UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

D-45

3/15/2002



MAR 15 2002

ALBAUGH, INC. c/o Pyxis Regulatory Consulting 11324 17<sup>th</sup> Avenue Ct. NW Gig Harbor, WA 98332

SUBJECT: Label Amendment Albaugh Atrazine 4F, EPA Reg. No. 42750-45 Your Application Dated February 14, 2002

The above mentioned amendment submitted in connection with registration under Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable provided you make the following changes listed below:

- 1. Change all "Precautions for Application......" and "Precautions" to "Use Precautions" or "Application Precautions".
- 2. Under the "Agricultural Use Requirements" box add "protective eyewear for reentry PPE.

A stamped copy is enclosed for your records. Please submit one(1) final printed copy for the above mentioned label before releasing the product for shipment. The amended labeling supersedes all previously accepted ones.

Sincerely,

James Tompkins Product Manager, (25) Herbicide Branch Registration Division (7505C)

Enclosure

			С	ONCURRENCES		 	
SYMBOL ►	7505C						
surname 🕨	MINOR, E.						
DATE 🕨	Mar 15, 2002						
EPA Form 132	0-1 (12-70)	<u>.                                    </u>	• • • • • • • • • • • • • • • • • • •	•	•	OFFICIAL FIL	E COPY

#### **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 atrazine 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.

## **ALBAUGH**

### Atrazine 4F

### For season-long weed control in corn and sorghum and certain other crops

#### **ACTIVE INGREDIENTS:**

Atrazine (2-chloro-4-ethylamino-6-isopropylamino-s-triazine).		40.8%
Related compounds		
OTHER INGREDIENTS:		
	TOTAL	100.0%

#### Atrazine 4F contains 4 lbs. active ingredient per gallon.

EPA Reg. No. 42750-45

EPA Est. No. 42750-MO-1

212b

Shake well before using. Use entire contents at one time.

#### **KEEP OUT OF REACH OF CHILDREN**

### CAUTION

# SEE ADDITIONAL PRECAUTIONARY STATEMENTS AND DIRECTIONS FOR USE INSIDE BOOKLET.

#### FOR CHEMICAL SPILL, LEAK, FIRE, OR EXPOSURE, CALL CHEMTREC (800) 424-9300

Manufactured For: Albaugh, Inc. Ankeny, Iowa 50021 Product of Argentina

ACCEPTED with COMMENTS In EPA Letter Dated

MAR 15 2002

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 42250 - 45 NET CONTENTS \_\_\_\_\_ Gals. \_\_\_\_\_ Liters

#### DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

**IMPORTANT:** Read the entire Directions of Use and the Conditions of Sale and Warranty before using this product. If terms are not acceptable, return the unopened product container at once.

#### **Conditions of Sale and Warranty**

The **Directions for Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with 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 ALBAUGH, INC, or the Seller. All such risks shall be assumed by the Buyer.

ALBAUGH. INC. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. ALBAUGH, INC. makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall ALBAUGH, INC. or the Seller be liable for consequential, special, or indirect dnmages resulting from the use or handling of this product. ALBAUGH, INC. and the Seller offer this product, and the Buyer accepts it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of ALBAUGH. INC.

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with 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 ALBAUGH, INC., its Supplemental Distributors, or the Seller. All such risks shall be assumed by the Buver.

ALBAUGH, INC., its Supplemental Distributors and the Seller warrant that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use subject to the inherent risks referred to above. NEITHER ALBAUGH, INC. NOR ITS SUPPLEMENTAL DISTRIBUTORS MAKE ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR OF MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. THIS WARRANTY DOES NOT EXTEND TO, AND THE BUYER SHALL BE SOLELY RESPONSIBLE FOR. ANY AND ALL LOSS OR DAMAGE WHICH RESULTS FROM THE USE OF THIS PRODUCT IN ANY MANNER WHICH IS INCONSISTENT WITH THE LABEL DIRECTIONS.

BUYER'S EXCLUSIVE REMEDY AND THE EXCLUSIVE LIABILITY OF ALBAUGH, INC., ITS SUPPLEMENTAL DISTRIBUTORS AND THE SELLER FOR ANY AND ALL CLAIMS, LOSSES, DAMAGES, OR INJURIES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER OR NOT BASED IN CONTRACT. NEGLIGENCE, STRICT LIABILITY IN TORT OR OTHERWISE, SHALL BE LIMITED, AT THE MANUFACTURER'S OPTION, TO REPLACEMENT OF OR THE REPAYMENT OF THE PURCHASE PRICE FOR THE QUANTITY OF PRODUCT WITH RESPECT TO

3/26

WHICH DAMAGES ARE CLAIMED. When Buyer suffers losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability, or other legal theories). Buyer must promptly notify Seller in writing of any claims to be eligible to receive either remedy stated above. IN NO CASE SHALL ALBAUGH, INC., ITS SUPPLEMENTAL DISTRIBUTORS, OR THE SELLER BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. ALBAUGH, INC., its Supplemental Distributors, and the Seller offer this product, and the Buyer accepts it, subject to the foregoing Conditions of Sale and Warranty, which may be varied only by agreement in writing signed by a duly authorized representative of ALBAUGH, INC.

No employee or agent of ALBAUGH, INC., its Supplemental Distributor, or the Seller is authorized to vary or exceed the terms of this Warranty in any other manner

#### **DIRECTIONS FOR USE**

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

#### AGRICULTURAL USE REQUIREMENTS

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

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

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

- Coveralls
- <u>Chemical resistant gloves Category A. such as butyl rubber > 14 mils, or natural rubber > 14 mils, or neoprene rubber > 14 mils or nitrile rubber > 14 mils.</u>
- Chemical-resistant footwear plus socks

#### **NON-AGRICULTURAL USE REQUIREMENTS**

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

#### Do not enter treated areas without protective clothing until sprays have dried. FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

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

#### GENERAL INFORMATION

This herbicide controls many annual broadleaf and grass weeds in corn, sorghum, sugarcane and certain other crops specified on this label. This product may be applied before or after weeds emerge.

Following many years of continuous use of this product and chemically related products, biotypes of some of the weeds listed on this label have been reported which cannot be effectively controlled by this and related herbicides. Where this is known or suspected, and weeds controlled by this product are expected to be present along with resistant biotypes, we recommend the use of this product in combinations or in sequence with other registered herbicides which are not atrazines. If only resistant biotypes are expected to be present, use a registered non-triazine herbicide. Consult your state Agricultural Extension Service for specific recommendations.

Since this product acts mainly through root absorption, its effectiveness depends on moisture to move it into the root zone. If weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control.

This product is nonflammable.

Avoid using near adjacent desirable plants or in greenhouses, or injury may occur. To avoid spray drift, do not apply under windy conditions. Avoid spray overlap as crop injury may result.

Where the use directions give a range of rates, use the lower rate on coarse-textured soil and soil low in organic matter, use the higher rate on fine-textured soil and soil high in organic matter.

**Note:** ALBAUGH, INC. does not recommend applications in combination with other herbicides or oils, except as specifically described on this label or in literature published by ALBAUGH, INC.

#### APPLICATION PROCEDURES

**Ground Application:** Use conventional ground sprayers equipped with nozzles that provide accurate and uniform application. Be certain that nozzles are uniformly spaced and are the same size. Calibrate sprayer before use and recalibrate at the start of each season and when changing carriers. Unless otherwise specified, use a minimum of 10 gallons of spray mixture/A for all preplant incorporated, preplant surface, preemergence and postemergence applications (with or without oil or surfactant) with ground equipment.

Use a pump with capacity to (1) maintain 35-40 psi at nozzles, (2) provide sufficient agitation in tank to keep the mixture in suspension, and (3) to provide a minimum of 20% bypass at all times. Use centrifugal pumps which provide propeller shear action for dispersing and mixing this product. The

pump should provide a minimum of 10 gals./minute/100 gal. tank size circulated through a correctly positioned sprayer tube or jets.

Use screens to protect the pump and to prevent nozzles from clogging. Screens placed on the suction side of the pump should be *16-mesh or coarser*. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between the pump and boom, and where required, at the nozzles. Check nozzle manufacturer's recommendations.

For band applications, calculate amount to be applied per acre as follows:

<u>band width in inches</u> x broadcast rate per acre = amount needed row width in inches per acre of field

Aerial application: Use aerial application only where broadcast applications are specified. Apply in a minimum of 1 quart of water for each qt. of this product applied per acre. For postemergence treatments on corn and sorghum, apply the recommended rate in a minimum of 2 gallons of water/A. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin, and should wash thoroughly before eating and at the end of each day's operation.

Application in water or liquid fertilizer: Nitrogen solution or complete liquid fertilizer may replace all or part of the water as a carrier for preemergence, preplant incorporated, or preplant surface ground application on corn and sorghum. Check the compatibility of this product with liquid fertilizer and/or nitrogen solution as shown below before use. Do not apply in nitrogen solution or complete liquid fertilizer after corn or sorghum emerges or crop injury may occur.

**Compatibility Test:** Since liquid fertilizers can vary, even within the same analysis, **always check compatibility with herbicide(s) each time before use**. Be especially careful when using complete suspension or fluid fertilizers as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gal. per acre. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

- 1. Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.
- 2. To one of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use such as Compex ® or Latron AG-44 ® (1/4 tsp. is equivalent to 2 pts. per 100 gals. spray). Shake or stir gently to mix.
- 3. To both jars, add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next, and emulsifiable concentrates last. After each addition, shake or stir gently to thoroughly mix. The appropriate amount of herbicides for this test follows:

Dry herbicides - For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

6/26

Liquid herbicides - For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.

4. After adding all ingredients, put lids on and tighten, and invert jar ten times to mix. Let the mixtures stand 15 minutes and then look for separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if the compatibility agent is needed in the spray mixture by comparing the two jars. If either mixture separates but can be remixed readily, the mixture can be sprayed as long as good agitation is used. If the mixtures are incompatible, test the following methods of improving compatibility: (A) slurry the dry herbicide(s) in water before addition, or (B) add ½ of the compatibility agent to the fertilizer and the other ½ to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use mixture.

Applications in water plus emulsifiable oil or oil concentrate: Adding emulsifiable oil (petroleum-derived, petroleum-derived oil concentrate, or single or mixed crop-derived oil concentrate) to postemergence water-based sprays in corn and sorghum may improve weed control. However, under certain conditions, the use of either type of oil may seriously damage the crop. To minimize this possibility, observe the following directions:

Use one of the following properly emulsified:

- 1. A suitable oil concentrate containing at least 1% but not more than 20% suitable emulsifier or surfactant blend.
- 2. A petroleum-derived oil containing at least 1% suitable emulsifier.

**Note:** In the event of a compatibility problem when mixing oil with this product and water, a compatibility agent such as Compex ® or Latron AG-44® should be used. Any of the above oils contaminated with water or other materials can cause compatibility problems and/or crop injury.

**Mixing procedures - all uses:** (1) Be sure sprayer is clean and not contaminated with any other materials, or crop injury or sprayer clogging may result. (2) Fill tank 1/4 full with clean water, nitrogen solution or complete liquid fertilizer. (3) Start agitation. (4) Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface. (5) Pour product directly from the container into tank. (6) Continue filling tank until 90% full. Increase agitation if necessary to maintain surface action. (7) Add emulsifiable oil, oil concentrate, or tank mix herbicide(s) after this product is thoroughly suspended. (8) Finish filling tank. (9) Empty the tank as completely as possible before refilling to prevent a buildup of oil or emulsifiable concentrate. Maintain agitation to avoid separation of materials. (10) If an oil or emulsifiable concentrate film starts to build up in tank, drain it and clean with a strong detergent solution or solvent. (11) Clean sprayer thoroughly immediately after use by flushing the system with water containing a detergent.

**ROTATIONAL CROPS:** (1) Do not rotate any crop except corn or sorghum until the following year, or injury may occur. (2) If applied after June 10, do not rotate with crops other than corn or sorghum the next year, or crop injury may occur. (3) In the High Plains and Intermountain 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. (4) In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans if the rate applied to corn or sorghum was more than 4 pts./A or equivalent band

application rate, or soybean injury may occur. (5) Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer. (6) Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small-seeded legumes and grasses the year following application, or injury may occur.

#### Atrazine 4F Applied Alone - Corn or Grain Sorghum\*

Preplant Surface-Applied, Preplant Incorporated, or Preemergence (or Postemergence at 4 pts./A with Oil)

Broadleaf and Grass Weeds Controlled

Drouulouj unu Gruss noous een			
barnyardgrass (watergrass)***	cocklebur**	<b>n</b> ightshade	mustards
giant foxtail**	groundcherry	pigweed	wild oats
green foxtail***	jimsonweed	purslane	yellow foxtail***
large (hairy) crabgrass**	kochia	ragweed	annual morningglory
velvetleaf (buttonweed)***	lambsquarters	sicklepod**	witchgrass (Panicum capillare)***

#### Postemergence with Emulsifiable Oil or Oil Concentrate in Water (at2 + 2.4 pts./A)

Broadleaf Weeds Controll	ed			
annual morningglory	jimsonweed	mustards	ragweed	velvetleaf**
cocklebur	lambsquarters	pigweed	smartweed	wild buckwheat

\*Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or <u>higher set\_backs</u>) which are different from label, the more restrictive/protective requirements must be followed. Certain states may have established rate limitations within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

\*\* Indicates partial control only.

\*\*\* Partial control only on medium- and fine-textured soils.

#### CORN

**Preplant Surface-Applied (Broadleaf and Grass Control):** Use on medium- and fine-textured soil with minimum-tillage or no tillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI and WY. Apply the recommended rate of Atrazine 4F shown in Table 1 on the next-page-up to 30 days prior to planting. On coarse-textured soils, do not apply more than two weeks prior to planting.

If weeds are present at the time of treatment, apply in a tank mix combination with a contact herbicide (for example, Gramoxone® Extra or Roundup®). Observe directions for use, precautions and restrictions on the label of the contact herbicide.

**Note:** To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**Preplant Incorporated (Broadleaf and Grass Control):** Broadcast in the spring after plowing at the rate indicated in Table 1. Apply to the soil and incorporate before, during, or after final seedbed preparation. Avoid deep incorporation. For best results, apply within two weeks prior to planting.

**Preemergence or At Planting (Broadleaf and Grass Control):** Apply during or shortly after planting prior to weed emergence at the rate in Table 1.

**Postemergence (Broadleaf and Grass Control):** Apply before weeds exceed 1.5 in. in height and before corn exceeds 12 in. in height at rate in Table 1.

#### Table 1 - Broadleaf and Grass Weed Control on Corn\*

#### 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, apply 4 pts./A as a broadcast spray.

If the soil coverage with plant residues is less than 30% at planting, a maximum of 3.2 pts./A may be applied.

On Soils That Are Not Highly Erodible

#### Apply 4 pts./A as a broadcast spray.

#### FOR POSTEMERGENCE APPLICATION

If no atrazine was applied prior to corn emergence, apply 4 pts./A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. active ingredient (5 pts. of this product) per acre per calendar year.

\*Broadleaf control (eastern CO, western KS, western NE, NM, OK Panhandle, west TX, and eastern WY): On sand, loamy sand, sandy loam, mild to strong alkaline soil, and all recently leveled soils, apply no more than 2.3 pts./A, either preplant surface, preplant incorporated, or preemergence. On other soil in these areas, apply rate in Table 1 for broadleaf and grass control.

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 must be followed. Certain states may have established rate limitations within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

**Postemergence with Emulsifiable Oil or Oil Concentrate in Water:** Add the following volume of one of the type oils indicated for aerial or ground application unless the oil label specifies otherwise:

Type Oil	Ground Application	Aerial Application
Oil concentrate (crop or	1 qt./A	1/2 - 1 qt./A
petroleum-derived)		
Petroleum-derived oil	1 gal./A	2 qts./A

**Note:** Crop- derived or petroleum-derived oil concentrates should contain at least 1%, but no more than 20%, suitable emulsifier or surfactant blend. Petroleum-derived oils should contain at least 1% suitable emulsifier.

**Broadleaf and Grass Control:** For postemergence control of those weeds listed under **Preplant Incorporated and Preemergence**, broadcast 4 pts./A plus emulsifiable oil or oil concentrate after weed emergence, but before weeds reach 1.5 inches in height and before corn exceeds 12 inches in height.

**Broadleaf Control**: For postemergence control of those weeds listed under **Postemergence with Emulsifiable Oil or Oil Concentrate in Water**, broadcast 2.4 pts./A plus emulsifiable oil or oil concentrate before pigweed and lambsquarters reach 6 inches in height and before all other weeds reach 4 inches in height. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

Precautions: For Applications with Emulsifiable Oil or Oil Concentrate in Water: (1) Inbred lines or any breeding stock may be severely injured by applications with emulsifiable oil or oil concentrate. (2) Adding other insecticides, herbicides, liquid fertilizers, or other materials is not recommended, because they may cause compatibility problems or crop injury. (3) Store and handle emulsifiable oil and oil concentrate carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank. To avoid crop injury, (4) Do not apply when crop is under stress from prolonged cold, wet weather, poor fertility, or other factors, or when crop is wet and succulent from recent rainfall. (5) Do not exceed 2.5 lbs. active ingredient (or 5 pts. of this product) per acre per calendar year. (6) Postemergence applications to corn must be made before corn exceeds 12 inches in height.

#### Tank Mixtures for Corn

This product may be tank mixed with these herbicides for control of certain broadleaf and grass weeds in corn:

Dual® (metolachlor) Dual + Gramoxone® Extra Dual + Roundup® (Glyphosate) Dual + Princep® Dual + Princep + Gramoxone Extra Dual + Princep + Roundup Ramrod® (propachlor) Lasso® or Lasso EC (alachlor) Lasso or Lasso EC + Roundup Lasso or Lasso EC + Gramoxone Extra Gramoxone Extra Princep Princep + Gramoxone Extra Princep + Roundup Roundup Sutan +®

Use tank mix directions appearing on the labels of the above herbicides when tank mixing with this product. Observe all precautions and limitations on labeling of products used in a particular tank mix.

**Note:** When the labels of the above herbicides refer to Atrazine 80W, use equivalent rates of Atrazine 4F. One pound of 80W equals 1.6 pints of 4L.

#### Princep 80W, Princep 4L, or Princep Caliber 90<sup>®</sup>

In addition to the weeds listed under Atrazine 4F Applied Alone - Corn or Grain Sorghum -Preplant Surface-Applied, Preplant Incorporated, or Preemergence, this combination also controls crabgrass, fall panicum, and carpetweed. Broadcast tank mix before planting, at planting, or after planting, but before crop and weeds emerge, at rates in Table 2. Use the 1:1 ratio for control of most weeds. Use the 1:2 ratio for expected heavy infestations of crabgrass and fall panicum. Cultivate shallowly if weeds develop.

**Preplant Surface-Applied:** Use on medium- and fine-textured soils with minimum-tillage or notillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI and WY.

Apply the recommended rate of **Atrazine 4F** and Princep shown in Table 2 up to 30 days prior to planting. Applications made less than 30 days prior to planting may be as either a split or single treatment. On coarse-textured soils, do not apply more than two weeks prior to planting. Refer to the **Atrazine 4F** Alone - Preplant Surface-Applied section of the corn label for additional details.

If weeds are present at the time of treatment, apply in a tank mix combination with a contact herbicide (for example, Gramoxone Extra or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

**Note:** To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**Preplant Incorporated:** Apply to the soil and incorporate in the spring before, during, or after final seedbed preparation. Avoid deep incorporation. For best results, apply within two weeks prior to planting.

Preemergence: Apply during or shortly after planting, but before crop and weeds emerge.

Refer to corn sections of this label and to Princep 80W, Princep Caliber 90, or Princep 4L labels for further directions, limitations, and precautions.

	Broadcast Rate/A				
	1:1 Ratio*		1:2 Ratio**		
Soil Texture	This Product	Princep 80W <sup>1</sup>	This Product	Princep 80W <sup>1</sup>	
Sand, loamy sand, loam	2 pts.	1.25 lbs.	1.32 pts.	1.67 lbs.	
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter	2.4 pts.	1.5 lbs.	1.6 pts.	2 lbs.	
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with medium to high organic matter, and clay (including dark prairie soils of the Corn Belt)	3 pts.	1.8 lbs.	1.92 pts.	2.4 lbs.	

Table 2. Tank Mixtures with Princep on Corn

\*For control of most weeds.

\*\*For control of expected heavy infestations of crabgrass and fall panicum.

<sup>1</sup>When using Princep Caliber 90 or Princep 4L, use equivalent rates. One lb. of Princep 80W equals 0.9 lb. of Princep Caliber 90 or 1.6 pts. of Princep 4L.

**Princep 80W, Princep 4L, or Princep Caliber 90 plus Roundup:** Use as a tank mixture for preemergence and postemergence control of certain broadleaf and grass weeds where corn will be planted directly into a cover crop, established sod, or in previous crop residues. Refer to the Roundup label for all directions, weeds controlled, precautions, and limitations.

**Princep 80W, Princep 4L, or Princep Caliber 90 plus Gramoxone Extra:** Use as tank mixture with Princep and Gramoxone Extra to kill existing vegetation and for residual weed control where corn will be planted directly into a cover crop, established sod, or previous crop residues. Add this product and Princep to water in spray tank, agitating until thoroughly mixed. Then add Gramoxone Extra and a nonionic surfactant such as X-77®. Continue agitation during application. Broadcast 2-4 pts. of this product plus 1.25-2.5 lbs. of Princep 80W (or 2-4 pts. of Princep 4L, or 1.1-2.2 lbs. of Princep Caliber 90) plus a suitable amount of Gramoxone Extra, in 20-60 gals. of water per sprayed acre. Refer to the Gramoxone Extra label for the appropriate rates to utilize in this tank mixture. Apply before, during, or after planting, but before the corn emerges. Add 0.5 pt. of a nonionic surfactant such as X-77® per 100 gals. of spray mixture. Use the higher rate of Gramoxone Extra specified on the label if existing vegetation is 4-6 inches tall. This mixture will not control weeds taller than 6 inches.

Refer to further limitations and precautions on the label for this product, Princep, and Gramoxone Extra.

Precautions for all Applications to Corn: (1) To avoid crop injury and illegal residues, do not apply more than 2.5 lbs./A active ingredient (2.5 qts. or 5 pts./A of this product) per calendar year. (2) For best control of velvetleaf and cocklebur, the application rate cannot be less than 2 lbs./A of active ingredients, either alone or in tank mix combinations. (3) Following harvest, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to spring-seeded rotational crops, regardless of the rate used.

**Note for all applications to corn:** Do not graze or feed forage from treated areas for 21 days following application, or illegal residues may result.

#### SORGHUM AND SORGHUM-SUDAN HYBRIDS (GRAIN AND FORAGE TYPES)

**Preplant Surface-Applied (Broadleaf and Grass Control):** Use on medium- and fine-textured soil with minimum-tillage or no-tillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI and WY. Apply 2/3 the recommended rate of Atrazine 4F shown in Table 3 for the soil texture as a split treatment 30 - 45 days prior to planting and the remainder at planting. Applications made less than 30 days prior to planting may be as either a split or single treatment. Under dry conditions, irrigation after application is recommended to move Atrazine 4F into the soil.

If weeds are present at time of treatment, apply in a tank mix combination with a contact herbicide (for example, Gramoxone Extra or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

**Note:** To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting or weed control will be diminished.

**Preplant Incorporated (Broadleaf and Grass Control):** Broadcast in the spring after plowing at rate shown in Table 3. Apply before, during, or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation. For best results, apply within two weeks prior to planting.

**Preemergence** or At-Planting (Broadleaf and Grass Control): Apply during or shortly after planting, but prior to weed or crop emergence at the rate shown in Table 3.

**Postemergence (Broadleaf and Grass Control):** Apply at rate shown in Table 3 before weeds exceed 1.5 inches in height and before sorghum exceeds 12 inches in height.

# Table 3 - Broadleaf and Grass Weed Control in Sorghum ±1.2FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCEOn 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, apply 4 pts./A as a broadcast spray.

If the soil coverage with plant residue is less than 30% at planting, a maximum of 3.2 pts./A may be applied.

#### **On Soils Not Highly Erodible**

Apply 4 pts./A as a broadcast spray.

#### FOR POSTEMERGENCE APPLICATION

If no atrazine was applied prior to sorghum emergence, apply 4 pts./A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. active ingredient (5 pts. of this product) per acre per calendar year.

Do not apply preplant surface or preplant incorporated in AL, AR, FL, GA, LA, MS, NC, NM, OK, SC, TN, or TX. Do not apply preemergence in NM, OK, or TX, except in northeast OK and the TX Gulf Coast.

<sup>2</sup>Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or <u>higher</u> set-backs) which are different from the label, the more restrictive/protective requirements must be followed. Certain states may have established rate limitations within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

In case of planting failure, sorghum or corn may be replanted. Do not make a second broadcast application, or injury may occur. If originally applied in a band and sorghum or corn is replanted in the untreated row middles, this product may be applied in a band to the second planting.

**Preemergence broadleaf weed control in furrow irrigated, bedded sorghum (AZ and CA only)**: For preemergence control of many broadleaf weeds, broadcast 1.6-2.4 pts./A after bed preparation, during or after planting, but before sorghum and weeds emerge and before the first furrow irrigation. Follow with several regular irrigations, making sure to thoroughly wet all soil.

Precautions for preemergence application to furrow irrigated bedded sorghum in AZ and CA: To avoid possible sorghum injury, do not use on sand or loamy sand soil or on sorghum planted in furrows. Application to sorghum growing on alkali soils or where cuts, fills, or erosion have exposed calcareous or alkali subsoils may cause crop injury. In case of crop failure, do not replant sorghum for 8 months following application. Corn may be planted immediately.

**Postemergence broadleaf weed control with emulsifiable oil or oil concentrate in water:** Broadcast 2.4 pts./A for control of many broadleaf weeds. Application should be made before pigweed and lambsquarters reach 6 inches in height and before all other weeds reach 4 inches in height. In CO, western KS, NM, OK, TX, and other desert regions of AZ and CA, apply when sorghum is 6-12 inches in height, but before it reaches boot stage. In all other areas, apply after sorghum reaches 3-leaf stage but before it exceeds 12 inches in height. Add 1 gal. of emulsifiable oil/A for ground applications and 0.5 gal./A for aerial application, or add 1 qt./A of oil concentrate for ground application. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

For the list of weeds controlled, see Atrazine 4F Applied Alone - Corn or Grain Sorghum - Postemergence with Emulsifiable Oil or Oil Concentrate in Water.

Precautions for applications with emulsifiable oil or oil concentrate in water: See "Precautions for applications with emulsifiable oil or oil concentrate in water" in Corn section.

Postemergence broadleaf weed control with surfactant (CO, western KS, NM, OK, TX, and desert regions of AZ and CA only): Broadcast 2.4 pts./A plus 0.75 to 1.5 pts. of surfactant after

sorghum reaches 6 inches in height, but before weeds exceed 1.5 inches in height. Apply only on sandy loam and finer textured soil.

Precautions for all applications to sorghum: (1) Heavy rain immediately following application tends to cause excessive concentrations of herbicide in seed furrow, resulting in possible crop injury. Do not apply to furrow-planted sorghum until furrows are leveled (plowed in). Level deep planter marks or seed furrows before application. (2) Application to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soils may result in crop injury. (3) Following harvest, plow (moldboard or disk-plow) and thoroughly till the soil in fall or spring to minimize possible injury to spring-seeded rotational crops, regardless of rate used. (4) Injury may occur if both this herbicide, preplant surface, preplant incorporated or preemergence. and at-planting systemic insecticide applied in-furrow are used. (5) Do not apply more than 2.5 lbs. active ingredient (5 pts. of this product) per acre per calendar year. (6) For all soil applications prior to crop emergence (except for pre-emergence use on bedded sorghum in AZ and CA), do not apply to coarse-textured soils, i.e., sand, loamy sand, or to medium and fine-textured soils having less than 1% organic matter, or injury may occur. (7) For postemergence applications, do not apply to sand or loamy sand, or injury may occur.

**Note:** Do not graze or feed forage from treated areas for 21 days following application or illegal residues may result.

#### Tank Mixtures For Grain Sorghum

**Dual 8E:** Use as a tank mixture with Dual 8E for control of those weeds listed on the Dual 8E label, as well as on this label. Use this tank mixture only on sorghum seed treated with Concep®. Refer to the Dual 8E label for all directions, precautions, and limitations.

#### Winter Weed Control In Texas

For postemergence control of winter weeds only, such as henbit, seedling dock, and annual thistle on fall bedded land in the Gulf Coast and Blacklands of Texas. Apply 0.8-1 qt./A postemergence to the weeds in November or December to land that will be planted to corn, grain sorghum, or forage sorghum the following spring. For best results, add a suitable surfactant, such as X-77, at the rate of 0.5% of the spray volume, an emulsifiable oil at the rate of 1.0% of the spray volume, or an oil concentrate at the rate of 1 qt. per acre.

Normal weed control programs may be used in the following corn, grain sorghum, or forage sorghum crop.

**Note:** Do not plant any crops except corn, grain sorghum or forage sorghum the spring following this treatment, or illegal residues may result.

#### Atrazine 4F Alone - Chemical Fallow

Wheat-Sorghum-Fallow: To control annual broadleaf and grass weeds following wheat harvest and in the following sorghum crop when grown under minimum tillage, broadcast 6 pts./A to wheat stubble immediately following wheat harvest. If weeds are present at application, remove them with a sweep plow or other suitable implement after application, or use an approved contact herbicide before or after application of Atrazine 4F. Plant sorghum into wheat stubble the following spring 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.

For the list of weeds controlled, see Atrazine 4F Applied Alone - Corn or Grain Sorghum -Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

Precautions: (1) Use only on silt loam or finer textured soil or crop injury may result. (2) Wheatsorghum-fallow cropping sequence must be followed. (3) Do not apply following sorghum harvest.

**Note**: To avoid illegal residues, do not graze or feed forage from the treated area to livestock. To avoid illegal residues and crop injury, do not plant any crop other than those on this label within 18 months following treatment.

Wheat-Corn-Fallow (CO. KS, ND, NE, SD, and WY): This product controls cheatgrass (downy brome, chess), kochia, mustards, pigweed, Russian thistle, wild lettuce, wild sunflower, and volunteer wheat during the period after wheat harvest. Weed control may extend into the following corn crop grown under minimum tillage.

On soils in ND and SD with a pH greater than 7.5, do not exceed 1.5 lbs. a.i. A of Atrazine 4F. For soils with a pH less than 7.5 in ND and SD, apply 1-2 lbs. a.i. A. Use the higher rate on fine-textured soils and where heavy weed infestations are expected. In the event grasses are present in the following spring, use a grass herbicide registered for use on corn.

Follow directions for use, notes and precautions in the "Wheat-Sorghum-Fallow" section above, substituting corn for references to sorghum.

Wheat-Fallow-Wheat (CO, KS, MT. ND, NE, SD and WY): For preemergence control of cheatgrass (downy brome, chess), common lambsquarters, field pennycress, kochia, mustard, Russian thistle, wild lettuce, and suppression of volunteer wheat during fallow period of a wheat-fallow-wheat rotation, broadcast 1-2 pts./A on all soils except those listed under "Precautions." For control of pigweed and wild sunflower, use only the higher rate. Apply to stubble ground. Treat only once during the same fallow period.

#### TANK MIXTURES FOR CHEMICAL FALLOW

Wheat-Sorghum-Fallow or Wheat-Corn-Fallow (KS, NE)

**Cyclone/Gramoxone Extra**: If weeds are present at application, a tank mix with Cyclone/Gramoxone Extra may be used. Broadcast 6 pts. of Atrazine 4F plus a suitable amount of Cyclone/Gramoxone Extra in 20-60 gals. of water/A by ground equipment. Add 0.5-1 pt. of a nonionic surfactant, such as SPRAYFUSE 90, per 100 gals. of spray mixture. Add Atrazine 4F to the spray tank first and thoroughly mix with water. Then add Cyclone/Gramoxone Extra followed by surfactant. Use the higher rate of Cyclone/Gramoxone Extra specified on label if weeds are 4-6 inches tall. This mixture will not control weeds taller than 5 inches. Apply to stubble ground. Treat only once during the same fallow period. Refer to label for Gramoxone Extra/Cyclone label for further directions, precautions, and limitations.

Wheat-Fallow-Wheat (CO, KS, ND, NE, SD, and WY)

Cyclone/Gramoxone Extra: If weeds are present at application, a tank mix with

Cyclone/Gramoxone Extra may be used. Broadcast 1-2 pts. of Atrazine 4F plus a suitable amount of Cyclone/Gramoxone Extra in 20-60 gals. of water/A by ground equipment. Add 0.5 to 1 pt. of a nonionic surfactant, such as SPRAYFUSE 90, per 100 gals. of spray mixture. Add Atrazine 4F to the spray tank first and thoroughly mix with water. Then add Cyclone/Gramoxone Extra followed by surfactant. Use the higher rate of Cyclone/Gramoxone Extra specified on label if weeds are 4-6 inches tall. This mixture will not control weeds taller than 5 inches. Apply to stubble ground. Treat only once during the same fallow period. Refer to label for Cyclone/Gramoxone Extra for further directions, precautions, and limitations.

If weeds are present at application and this product is used alone, use either an approved contact herbicide before or after treatment, or tillage after treatment.

Use tillage to control weeds which escape during fallow period. Till before planting. For this product applied alone or in tank mixture with Cyclone/Gramoxone Extra, plant at least 2 inches deep and 12 months or more after application.

#### Landmaster II (CO, IA, KS, MO, NE, OK, OR, SD, and WA)

If weeds are present at application, a tank mix with Landmaster II may be used. Apply 40 ounces of Landmaster II plus 2 pts. or less of Atrazine 4F/A. Use 54 ounces of Landmaster II plus 4 pts. or less of Atrazine 4F/A. Use 64 ounces of Landmaster II plus 6 pts. or less of Atrazine 4F/A for hard to control grass species. Barnyard grass will be suppressed at 64 ounces of Landmaster II per acre and controlled at 86 ounces per acre. The addition of ammonium sulfate is recommended to increase the performance of Landmaster II and Atrazine 4F. In Oregon and Washington, do not exceed 2 pts. of Atrazine 4F per acre. For ground applications, apply in 3 to 10 gallons of water/A. For aerial applications, apply in 3 to 5 gallons of water/A. Refer to label for Landmaster II for further directions, precautions, and limitations.

#### Roundup RT (CO, ID, KS\*, MN\*, MT, NE\*, ND, OK\*, SD, UT, WA\*, and WY)

If weeds are present at application, a tank mix with Roundup RT may be used. Apply 12 ounces of Roundup RT plus 2 pts. or less of Atrazine 4F/A or 16 ounces of Roundup RT plus 4 pts. or less of Atrazine 4F/A or 20 ounces of Roundup RT plus 2 to 6 pts. of Atrazine 4F/A plus 0.5 to 1 percent nonionic surfactant such as SPRAYFUSE 90 by total spray volume. In Oregon and Washington, do not exceed 2 pts. of Atrazine 4F/A. Barnyard grass will be suppressed at the 20 ounces per acre rate and will require up to 26 ounces per acre for control. The addition of ammonium sulfate is recommended to increase the performance of Roundup RT and Atrazine 4F plus a nonionic surfactant such as SPRAYFUSE 90 in a tank mix. For ground applications, apply in 3 to 10 gallons of water/A. For aerial applications, and limitations. \*Roundup RT can only be used in certain counties in Kansas, Minnesota, Nebraska, Oregon, and Washington. Check the Roundup RT label on those county restrictions.

# Landmaster BW: (All states except: AL, FL, TN, HI, AK, SC, ME, NH, VT, OH, CA, GA, and MD)

If weeds are present at application, a tank mix with Landmaster BW may be used. Apply 40 ounces of Landmaster BW plus 2 pts. or less of Atrazine 4F/A. Use 54 ounces of Landmaster BW plus 4 pts. or less of Atrazine 4F/A. Use 64 ounces of Landmaster BW plus 6 pts. or less of Atrazine 4F/A.

The addition of ammonium sulfate is recommended to increase the performance of Landmaster BW and Atrazine 4F. In Oregon and Washington, do not exceed 2 pts. of Atrazine 4F per acre. For ground applications, apply in 3 to 10 gallons of water per acre. For aerial applications, apply in 3 to 5 gallons of water per acre. Refer to label for Landmaster BW for further directions, precautions, and limitations.

Precautions: To avoid crop injury, (1) Do not use on sand soil. (2) Do not treat eroded 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 spray overlap.

Note: Do not graze treated areas within 6 months after application, or illegal residues may result.

**Aerial Application:** In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low drift nozzles at a maximum pressure of 40 psi., and restrict application to periods when wind speed does not exceed 10 m.p.h. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply Atrazine 4F alone by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

#### ROADSIDES

To control certain annual weeds in established perennial grasses along roadsides in CO, KS, MT, NE, ND, SD and WY, including cheatgrass (downy brome, chess) common (annual) broomweed, little barley, medusahead, sagewort, and tumble mustard, broadcast 2 pts./A in a minimum of 10 gals. of water by ground equipment in the fall before ground freezes, or after thawing in the spring, but before the established grasses green-up and before weeds emerge. Examples of desirable established grasses include big bluestem, bluegrama, bromegrass, buffalograss, crested wheatgrass, Indiangrass, little bluestem, side-oats grama, switchgrass, and Western wheatgrass. Apply only once per year. Temporary discoloration or other form of injury to the desirable perennial grasses may occur following application.

**Note**: To avoid illegal residues, (1) Do not cut or feed roadside grass hay. (2) Do not allow livestock to graze in treated areas.

#### SUGARCANE

#### **General Use Directions for All States**

For control of many broadleaf and grass weeds, including amaranths, crabgrass, fireweed, flora's paintbrush, foxtails, junglerice and wiregrass, broadcast 54-8 pts./A of Atrazine 4F at time of planting or ratooning, but before sugarcane emerges. Broadcast aerially in a minimum of 5 gals. of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gals. per acre, unless indicated otherwise. One additional application may be made over the sugarcane as it emerges, and two additional applications may be made interline after emergence as directed sprays. Repeat treatments, where needed, may be applied broadcast, band, or interline as suggested with the final application being prior to close-in. Do not exceed the rate of herbicide suggested for any one crop of sugarcane.

Note: Where high rates of Atrazine 4F are used alone, apply in a minimum of 1 qt. of water for each 1 qt. of Atrazine 4F applied per acre.

**Aerial Application:** In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft., using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speeds do not exceed 10 m.p.h. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply Atrazine 4F alone by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

<u>Precautions for All States and Uses: : (1) Injury to sugarcane may occur when under moisture</u> <u>stress, when soil is of low absorptive capacity, or when land is first cropped to sugarcane. (2) Do</u> <u>not apply after close-in. (3) Do not apply more than 20 pts/A to any one crop of sugarcane, or crop</u> <u>injury may result.</u>

For specific weed problems the following may be used. Other rate and application timings may be used for other weed spectrums and cultural practices, provided they are within the above "General Use Directions for All States" and are consistent with the "Precautions for All States and Uses."

#### Florida

For control of emerged pellitory weeds: Apply 0.8-1.2 pts./A in at least 40 gals. of water as directed spray by ground equipment prior to close-in. Add 4 qts. of surfactant for each 100 gals. of spray. Thoroughly wet weed foliage.

For control of alexandergrass, large crabgrass, pellitory (artillery) weed, and spiny amaranth, use one of the following methods at planting or ratooning:

- 1. Apply 8 pts./A preemergence. Follow with one or two applications, as needed, postemergence to sugarcane and weeds, at 4 pts./A. Treat before weeds exceed 1.5 inches in height.
- 2. Apply 1-3 times, as needed, at 4 pts./A postemergence to sugarcane and weeds. Treat before weeds exceed 1.5 inches in height.

#### Louisiana

For control of annual weeds during the summer fallow period, apply 4 pts./A to weed-free beds immediately after bed formation. Follow normal weed control program after planting.

Precautions: To avoid crop injury, (1) Do not apply more than 10 qts./A to any one crop of sugarcane. (2) If making 4 pts./A application during the summer fallow period, do not exceed 8 qts./A during the remainder of the growing season, or illegal residues may result.

#### Texas

Use Atrazine 4F for control of barnyardgrass, pigweed, purslane, and sunflower, in plant or ration sugarcane.

Apply 8 pts./A of Atrazine 4F preemergence. Follow with one or two applications, as needed, at 6 pts./A postemergence to sugarcane and weeds.

20/26

For best results when weeds are emerged, add a nonionic surfactant at a concentration of 2 qts./100 gals. to the spray and apply before weeds exceed 1.5 inches in height.

Precautions: (1) Injury to sugarcane may occur when under moisture stress, when soil is of low absorptive capacity, or when land is first cropped to sugarcane. (2) Do not apply after close in: (3) Do not apply more than 20 pts: A to any one crop of sugarcane, or crop injury may result.

#### **TURFGRASS FOR SOD (Florida Only)**

#### St. Augustinegrass, Centipedegrass, and Zoysiagrass

Broadcast 4-8 pts/A according to soil texture to control those weeds listed under Atrazine 4F Applied Alone - Corn or Grain Sorghum - Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

Muck or peat	8 pts.	Old beds:	Within 2 days after lifting sod.
		New beds:	3-4 days after sprigging or plugging.
Sandy soil	4 pts.	Old beds:	Within 2 days after lifting sod.
		New beds:	7-10 days after sprigging or plugging.

If weeds regrow, apply an additional 4 pts./A on muck or peat, or 2 pts./A on sandy soil.

Precautions: To avoid crop injury, (1) Do not apply within 30 days prior to cutting or lifting. (2) Do not apply in combination with surfactants or other spray additives. (3) Use only on turfgrass reasonably free of infestations of insects, nematodes and diseases. (4) On newly sprigged turfgrass, temporary slowing of growth may follow application.

#### TURFGRASS FOR FAIRWAYS, LAWN, SOD PRODUCTION\* AND SIMILAR AREAS

\*In states other than Florida. For use on turfgrass for sod in Florida, see "TURFGRASS FOR SOD (Florida Only)" section above.

**Bermudagrass, Centipedegrass, St. Augustinegrass and Zoysiagrass:** Apply Atrazine 4F after October 1 before emergence of winter annual weeds for control of annual bluegrass, burclover, carpet burweed, chickweed, corn speedwell, henbit, hop clover and spurweed. Atrazine 4F will control annual bluegrass even if it is emerged at the time of treatment. For control of summer annual weeds listed in the preemergence section of the Atrazine 4F Applied Alone - Corn or Grain Sorghum section of this label, also apply Atrazine 4F in late winter before the weeds emerge. Apply in a minimum of 15 gals. of water per acre or 1 gal. per 1,000 sq. ft.

Where annual bluegrass is the major weed, use 1 qt./A (22 ml or 0.75 fl. oz. per 1,000 sq. ft.). Use 2 qts./A (44 ml or 1.5 fl. oz. per 1,000 sq. ft.) for control of the other weeds named above. Do not exceed 1 qt./A per treatment on newly sprigged turfgrass or on hybrid bermuda grass such as Tiflawn, Tifway, and Ormond.

For continued summer annual weed control, apply another 1 qt./A at least 30 days after the previous application, but not after April 15. However do not make more than two applications of this product per year.

21/26

Precautions: On newly sprigged turfgrass and hybrid bermudagrass, temporary slowing of growth and yellowing may occur following application. To avoid turf injury, (1) Use only on turfgrass reasonably free of infestations of insects, nematodes and diseases. (2) Do not use on golf greens. (3) Do not use north of NC, (with the exception of the Virginia Coastal Plains) or west of the high rainfall areas of eastern OK and eastern TX. (4) Do not use on muck or alkaline soils. (5) Do not apply over the rooting area of trees or ornamentals not listed on this label. (6) Do not overseed with desirable turfgrass within 4 months before or 6 months after treatment. (7) Do not apply this product to newly seeded bermudagrass until it has overwintered and has a well-developed rhizome system. Do not exceed 2 qts. product/A within 12 months of seeding bermuda grass.

Note: Do not graze or feed turf clippings to animals, or illegal residues may result.

#### Macadamia Nuts

For preemergence control of many broadleaf and grass weeds, including crabgrass, foxtail, wiregrass, Flora's paintbrush, spanish needles, and fireweed, broadcast 4-8 pts./A before harvest and before weeds emerge. Repeat as necessary. Do not spray when nuts are on ground during harvest period. Do not apply by air.

#### Guava

Use only on established plantings which are at least 18 months old. Apply as a directed spray at 4-8 pts./A of Atrazine 4F in 20-50 gals. of spray mix preemergence or early postemergence to weeds. When applying postemergence, the use of a surfactant and greater spray volume (80-100 gals. of spray mix per acre) may enhance weed control. This product controls many annual broadleaf and grass weeds, including fireweed, purslane, scarlet pimpernel, spanish needles and sowthistle.

**Notes:** To avoid illegal residues, (1) Do not allow spray to contact foliage or fruit. (2) Do not apply more frequently than at 4 month intervals. (3) Do not apply more than 16 pts. of Atrazine 4F per year.

#### Conifers

For control of annual broadleaf and grass weeds prior to transplanting, after transplanting or in established conifers [including Douglas fir, grand fir, noble fir, white fir, Austrian pine, bishop pine, Jeffrey pine, knobcone pine, loblolly pine, lodgepole pine (Shore pine), monterey pine, ponderosa pine. Scotch pine, slash pine, blue spruce and Sitka spruce]: Broadcast 4-8 pts. in a minimum of 5 gals. of water per acre by air or 10 gals. by ground before weeds are 1.5" tall. Apply to established trees between fall and early spring while trees are dormant. For new transplants, apply during or soon after transplanting. For applications prior to transplanting, allow sufficient precipitation to activate Atrazine 4F before transplanting. In areas where spring and summer rainfall is inadequate to activate Atrazine 4F, apply during fall prior to spring transplanting.

For the list of weeds controlled, see Atrazine 4F Applied Alone - Corn or Grain Sorghum -Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

**Quackgrass Control:** Broadcast 8 pts. in a minimum of 5 gals. of water per acre by air or 10 gals. by ground between fall and early spring while trees are dormant and before quackgrass is more than 1.5 inches tall.

Precautions: (1) In areas west of the Rocky Mountains (except the Great Basin), grazing may begin 7 months after a fall application or 3 months after a winter or spring application. (2) To prevent illegal residues, do not graze treated areas of the Great Basin, or areas east of the Rocky Mountains.
(3) Temporary injury to trees may occur following use of Atrazine 4F on coarse-textured soil. (4) To avoid crop injury, do not apply to seedbeds. (5) Also apply only once per year.

Aerial Application: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft. above vegetation, using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 m.p.h. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply Atrazine 4F by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

#### STORAGE AND DISPOSAL

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

#### STORAGE

Groundwater contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. Do not store this product near fertilizers, seeds, insecticides, or fungicides. Do not store near heat or open flame. Reclose all partially used containers by thoroughly tightening screw cap. Absorb any spill with a suitable clay absorbent and dispose of as indicated under "Pesticide Disposal." For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities. To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between to provide clear identification. Opened, partially used pesticides should be stored in original labeled containers when possible. When transfer to another container is necessary because of leakage or damage, carefully mark and identify contents of the new container.

#### **PESTICIDE DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal, or cleaning of equipment. Open dumping is prohibited. Wastes resulting from the use of this product are acutely toxic. Improper disposal of unused pesticide, spray mixture, or rinsate is a violation of federal law. Pesticide, spray mixture, or rinsate that cannot be used according to label instructions must be disposed of according to federal, state or local procedures. For guidance in proper disposal methods, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office.

#### CONTAINER DISPOSAL

<u>Plastic Containers</u>: Triple rinse (or equivalent) and offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

Bulk Tanks: Triple rinse (or equivalent) and wash with appropriate cleaners before reusing.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and

disposal of wastes. In the event of a major spill, fire or other emergency, call CHEMTREC at 1-800-424-9300.

#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Do not breathe vapors or spray mist. Avoid contact with eyes, skin, or clothing. <u>Wash thoroughly with soap and water after handling</u>. Remove contaminated clothing and wash clothing before reuse.

#### STATEMENT OF PRACTICAL TREATMENT

IF SWALLOWED: Call a physician or Poison Control Center immediately. Drink one or twoglasses of water immediately and induce vomiting by touching the back of throat with finger, or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.

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

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF IN EYES: Flush eyes with plenty of water. Call a physician if irritation persists.

Note to Physician: There is no specific antidote for atrazine. If this product is ingested, induce emesis or lavage stomach. The use of an aqueous slurry of activated charcoal may be considered.

	FIRST AID
IF SWALLOWED:	• Call a poison control center or doctor immediately
	for treatment advice.
	• Have person sip a glass of water if able to
	swallow,
	• Do not induce vomiting unless told to do so by a
	poison control center or doctor.
	• Do not give anything by mouth to an unconscious
	person.
IF INHALED:	• Move person to fresh air.
	• If person is not breathing, call 911 or an
	ambulance, then give artificial respiration,
	preferably by mouth-to-mouth if possible.
	• Call a poison control center or doctor for further
	treatment advice.
IF ON SKIN OR CLOTHING:	<ul> <li>Take off contaminated clothing.</li> </ul>
	Rinse skin immediately with plenty of water for
	<u>15-20 minutes.</u>
	Call a poison control center or doctor for
	treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with
	water for 15-20 minutes.
	• Remove contact lenses, if present, after the first 5
	minutes, then continue rinsing eye.

23/2/

24/20

	• Call a poison control center or doctor for
i	treatment advice.

#### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

#### NOTE TO PHYSICIAN

There is no specific antidote for Atrazine. If this product is ingested, induce emesis or lavage stomach. The use of an aqueous slurry of activated charcoal may be considered.

#### PERSONAL PROTECTIVE EQUIPMENT

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

- Long-sleeved shirt and long pants
- <u>Chemical resistant gloves Category A, such as butyl rubber > 14 mils, or natural rubber > 14 mils, or neoprene rubber > 14 mils or nitrile rubber > 14 mils Waterproof gloves</u>
- Chemical-resistant footwear plus socks

#### Mixers and loaders must wear:

- Long-sleeved shirt and long pants
- <u>Chemical resistant gloves Category A, such as butyl rubber > 14 mils, or natural rubber > 14 mils, or neoprene rubber > 14 mils or nitrile rubber > 14 mils Waterproof gloves</u>
- 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 CONTROL 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 107.240(d) (4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### Users should:

#### **USER SAFETY RECOMMENDATIONS**

- 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.

#### **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.

This product may not be mixed/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 ft, 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 wash-water, 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% of the capacity of the largest pesticide container or application from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide 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.

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 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 feet, buffer or setback from runoff entry points must be planted to crop, seeded with grass or other suitable crop.

#### **Tile-Terraced Fields Containing Standpipes**

To ensure protection of surface water from runoff through standpipes with tile-outlets in terraced fields, one of the following options may be used:

- 1. Do not apply this product within 66 ft. 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 2-3 inches in the entire tile-outletted terraced 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 practiced. High crop residue management practice is described as a crop management practice where little or no crop residue is removed from the field during and after crop harvest.

This pesticide is toxic to aquatic invertebrates. Do not apply <u>directly</u> to water, 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.

Caliber®, Concep®, Cyclone®, Dual<sup>®</sup>, Gramoxone®, and Princep® are registered trademarks of Syngenta Crop Protection, Inc. NOVARTIS Crop Protection, Inc. Compex® is a registered trademark of KALOKalo Agricultural Chemicals, Inc.

# 26/26

Concept®-trademark-of NOVARTIS Crop Protection. Inc.

Cvelone#-trademark of ZENECA AG PRODUCTS for paraquat

Dual<sup>th</sup> trademark of NOVARTIS Crop Protection. Inc.for metolachlor U.S. Patent No. 3.937,730 Gramoxoneth trademark of ZENECA AG-PRODUCTS for paraquat

Landmaster II®, and Landmaster BW®, Lasson, Ramrod R. Roundup R and Roundup RT are

registered trademarks of MONSANTOMonsanto Company

Lassott-trademark of MONSANTO Company for alachlor

Latron AG-44® is a registered trademark of Dow AgroSciencesROHM & HAAS

Princep\* trademark of NOVARTIS Crop Protection. Inc.for simazine

Ramrod@-trademark of MONSANTO Company for propachlor

Roundup<sup>®</sup> and Roundup RT<sup>®</sup> trademark of MONSANTO Company

Sutan+® is a registered trademark of <u>Cedar Chemical CorporationZENECA AG PRODUCTS</u> Chemical Company for butylate