed with MARKSMAN Herbicide for added postemergence control of grass and broadleaf weeds.

**MARKSMAN Herbicide Plus Gramoxone or Cyclone®**

21/23

Marksman label revision May 1996

Gramoxone or Cyclone may be tank mixed with MARKSMAN Herbicide for additional postemergence control of grass and broadleaf weeds. Refer to Gramoxone or Cyclone label for recommended use rates.

**MARKSMAN Herbicide plus Sulfonylureas (Glean®, Ally® or others)**

Apply as a tank mix with MARKSMAN Herbicide for additional preemergence or postemergence control of broadleaf weeds. Refer to sulfonylurea (Glean, Ally or others) label for recommended use rates.

**MARKSMAN Herbicide plus Command®**

Command at 16 to 32 ounces product per acre may be tank mixed with MARKSMAN Herbicide for additional preemergence control of grass and broadleaf weeds.

**BULK STORAGE AND DISPOSAL:** To be printed on labeling for bulk use only

**AGITATE BEFORE USE**

**STORAGE AND DISPOSAL**

**PROHIBITIONS**  
Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. This product may not be mixed, loaded, or used within 50 feet of all wells including abandoned wells, drainage wells, and sinkholes.

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

**PESTICIDE DISPOSAL**  
Pesticide spray mixture or rinsate that cannot be used according to label instructions must be disposed of according to Federal and local procedures under Subtitle C or the Resource Conservation and Recovery Act.

**BULK TANK MAINTENANCE**  
Follow clean-out directions in Dealer Bulk Handling Guide for MARKSMAN Herbicide listed under Bulk Storage Tank Requirements.

**GENERAL**

22/23

Consult Federal, State, or local disposal authorities for approved alternative procedures, such as limited burning.

**PESTICIDE STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Store in original container in a well-ventilated area separately from fertilizer, feed and foodstuffs. Avoid cross-contamination with other pesticides. Spillage or leakage should be contained 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.

**CONTAINER DISPOSAL**

For Plastic Containers: Triple rinse (or equivalent) and add rinsate to spray tank. Offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

**LIMITATION OF WARRANTY AND LIMITATION OF 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. Sandoz warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, under normal use conditions, subject to the risks described above. **Sandoz makes no other express or implied warranty of fitness or of merchantability or any other express or implied warranty.** In no event shall Sandoz or seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **The exclusive remedy of the user or buyer, and the exclusive liability of Sandoz or seller for any and all claims, losses, injuries or damages (including claims based on breach of warranty, contract, negligence, tort, strict liability or otherwise) resulting from the use or handling of this product, shall be the return of the purchase price of the product or, at the election of Sandoz or seller, the replacement of the product.** Sandoz and seller offer this product, and buyer and user accept it, subject to the foregoing limitations of warranty and limitation of liability, which may not be modified by any oral or written agreement.

**REGISTERED TRADEMARKS:**

Ally®, Bladex®, Glean®, and Accent® are registered trademarks of E. I. DuPont de Nemours & Company (Inc.)

23/23

Marksman label revision May 1996

Battalion®, Bronco®, Harness® Plus, Landmaster BW®, Landmaster II®, Lasso®, Ramrod®, Roundup® and Roundup RT® are registered trademarks of Monsanto Agricultural Products Company.

Broadstrike® and Stinger® is a registered trademark of DowElanco, Inc.

Command® is a registered trademark of FMC Corporation.

Dual® is a registered trademark of Ciba-Geigy Corporation, Agricultural Division.

Gramoxone® and Cyclone®, Eradicane®, Surpass® and Sutan +® are registered trademarks of Zenica Inc. Ag Products.

Fallow Master® is a registered trademark of Sandoz, Ltd. and used under license by Monsanto Ag. Products Co.

Loveland Tank and Equipment Cleaner is a product of Loveland Industries.

Nozzle 27500E-TEF is a product of Spray Systems Inc.

Nutra-sol® is a registered trademark of Cornbelt Chemical Co.

Incide-out® is a product of Precision Laboratories, Inc.

Prowl® is a registered trademark of American Cyanamid Company.

MARKSMAN® Herbicide, Frontier® Herbicide and BANVEL® Herbicide are registered trademarks of SANDOZ LTD.