APR 5 1999

Mr. Alan C. Katz Agent for DOW AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268-1054

SUBJECT: Label Amendment

Atrazine 90DF, EPA Reg. No. 62719-313 Your Application Dated March 23, 1999

The above mentioned amendment submitted in connection with registration under Federal Insecticide, Fungicide, and Rodenticide Act, as amended is acceptable provided that you:

Make the labeling changes listed below before you release the product for shipment bearing the amended labeling:

- 1. Under "PPE for Applicators and other handlers must wear change "shoes plus socks" to "Chemical-resistant footwear plus socks".
- 2. Under "PPE" add "Mixers and Loaders must wear: Long-sleeved shirt and long pants, waterproof gloves, chemical-resistant footwear plus socks, and protective eyewear".
- 3. Under "First Aid" add directly after "IF SWALLOWED" "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".

	CONCURRENCES							
SYMBOL >	7505C							
surname >	MINOR, E.							
DATE ►	Apr 2, 1999		_					

EPA Form 1320-1 (12-70)

Page 2 EPA Reg. No. 62719-313

4. Add the "Non-Agricultural Use Requirements" box.

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.

Sincerely,

Jim Tompkins Product Manager, (25)

Herbicide Branch

Registration Division (7505C)

Enclosure

(Base Label):

Restricted Use Pesticide (Ground and Surface Water Concerns)

For retail sale to and use only by Certified Applicators or persons under their direct supervision, and only for those uses covered by the Certified Applicator's Certification.

This product is a restricted use herbicide due to ground and surface water concerns. Users must read and follow all precautionary statements and directions for use in order to minimize potential for atrazine to reach ground and surface water.

(Logo) Dow AgroSciences LLC

ATRAZINE 90DF

For season-long weed control in corn, conifers, fallowland, guava, macadamia nuts, sorghum, sugarcane, lawns, turf, and chemical fallow.

Active Ingredient:

ACCEPTED
with COMMENTS
In EPA Letter Dated

APR 5 1999

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

Keep Out of Reach of Children

CAUTION PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Causes Moderate Eye Irritation • Harmful If Swallowed, Inhaled, Or Absorbed Through The Skin

Avoid contact with skin, eyes or clothing. Avoid breathing dust or spray mist.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- · Long-sleeved shirt and long pants
- · Waterproof gloves
- · Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Controls

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the WPS (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

• i • c

User Safety Recommendations

Users should:

- · Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

First Aid

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If swallowed: Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting.

If on skin: Wash with plenty of soap and water. Get medical attention.

If inhaled: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

Environmental Hazards

This pesticide is toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

Groundwater Advisory: Atrazine can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in groundwater. Users are advised not to apply atrazine to sand and loamy sand soils where the water table (groundwater) 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 groundwater.

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

This product may not be mixed/loaded or used within 50 feet of all wells including abandoned wells, drainage wells, and sink holes. This product may not be mixed or loaded within 50 feet of intermittent streams and rivers, natural or impounded lakes and reservoirs. This product may not be applied aerially or by ground within 66 feet of the points where field surface water runoff enters perennial or intermittent streams and rivers or within 200 feet around natural or impounded lakes and reservoirs. If this product is applied to highly erodible land, the 66 foot buffer or set-back from runoff points must be planted to crop or seeded with grass or other suitable crop.

Tile-Terraced Fields Containing Standpipes

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

- Maintain a 66 foot setback around standpipes where this product may not be applied (this setback restriction applies to a standpipe when the connected tile outlet in a terraced field discharges within 6C feet of a point where field surface water runoff enters a perennial or intermittent stream or river), or
- 2. Apply this product within the 66 foot setback, but immediately incorporate into the soil after application to a depth of 2 to 3 inches within the entire area drained by the tile inlet, or
- 3. Apply this product within the 66 foot setback if no-till combined with high crop residue management practices are used in the entire area drained by the tile inlet. High crop residue management is interpreted to mean that little or no crop residue is removed from the field during or after crop hangest.

Agricultural Use Requirements

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies".

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-313

EPA Est.

Dow AgroSciences LLC • Indianapolis, IN 46268 USA

Herbicide

Net Weight ____Ib.

(Datapack cover):

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.

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(Logo) Dow AgroSciences LLC

ATRAZINE 90DF

For season-long weed control in corn, conifers, fallowland, guava, macadamia nuts, sorghum, sugarcane, lawns, turf, and chemical fallow.

Active Ingredient:

Keep Out of Reach of Children

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Refer to inside of label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations and Directions for Use including Storage and Disposal.

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EFA Est _____

Dow AgroSciences LLC • Indianapolis, IN 46268 USA

Herbicide

Net	Weight	lb
1401	TTOIGHT	12

(Page 1 through end):

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Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

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

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- 3. Apply this product within the 66 foot setback if no-till combined with high crop residue management practices are used in the entire area drained by the tile inlet. High crop residue management is interpreted to mean that 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 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:

- Coveralis
- · Waterproof gloves
- Shoes plus socks

Storage and Disposal

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

Storage Instructions: Store in cool dry location. Avoid storage at high temperatures. Keep container tightly sealed. Avoid contamination with acids or alkalies. Do not stack more than 2 pallets high to prevent crushing. Move bags carefully so as not to tear or puncture. Do not move containers from one area to another unless they are securely sealed. Keep container tightly sealed when not in use. Do not allow bags to become wet or store in a damp, humid area. Keep away from any puncture source. Store in original container only.

Pesticides should be separated during storage to prevent cross contamination of other pesticides, fertilizer, food and feed. Storage area should preferably be locked to prevent admittance by unauthorized or unknowledgeable persons.

If the container is damaged and leaking or material has been spilled follow these procedures:

- 1. Cover spill with absorbent material.
- 2. Sweep into disposal container.
- 3. Wash area with detergent and water and follow with clean water rinse.
- 4. Do not allow to contaminate water supplies.
- 5. Dispose of according to instructions below

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.

Container Disposal: Completely empty bag into application equipment. Then dispose of bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities by burning. If burned, stay out of smoke.

GENERAL INFORMATION

ATRAZINE 90DF herbicide will control many annual broadleaf and grass weeds in corn, sorghum, sugarcane, and certain other crops as specified on this label. ATRAZINE 90DF may be applied before or after weeds emerge.

In each case where a range of rates is given, the lower rate should be used on coarse textured soil and soil low in organic matter, and the higher rate should be used on fine textured soil and soil high in organic matter.

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, it is recommend that this product is used in combinations or in sequence with other registered herbicides which are not triazines. If only resistant biotypes are expected to be present, use a registered non-triazine herbicide. Consult with your state Agricultural Extension Service for specific recommendations.

Since ATRAZINE 90DF acts mainly through root absorption, its effectiveness depends on moisture to move it into the root zone. Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control.

ATRAZINE 90DF is non-flammable.

Failure to follow the directions for use and precautions on this label may result in poor weed control, crop injury or illegal residue.

Care should be taken to avoid using ATRAZINE 90DF 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.

Note: The Seller does not recommend the use of ATRAZINE 90DF in combination with other herbicides or oils except as specifically described on the label or in literature published by the Seller.

Failure to follow all precautions on this label may result in poor weed control, crop injury, or illegal residues.

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

APPLICATION PROCEDURES

H8A / Atrazine 90DF / Amend / 03-11-99

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 according to manufacturer's recommendations 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 per acre for all preplant incorporated, preplant surface, pre-emergence, and postemergence applications (with or without oil or surfactant) with ground equipment.

Use a pump with capacity to (1) maintain 34 - 50 psi at nozzles; (2) provide sufficient agitation in tank to keep mixture in suspension; and to (3) 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 gallons per minute per 100 gallon tank size circulated through a correctly positioned sparger 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 50mesh or coarser screens between the pump and boom, and where required, at the nozzles. Check nozzle manufacturer's recommendations.

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

band width in inches		broadcast rate		amount needed
row width in inches	Χ	per acre	=	per acre of field

AERIAL APPLICATION

Use aerial application only where broadcast applications are specified. Apply in a minimum of 1 gallon of water for each pound of ATRAZINE 90DF applied per acre. For post-emergence treatments on corn and sorghum, apply recommended rate in a minimum of 2 gallons of water per acre. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

ATRAZINE 90DF IN WATER APPLICATIONS

ATRAZINE 90DF, a dry formulation, should be mixed with water and applied as a spray. Make a slurry by adding ATRAZINE 90DF to water. Pour slurry into the spray tank during or after filling. Hydraulic (jet) or mechanical agitation is recommended during mixing and application to keep the materials in suspension. All return lines to the tank must discharge below liquid level and agitation should not be so violent as to cause air bubbles to form in the liquid. Wash sprayer thoroughly after use.

ATRAZINE 90DF IN LIQUID FERTILIZER APPLICATIONS

Nitrogen solutions or complete liquid fertilizers may replace all or part of the water as a carrier for preemergence and preplant applications of ATRAZINE 90DF on corn and sorghum. Mixing should be accomplished as described under "ATRAZINE 90DF IN WATER APPLICATIONS". 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 gallons 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 two, one-quart jars with tight lids.
- 2. To one of the jars, add 1/4 teaspoon (1.2 milliliters) of a compatibility agent approved for this use, such as Compex-or Unite (I/4 teaspoon is equivalent to 2 pints per 100 gallon 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. **Liquid Herbicides:** For each pint to be applied per acre, add 0.5 teaspoon (2.5 milliliters) to each jar.

4. After adding all ingredients, put lids on and tighten, and invert each jar 10 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 1/2 of the compatibility agent to the fertilizer and the other 1/2 of the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

ATRAZINE 90DF+EMULSIFIABLE OIL OR OIL CONCENTRATE

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

Use one of the following properly emulsified:

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

- 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 bag 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 tank as completely as possible before refilling to prevent buildup of oil or emulsifiable concentrate residue. 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 strong detergent solution or solvent.
- 11. Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent. Dispose of rinsate by spraying on treatment site.

ROTATIONAL CROPS - ALL USES

- 1. Land treated with ATRAZINE 90DF should not be planted to any crop except corn or sorghum until the following year, or injury may occur.
- 2. If ATRAZINE 90DF is applied after June 10, do not rotate with crops other than corn or sorghum the next year or injury may occur.
- 3. In the High Plains and Intermountain area of the West where rainfall is sparse and erratic or where irrigation is required, use ATRAZINE 90DF to control weeds in corn only when corn is to follow corn or a crop of untreated corn or sorghum is to precede other rotational crops.
- 4. In Western Minnesota and Eastern parts of the Dakotas, Nebraska and Kansas, corn treated with ATRAZINE 90DF should not be followed with soybeans if the broadcast rate applied was more than 2.2 pounds per acre (or comparable rate in a band) or injury may occur.
- 5. Injury may occur to soybeans planted in North Central Iowa and South Central Minnesota the year following an ATRAZINE 90DF application on Harps, Canisteo, Stroden or other soils having a calcareous surface laver.
- 6. Do not plant sugarbeets, tobacco, vegetables (including dry beans), spring-seeded small grains or small-seeded legumes and grasses the year following ATRAZINE 90DF application or injury may occur.

ATRAZINE 90DF APPLIED ALONE - CORN OR GRAIN SORGHUM[†]

PREPLANT SURFACE-APPLIED, PREPLANT INCORPORATED, OR PRE-EMERGENCE (or postemergence at 2.2 pounds per acre with oil)

Grass and Broadleaf Weeds Controlled

Barnyardgrass¹¹¹ (watergrass) Crabgrass^{††} (large hairy)

Cockleburfff Groundcherry Nightshade Piaweed

Foxtail (giant) Foxtail^{††} (green) Foxtail^{†††} (yellow) Jimsonweed Kochia

Purslane Ragweed Sicklepod^{††}

Oats (wild)

Lambsquarters

Velvetleaf*** (buttonweed)

Morning glory (annual)

Witchgrass^{†††} (Panicum capillare) Mustards

POST-EMERGENCE WITH EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER (1.3 pounds per acre)

Broadleaf Weeds Controlled

Buckwheat (wild)

Mustards

Cocklebur Jimsonweed^a Pigweed

Lambsquarters

Ragweed Smartweed

Morning glory (annual)

Velvetleaf^{†††} (buttonweed)

Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or 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 regulations.

¹¹Partial control only

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

CORN

ATRAZINE 90DF may be applied either before planting, at planting, or after planting as indicated below.

PREPLANT SURFACE-APPLIED (broadleaf and grass control)

Use on medium and fine textured soils with minimum tillage or no tillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, WY. Apply the recommended rate of ATRAZINE 90DF shown in Table 1 up to 45 days prior to planting. If an unsatisfactory duration of weed control results from adverse environmental conditions following early treatment, a follow-up application of an appropriately registered herbicide may be used. If the follow-up includes atrazine, do not exceed the label rate for corn indicated in Table 1. On coarse-textured soils, do not apply more than 2 weeks prior to planting.

If weeds are present at the time of treatment, apply in tank mix combination with a contact herbicide (for example, paraquat or glyphosate). Observe applicable 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 Weed Control)

Broadcast in the spring after plowing at the rate indicated in Table 1. Application may be made before, during or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation of ATRAZINE 90DF. Best results have been obtained when ATRAZINE 90DF is applied within 2 weeks prior to planting.

PRE-EMERGENCE OR AT-PLANTING (Broadleaf and Grass Weed Control)

Apply during or shortly after planting prior to weed emergence at the rate indicated below in Table 1.

POST-EMERGENCE (Broadleaf and Grass Weed Control)

Apply before weeds exceed 1.5 inches in height and before corn exceeds 12 inches in height at rate recommended in Table1.

Table 1: For Control of Broadleaf and Grass Weeds in Corn

For All Soil Applications Prior to Crop Emergence

On Highly Erodible Soils (as defined by the Soil Conservation Service (SCS))

- If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply 2.2 pounds per acre as a broadcast spray.
- If the soil coverage with plant residue is less than 30% at planting, a maximum of 1.8 pounds per acre may be applied.

On Soils Not Highly Erodible

· Apply 2.2 pounds per acre as a broadcast spray.

For Post-Emergence Application

If no atrazine was applied prior to corn emergence, apply 2.2 pounds 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 (2.8 pounds of this product) per acre per calendar year.

Note: Broadleaf control (eastern CO, western KS, western NB, NM, OK Pan Handle, west TX, and eastern WY): On sand, loamy sand, sandy loam, mild to strongly alkaline soil and all recently leveled soil, apply no more than 1.3 pounds per acre, either preplant or pre-emergence. On other soils in these areas, apply rate in Table 1 for broadleaf and grass control.

Where there are state/local requirements regarding atrazine (including lower maximum rates and/or 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.

POST-EMERGENCE 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 petroleum-derived)	1 quart per acre	1/2 - 1 quart per acre
Petroleum-derived oil	1 gallon per acre	2 quarts per acre

Note: Crop-derived or petroleum-derived oil concentrates should contain at least 1% but not more than 20% suitable emulsifier or surfactant blend. Petroleum-derived oils should contain at least 1% suitable emulsifier.

Broadleaf and Grass Control

For post-emergence control of those weeds listed under "Preplant Surface-Applied, Preplant Incorporated, or Pre-emergence", broadcast 2.2 pounds per acre 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 post-emergence control of those weeds listed under "**Post-emergence with Emulsifiable Oil or Oil Concentrate in Water**", broadcast 1.3 pounds per acre 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 Of ATRAZINE 90DF+Emulsifiable Oil In Water To Corn:

- Do not use oil in ATRAZINE 90DF sprays when corn is under stress from prolonged cold, wet weather, poor fertility, or other factors, or when corn is wet and succulent from recent rainfall as crop injury may occur.
- 2. Do not use oils in sprays when treating inbred lines or any breeding stock as injury may occur.

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- 3. Adding other insecticides, herbicides, liquid fertilizers or other materials is not recommended with ATRAZINE 90DF and emulsifiable oil in water because they cause compatibility problems or crop
- 4. Store and handle emulsifiable oil carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank.
- 5. Do not exceed 2.5 pounds active ingredient (2.8 pounds of this product) per acre per calendar year.
- 6. Post-emergence application to corn must be made before corn exceeds 12 inches in height.

TANK MIXTURE WITH ATRAZINE 90DF FOR CORN

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

Alachlor

Metolachlor + simazine

Alachlor + glyphosate

Metolachlor + simazine + glyphosate

Alachlor + paraguat Butylate 6.7E

Metolachlor + simazine + paraquat

Glyphosate

Paraguat

Metolachlor

Propachlor Simazine

Metolachlor + glyphosate Metolachlor + paraquat

Simazine + glyphosate

Simazine + paraquat

Use tank mix directions appearing on the labels of the above-listed 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 or DF, use equivalent rates of ATRAZINE 90DF. One pound of atrazine 80W or DF equals 0.9 pounds of ATRAZINE 90DF.

ATRAZINE 90DF+SIMAZINE 4L OR SIMAZINE 80W

In addition to the weeds listed under "ATRAZINE 90DF APPLIED ALONE-CORN OR GRAIN SORGHUM - "PREPLANT SURFACE - APPLIED, PREPLANT INCORPORATED, OR PRE-**EMERGENCE**", 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 no-tillage systems in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, and WY.

Apply the recommended rate of ATRAZINE 90DF and simazine 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 2 weeks prior to planting. Refer to the "ATRAZINE 90DF Applied Alone - Preplant Surface - Applied" section of the corn label for additional details.

If weeds are present at time of treatment, apply in a tank mix combination with a contact herbicide (for example, paraquat or glyphosate). 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 2 weeks prior to planting. Pre-emergence: Apply during or shortly after planting, but before crop and weeds emerge.

Table 2: Tank Mixtures with simazine 4L or 80W on Corn

		Broadcast	Rate per Acre	
	1:1	Ratio [†]	1:2 Ratío ^{↑↑}	
Soil Texture	ATRAZINE 90DF	Simazine 80W or simazine 4L	ATRAZINE 90DF	Simazine 80W or simazine 4L
Coarse Sand, loamy sand, sandy loam	1.1 pounds	1.25 pounds or 2 pints	0.75 pounds	1.67 pounds or 2.6 pints
Medium: Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter	1.3 pounds	1.5 pounds or 2.4 pints	0.9 pounds	2 pounds or 3.2 pints
Fine; Loam, silt loam, silt, clay loam, sandy clay loam, sandy clay, or silty clay with medium to high organic matter, and clay (including dark prairie soils of the Corn Belt)	1.6 pounds	1.8 pounds or 3 pints	1.10 pounds	2.4 pounds or 3.84 pints

[†]For control of most weeds.

Refer to Corn sections of this label and to simazine 4L or simazine 80W label for further directions, limitations and cautions.

ATRAZINE 90DF+SIMAZINE 4L OR SIMAZINE 80W+PARAQUAT

For control of existing vegetation and residual weed control where corn will be planted directly into a cover crop, established sod or in previous crop residues: Apply 1.2 - 2.2 pints ATRAZINE 90DF plus 2 - 4 pints simazine 4L or 1.25 - 2.5 pounds simazine 80W plus paraquat per sprayed acre prior to, during or after planting but before crop emergence. Refer to the paraquat label for the appropriate rates to use in this tank mixture. Use the low rates of atrazine and simazine on light soils, and the higher rates on heavy clay soils. Use 20 - 60 gallons of diluted spray per sprayed acre. Add Surf-Ac 820 or another non-ionic surfactant at the rate of 8 fluid ounces per 100 gallons diluted spray. Add the atrazine to the spray tank while agitating, then add the simazine, paraquat, and Surf-Ac 820. Continue agitation during application. Use the 2 pint rate of Surf-Ac 820 and the higher rate of paraquat specified on the label if existing vegetation is 4 - 6 inches tall. This mixture will not control weeds taller than 6 inches. Refer to paraquat and simazine labels for further limitations, directions for use and precautions.

ATRAZINE 90DF+SIMAZINE 4L OR SIMAZINE 80W+GLYPHOSATE

When applied as recommended under the conditions described, this tank mixture controls many emerged weeds, and gives pre-emergence control of many annual weeds when corn will be planted directly into a cover crop, established or in previous crop residues.

Apply this tank mixture in 20 - 60 gallons of water per acre immediately before, during or after planting, but **before crop emergence**. As density of stubble, crop residue or weeds increases, spray gallonage and rate should be increased within the recommended ranges to ensure complete coverage.

Annual Weeds: Apply ATRAZINE 90DF and simazine to actively growing grasses and broadleaf weeds that are 6 inches tall at the rates given in Table 3 plus 1 quart of glyphosate per acre. If the weeds are over 6 inches tall, increase the rate of glyphosate to 1.5 quarts.

^{††}For control of expected heavy infestations of crabgrass and fall panicum.

Perennial Weeds: At normal application dates in minimum tillage systems, perennial weeds may not be at the proper stage of growth for control. See the "**GENERAL INFORMATION**" section of the glyphosate label for the proper stage of growth for perennial weeds. Apply the atrazine and simazine at the rates given in Table 3 plus 2 - 4 quarts of glyphosate per acre. This combination will provide top kill and reduce competition from many emerged perennial grass and broadleaf weeds.

Note: Do not use this tank mix on sand or loamy sand soils. Do not exceed 4 quarts of glyphosate per acre in this tank mixture. Not recommended to control bermudagrass or Johnsongrass in minimum tillage systems.

Table 3: ATRAZINE 90DF + simazine 4L or simazine 80W for mixture with glyphosate

	Broadcast Rates per Acre			
Soil Texture	ATRAZINE 90DF†	simazine [†] 4L or simazine 80W		
Coarse: Sandy loam only	1.1 pounds	2 pints or 1.25 pounds		
Medium: Loam, silt loam, silt, sandy clay loam	1.1 - 1.6 pounds	2 - 2.75 pints or 1.25 - 1.75 pounds		
Fine: Silty clay loam, clay loam, sandy clay, silty clay, clay	1.3 - 1.8 pounds	2.35 - 3.15 pints or 1.25 - 2 pounds		

[†]Use the higher rate of atrazine and simazine in the recommended ranges in soil with greater than 3% organic matter.

On highly erodible soils, as defined by the Soil Conservation Service (SCS), if conservation tillage is utilized (>30% plant residue), the maximum rate is 2.2 pounds per acre. If plant residue is <30%, the maximum rate is 1.8 pounds per acre.

On soils not highly erodible, the maximum rate is 2.2 pounds per acre.

Precautions for all Applications to Corn:

- 1. Post-emergence application to corn must be made before corn reaches 12 inches in height.
- The maximum application rate for corn is 2.5 pounds a.i. per acre per calendar year. Applications for quackgrass suppression in corn are restricted to spring application only. No fall applications are permitted.
- 3. To avoid crop injury and illegal residues do not apply more than 2.8 pounds per acre of ATRAZINE 90DF to corn in any one year.
- 4. Following harvest of a treated crop, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to rotational spring-seeded crops, regardless of the rate used.
- 5. Do not graze treated area or feed treated forage to livestock for 21 days following application or illegal residues may result.
- 6. For best control of velvetleaf and cocklebur, the application rate cannot be less than 2 pounds per acre active ingredient, either alone or in tank mix combination.

For post-emergence applications plus emulsifiable oil or oil concentrate, see additional precautions under that section of this label.

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

Apply before planting, at planting, or after planting. See Corn section for weeds controlled.

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, WY. Apply 2/3 the recommended rate of atrazine shown in Table 4 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 into the soil.

If weeds are present at time of treatment, apply in a tank mix combination with a contact herbicide (for example, paraquat or glyphosate). 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 spring at rate in Table 4 after plowing. Apply before, during, or after final seed bed preparation. If soil is tilled or worked after application, avoid deep incorporation. For best results, apply within 2 weeks prior to planting.

PRE-EMERGENCE (Broadleaf and Grass Control)

Apply at rate shown in Table 4 before weeds exceed 1.5 inches in height and before sorghum exceeds 12 inches in height.

Table 4: Preplant Surface, Preplant Incorporated, and Pre-emergence Applications[†] for Broadleaf and Grass Weed Control in Sorghum

For All Soil Applications Prior to Crop Emergence

On Highly Erodible Soils (as defined by the Soil Conservation Service (SCS)). If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply 2.2 pounds per acre as a broadcast spray.

If the soil coverage with plant residue is less than 30% at planting, a maximum of 1.8 pounds per acre may be applied.

On Soils not Highly Erodible

Apply 2.2 pounds per acre as a broadcast spray.

For Post-emergence Application

If no atrazine was applied prior to corn emergence, apply a maximum of 2.2 pounds per acre broadcast spray. If a post-emergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 pounds active ingredient (2.8 pounds of this product) per acre per calendar year.

[†]Do not apply preplant 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 and Blackland areas.

Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or 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 in soil previously treated with ATRAZINE 90DF. Do not make a second broadcast application, or injury may occur. If originally applied in a band and sorghum or corn is replanted in untreated row middles, this product may be applied in a band to the second planting.

PRE-EMERGENCE BROADLEAF WEED CONTROL IN FURROW-IRRIGATED BEDDED SORGHUM (Arizona and California Only)

For pre-emergence control of broadleaf weeds such as ground cherry, lambsquarters, morning glory, mustard, pigweed and purslane, broadcast 0.9 - 1.3 pounds per acre. Use the lower rate on coarse textured soils and soils low in organic matter and use the high rate on fine textured soils and soils high in organic matter. Make application after bed preparation, during or after planting, but before sorghum and



weeds have emerged and before the first furrow irrigation. Several irrigations should follow the application, making sure that all soil is thoroughly wet.

Precautions for Pre-emergence Applications of ATRAZINE 90DF to Furrow-Irrigated Bedded Sorghum Grown in Arizona and California

To avoid possible sorghum injury, do not use on sand or loamy sand soils or on sorghum planted in the furrow. Additionally, applications made to sorghum growing on alkali soils or where cuts, fills or erosions have exposed calcareous or alkali subsoils, may result in crop injury. In case of crop failure, do not replant sorghum for eight months following application. Corn may be planted immediately.

POST-EMERGENCE (Broadleaf and Grass Weed Control)

Apply before weeds exceed 1.5 inches in height at the rate indicated in Table 5. Application may be made to sorghum reaching up to 12 inches in height.

Table 5: Post-emergence Broadleaf and Grass Weed Control in Sorghum

Soil Texture	Minimum Height of Broadcast Rate Sorghum at Treatment Pounds ATRAZINE 90DF per		
Sand or loamy sand	DO NOT USE		
Sandy loam	See directions for broadleaf and weed control below		
Silt loam to sandy clay loams	Completely emerged 1.2 - 2.6		
Olton and Pullman clay soils	At least 6 inches high	2.2 - 2.6	
Silty clay loams and heavier soils	Completely emerged	2.8	

Note: For post-emergence applications, if there has been no previous soil application to the crop, the maximum rate is 2.2 pounds per acre. If there has been a previous soil application to that crop, do not exceed a total of 2.5 pounds of active (2.8 pounds of this product) per acre per calendar year.

POST-EMERGENCE BROADLEAF WEED CONTROL WITH ATRAZINE 90DF+EMULSIFIABLE OIL OR OIL CONCENTRATE IN WATER

Broadcast 1.3 pounds per acre for control of broadleaf weeds such as annual morning glory, cocklebur, lambsquarters, mustard, pigweed, ragweed, smartweed and wild buckwheat. 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 desert regions of AZ and CA, apply when sorghum is 6 - 12 inches in height, but before it reaches 12 inches. In all other areas, apply after sorghum reaches the 3-leaf stage. Add emulsifiable oil at the rate of 1 gallon per acre for ground applications and 0.5 gallon per acre for aerial applications, or add 1 quart per acre of oil concentrate for ground application. A cultivation may be necessary if all weeds are not controlled or if regrowth of weeds occurs.

For the list of weeds controlled, see ATRAZINE 90DF Applied Alone - Corn or Grain Sorghum - Post-emergence with Emulsifiable Oil or Oil Concentrate in Water.

Precautions for Application of ATRAZINE 90DF+Emulsifiable Oil or Oil Concentrate in Water to Sorghum: See "Precautions for Applications with Emulsifiable Oil or Oil Concentrate in Water" in Corn section.

POST-EMERGENCE BROADLEAF WEED CONTROL WITH ATRAZINE 90DF+SURFACTANT (CO, Western KS, NM, OK, TX, and desert regions of AZ and CA only): Broadcast 1.3 pounds of ATRAZINE 90DF plus 0.75 - 1.5 pint of surfactant per acre after sorghum reaches 6 inches in height, but before weeds reach 1.5 inches in height. Apply only on sandy loams and finer textured soils.

Precautions for All Applications to Sorghum:

- 1. Post-emergence application to sorghum must be made before sorghum reaches 12 inches in height.
- The maximum application rate for sorghum is 2.5 pounds active ingredient per acre per calendar year.
 Application for quackgrass suppression in sorghum are restricted to a spring application only. No fall applications are permitted.

- Heavy rains immediately following application tend to result in excessive concentrations of herbicide in seed furrow, resulting in possible crop injury. Applications to furrow planted sorghum should not be made until furrows are leveled (plow-in). Deep planter marks or seed furrows should also be leveled before application.
- 4. Application made to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soils may result in crop injury.
- 5. Do not graze or feed forage from treated areas for 21 days following application or illegal residues may result.
- 6. Following harvest of a treated crop, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to rotational spring seeded crops, regardless of rate used.
- 7. Injury may occur if both this herbicide preplant surface, preplant incorporated or pre-emergence, and an at-planting systemic insecticide applied in-furrow are used.

For applications to furrow-irrigated bedded sorghum in AZ and CA and for post-emergence applications plus emulsifiable oil, see additional precautions under these sections of this label.

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

TANK MIXTURE FOR GRAIN SORGHUM

ATRAZINE 90DF+METOLACHLOR ON GAIN SORGHUM (Cyometrinil-Treated Seed Only)

The ATRAZINE 90DF + metolachior tank mixture provides control of weeds listed on this label and those on the metolachior label.

Apply ATRAZINE 90DF+metolachlor pre-plant incorporated or pre-emergence using the appropriate rates from the metolachlor label and refer to all directions, precautions and limitations.

Precautions:

- 1. Applications of Atrazine plus metolachlor on highly alkaline soils or on eroded areas where calcareous subsoils are exposed may cause sorghum injury.
- 2. If sorghum seed is not properly treated with cyometrinil, atrazine plus metolachlor will severely injure the crop.
- 3. Under high soil moisture conditions prior to sorghum emergence, injury may occur following the use of atrazine plus metolachlor. The crop will normally outgrow this effect.
- 4. Do not use atrazine plus metolachlor on sorghum grown under dry mulch tillage or injury may occur.

WINTER WEED CONTROL IN TEXAS

For post-emergence 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 0.9 - 1.1 pounds per acre post-emergence 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 Surf-Ac 820 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 quart 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.



CHEMICAL FALLOW ATRAZINE 90DF ALONE

If weeds are present at application and ATRAZINE 90DF is used alone, use either an approved contact herbicide before or after treatment, or tillage after treatment.

WHEAT-SORGHUM-FALLOW

This treatment controls annual broadleaf and grass weeds following wheat harvest and in the following sorghum crop when grown under minimum tillage.

Apply 3.3 pounds to wheat stubble immediately following wheat harvest. If weeds are present, remove them with a sweep plow or other suitable implement after application or use an approved contact herbicide before or after application of ATRAZINE 90DF. Plant sorghum into wheat stubble the following spring with minimum disturbance of the soil. 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 90DF APPLIED ALONE - CORN OR GRAIN SORGHUM - PREPLANT SURFACE-APPLIED, PREPLANT INCORPORATED, OR PRE-EMERGENCE".

Precautions:

- 1. se only on silt loam or finer textured soil.
- 2. Wheat-sorghum-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 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 (KS, NE)

This product controls cheatgrass (downy brome, chess), kochia, mustards, pigweed, Russian thistle, wild lettuce, wild sunflower, and volunteer wheat during period after wheat harvest. Weed control may extend into following corn crop grown under minimum tillage.

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, NE, ND, SD, and WY)

For pre-emergence and 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 0.5 - 1.1 pounds per acre on all soils except those listed under "**Precautions**".

For control of pigweed and wild sunflower, use the higher rate. Apply to stubble ground. Treat only once during same fallow period.

TANK MIXTURES FOR CHEMICAL FALLOW

WHEAT-SORGHUM-FALLOW OR WHEAT-CORN-FALLOW (KS. NE)

ATRAZINE 90DF+Paraquat: If weeds are present at application, a tank mix with paraquat may be used. Broadcast 3.3 pounds of ATRAZINE 90DF plus 1 - 2 pints of paraquat in 20 - 60 gallons of water per acre by ground equipment. Add 0.5 - 1 pint of a nonionic surfactant, such as Surf-Ac 820, per 100 gallons of spray mixture. Add this product to spray tank first and thoroughly mix with water. Then add paraquat followed by surfactant. Use the 2 pint rate of paraquat if weeds are 4 - 6 inches tall. This mixture will not



control weeds taller than 6 inches. Apply to stubble ground. Treat only once during same fallow period. Refer to paraquat label for further directions, precautions, and limitations.

WHEAT-FALLOW-WHEAT (CO, KS, MT, ND, SD, and WY)

ATRAZINE 90DF+Paraquat: If weeds are present at application, a tank mix with paraquat may be used. Broadcast 0.5-1.1 pounds of ATRAZINE 90DF plus a suitable amount of paraquat in 20 - 60 gallons of water per acre by ground equipment. Add 0.5 - 1 pint of a non-ionic surfactant, such as Surf-Ac 820, per 100 gals of spray mixture. Add atrazine to spray tank first and thoroughly mix with water. Then add paraquat, followed by surfactant. Use the higher rate of paraquat specified on the label if weeds are 4-6 inches. Apply to stubble ground. Treat only once during same fallow period. Refer to paraquat label for further directions, precautions, and limitations.

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

Precautions:

- 1. Do not use on sand soil.
- 2. Do not treat eroded hillsides, caliche and rocky outcroppings, or exposed calcareous subsoil.
- Do not treat soils of the Rosebud and Canyon Series in western NE and adjoining counties in CO and WY.
- Do not treat soils with calcareous surface layers.
- 5. Avoid spray overlay.

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 feet using low drift nozzles at a maximum pressure of 40 psi. and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply ATRAZINE 90DF alone by aircraft at a minimum upwind distance of 400 feet 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 1.1 pounds per acre in a minimum of 10 gallons 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, buffalo grass, crested wheatgrass, Indiangrass, little bluestem, side-oats grama, witchgrass, 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 treated areas.

SUGARCANE

For control of many broadleaf and grass weeds, such as crabgrass, jungle rice, wire grass, foxtail, amaranths, Flora's paintbrush, fireweed and similar plants.

Broadcast 2.2 - 4.4 pounds per acre at time of planting or rationing, but before the cane emerges.

Broadcast aerially in a minimum of 5 gallons of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gallons 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 a directed spray. 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 are used alone, apply in a minimum of 1 quart of water for each 1 pound of ATRAZINE 90DF 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 feet using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply ATRAZINE 90DF alone by aircraft at a minimum upwind distance of 400 feet from sensitive plants.

FLORIDA

For control of emerged pellitory weeds (artillery weed). Apply 0.4 - 0.6 pounds per acre in 40 gallons of water per acre as a directed spray, by ground equipment prior to "close-in". Add 2 quarts of surfactant for each 50 gallons of spray and be sure weed foliage is thoroughly covered.

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

- 1. Apply 4.4 pounds per acre pre-emergence. Follow with one or two applications, as needed, postemergence to sugarcane and weeds, at 2.2 pounds per acre. Treat before weeds exceed 1.5 inches
- 2. Apply 1 3 times, as needed, at 2.2 pounds per acre post-emergence 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 2.2 pounds per acre to weed-free beds immediately after bed formation. Follow normal weed control after planting.

Precautions - To avoid crop injury:

- 1. Do not apply more than 11 pounds per acre to any one crop of sugarcane.
- 2. If making 2.2 pounds per acre application during summer fallow period do not exceed 8.8 pounds per acre during remainder of the growing season, or illegal residues may result.

Use ATRAZINE 90DF for control of barnyardgrass, pigweed, pursiane and sunflower in plant or ratoon sugarcane.

Apply 4.4 pounds per acre of ATRAZINE 90DF pre-emergence. Follow with 1 or 2 applications, as needed, at 3.3 pounds per acre post-emergence to sugarcane and weeds.

For best results when weeds are emerged, add a nonionic surfactant, such as Surf-Ac 820, at a concentration of 2 quarts per 100 gallons to the spray and apply before weeds exceed 1.5 inches in height.



Precautions:

- Do not apply ATRAZINE 90DF after "close-in".
- 2. Do not apply more than 11 pounds of ATRAZINE 90DF to any one crop of sugarcane.
- Injury to sugarcane may occur when under moisture stress, when soil is of low adsorptive capacity, or when land is first cropped to sugarcane.

CONSERVATION RESERVE PROGRAM (CRP) (NE, OK, OR, AND TX)

For control or suppression of the following weeds: annual ragweeds, barnyardgrass, black nightshade, cheat, cocklebur, downy brome, fall panicum, field pennycress, giant foxtail, yellow foxtail, Japanese brome, Kentucky bluegrass, kochia, lambsquarters, little barley, marestail, pigweed, prickly lettuce, smooth brome and sunflower, refer to the directions, notes, and precautions below:

Pure stands of newly seeded big bluestem, switchgrass, and eastern gamagrass - Use only on loam, silt loam, silty clay loam, clay loam, and silty clay soils with at least 1% organic matter.

Establishment - Broadcast 2.2 pounds per acre of ATRAZINE 90DF preplant incorporated or preemergence at time of seeding and prior to emergence of weeds. Prepare a good firm seedbed. Plant ½ inch deep with a grassland drill (preferred method) or a conventional drill. If a conventional drill is used on prepared seedbeds, remove all tension from the disk openers. For best results, cultipack or roll after planting.

Renovation of existing stands of big bluestem and switchgrass planted on CRP acres: Broadcast 1.1 - 2.2 pounds per acre to existing stands of big bluestem and switchgrass prior to the emergence of weeds. Use the low rate on soils containing from 1 - 2% organic matter. Use the high rate on soils with 2% or more organic matter.

Renovation of existing stands of the following perennial range grasses planted on CRP acres: Blue grama, indiangrass, little bluestem, sand lovegrass, sideoats grama, and western wheatgrass.

Broadcast 0.6 - 1.1 pounds per acre in the spring prior to weed emergence, or in the Fall before the ground freezes and prior to weed emergence after these species have been established for at least one growing season or control or partial control of the weeds listed above. Use the low rate for weeds controlled or suppressed easily. Use the high rate on other weeds listed under "ATRAZINE 90DF APPLIED ALONE -CORN OR GRAIN SORGHUM".

Aerial Application: Make applications at maximum height or 10 feet above vegetation. Use low-drift nozzles at a maximum pressure of 40 psi. Restrict application to periods when wind speed does not exceed 10 mph to control drift. To assure that drift will not adversely affect adjacent sensitive non-target plants, apply ATRAZINE 90DF by aircraft at a minimum upwind distance of 400 feet from sensitive plants. Use 3 - 5 gallons per acre total water volume; use the higher water volume when a dense, heavy ground cover is present.

Notes: (1) Do not cut or feed grass hay to livestock. (2) Do not graze treated areas. (3) Do not use seeds for bird food. (4) Do not dump or spill product or dispose of containers within reach of livestock. (5) Follow all applicable restrictions for the Conservation Reserve Program.

Precautions - To avoid crop injury, make only one application per year. Slight discoloration of desirable grasses may occur following treatment. Injury may be enhanced when used on neutral or alkaline soils.

SEVERE DROUGHT CONDITIONS

Do not graze forage or cut forage for hay. Under severe drought conditions, the Conservation Reserve Program allows grazing and making of hay from CRP acres, as so specified by the local ASCS (Agricultural Stabilization & Conservation Service) office. This label does **not allow** grazing or making of hay from CRP acres that have been treated with atrazine under any circumstance.



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 (shore pine), monterey pine, ponderosa pine, Scotch pine, slash pine, blue spruce, and Sitka spruce).

Broadcast 2.2 - 4.4 pounds in a minimum of 5 gallons of water per acre by air or 10 gallons by ground before weeds are 1.5 inches tall. Apply to established trees between fall and early spring while trees are dormant.

For applications prior to transplanting allow sufficient precipitation to activate atrazine before transplanting.

In areas where spring and summer rainfall is inadequate to activate atrazine, apply during fall prior to spring transplanting.

For the list of weeds controlled, see "ATRAZINE 90DF APPLIED ALONE - CORN OR GRAIN SORGHUM - PREPLANT SURFACE APPLIED, PREPLANT INCORPORATED OR PRE-EMERGENCE".

Quackgrass Control: Broadcast 4.4 pounds in a minimum of 5 gallons of water per acre by air or 10 gallons 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.
- 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 this product on coarse-textured soil.
- 4. To avoid crop injury, do not apply to seedbeds.
- 5. 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 feet 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 mph.

To assure that spray will not adversely affect adjacent sensitive nontarget plants apply ATRAZINE 90DF by aircraft at a minimum upwind distance of 400 feet from sensitive plants.

TURFGRASS FOR FAIRWAYS, LAWNS, SOD PRODUCTION[†] AND SIMILAR AREAS

¹In states other than Florida. For use on turfgrass for sod in Florida, see TURFGRASSES FOR SOD (FLORIDA ONLY) section below.

Bermudagrass, Centipede Grass, St. Augustine Grass, and Zoysiagrass: Apply ATRAZINE 90DF 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 90DF will control annual bluegrass even if it is emerged at time of treatment. For control of summer annual weeds listed in the pre-emergence portion of the "ATRAZINE 90DF Applied Alone - Corn or Grain Sorghum"

section of this label, also apply ATRAZINE 90DF in late winter before the weeds emerge. Apply in a minimum of 15 gallons of water per acre or 1 gallon per 1,000 square feet.

Where annual bluegrass is the major weed, use 1.1 pounds per acre (0.4 ounce per 1,000 square feet). Use 2.2 pounds per acre (0.8 ounce per 1,000 square feet) for control of the other weeds named above. Do not exceed 1.1 pounds per acre per treatment on newly sprigged turfgrass or on hybrid bermudagrass such as Tiflawn, Tifway, and Ormond.

For continued summer annual weed control, apply another 1.1 pounds per acre 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.

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 (except may be used in 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.
- Do not apply this product to newly seeded bermudagrass until it has over-wintered and has a well
 developed rhizome system. Do not exceed 2.2 pounds product per acre within 12 months of seeding
 bermudagrass.

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

TURFGRASSES FOR SOD (FLORIDA ONLY)

St. Augustine grass, Centipede grass, and Zoysiagrass Broadcast. Apply 1.1 - 4.4 pounds per acre according to soil texture to control those weeds listed under "ATRAZINE 90DF Applied Alone - Corn on Grain Sorghum - Preplant Surface-Applied, or Preplant Incorporated, or Pre-emergence".

Muck or Peat	4.4 pounds	Old Beds:	Within 2 days after lifting sod
		New Beds:	3 - 4 Days after sprigging or plugging
Sandy Soil	2.2 pounds	Old Beds:	Within 2 days after lifting sod
_		New Beds:	7 - 10 Days after sprigging or plugging

If weeds regrow, apply an additional 2.2 pounds per acre on muck or peat, or 1.1 pounds per acre 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.

MACADAMIA NUTS

For pre-emergence control of many broadleaf and grass weeds, including crabgrass, foxtail, wiregrass, Flora's paintbrush, spanishneedles, and fireweed, broadcast 2.2 - 4.4 pounds per acre 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 2.2 - 4.4 pounds per acre of ATRAZINE 90DF in 20 - 50 gallons of spray mix pre-emergence or early post-emergence to weeds. When applying post-emergence, the use of a surfactant and greater spray volume (80 - 100 gallons of spray mix per acre) may enhance weed control.

This product controls many annual broadleaf and grass weeds, including fireweed, purslane, scarlet pimpernel, spanishneedles, and sowthistle.

Note - 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 8.8 pounds of ATRAZINE 90DF per year.

Warranty Disclaimer

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

Inherent Risks of Use

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

Limitation of Remedies

The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

- Refund of purchase price paid by buyer or user for product bought, or
- Replacement of amount of product used.

Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. In no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the "Warranty Disclaimer" above and this "Limitation of Remedies" cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the "Warranty Disclaimer" or this "Limitation of Remedies" in any manner.

EPA-Accepted: