

## ATTENTION:

This specimen label is provided for general information only.

- This pesticide product may not yet be available or approved for sale or use in your area.
- It is your responsibility to follow all Federal, state and local laws and regulations regarding the use of pesticides.
- Before using any pesticide, be sure the intended use is approved in your state or locality.
- Your state or locality may require additional precautions and instructions for use of this product that are not included here.
- Monsanto does not guarantee the completeness or accuracy of this specimen label. The information found in this label may differ from the information found on the product label. You must have the EPA approved labeling with you at the time of use and must read and follow all label directions.
- You should not base any use of a similar product on the precautions, instructions for use or other information you find here.
- Always follow the precautions and instructions for use on the label of the pesticide you are using.

36021K6-29

## RESTRICTED USE PESTICIDE

due to 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.

# HARNNESS

# XTRA

Herbicide by Monsanto

GROUP 5 15 HERBICIDE

Preemergence herbicide for weed control in Field Corn, Production Seed Corn, Silage Corn, Sweet Corn, Popcorn, and Miscanthus or other non-food perennial bioenergy crops.

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

## Complete Directions for Use

**ROUNDUP READY PLUS**<sup>TM</sup>  
WEED MANAGEMENT SOLUTIONS

EPA Reg. No. 524-480

2012-1

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.

THIS IS AN END-USE PRODUCT. MONSANTO DOES NOT INTEND AND HAS NOT REGISTERED IT FOR REFORMULATION. SEE INDIVIDUAL CONTAINER LABEL FOR REPACKAGING LIMITATIONS.

## 1.0 INGREDIENTS

### ACTIVE INGREDIENTS:\*

Acetochlor, 2-chloro-N-ethoxymethyl-N-(2-ethyl-6-methylphenyl)acetamide .....	46.3%
Atrazine, 2-chloro-4-(ethylamino)-6-(isopropylamino)-s-triazine and related triazines .....	18.3%
OTHER INGREDIENTS .....	35.4%
	100.0%

\*Contains 516 grams/liter or 4.3 pounds/gallon of acetochlor and 204 grams/liter or 1.7 pounds/gallon of atrazine and related compounds.

Product protected by U.S. Patent No. 5,225,570. Other patents pending. No license is granted under any non-U.S. patent(s).

## 2.0 IMPORTANT PHONE NUMBERS

FOR PRODUCT INFORMATION OR ASSISTANCE IN USING THIS PRODUCT,  
CALL TOLL-FREE, 1-800-332-3111

IN CASE OF AN EMERGENCY INVOLVING THIS HERBICIDE PRODUCT,  
OR FOR MEDICAL ASSISTANCE, CALL COLLECT, DAY OR NIGHT,  
314-694-4000

## 3.0 PRECAUTIONARY STATEMENTS

### 3.1 Hazards to Humans and Domestic Animals

Keep out of reach of children.

## CAUTION!

HARMFUL IF SWALLOWED. HARMFUL IF INHALED. CAUSES MODERATE EYE IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION.

Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

FIRST AID	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"><li>• Call poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"><li>• Move person to fresh air.</li><li>• If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth to mouth, if possible.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF ON SKIN OR ON CLOTHING</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li><li>• Sensitized persons should avoid further contact and reuse of contaminated clothing.</li></ul>
<ul style="list-style-type: none"><li>• Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</li><li>• This product is identified as <b>Harness® Xtra herbicide, EPA Registration No. 524-480.</b></li><li>• You may also contact (314) 694-4000, collect day or night, for emergency medical treatment information.</li></ul>	

### Personal Protective Equipment (PPE)

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

**Mixers, loaders, applicators and other handlers must wear:** long-sleeved shirt and long pants, chemical-resistant gloves such as polyethylene or polyvinylchloride, shoes plus socks, and a chemical-resistant apron when mixing/loading, cleaning up spills, or cleaning equipment, or otherwise exposed to the concentrate.

**Engineering Controls:** When handlers use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(5)], the handler PPE requirements may be reduced or modified as specified in the WPS.

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

**IMPORTANT:** When reduced PPE is worn because an enclosed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.

### User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE 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.

## 3.2 Environmental Hazards

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

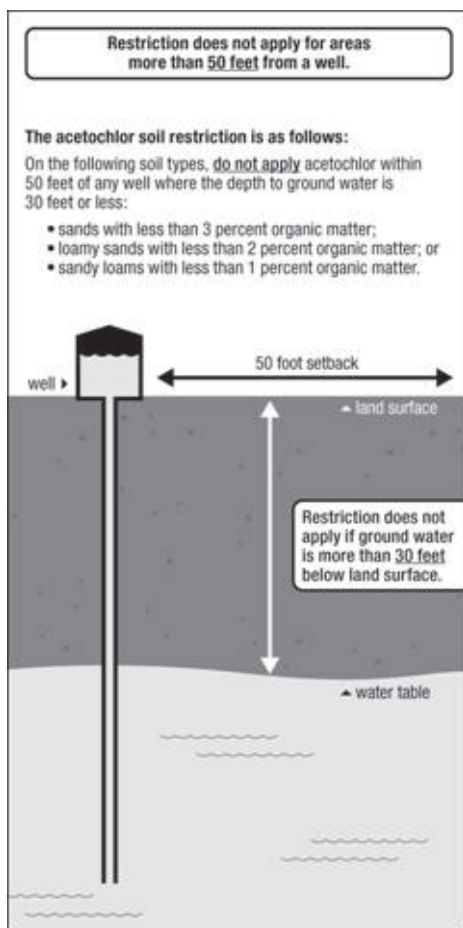
Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material.

This product is toxic to fish and aquatic invertebrates. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. 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 ground water is shallow, may result in ground water contamination.

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

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the ground water is shallow, may result in ground water contamination. On the following soil types, do not apply this product within 50 feet of any well where the depth to ground water is 30 feet or less: sands with less than 3 percent organic matter; loamy sands with less than 2 percent organic matter; or sandy loams with less than 1 percent organic matter. See the figure for additional clarification.



Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

This product must not be mixed or loaded within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes and reservoirs. This product must not be applied within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66-foot buffer or setback from runoff entry points must be planted to crop, seeded with grass, or other suitable crop.

This product must not be mixed or loaded, or used within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spill or equipment leaks, container or equipment rinse or washwater, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110 percent of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100 percent of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading sites.

States may have in effect additional requirements regarding well head setbacks and operational area containment.

To ensure protection of surface water from runoff through standpipes with tile-outlets in terraced fields, one of the following restrictions must be used in applying atrazine to tile-terraced fields containing standpipes:

1. Do not apply within 66 feet of standpipes in tile-outletted terraced fields.
2. Apply this product to the entire tile-outletted terraced field and immediately incorporate it to a depth of 2 to 3 inches in the entire field.
3. Apply this product to the entire tile-outletted terraced field under a no-till practice only when a high crop residue management practice is used. High crop residue management is described as a crop management practice where little or no crop residue is removed from the field during or after crop harvest.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in any manner inconsistent with its labeling. This product can only be used in accordance with the Directions for Use on this label or in separately published Monsanto Supplemental 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.

ANY USE OF THIS PRODUCT IN AN AREA WHERE USE IS PROHIBITED IS A VIOLATION OF FEDERAL LAW. Before using this product, you must consult the Atrazine Watershed Information Center (AWIC) to determine whether the use of this product is prohibited in your watershed. AWIC can be accessed through [www.atrazine-watershed.info](http://www.atrazine-watershed.info) or 1-866-365-3014. If use of this product is prohibited in your watershed, you may return this product to your point of purchase or contact Monsanto Company for a refund.

### 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, are: coveralls, chemical-resistant gloves made of any waterproof material and shoes plus socks.

## 4.0 STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store pesticides away from food, pet food, feed, seed, fertilizers, and veterinary supplies. Keep container closed to prevent spills and contamination.

**PESTICIDE DISPOSAL:** To avoid wastes, use all material in this container, including rinsate, by application in accordance with label directions. If wastes cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program. Such programs are often run by state or local governments or by industry. All disposal must be in accordance with applicable Federal, state and local regulations and procedures.

**CONTAINER HANDLING AND DISPOSAL:** See container label for container handling and disposal instructions and refilling limitations.

## 5.0 PRODUCT INFORMATION

This product is recommended for control of yellow nutsedge and many annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label. This product alone will not control emerged seedlings. This product may be applied either as a surface application before or after planting, or after crop emergence. This product may also be shallowly incorporated prior to planting to blend the herbicide treatment into the upper 1 to 2 inches of soil. Except for minimum or conservation tillage systems, the seedbed should be fine, firm and free of clods and trash.

Read and carefully observe cautionary statements and all other information appearing on the labeling of all products used in mixtures and sequential treatments. Use according to the most restrictive label directions in the mixture.

**NOTE:** Use this product for weed control in corn only. CORN (ALL TYPES INCLUDING SWEET CORN), MILO (SORGHUM), OR SOYBEANS CAN BE PLANTED THE YEAR FOLLOWING THE USE OF THIS PRODUCT. IF SOYBEANS ARE TO BE PLANTED THE FOLLOWING YEAR, THERE IS THE POSSIBILITY OF CROP INJURY DUE TO CARRYOVER OF ATRAZINE.

### 5.1 Use Restrictions

Do not flood irrigate to apply or incorporate this product.

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

Do not apply this product through any type of irrigation system, unless otherwise directed by approved supplemental labeling in possession of the user at the time of application.

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

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

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

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

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

Do not apply this product using aerial application equipment, unless otherwise directed by approved supplemental labeling in possession of the user at the time of application.

Do not apply when wind conditions favor drift to non-target sites. To minimize spray drift to non-target areas:

Use low-pressure application equipment capable of producing a large droplet spray. Do not use nozzles that produce a fine droplet spray. Minimize drift by using sufficient spray volume to ensure adequate coverage with large droplet size sprays.

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

Make application when the wind velocity favors on-target product deposition (approximately 3 to 10 miles per hour). Do not apply when wind velocity exceeds 15 miles per hour. Avoid application when gusts approach 15 miles per hour.

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

Use of this product not consistent with this label may result in injury to persons, animals or crops, or other unintended consequences.

For field corn forage use, allow 60-day preharvest interval.

For sweet corn forage use, allow 45-day preharvest interval.

Flush sprayer with clean water after use.

#### ROTATIONAL CROPS:

1) If a crop treated with this product is lost, field corn, seed corn, silage corn, popcorn or sweet corn may be replanted immediately. Do not exceed a total of 3.0 pounds per acre of acetochlor if additional product is applied.

2) If applied after June 10, do not rotate to crops other than corn or sorghum the next year, or crop injury may occur.

3) Rotate the next season to the following crops: corn (all types), cotton, sorghum or soybeans. Injury from atrazine may occur to soybeans planted the year following application on soils having a calcareous subsurface layer.

4) In the High Plains and Intermountain regions of the West where rainfall is sparse and erratic or irrigation is required, use only when corn or sorghum is to follow corn.

5) In Eastern parts of the Dakotas, Kansas, western Minnesota and Nebraska, do not rotate to soybeans if the rate applied to corn was more than 2.0 pounds active ingredient equivalent of atrazine or soybean injury may occur.

6) Do not plant sugar beets, sunflower, potatoes, tobacco, dry beans or peas, spring-seeded small grains or small-seeded legumes the year following application, or injury from atrazine may occur.

#### ROTATION TO NON-FOOD WINTER COVER CROPS

Following harvest of food crops treated with Harness Xtra herbicide, only non-food or non-feed winter cover crops (with the exception of wheat) may be planted. Do not graze or harvest rotational cover crops for food or animal feed for 18 months following the last application of Harness Xtra herbicide. This prohibition does not apply to wheat, which may be planted 4 months following the last application of Harness Xtra herbicide, or to nongrass animal feeds, which may be planted 9 months after the last application of Harness Xtra herbicide.

The maximum atrazine broadcast application rates for corn:

- If no atrazine was applied prior to corn emergence, apply a maximum of 2.0 pounds active ingredient per acre broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 pounds active ingredient per acre per calendar year.
- Apply a maximum of 2.0 pounds active ingredient per acre as a single preemergence application on soils that are not highly erodible or on highly erodible soils (as defined by the Natural Resources Conservation Service) if at least 30 percent of the soil is covered with plant residues, or
- Apply a maximum of 1.6 pounds active ingredient per acre as a single preemergence application on highly erodible soils (as defined by the Natural Resources Conservation Service) if less than 30 percent of the surface is covered with plant residues; or 2.0 pounds active ingredient per acre if only applied postemergence.

When tank mixing or sequentially applying, atrazine or products containing atrazine to corn, the total pounds atrazine applied (pounds active ingredient per acre) must not exceed 2.5 pounds active ingredient per year.

## 6.0 WEED RESISTANCE MANAGEMENT

GROUP	5	15	HERBICIDE
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Atrazine and acetochlor, the active ingredients in this product, are Group 5 and Group 15 herbicides, respectively, based on the mode of action classification system of the Weed Science Society of America. Any weed population can contain plants naturally resistant to Group 5 or Group 15 herbicides. Weed species resistant to Group 5 or Group 15 herbicides may be effectively managed utilizing another herbicide from a different Group, or by using other cultural or mechanical practices.

#### General principles of herbicide resistance management

1. Apply integrated weed management practices. Use multiple herbicide modes-of-action with overlapping weed spectrums in rotation, sequences, or mixtures.
2. Use the full specified herbicide rate and proper application timing for the hardest to control weed species present in the field.
3. Scout fields after herbicide application to ensure control has been achieved. Avoid allowing weeds to reproduce by seed or to proliferate vegetatively.
4. Monitor site and clean equipment between sites.

#### For annual cropping situations also consider the following:

- Start with a clean field and control weeds early by using a burndown treatment or tillage in combination with a preemergence residual herbicide as appropriate.
- Use cultural practices such as cultivation and crop rotation, where appropriate.
- Use good agronomic principles that enhance crop competitiveness.
- Use new commercial seed that is as free of weed seed as possible.

**Report any incidence of repeated non-performance of this product on a particular weed to your Monsanto representative, local retailer, or county extension agent.**

## 7.0 SOIL TEXTURE

Applicators should evaluate soil conditions carefully to assure that they choose the correct label rate. The use rates of this product and the other herbicides labeled for use in tank mixtures with this product vary with soil texture. Unless soil texture is specifically named, rate tables throughout this label refer to only three soil textural groups: coarse, medium and fine. The following is a complete listing of soil textures included in each of these three soil textural groups:

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

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

## 8.0 MIXING, SPRAYING AND HANDLING INSTRUCTIONS

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

### 2.5 Gallon Containers

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

### Bulk Containers

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

## 8.1 Equipment Cleaning and Repair

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

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

## 8.2 Sprayer Compatibility

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

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

- Place a 20- to 35-mesh screen or wetting basket over filling port.
- Through the screen, fill the sprayer tank one-half full with the appropriate carrier.
- If a compatibility agent is necessary to improve mixing or to prevent the formation of undesirable and unsprayable gels or precipitates, while agitating add it to the carrier already in the tank. Use only compatibility agents cleared by FDA for this use. Read and follow all directions for use, cautionary statements and all other information appearing on the selected compatibility agent label. Check for adequate agitation.
- If a wettable powder or dry flowable formulation is used, make a slurry with water and add it slowly through the screen into the tank. Continue agitation.
- If a flowable formulation is used, add slowly through screen into the tank. Mixing and compatibility may be improved when flowable is premixed one part flowable with one part water and added to the tank in diluted form.
- Add this product slowly through the screen into the tank. Mixing and compatibility may be improved when this product is prediluted with two parts of water and added to the tank in diluted form.
- Complete filling the sprayer tank with carrier. If a Roundup® agricultural herbicide or Gramoxone brand herbicide is used, add the required amount near the end of the filling process. Remove hose from tank immediately after filling to avoid siphoning back into the carrier source.

Maintain good agitation at all times until the contents of the tank are sprayed.

**NOTE:** If spray mixture is allowed to settle at any time, thorough agitation is required to resuspend the mixture before spraying is resumed.

Keep by-pass line on or near bottom of tank to minimize foaming. Screen size in nozzle or line strainers should be 50-mesh. Carefully select proper nozzle to avoid spraying a fine mist. Check for even distribution of spray droplets. To reduce loss of the chemical due to drift of a fine mist, apply at nozzle pressures below 40 psi.

## 8.3 Standard Sprayable Fluid Fertilizer Compatibility Test

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

### A. Materials Required For A Compatibility Test

- Two one-quart jars with lid or stopper (marked "with" and "without").
- TEAspoons (for a more exacting test, a five to ten milliliter (mL) pipette or graduated cylinder is desirable).
- Sprayable fluid fertilizer to be tested.
- The herbicide chemicals to be mixed.
- A compatibility agent (the purpose of the adjuvant is to help keep the fertilizer and crop protection chemical in suspension, if this assistance is needed).

### B. Procedure

- Add one pint of the sprayable fluid fertilizer that will be used or other herbicide carrier to each jar marked "WITH" and "WITHOUT".



Add One Pint Liquid Fertilizer  
To Two Quart Jars



- To the jar marked "WITH", add 1/4 TEAspoon or 1.2 milliliters of a suitable compatibility agent; shake gently for five to ten seconds to mix. (1/4 TEAspoon in one pint is the equivalent of two pints per 100 gallons of liquid fertilizer.)



To Jar Marked "WITH"  
Add Compatibility Agent  
And Shake To Mix



- To each jar add the appropriate amount of herbicide(s). If more than one is used, add them separately with the wettable powders or dry flowables added first, flowables second and liquid last. Shake gently five to ten seconds after each addition.



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



Amount to be Added per Pint of  
Sprayable Fluid Fertilizer  
(Assuming Volume is 25 gallons/Acre)

HERBICIDE	RATE/ACRE	Level TEAspoons
Wettable Powders or	1 pound =	1.5
	2 pounds =	3.0
Dry Flowables	3 pounds =	4.5
	4 pounds =	6.0
	5 pounds =	7.5

HERBICIDE	RATE/ACRE	Level TEAspoons	Milliliters
Emulsifiable Concentrates or	1 pint =	0.5	or 2.4
	1 quart =	1.0	or 4.7
Flowables or	2 quarts =	2.0	or 9.5
	Liquids or	3 quarts =	3.0
Solutions	1 gallon =	4.0	or 19.0
	5 quarts =	5.0	or 23.8

This compatibility test is designed for 25 gallons of spray per acre with the maximum labeled rate of herbicide. For changes in spray volume or herbicide rate, make appropriate changes in the ingredients of the test. Regardless of spray volume, the amount of compatibility agent should be equal to two or three pints (two pints = 1/4 TEAspoon or 1.2 milliliters, three pints = 3/8 TEAspoon or 1.8 milliliters per pint of sprayable fluid fertilizer) per 100 gallons of liquid fertilizer.

### C. Observations and Decisions

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

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

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

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

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

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

## 9.0 APPLICATION SYSTEMS

### 9.1 Ground Broadcast Treatment

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

### 9.2 Ground Band Treatment

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

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

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

### 9.3 Application With Dry Bulk Fertilizer

The herbicide-fertilizer impregnation process must be completed only by commercial fertilizer or chemical dealerships properly equipped for this procedure.

Dry bulk fertilizer may be impregnated with this product or the tank mixtures of this product plus atrazine on corn. This product and these tank mixtures must be applied with 200 to 450 pounds of dry bulk fertilizer per acre and shallowly incorporated within 14 days prior to planting. On medium- and fine-textured soils in areas where soil incorporation is not planned, i.e., reduced tillage situations or in some conventional tillage situations, applications can be made up to 30 days before planting to allow moisture to move the herbicide-fertilizer mixture into the soil. On coarse-textured soils, applications can be made up to 14 days prior to planting. The herbicide must be applied as directed in this label for the crop, weed and soil type treated. Refer to the table for broadcast rate per acre to determine the rate per acre for the herbicide treatment to be applied.

Impregnation of bulk fertilizer is restricted to commercial facilities. On-farm fertilizer impregnation is prohibited. No more than 500 tons of bulk fertilizer can be impregnated per day. No single facility may impregnate fertilizer with this product for more than 30 days per calendar year.

The commercial facility impregnating the dry bulk fertilizer must inform, in writing, the use (applicator) of the dry bulk fertilizer that:

- Applicators must wear long-sleeved shirt, long pants, shoes and socks.
- Do not enter or allow others to enter the treated areas (except those involved in the watering) during the restricted-entry interval (REI) of 12 hours.

The following table provides a reference to determine the amount of LIQUID herbicide to be mixed per ton of dry bulk fertilizer for a range of herbicide directions for fertilizer rates per acre:

Quarts of Liquid Herbicide Per Acre

Fertilizer Rate (Pounds/Acre)	Acres Covered (Per Ton)	Quarts of Herbicide per Ton Dry Bulk Fertilizer		
		1.5 (quarts)	1.8 (quarts)	2.3 (quarts)
200	10.0	15.0	18.0	23.0
250	8.0	12.0	14.4	18.6
300	6.7	10.1	12.1	15.5
350	5.7	8.6	10.2	13.3
400	5.0	7.5	9.0	11.7
450	4.5	6.8	8.1	10.4

To determine the amount of herbicide needed for rates not included in the preceding table, use the following formula:

#### Herbicide Rate

$$\frac{\text{Quarts/Acre} \times 2000}{\text{Pounds Fertilizer/Acre}} = \frac{\text{Quarts of Herbicide}}{\text{Per Ton of Dry Bulk Fertilizer}}$$

Mix and blend the dry fertilizer and herbicide mixture in a closed rotary drum-type mixer allowing sufficient time to ensure uniform coverage. Use at least one ton of dry fertilizer per mixing operation. Inject the herbicide into the drum over a minimum of a 2 minute period and allow at least 2 additional minutes mixing time to ensure uniformity. The nozzle used to spray the herbicide treatment must be placed inside the mixer to provide uniform spray coverage of the tumbling fertilizer.

If the dry fertilizer used has inadequate absorptive capacity, use a higher absorptive material such as Agsorb, MP-79 or Microcel, to provide a free-flowing mixture.

The following table provides a partial list of dry fertilizers which may be impregnated with this product.

Ammonium sulfate	21-00-00
Ammonium phosphate-sulfate	16-20-00
Diammonium phosphate	18-46-00
Potassium chloride	00-00-60
Potassium sulfate	00-00-52
*Urea	46-00-00

\*Some ureas may be phytotoxic when applied on corn. Use only ureas known to be safe to corn.

**NOTE:** DO NOT impregnate this product or tank mixtures of this product with other herbicides on fertilizers containing ammonium nitrate, potassium nitrate or sodium nitrate.

Spread the herbicide-dry fertilizer mixture uniformly with a properly calibrated applicator: dribble, pneumatic (air flow) or spin. When using spin applicators, fertilizers impregnated with this product or tank mixtures of this product with other herbicides must be spread at half-rate and overlapped 100 percent to obtain full rate and uniform distribution. Non-uniform spreading of the fertilizer-herbicide mixture may result in unsatisfactory weed control or crop injury.

## 10.0 APPLICATION TIMING AND METHODS

**NOTE:** The maximum total per crop season of this product is 2.7 quarts per acre.

### 10.1 Early Preplant Surface Application

This product and some labeled tank mixtures of this product may be applied in no-till and other conservation tillage systems before weeds emerge and up to 45 days before planting field corn or silage corn. Split applications can be made 30 to 45 days prior to planting with 60 percent of the broadcast rate applied initially and the remaining 40 percent applied at planting. Applications made less than 30 days prior to planting can be made either as a split or as a single application. If weeds are present at the time of application, apply this product in a tank mixture with an appropriate contact herbicide. Observe directions for use, precautions and restrictions on the label of the contact herbicide. During the planting operation, be careful not to move untreated soil to the surface or move treated soil out of the row, as weed control may be reduced.

### 10.2 Preplant Incorporation Application

This product and many of the labeled tank mixtures may be mixed into the soil using shallow incorporation equipment any time within 14 days prior to planting. Apply the product to the soil surface as a broadcast application. Either existing soil moisture or subsequent precipitation or irrigation is required to bring incorporated herbicide treatments into contact with germinating weed seedlings. If weeds emerge after treatment, rotary hoe or shallowly cultivate immediately to improve performance.

Shallowly incorporate the treatment into the upper 1 to 2 inches of the soil. Equipment should be operated at manufacturer's designed speed for incorporation to ensure adequate mixing and distribution of the herbicide treatment in the soil. Equipment design including any drag attachments must be adequate to avoid soil ridging which may result in streaked or reduced weed control. Equipment should be set to work the soil NO DEEPER THAN 4 INCHES. Soil conditions, including moisture content and crop residue levels, must be suitable to allow thorough and uniform mixing.

## 10.3 Preemergence Surface Application

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

## 10.4 Postemergence Surface Application

This product and certain tank mixtures may be applied postemergence until corn reaches 11 inches in height. Application must be made prior to the 2-leaf grass stage or in a tank mixture that controls emerged weeds. Read and follow all restrictions and directions on tank-mix product labels. Refer to the specific treatment intended in the "DIRECTIONS FOR USE" section of the label to determine if postemergence applications to corn are recommended and determine the proper weed and corn growth stage limitations. Precipitation or overhead sprinkler irrigation is required after application to move the herbicide treatment into the weed germination zone to control unemerged weeds. The amount of precipitation or irrigation required depends on existing soil moisture, soil type and percent organic matter content, but 1/4 to 3/4 inch is normally adequate. If weeds emerge after treatment, rotary hoe or shallowly cultivate to improve performance. DO NOT apply postemergence to sweet corn.

DO NOT make postemergence surface applications using sprayable fluid fertilizer as the carrier because severe crop injury may occur.

## 10.5 Cultivation Information

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

## 11.0 WEEDS CONTROLLED

When applied as directed under conditions described, this product will CONTROL the following weeds:

### 11.1 Annual Grasses Controlled

<b>Barnyardgrass</b> <i>Echinochloa crus-galli</i>	<b>Panicum, browntop</b> <i>Panicum fasciculatum</i>
<b>Crabgrass</b> <i>Digitaria ischaemum</i>	<b>Panicum, fall</b> <i>Panicum dichotomiflorum</i>
<i>Digitaria sanguinalis</i>	<b>Rice, red</b> <i>Oryza sativa</i>
<b>Cupgrass, woolly*</b> <i>Eriochloa villosa</i>	<b>Signalgrass, broadleaf</b> <i>Brachiaria platyphylla</i>
<b>Foxtail, giant</b> <i>Setaria faberi</i>	<b>Sprangletop, red</b> <i>Leptochloa filiformis</i>
<b>Foxtail: green, robust purple, robust white</b> <i>Setaria viridis</i>	<b>Wheat, volunteer</b> <i>Triticum aestivum</i>
<b>Foxtail, yellow</b> <i>Setaria lutescens</i>	<b>Witchgrass</b> <i>Panicum capillare</i>
<b>Goosegrass</b> <i>Eleusine indica</i>	
<b>Oat, wild</b> <i>Avena fatua</i>	

\*Apply 2.7 quarts of this product per acre to control this weed. Control of this weed can be erratic especially under dry weather conditions. Control escaped weeds with cultivation or application of an appropriate EPA-registered postemergence herbicide.

### 11.2 Annual Broadleaves Controlled

<b>Beggarweed, Florida</b> <i>Desmodium tortuosum</i>	<b>Mustard</b> <i>Brassica spp.</i>
<b>Carpetweed</b> <i>Mollugo verticillata</i>	<b>Nightshade, black</b> <i>Solanum nigrum</i>
<b>Cocklebur*</b> <i>Xanthium strumarium</i>	<b>Nightshade, hairy</b> <i>Solanum sarrachoides</i>
<b>Galinsoga</b> <i>Galinsoga spp.</i>	<b>Pigweed; Carelessweed</b> <i>Amaranthus spp.</i>

<b>Groundcherry, annual</b> <i>Physalis spp.</i>	<b>Purslane</b> <i>Portulaca oleracea</i>
<b>Groundcherry, cutleaf</b> <i>Physalis angulata</i>	<b>Pusley, Florida</b> <i>Richardia scabra</i>
<b>Henbit</b> <i>Lamium amplexicaule</i>	<b>Ragweed, common</b> <i>Ambrosia artemisiifolia</i>
<b>Jimsonweed</b> <i>Datura stramonium</i>	<b>Sida, prickly; Teaweed</b> <i>Sida spinosa</i>
<b>Kochia**</b> <i>Kochia scoparia</i>	<b>Smartweed</b> <i>Polygonum pensylvanicum</i>
<b>Lambsquarters</b> <i>Chenopodium album</i>	<i>Polygonum persicaria</i>
<b>Morningglory, annual*</b> <i>Ipomoea purpurea</i>	<b>Velvetleaf; Buttonweed*</b> <i>Abutilon theophrasti</i>
	<b>Waterhemp</b> <i>Amaranthus tuberculatus</i>

\*Use the higher rate in the rate range within each Application Rate table. Control of these weeds can be erratic especially under dry weather conditions. Control escaped weeds with cultivation or application of an appropriate EPA-registered postemergence herbicide.

\*\*Triazine-resistant biotypes may require a post sequential application of a non-triazine herbicide for control.

**Sedge**  
**Nutsedge, yellow\***  
*Cyperus esculentus*

\* Preplant incorporate for control.

## 11.3 Annual Grasses Partially Controlled

When applied immediately after planting and within 5 days of last tillage, this product at a rate of 2.3 to 2.7 quarts per acre on a broadcast basis will reduce competition from the following HARD-TO-CONTROL weeds.

<b>Johnsongrass, seedling</b> <i>Sorghum halepense</i>	<b>Sandbur; Grassbur</b> <i>Cenchrus incertus</i>
<b>Millet, proso</b> <i>Panicum miliaceum</i>	<b>Shattercane; Wild cane</b> <i>Sorghum bicolor</i>
<b>Panicum, Texas</b> <i>Panicum texanum</i>	

## 11.4 Annual Broadleaves Partially Controlled

<b>Ragweed, giant</b> <i>Ambrosia trifida</i>	<b>Sunflower, common</b> <i>Helianthus annuus</i>
<b>Sicklepod</b> <i>Cassia obtusifolia</i>	

**NOTE:** For hard-to-control weeds, additional amounts of Harness herbicide and/or atrazine may be added to provide improved control. For more consistent control of common cocklebur, annual morningglory or velvetleaf, additional atrazine may be applied so that the total atrazine rate is at least 1.5 quarts per acre on medium-textured soil with less than 3 percent organic matter, and 1.5 to 2 quarts on medium- and fine-textured soils with 3 percent or greater organic matter content. For more consistent control of woolly cupgrass additional Harness herbicide may be applied so that the total acetochlor rate is 3.0 pounds per acre. The following table shows the amounts of Harness herbicide and/or atrazine that can be added to specific treatment rates of this product.

Do not use more than 2.7 quarts of this product per acre per calendar year.

APPLICATION RATES HARNES XTRA (quarts)	PRODUCT ADDITION (maximum rate)	
	HARNES (pints)	ATRAZINE (quarts)
1.5	1.5	1.4
1.8	1.2	1.3
2.0	0.9	1.2

The maximum atrazine broadcast application rates for corn:

- If no atrazine was applied prior to corn emergence, apply a maximum of 2 pounds active ingredient per acre broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 pounds active ingredient per acre per calendar year.
- Apply a maximum of 2.0 pounds active ingredient per acre as a single preemergence application on soils that are not highly erodible or on highly erodible soils (as defined by the Natural Resources Conservation Service) if at least 30 percent of the soil is covered with plant residues, or
- Apply a maximum of 1.6 pounds active ingredient per acre as a single preemergence application on highly erodible soils (as defined by the Natural Resources Conservation Service) if less than 30 percent of the surface is covered with plant residues; or 2.0 pounds active ingredient per acre if only applied postemergence.

## 12.0 CONSERVATION OR MINIMUM TILLAGE SYSTEMS

**NOTE:** Each section of this label provides treatment rates for this product and tank mixtures including this product. Applications, which are not consistent with instructions in this label, may result in unsatisfactory weed control, injury to crops, persons or animals, or other unintended consequences. Refer to specific product labels for crop rotation restrictions and cautionary statements of all products used in these tank mixtures, including precautions on soil pH sensitive varieties, minimum re-cropping interval and rotational guidelines.

Use the higher rates in the ranges of the Application Tables in areas of heavy weed infestation or where otherwise specified. If emerged weeds exist at planting, the application of a contact herbicide or tillage is recommended when possible to eliminate existing weeds. Do not apply when conditions favor drift.

Detailed information regarding "APPLICATION SYSTEMS" and "APPLICATION TIMINGS AND METHODS" should be carefully reviewed in conjunction with the information in this section. If the specific information in this section differs from the "PRODUCT INFORMATION", the specific information should control.

The tank-mix recommendations in the "CONVENTIONAL TILLAGE SYSTEMS" of this label may also be followed when using "CONSERVATION OR MINIMUM TILLAGE SYSTEMS". Follow all label precautions, directions and restrictions of tank-mix partners.

### 12.1 At-Planting Applications

When applied as directed under the conditions described, the specified tank mixtures control many emerged annual weeds, suppress many emerged perennial weeds and give preemergence control of many annual grasses and weeds when corn will be planted directly into a cover crop, established sod or in previous crop residues. These tank mixtures will not control regrowth from perennial weeds.

Refer to specific product labels for crop rotation restrictions and precautionary statements of all products used in these tank mixtures. For mixing instructions, see the "MIXING AND SPRAYING INSTRUCTIONS" section of this label.

#### 12.1.1 Additional Preemergence Control

Harness Xtra herbicide may be tank mixed with Princep or Pursuit. Apply these tank mixtures with a Roundup agricultural herbicide or 2,4-D (amine or low volatile ester) in 10 to 20 gallons of water or 10 to 60 gallons of nitrogen solution per acre, or these tank mixtures with Gramoxone brand herbicide in 20 to 60 gallons of water or clear liquid fertilizer per acre immediately before, during or after planting, but BEFORE CROP EMERGENCE. As density of stubble, crop residue or weeds increase, spray gallonage and rate should be increased within the use rate ranges to ensure complete coverage. In the absence of emerged vegetation, delete the Roundup agricultural herbicide, Gramoxone brand herbicide or 2,4-D portion of these tank mixtures.

### 12.2 Control or Suppression of Emerged Weeds

**ATTENTION: AVOID DRIFT.** EXTREME CARE MUST BE USED WHEN APPLYING THESE TANK MIXTURES TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS. Do not allow spray mist to drift since even minute quantities of spray can cause severe damage or destruction to nearby crops, plants or other areas on which treatment is not intended. Do not apply when winds are gusty or in excess of 5 miles per hour or when other conditions, including lesser wind velocities, will allow drift to occur. When spraying, avoid combinations of pressure and nozzle type that will result in fine particles (mist) which are more likely to drift.

#### 12.2.1 Roundup Agricultural Herbicides

##### Annual Weeds

Apply Roundup agricultural herbicides in these tank mixtures at the proper rate for the weed per the label instructions.

##### Perennial Weeds

At normal application rates in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. Use labeled rates of Roundup agricultural herbicides, in the above mixtures under these conditions provides top kill and reduces competition from many emerged perennial grasses and broadleaf weeds.

DO NOT USE THIS MIXTURE FOR BERMUDAGRASS OR JOHNSONGRASS CONTROL.

##### Ammonium Sulfate

The addition of ammonium sulfate in the spray solution may increase the performance of Roundup agricultural herbicide tank mixtures on emerged annual weeds under adverse growing conditions. When using ammonium sulfate, add 2 percent dry ammonium sulfate by weight or 17 pounds per 100 gallons of water. Ammonium sulfate should be added to the water in the spray tank and completely dissolved prior to adding the herbicide or surfactant. Do not mix ammonium sulfate in fluid fertilizer solutions. The equivalent rate of ammonium sulfate in a liquid formulation may also be used.

If ammonium sulfate is added directly to the spray tank, add slowly with agitation. Adding too quickly may clog outlet lines. Nozzle tip plugging may result from the use of low quality ammonium sulfate. To determine quality, perform a jar test by adding 1/3 cup of ammonium sulfate to 1 gallon of water and agitate for one minute. If

undissolved sediment is observed, predissolve the ammonium sulfate in water and filter prior to adding to the spray tank.

##### Surfactants

Nonionic surfactants that are labeled for use with herbicides may be used with some Roundup agricultural herbicides. Check specific label for restrictions. Do not reduce rates of Roundup agricultural herbicides when adding surfactant. Use 0.5 percent surfactant concentration (2 quarts per 100 gallons of spray solution) when using surfactants that contain at least 50 percent active ingredient or a 1 percent surfactant concentration (4 quarts per 100 gallons of spray solution) for those surfactants containing less than 50 percent active ingredient. Read and carefully observe surfactant cautionary statements and other information appearing on the surfactant label.

#### 12.2.2 Gramoxone Brand Herbicides

When used as directed, Gramoxone brand herbicides in a labeled tank mixture control many emerged annual weeds and suppresses many emerged perennial weeds.

##### Broadcast Treatment

Apply Gramoxone brand herbicide in the specified tank mixtures immediately before, during or after planting but BEFORE CROP EMERGENCE. Use the rates and timing of application listed in the specific product label. As density of stubble, crop residue or weeds increases, spray gallonage should be increased within the use rate range for complete coverage. Add a nonionic spreader surfactant (approved for use on crops) containing at least 75 percent surfactant active agent at 8 ounces per 100 gallons of diluted spray. REFER TO THE SPECIFIC GRAMOXONE BRAND HERBICIDE LABEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS.

#### 12.2.3 2,4-D

When used as directed, 2,4-D in labeled tank mixtures controls many emerged annual and perennial broadleaf weeds. For emerged weeds controlled, see the "WEEDS CONTROLLED" section of the label for 2,4-D.

##### Broadcast Treatment

Apply 1 to 2 pints of 2,4-D (amine or low-volatile ester) in the specified tank mixtures. Applications should be made 7 to 14 days before planting or 3 to 5 days after planting but BEFORE CORN EMERGES. As density of stubble, crop residue or weeds increase, spray gallonage should be increased within the use rate range for complete coverage.

**DO NOT use 2,4-D on light, sandy soils, or where soil moisture is inadequate for normal weed growth. Observe all precautions and limitations on the 2,4-D label booklet.**

### 12.3 Early Preplant Application

This product, when applied in a single application or split application will provide preemergence control or reduced competition of the annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label. If emerged weeds are present at the time of treatment, a Roundup agricultural herbicide, Gramoxone brand herbicide or 2,4-D should be added to this product according to the directions for use on their respective product labels. If unsatisfactory weed control occurs (due to excessively dry or excessively wet conditions) following the earlier application, a postemergence application of an appropriate labeled grass and/or broadleaf weed herbicide may be used. If a postemergence treatment includes the herbicide used early preplant, do not exceed the labeled rate for corn on a given soil texture. Observe all precautions and limitations on the labels for Harness Xtra herbicide, Roundup agricultural herbicides, Gramoxone brand herbicides, 2,4-D and other postemergence herbicides before use of these products.

**DO NOT apply tank mixtures containing a Roundup agricultural herbicide, Gramoxone brand herbicide or other contact herbicides by air.**

This product, when applied in a single application or split application (alone or in a tank-mix combination with Princep) or as a sequential application to Princep in early preplant programs will provide preemergence control or reduced competition of the annual grasses and broadleaf weeds listed in the "WEEDS CONTROLLED" section of this label. If weeds are emerged at time of application, apply a labeled contact herbicide with this product. Observe the directions for use, precautions and restrictions on the label of the contact herbicide.

#### 12.3.1 Harness Xtra Herbicide

##### Approved Application Systems

Ground; Broadcast boom  
Dry Bulk Fertilizer Impregnation

##### Approved Application Methods

###### Single application

Application of this product should be made less than 30 days before planting but prior to weed emergence. On coarse-textured soils applications should not be made more than 2 weeks prior to planting.

###### Split application

Apply 60 percent of the full rate as a split application prior to weed emergence and no more than 45 days prior to planting and the remaining 40 percent at or immediately following planting but before crop emergence.

See the following table for broadcast rates per acre for single and split applications.

**Application Rates:**

SOIL TEXTURAL GROUP	BROADCAST RATE PER ACRE	
	HARNESS XTRA* (quarts)	
Coarse	1.8	
Medium	2.3	
Fine	2.3	

\*In areas of heavy weed infestation use up to 2.7 quarts per acre on medium- and fine-textured soils.

In order to provide broad-spectrum weed control, both single and split applications of this product must be followed with a planned postemergence application of a labeled broadleaf and/or grass herbicide. Observe the directions for use, precautions and restrictions on the label of the postemergence herbicide before use of these products. If emerged weeds exist at planting, the application of a contact herbicide or tillage is recommended when possible to eliminate existing weeds.

## 12.3.2 Harness Xtra Herbicide Following Princep

**Sequential application**

Application of this product following Princep should be utilized for the control of fall panicum, crabgrass or broadleaf signalgrass. Apply 1 to 1.25 quarts per acre of Princep prior to weed emergence and no more than 45 days prior to planting. At or immediately following planting, but BEFORE CROP EMERGENCE, apply the indicated rate of this product.

**Application Rates:**

SOIL TEXTURAL GROUP	BROADCAST RATE PER ACRE	
	HARNESS XTRA* (quarts)	
Coarse	1.5 to 1.8	
Medium	1.8 to 2.3	
Fine	1.8 to 2.3	

\*Use the higher rates in the use rate ranges in areas of heavy weed infestation.

**NOTE:** LAND TREATED WITH PRINCEP SHOULD NOT BE PLANTED TO ANY CROP EXCEPT CORN FOR ONE YEAR FOLLOWING TREATMENT AS CROP INJURY MAY OCCUR. AFTER HARVEST OF TREATED CROP, PLOW AND THOROUGHLY TILL THE SOIL IN THE FALL OR SPRING TO MINIMIZE POSSIBLE INJURY TO SPRING SEEDED ROTATIONAL CROPS.

If emerged weeds exist at planting, the application of a contact herbicide or tillage is recommended when possible to eliminate existing weeds.

## 13.0 CONVENTIONAL TILLAGE

Use the higher rates in the application rate ranges in areas of heavy weed infestation or where otherwise specified. If emerged weeds exist at planting, the application of a contact herbicide or tillage is recommended when possible to eliminate existing weeds. Do not apply when conditions favor drift.

Detailed information regarding "APPLICATION SYSTEMS" and "APPLICATION TIMING AND METHODS" should be carefully reviewed in conjunction with the information in this section. If the specific information in this section differs from the "PRODUCT INFORMATION", the specific information should control.

## 13.1 Harness Xtra Herbicide

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

**Approved Application Systems**

Ground: Broadcast boom; banded  
Dry Bulk Fertilizer Impregnation

**Approved Application Methods**

Preplant Incorporated; Preemergence Surface

**Postemergence Surface**

Add up to 1 pint per acre of 2,4-D as a tank-mix partner to aid in control of existing weeds. Some leaf burn to corn may occur occasionally but subsequent growth or yield should not be affected. DO NOT make postemergence surface applications using sprayable fluid fertilizer as the carrier because severe crop injury may occur. Read and follow all labeled directions for use for 2,4-D.

**Application Rates:**

SOIL TEXTURAL GROUP	BROADCAST RATE PER ACRE	
	HARNESS XTRA* (quarts)	
Coarse	1.8	
Medium	1.8 to 2.3	
Fine	2.0 to 2.3	

\*In areas of heavy weed infestation use up to 2.7 quarts per acre on medium- and fine-textured soils.

## 13.2 Harness Xtra Herbicide plus Roundup Agricultural Herbicides on Corn containing Roundup Ready® 2 Technology including Roundup Ready Corn 2

This program may be used preemergence and postemergence to corn containing Roundup Ready 2 Technology including Roundup Ready Corn 2 from seedling emergence until the corn reaches 11 inches in height. Refer to the Roundup agricultural herbicide labels for specific weeds controlled postemergence.

AVOID DRIFT. EXTREME CARE MUST BE USED WHEN APPLYING THIS TANK-MIX TO PREVENT INJURY TO DESIRABLE PLANTS AND CROPS WHICH DO NOT CONTAIN A GLYPHOSATE TOLERANCE GENE.

**Approved Application Systems**

Ground: Broadcast boom

**Approved Application Methods**

**Preemergence Surface**

**Sequential Program:** This product may be applied preemergence to corn containing Roundup Ready 2 Technology including Roundup Ready Corn 2 at the Roundup Ready RATE of 1.2 quarts per acre in a planned preemergence followed by a Roundup agricultural herbicide postemergence sequential program.

**Postemergence Surface**

This product may be applied postemergence to corn containing Roundup Ready 2 Technology including Roundup Ready Corn 2 from seedling emergence until the corn is 11 inches in height. The Roundup Ready RATE for this product is 1.2 quarts per acre. Labeled use rates for this tank-mix using a Roundup agricultural herbicide are defined in the table below. This tank mix with a Roundup agricultural herbicide should be applied when weeds are 2 to 4 inches in height and before the weed height and/or density become competitive with the crop.

For difficult to control weeds such as fall panicum, barnyardgrass, crabgrass, shattercane, broadleaf signalgrass and Pennsylvania smartweed use the maximum labeled rates of Roundup agricultural herbicides.

**Roundup Ready RATE – Harness Xtra herbicide at 1.2 quarts per acre**

**Application Rates (minimum and maximum range)**

SOIL TEXTURAL GROUP	BROADCAST RATE PER ACRE		
	HARNESS XTRA (quarts)	+	ROUNDUP AGRICULTURAL HERBICIDES (quarts)
Coarse	1.0 to 1.8		Per Labeled Rate
Medium	1.0 to 2.3		Per Labeled Rate
Fine	1.0 to 2.3		Per Labeled Rate

## 14.0 TANK MIXTURES

### 14.1 Harness Xtra Herbicide Tank Mixtures for Preemergence Use in Corn

This product may be tank-mixed with the following products for preemergence use in corn. Ensure that the specific product being used in the tank mixture is registered for application preemergence to corn. Read and follow label directions of all products in the tank mixture. The most restrictive label directions apply.

Aim EC, Balance PRO, Balance Flex, Banvel, Callisto, Clarity, Distinct, Hornet WDG, Linex 4L, Lorox DF, Marksman, Princep, Python WDG, Resource, Roundup Brand Agricultural herbicides, 2,4-D, (atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, flumetsulam, flumiclorac pentyl ester, glyphosate, isoxaflutole, linuron, mesotrione, simazine)

### 14.2 Harness Xtra Herbicide Tank Mixtures for Postemergence Use in Corn

This product may be tank-mixed with the following products for postemergence use in corn. Ensure that the specific product being used in the tank mixture is registered for application postemergence (in-crop) to corn. Read and follow label directions of all products in the tank mixture. The most restrictive label directions apply.

Aim EC, Balance Flex, Banvel, Callisto, Clarity, Distinct, Hornet WDG, Impact, Linex 4L, Lorox DF, Marksman, Resource, Roundup Brand Agricultural herbicides, 2,4-D, (atrazine, carfentrazone-ethyl, clopyralid, dicamba, diflufenzopyr, flumetsulam, flumiclorac pentyl ester, glyphosate, isoxaflutole, linuron, mesotrione, topramezone)

## 15.0 MISCANTHUS AND OTHER NON-FOOD PERENNIAL BIOENERGY CROPS

For weed control in Miscanthus and other non-food perennial bioenergy crops, apply Harness Xtra herbicide at 2.1-2.8 pints per acre (after the crop has been transplanted or after fully emerged to a height of at least 2-3 inches). Up to two applications of Harness Xtra herbicide may be made each year. The total amount of this product applied each year must not exceed 5.6 pints per acre.



**RESTRICTIONS:** Do not allow the Miscanthus or other non-food perennial bioenergy crop treated with Harness Xtra herbicide to be grazed or used as animal feed.

## 16.0 LIMIT OF WARRANTY AND LIABILITY

This Company warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes set forth in the Complete Directions for Use label booklet ("Directions") when used in accordance with those Directions under the conditions described therein. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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.

To the extent consistent with applicable law, buyer and all users shall promptly notify this Company of any claims whether based in contract, negligence, strict liability, other tort or otherwise.

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

This Company does not warrant any product reformulated or repackaged from this product except in accordance with this Company's stewardship requirements and with express written permission from this Company.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, 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 TO THE EXTENT CONSISTENT WITH APPLICABLE LAW. IN NO EVENT SHALL THIS COMPANY OR ANY OTHER SELLER BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES.

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

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082411

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