

PM 25  
352-490  
10/12

**DU PONT ATRAZINE 4L  
HERBICIDE**

**RESTRICTED USE PESTICIDE (GROUND 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. SEE PRECAUTIONARY STATEMENTS FOR REASONS THIS PRODUCT IS CLASSIFIED RESTRICTED USE.**

**THIS PRODUCT IS A RESTRICTED USE HERBICIDE DUE TO GROUND WATER CONCERNS. USERS MUST READ AND FOLLOW ALL PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND WATER.**

**PACKAGE SIZES  
2 - 2 1/2 GALLON JUGS  
BULK**

Contains 4 lbs. Active Ingredient per Gallon.

<b>ACTIVE INGREDIENTS</b>	<b>BY WEIGHT</b>
Atrazine (2-chloro-4-ethylamino-6-isopropylamino-s-triazine)	40.8%
Related compounds	2.2%
<b>INERT INGREDIENTS</b> .....	<b>57.0%</b>
<b>TOTAL</b>	<b>100.0%</b>

EPA Reg. No. 352-490      EPA EST. NO. 352-IL-1

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**STATEMENT OF PRACTICAL TREATMENT**

**IF SWALLOWED**, drink one or two glasses of water immediately and induce vomiting by sticking finger down back of throat.

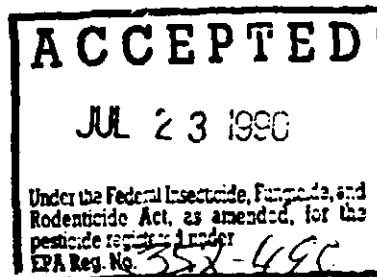
**IN CASE OF CONTACT**, immediately flush eyes or skin with plenty of water. Get Medical attention if irritation persists.

**PRECAUTIONARY STATEMENTS**

**HAZARD TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION** - May be fatal if swallowed. Harmful if absorbed through the skin. Avoid breathing vapors or spray mist. Avoid contact with eyes, skin or clothing. Wash thoroughly after handling. Remove and wash contaminated clothing before reuse.

For medical emergencies involving this product, call toll free 1-800-441-3637.



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Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons. Users are required to wear long sleeve shirts and long pants or equivalent, chemical resistant gloves, and boots (waterproofed). In addition, persons involved in mixing/loading operations are required to use chemical resistant rubber or neoprene gloves and a face shield or goggles.

**ENVIRONMENTAL HAZARDS**

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. Ground water contamination may be reduced by diking and flooring of permanent liquid bulk storage sites with an impermeable material. 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 the soils are very permeable. Your local agriculture agencies can provide further information on the type of soil in your area and the location of groundwater.

Atrazine is toxic to aquatic invertebrates. Do not apply directly to water or wetlands. 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. In case of significant spill, call CHEMTREC (800) 424-9300.

**DIRECTIONS FOR USE** It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**REENTRY STATEMENTS** Do not enter treated areas without protective clothing until sprays have dried. Because certain states may require more restrictive reentry intervals for various crops treated in this product, consult your State Department of Agriculture for further information.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. (Indicate specific oral warnings which inform workers of areas or fields that may not be entered without specific protective clothing, period of time field must be vacated and appropriate actions to take in case of Accidental exposure.) When oral warnings are given warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Written warnings must include the following information: "CAUTION Area treated with Atrazine Herbicide on (date of application). Do not enter, without appropriate protective clothing until sprays have dried. (Insert here actions to take in case of accidental exposure. See STATEMENT OF PRACTICAL TREATMENT for details.)"

**GENERAL INFORMATION**

Atrazine 4L Herbicide controls many annual broadleaf and grass weeds in corn and sorghum including barnyardgrass, witchgrass, (*Panicum capillare*), yellow foxtail, green foxtail, wild oats, large (hairy) crabgrass, giant foxtail, velvetleaf, morningglory, lambsquarters, pigweed, ragweed, nightshade, purslane, and mustard. Atrazine 4L may be applied before or after weeds emerge.

Apply at the rates given under each crop before or after weeds emerge. Use lower rates on light soils and low organic matter soils. Use higher rates on heavy soils and high organic matter soils.

Atrazine 4L acts mainly through root absorption so rainfall or irrigation is needed to move it into the root zone. Should weeds develop, a shallow cultivation or rotary hoeing will generally result in better weed control.

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

Postemergence application to corn and sorghum must be made before corn and sorghum reaches 12 inches in height.

The maximum application rate for corn and sorghum is 3 lbs. a.i. per acre per calendar year. Applications for quackgrass suppression in corn and sorghum are restricted to a spring application only. No fall applications are permitted.

Application rates to non crop land for industrial weed control cannot exceed a maximum of 10 lbs. active ingredient per acre per calendar year.

Avoid using Atrazine 4L near adjacent desirable trees, shrubs, or plants or injury may occur.

Atrazine 4L is non-flammable.

**APPLICATION PROCEDURES**

This product may not be mixed/loaded, or used within 50 feet of all wells included abandoned wells, drainage wells, and sink holes.

**General:** Atrazine 4L, a liquid formulation, should be mixed with water or liquid fertilizer and applied as a spray. Pour into the tank during or after filling. Hydraulic (jet) or mechanical agitation is recommended during mixing and application to keep the material 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.

**Ground Application:** Apply Atrazine 4L in 5-40 gallons of water per acre to assure even coverage unless otherwise specified. For uniform distribution, use 80 degree flat fan-type nozzles. Screens in nozzles, as well as those in suction and in-line strainers, should be no finer than 50-mesh. Use a minimum of 10 gal. of water per acre for all postemergence applications combined with oil or surfactant.

Use a suitable pump with capacity to deliver (1) the necessary volume to the nozzles at 35-40 p.s.i. and (2) an additional volume to maintain the mixture in suspension in the spray tank.

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

$$\frac{\text{Band Width in inches}}{\text{Row Width in inches}} \times \text{Broadcast rate per acre} = \text{Amount needed per acre of field}$$

**Aerial Application:** Use only where broadcast applications are specified. Apply a minimum of 1 gallon of water for each 2 pints of Atrazine 4L to be applied per acre. For postemergence treatments, apply recommended rate in a minimum of 2 gal. water per acre. Do not apply where uniform coverage cannot be obtained or where excessive spray drift may occur. Avoid application directly to animals or humans. Flagmen or loaders should avoid inhalation of spray mist or contact with skin and should wash thoroughly before eating and at the end of each day's operation.

**Application in Liquid Fertilizer:** Nitrogen solutions or complete liquid fertilizers may replace all or part of the water as a carrier for preemergence and preplant applications. Mix as described under Application Procedures. Do not apply after corn or sorghum emerges as there is danger of liquid fertilizers causing crop injury.

Check to ensure the compatibility of Atrazine 4L with liquid fertilizer prior to mixing in the spray tank. A convenient method for testing the compatibility of Atrazine 4L with liquid fertilizer follows:

- A. Add one pint of liquid fertilizer or other carrier to be used to two quart jars. Mark one quart jar "with" and the other jar "without."
- B. To the jar marked "with" add 1/4 teaspoon of a suitable compatibility agent. Shake gently for 5 to 10 seconds to mix. (1/4 teaspoon/pint = 2 pints/100 gallons.)
- C. To each jar mix the number of teaspoons of herbicide shown on the following chart times the number of qts. per acre of Atrazine 4L to be applied corresponding to the gallons per acre of liquid fertilizer to be used. (For example, if 4 qts. per acre of Atrazine 4L are to be applied in 20 gallons of liquid fertilizer per acre, then 4 X 1-1/4 teaspoons, or 5 teaspoons should be mixed with one pint of liquid fertilizer.) If more than one herbicide is used, add them separately; wettable powders first, flowables second and emulsifiable concentrates last. Shake gently for 5 to 10 seconds after each addition.
- D. Let stand one-half hour and make observations. If any separation, agglomeration or precipitation has occurred, again shake the jar 10 to 15 seconds.
  - 1. If mixtures appear to be compatible in both jars, the herbicide(s) can probably be used without a compatibility agent.
  - 2. If the mixture in the jar marked "with" is compatible, but the one in the jar marked "without" is incompatible, a compatibility agent should be used.
  - 3. If both mixtures are incompatible, the liquid fertilizer and the herbicide(s) should not be used in the same spray tank. If a test such as outlined indicates that components of a proposed mix are compatible, materials to be combined in the spray tank should still be added in the sequence according to directions prescribed on the label of the herbicides or pesticides involved.

**JAR TEST FOR ATRAZINE 4L COMPATIBILITY WITH LIQUID FERTILIZER**

Gallons Liquid Fertilizer per acre	10	15	20	25	30	40
Teaspoons of Atrazine 4L/Pint of Fertilizer	2-1/2	1-1/2	1-1/4	1	3/4	1/2

**Application in Water Plus Emulsifiable Oil or Oil Concentrate**

The addition of oil to Atrazine 4L in water sprays may speed the activity of Atrazine 4L and provide quicker kill of weeds. However, under certain conditions, the use of oil may seriously damage corn or sorghum. To minimize the possibility of damage, follow the directions, procedures and precautions given below.

Use a crop oil containing at least 1% suitable emulsifier or a crop oil concentrate containing not more than 20% emulsifier or surfactant blend designated for use with Atrazine. Emulsifiable oil or oil concentrate contaminated with water or other materials can cause compatibility problems and/or crop injury.

**Mixing Procedures--all uses:**

- (1) Thoroughly clean sprayer prior to use. Do not use sprayer contaminated with 2,4-D or other materials as crop damage or sprayer clogging may result.
- (2) Fill spray tank with water, allowing for the addition of the Atrazine 4L.
- (3) With the agitation system in operation, add the Atrazine 4L.
- (4) Add the emulsifiable oil or oil concentrate last.
- (5) Empty the tank as completely as possible before refilling to prevent a buildup of oil in the tank. Keep the agitation system in operation to avoid a separation of the oil from the water in the spray mixture still remaining in the tank.
- (6) If an oil film starts to build up in the tank, drain the tank and clean out with a strong detergent solution or solvent.
- (7) Clean the sprayer thoroughly immediately after use by flushing the system with water containing a detergent.
- (8) All return lines to the tank must discharge below liquid level.

**Precautions for Applications with Emulsifiable Oil  
or Oil Concentrate in Water:**

- (1) Do not use oil in Atrazine 4L sprays when corn or sorghum is under stress from prolonged cold, wet weather, poor fertility, or other factors or when corn or sorghum 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.
- (3) Adding other insecticides, herbicides, liquid fertilizers, or other materials is not recommended because they may cause compatibility problems or crop injury.
- (4) Store and handle emulsifiable oil or oil concentrate carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank.
- (5) Do not make more than one application per season except as recommended for control of yellow nutsedge and Canada thistle on this label.

**CORN**

Atrazine 4L may be applied either before planting, at planting or after planting at the rate indicated below.

**Preplant**

Broadcast in the spring after plowing at the rate indicated in Table 1. Apply before, during or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation of Atrazine 4L. Best results have been obtained when Atrazine 4L is applied within two weeks prior to planting.

**Preemergence**

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

**Postemergence**

Apply before weeds exceed 1.5 inches in height at the rate indicated in Table 1 but before corn reaches 12 inches in height.

**TABLE 1  
BROADLEAF AND GRASS WEED CONTROL IN CORN\***

Soil Texture	Broadcast Rate Per Acre of ATRAZINE 4L
<b>Coarse:</b> Sands, loamy sands, and sandy loams	4 pints
<b>Medium:</b> Silt and clay loams that are low in organic matter	4.75 pints
<b>Fine:</b> Silt and clay loams with medium to high organic matter and clays	6 pints
<b>Peats, mucks, and high organic clays</b> (apply postemergence only)	6 pints

\* Broadleaf weed control (eastern CO, western KS, western NE, NM, OK Panhandle, west TX, and eastern WY). On sand, loamy sand, sandy loam, mild to strongly alkaline soil and all recently leveled soil apply 2.4 pt. per acre, either preplant or preemergence. Controls many broadleaf weeds including pigweed, lambsquarters, nightshade, purslane, and kochia. On other soil types in these areas, apply rate in Table 1 for broadleaf and grass control.

**Postemergence with Emulsifiable Oil or Oil Concentrate in Water**

**Broadleaf and Grass Control**

**Ground Application**

Broadcast 4 pts. of Atrazine 4L and 1 gal. of emulsifiable oil or 1 qt. of oil concentrate in 20-40 gals. of water per acre after emergence but before weeds reach 1.5 inches in height and before corn reaches 12 inches in height.

**Aerial Application**

Broadcast 4 pts. of Atrazine 4L and 0.5 gal. of emulsifiable oil in no less than 5 gals. of water per acre after weed emergence but before weeds reach 1.5 inches in height and before corn reaches 12 inches in height.



**Broadleaf Control**

Broadcast 2.4 pt. per acre for control of broadleaf weeds, such as annual morningglory, cocklebur, lambsquarters, mustards, pigweed, ragweed, smartweed, and wild buckwheat. Add emulsifiable oil at the rate of 1 gal. per acre for ground application and 0.5 gal. per acre for aerial applications. Apply before pigweed and lambsquarters reach 6 inches in height, before all other weeds reach 4 inches in height and before corn reaches 12 inches in height. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

**Problem Weeds Suppression**

Atrazine 4L will suppress yellow nutsedge (*Cyperus esculentus*) and Canada thistle (*Cirsium arvense*) when applied according to directions. For best results, apply each year until yellow nutsedge or Canada thistle is eliminated or reaches a level of infestation where neither weed is a problem. If yellow nutsedge or Canada thistle regrow following last application, cultivate once. When Atrazine 4L is applied postemergence to the weeds, add 1 gal. of emulsifiable crop oil or 1 qt. of oil concentrate per acre.

Six alternative methods of use for control of yellow nutsedge and Canada thistle are listed below in order of preference. If other weed species, such as annual grasses, are also expected, use alternative 2, 3, 5, or 6.

1. Broadcast 3 pt. plus 1 gal. of emulsifiable oil or 1 qt. of oil concentrate per acre after crop and yellow nutsedge or Canada thistle emerge, but before yellow nutsedge reaches a height of 3 inches or Canada thistle reaches a height of 6 inches. Repeat application before corn reaches 12 inches in height.
2. Broadcast 3 pt. per acre preplant incorporated. Follow with an application of 3 pt. plus 1 gal. of emulsifiable oil or 1 qt. of oil concentrate per acre, after corn and weeds emerge, but before yellow nutsedge reaches a height of 3 inches (yellow nutsedge control only) and before corn reaches 12 inches in height.
3. Broadcast 3 pt. per acre during or shortly after planting, but prior to crop or weed emergence. Follow with an application of 3 pt. plus 1 gal. of emulsifiable oil or 1 qt. of oil concentrate per acre, after corn and weeds emerge, but before yellow nutsedge reaches a height of 3 inches or Canada thistle reaches a height of 6 inches and before corn reaches 12 inches in height.
4. Broadcast 6 pt. plus 1 gal. of emulsifiable oil or 1 qt. of oil concentrate per acre after crop emerges, but before corn exceeds 12 inches. Apply after yellow nutsedge and Canada thistle emerge, but before yellow nutsedge is 3 inches tall or Canada thistle is 6 inches tall.
5. Broadcast 6 pt. per acre preplant incorporated (yellow nutsedge control only).
6. Broadcast 6 pt. per acre during or shortly after planting, but prior to crop or weed emergence (yellow nutsedge control only).

**NOTE:** Do not use emulsifiable oil or oil concentrate for post-emergence applications when corn is wet or under stress. See "Precautions for Applications with Emulsifiable Oil or Oil Concentrate in Water" for additional directions.

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**Quackgrass Suppression on Land Going Into Corn Production**

**Split application:** Broadcast 3 pt. per acre in the early spring. Plow 1-3 weeks later. Broadcast a second application at 3 pt. per acre before, during or after planting but before weeds are 1.5 inches high and before corn exceeds 12 inches in height. This split application will suppress quackgrass and control many annual broadleaf and grass weeds.

**Single application:** Broadcast 6 pt. per acre in the early spring. Plow 1-3 weeks later.

**TANK MIXTURES ON CORN**

**"DUAL" 8E**

Use as tank mixture for control of certain broadleaf and grass weeds in corn. Refer to "Dual" 8E label for all directions, weeds controlled, precautions and limitations.

**"LASSO" or "LASSO" EC (alachlor)**

Use as tank mixture for control of many annual broadleaf and grass weeds in corn (field, hybrid seed, silage, sweet, popcorn) including barnyardgrass, carpetweed, crabgrass, fall panicum, Florida pusley, foxtails (giant, green, yellow), goosegrass, jimsonweed, kochia, lambsquarters, mustard, nightshade, pigweed, purslane, ragweed, signalgrass (Brachiaria), smartweed, and witchgrass. This tank mix will reduce competition from the hard to control annual weeds--annual morningglory, cocklebur, and velvetleaf (buttonweed).

For preemergence or early postemergence broadcast application, use the rates in Table 2. Apply tank mixture any time from immediately after planting until weeds reach 2-leaf state and corn in no more than 5 inches tall. On sweet corn, apply before crop and weeds emerge. Application after the 2-leaf stage will not give satisfactory control. With postemergence application, occasional corn leaf burn should not affect growth or yield. If applied with liquid fertilizers, spray before crop emerges.

For preplant incorporated applications, use 0.4 pt. more of Atrazine 4L plus 0.5 qt. of "Lasso" per acre than indicated in Table 2. Use no more than 3.2 pts. of Atrazine 4L plus 2.5 qt. of "Lasso" per acre. Broadcast within 7 days before planting and incorporate 2 inches deep.

Apply tank mixture in a minimum of 20 gal. of water per acre. Liquid fertilizer may replace all or part of the water. Add Atrazine 4L to spray tank, thoroughly mix with water, then add "Lasso". Follow mixing procedures in the section "Application Procedures" of this label.

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TABLE 2  
TANK MIXTURES WITH "LASSO" ON CORN

Soil Texture	Broadcast Rate Per Acre Percent Organic Matter in Soil Pints of ATRAZINE 4L + Quarts of "LASSO"	
<b>Coarse:</b> Sand, loamy sand, sandy loam		
Less than 3%	2 +	1.5
3% or more	2 +	1.5
<b>Medium:</b> Loam, silt loam, silt		
Less than 3%	2-2.4 +	1.75
3% or more	2.4-2.8 +	2
<b>Fine:</b> Silty clay loam, sandy clay loam, silty clay, sandy clay, clay loam, clay		
Less than 3%	2.4-3.2 +	2.25
3% or more	2.4-3.2 +	2.5

Refer to "Lasso" label for information concerning applications and other directions, limitations, and cautions.

**PRINCEP" 80W or "PRINCEP" 4L (Simazine)** Use as a tank mixture for control of many annual weeds including carpetweed, crabgrass, fall panicum, foxtail, lambsquarters, morningglory, pigweed, ragweed, and velvetleaf. Apply before planting, at planting, or after planting, but before crop and weeds emerge, at rates in Table 3. Use 1:1 ratio for control of above weeds. Use 1:2 ratio for expected heavy infestations of crabgrass and fall panicum. Apply in a minimum of 20 gal. water per acre. Cultivate shallowly if weeds develop.

**Preplant** Apply in spring during or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation. For best results, apply within two weeks before 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 or "Princep" 4L label for further directions, limitations, and cautions.

**TABLE 3**  
**TANK MIXTURES WITH "PRINCEP" ON CORN**

Soil Texture	Broadcast Rate Per Acre	
	Percent Organic Matter in Soil	
	Pints of ATRAZINE 4L +	Pounds of "PRINCEP" 80W or
		Pints of "PRINCEP" 4L
<b>Coarse:</b> Sand, loamy sand, sandy loam		
	1:1 Ratio*	2 + 1.25 or 2
	1:2 Ratio**	1.32 + 1.67 or 2.67
<b>Medium:</b> Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay or silty clay with low organic matter		
	1:1 Ratio*	2.4 + 1.5 or 2.4
	1:2 Ratio**	1.6 + 2 or 3.2
<b>Fine:</b> Loam, silt loam, 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)		
	1:1 Ratio*	3 + 1.8 or 3
	1:2 Ratio**	1.92 + 2.4 or 3.84

\*For control of above weeds.

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

**PROPACHLOR 65WP (except in California)**

Use a tank mixture for control of many annual broadleaf and grass weeds in corn (field, hybrid seed, silage and sweet corn only), including annual morningglory, annual ryegrass, barnyardgrass (watergrass), buttonweed (velvetleaf), carpetweed, cocklebur, crabgrass, fall panicum, Florida pusley, giant foxtail, green foxtail, yellow foxtail, goosegrass, groundsel, jimsonweed, lambsquarters, mustard, nightshade, pigweed, purslane, ragweed, smartweed and sunflower.

Broadcast 2.1-3.2 pt. of Atrazine 4L plus 3.8-6 lb. of propachlor 65WP per acre on soil surface any time from planting until broadleaf and grass weeds reach the 2-leaf stage but before corn reaches 12 inches in height. Use lower rates on coarse-textured soil low in organic matter. Use higher rates on fine-textured soil high in organic matter.

Use a minimum of 2.8 pt. per acre of Atrazine 4L in tank mixture for better control of annual morningglory, buttonweed (velvetleaf), cocklebur, and sunflower.

Apply in a minimum of 20 gal. per acre. Non-pressure fluid fertilizer may replace all or part of the water used as a carrier for applications before crop and weeds emerge. Add Atrazine 4L to spray tank and thoroughly mix with water. Then, cut the propachlor 65WP bag and fill with water to fill line. Grasp neck of bag firmly, shake vigorously, and add contents to spray tank.

Refer to propachlor 65WP label for further directions, limitations, and cautions.

#### **PARAQUAT**

For control of existing vegetation and residual control where corn will be planted directly into cover crop, established sod, or in previous crop residues, broadcast 4-6 pt. of Atrazine 4L and 1-2 pts./A (2 lbs./gal.) or 1.3-2.7 pts./A (1.5 lbs./gal.) paraquat in 20-60 gal. of water per acre. Add Atrazine 4L to water in spray tank, agitate until thoroughly mixed with water, and then add paraquat and surfactant.

#### **"PRINCEP" 80W plus Paraquat**

Use as a tank mixture with "Princep" 80W and paraquat for kill of existing vegetation and residual weed control where corn will be planted directly into a cover crop, established sod, or in previous crop residues. Add Atrazine 4L and "Princep" 80W to water in spray tank, agitating until thoroughly mixed. Then add paraquat and a nonionic surfactant such as "Ortho" X-77. Continue agitation during application. Apply 2-4 pt. of Atrazine 4L plus 1.25-2.5 lb. of "Princep" 80W plus 1-2 pts./A (2 lbs./gal.) or 1.3-2.7 pts./A (1.5 lbs./gal.) paraquat in 20-60 gal. of water per sprayed acre within 3 weeks before, during, or after planting, but before corn crop emerges. Add 8 fl. oz. of a nonionic surfactant, such as "Ortho" X-77, per 100 gal. diluted spray. Use lower rates of Atrazine 4L and of "Princep" 80W on coarse soil, and higher rates on fine-textured soil. Use the 2 pts./A (2 lbs./gal.) or 2.7 pts./A (1.5 lbs./gal.) rate of paraquat 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 labels for this product, "Princep" 80W, and paraquat.

**PRECAUTIONS FOR ALL APPLICATIONS TO CORN**

- (1) Do not apply more than 6 pts. Atrazine 4L to corn in any one year.
- (2) Land treated with Atrazine 4L should not be planted to any crop except corn or sorghum until the following year or injury may occur.
- (3) Injury may occur in any crop other than corn or sorghum planted the year following treatment.
- (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) To avoid the possibility of injury to following fall or spring seeded crops, the use of "BLADEX" Herbicide in place of Atrazine 4L is recommended. Follow directions on the "BLADEX" label.
- (6) The use of Atrazine 4L on land that is to be rotated the following year to soybeans that will be treated with metribuzin ("SENCOR" or "LEXONE") may increase the chance of injury.
- (7) If Atrazine 4L is applied after June 10, do not rotate with crops other than corn or sorghum the next year or injury may occur.
- (8) In the High Plains and Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use Atrazine 4L to control weeds in corn or sorghum only where corn or sorghum is to follow corn or a crop of untreated corn or sorghum is to precede other rotational crops.
- (9) Do not graze treated area or feed treated forage to livestock for 21 days following application.

**SORGHUM AND SORGHUM-SUDAN HYBRIDS (Grain and Forage Types)**

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

**Preplant (Broadleaf and Grass Control)**

Broadcast in spring after plowing at rate in Table 4. 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 before planting.

**Preemergence (Broadleaf and Grass Control)**

Apply during or shortly after planting before weed or crop emergence, at rate in Table 4.

In case of planting failure, sorghum may be replanted. Do not make a second broadcast application, as injury may occur. If originally applied in a band and sorghum is replanted in untreated row middles, Atrazine 4L may be applied in a band to the second planting.

**Preemergence Broadleaf Control in Furrow Irrigated Bedded Sorghum (AZ and CA only):**

For preemergence control of many broadleaf weeds, including groundcherry, lambsquarters, morningglory, mustard, pigweed, and purslane, broadcast 1.6-2.4 pt. per acre. Apply after bed preparation, during or after planting, but before sorghum and weeds emerge and before the first furrow irrigation. Follow with several regular irrigations to thoroughly wet all soil. Use lower rate on coarse-textured soil and soil low in organic matter; use higher rate on fine-textured soil and soil high in organic matter.

**Precautions for Preemergence Application to Furrow Irrigated Bedded Sorghum Grown in AZ and CA**

To avoid possible sorghum injury, do not use on sand or loamy sand soil or on sorghum planted in the furrow. Applications to sorghum growing on alkali soils or where cuts, fills, or erosions have exposed calcareous or alkali subsoils may cause crop injury. Do not replant sorghum for 8 months following application. Corn may be planted immediately.

**TABLE 4  
PREPLANT AND PREEMERGENCE BROADLEAF AND GRASS WEED CONTROL IN SORGHUM\***

Soil Texture	Percent Organic Matter in Soil	Broadcast Rate Per Acre Pints of ATRAZINE 4L
Coarse: Sand, loamy sand, sandy loam, sandy clay loam	Any Level	Do not use (except for preemergent use on bedded sorghum in AZ and CA as indicated below)
	Medium and Fine: Silt loam, clay loam, clay	
	Less than 1%	Do not use (except for preemergent use on bedded sorghum in AZ and CA as indicated below)
	1-1.5%	3.2-4
	More than 1.5%	4-4.75

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



**TABLE 5  
POSTEMERGENCE BROADLEAF AND GRASS WEED CONTROL IN SORGHUM**

Soil Texture	Broadcast Rate Per Acre	
	Minimum Sorghum Height at Treatment	Pints of ATRAZINE 4L
Sand or loamy sand	Do not use	Do not use
Sandy loam	See directions for postemergence broadleaf weed control below	
Silt loam to sandy clay loam	Completely emerged	4-4.75
	At least 6 inches	4-4.75
Olton and Pullman clay soil	At least 6 inches	4-4.75
	Completely emerged	6
Silty clay loam and finer textured soil	At least 6 inches	4-4.75
	Completely emerged	6

**Postemergence (Broadleaf and Grass Control)**

Apply at rate in Table 5 before weeds exceed 1.5 inches in height and before sorghum reaches 12 inches in height.

**Postemergence Broadleaf Control with Emulsifiable Oil or Oil Concentrate in Water**

Broadcast 2.4 pt. per acre for control of many broadleaf weeds, including annual morningglory, cocklebur, lambsquarters, mustard, pigweed, ragweed, smartweed, and wild buckwheat. Apply 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. In all other areas, apply after sorghum reaches the 3-leaf stage but before sorghum reaches 12 inches in height. Add emulsifiable oil at 1 gal. per acre for ground application and 0.5 gal. per acre for aerial applications. 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**

See "Precautions for Applications with Emulsifiable Oil or Oil Concentrate in Water" in Application Procedures section of this label.

**Postemergence Broadleaf Control with Surfactant**

(CO, Western KS, NM, OK, TX and Desert Regions of AZ and CA only) Broadcast 2.4 pt. plus 0.75-1.5 pt. of surfactant per acre when sorghum is at least 5 inches but less than 12 inches in height, and before weeds reach 1.5 inches in height. Apply only on sandy loam and finer textured soil.

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**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 soil may result in crop injury.
- (3) Injury may occur in any crop other than corn or sorghum planted the year following treatment.
- (4) Following harvest, plow (moldboard or disk-plow) and thoroughly till soil in fall or spring to minimize possible injury to rotational spring-seeded crops, regardless of rate used.
- (5) Injury may occur if both this herbicide, preplant or preemergence, and an at-planting systemic insecticide are used.

**NOTE:** Do not graze or feed forage from treated areas for 21 days following application

**Additional Precautions**

See "Precautions for All Applications to Corn" in Corn section of this label.

**CHEMICAL FALLOW**

**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 6 pt. to wheat stubble immediately following wheat harvest but before September 1. If weeds are present, remove them with a sweep plow or other suitable implement after application. 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.

**Precautions**

- (1) Use only on a silt loam or finer textured soil.
- (2) Wheat-sorghum-fallow cropping sequence must be followed.
- (3) Do not apply following sorghum harvest.

**NOTE:** Do not graze or feed forage from treated area to livestock. Do not plant any crop other than those on this label within 18 months following treatment.

**Wheat-Corn-Fallow (KS, NE)**

Atrazine 4L 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.

Apply with ground equipment only.

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 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, apply 1-2 pts. in 10-40 gal. of water per acre for ground application, or in a minimum of 5 gal. of water per acre for aerial application, 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.

If weeds are present at application, a tank mix with paraquat may be used. Broadcast 1-2 pts. of Atrazine 4L plus 1-2 pts./A. (2 lbs./gal.) or 1.3 - 2.7 pts./A. (1.5 lbs./gal) paraquat. Add 8 fl.oz. of a nonionic surfactant, such as "Ortho" X-77, per 100 gal. of spray mixture. Add Atrazine 4L to spray tank first and thoroughly mix with water. Then add paraquat, followed by surfactant. Use the 2 pts./A (2 lbs./gal.) or 2.7 pts./A (1.5 lbs./gal.) 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.

If weeds are present at application and Atrazine 4L 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 Atrazine 4L 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.
- (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.

**FORESTS AND CHRISTMAS TREE PLANTATIONS**

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, Monterey pine, Ponderosa pine, Scotch pine, Slash pine, Blue spruce and Sitka spruce. Annual broadleaf and grass weed control: Broadcast 4 to 6 pints in a minimum of 5 gallons of water per acre by air or 10 gallons by ground to assure thorough coverage. Apply before weed seedlings are more than 1.5 inches high. 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 4L before transplanting. In areas where spring and summer rainfall is inadequate to activate Atrazine, apply during fall prior to spring transplanting.

**Quackgrass Suppression:** Broadcast 6 pints 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. Do not use in areas where spring and summer rainfall is inadequate to activate Atrazine.

**Precautions:**

- (1) Do not graze treated areas.
- (2) Do not apply to seedbeds.
- (3) Do not make more than one application 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 mph. To assure that spray will not adversely affect adjacent sensitive non-target plants, apply Atrazine 4L by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

**NON-SELECTIVE WEED CONTROL IN NON-CROP LAND**

Apply Atrazine 4L at rates recommended below before or soon after weeds begin growth. Postemergence applications should be made when weeds are young and actively growing. Use the higher rates on heavy clay and muck soils.

Atrazine 4L can be used to provide long term weed control on industrial sites, highway medians and shoulders, railroad rights-of-way, lumberyards, petroleum tank farms, and in non-crop areas on farms, such as around buildings, equipment and fuel storage areas, along fences and lanes.

Use sufficient water to assure thorough coverage. Use at least 1 gal. of water for each quart of Atrazine 4L, more if practical. To control many annual broadleaf and grass weeds (such as barnyardgrass, plantain, quackgrass, purpletop, redtop and smooth brome): Broadcast 10 qts. per acre.

For small areas, 7.2 fluid ozs. per 1,000 sq. ft. is equivalent to 10 qts. per acre.

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**STORAGE AND DISPOSAL**

**STORAGE:** Do not contaminate water, food, or feed by storage or disposal. Do not use or store around the home environment. Avoid contact with water. In case of spill or leak, soak up with sand, earth or synthetic absorbent (do not use alkaline absorbents) and dispose of wastes in compliance with local, state and Federal regulations.

**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:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**NOTICE OF WARRANTY**

Du Pont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Du Pont. In no case shall Du Pont be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. **DU PONT MAKES NO WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.**

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**NET CONTENTS 2.5 GALLONS**

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