

AAtrex

4L

Herbicide

For season-long weed control in corn and sorghum

For weed control in certain other crops, in noncrop areas, and industrial sites

Active Ingredients
Atrazine 2-chloro-4-ethylamino-6-isopropylamino-s-triazine 40.8%
Related compounds 2.2%

Inert Ingredients 57.0%

Total 100.0%

See directions for use in attached booklet

EPA Reg. No. 100-497

EPA Est. 100-LA-1

AAtrex is trademark of CIBA-GEIGY for atrazine

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2½ Gallons

U.S. Standard Measure

AAtrex 4L contains 4 lbs. active ingredients per gallon

Shake well before using

Use entire contents at one time

Keep Out of Reach of Children.

Caution

Precautionary Statements

Hazards to Humans and Domestic Animals

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Atrazine: 2-chloro-4-ethylamino-6-isopropylamino-s-triazine..... 40.8%
Related compounds..... 2.2%
Inert Ingredients: 57.0%
Total: 100.0%

2 1/2 Gallons
U.S. Standard Measure

MAR 27 1984

AAtrex 4L contains 4 lbs. active ingredients per gallon.

Shake well before using.

Use entire contents at one time.

Keep Out of Reach of Children.

Caution

See additional precautionary statements at end of label booklet.

See directions for use inside booklet.

AAtrex[®] trademark of CIBA-GEIGY for atrazine

EPA Reg. No. 100-497
EPA Est. 100-LA-1

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419
CGA 7L38R 024

CIBA-GEIGY

DIRECTIONS FOR USE AND CONDITIONS OF SALE AND WARRANTY

IMPORTANT: Read the entire Directions for Use and the Conditions of Sale and Warranty before using this product.

Conditions of Sale and Warranty

The Directions for Use of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application all of which are beyond the control of CIBA-GEIGY or the Seller. All such risks shall be assumed by the Buyer.

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

Directions for Use

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

FAILURE TO FOLLOW ALL PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES

Do not apply this product in such a manner as to directly or through drift expose workers or other persons, except those knowingly involved in the application. The area being treated must be vacated by unprotected persons.

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 with 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. Oral warnings must be given which inform workers of areas or fields that may not be entered without specific protective clothing until sprays have dried, and appropriate actions to take in case of accidental exposure as described under Precautionary Statements on this label. 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 AAtrex 4L on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure, flush eyes or skin with plenty of water. Call a physician if irritation persists. Remove and wash contaminated clothing before reuse."

General Information

This herbicide controls many annual broadleaf and grass weeds in corn, sorghum, sugarcane, pineapple, and certain other crops specified on this label. It is also effective in noncrop areas and industrial sites for control of most annual and many perennial broadleaf and grass weeds. This product may be applied before or after weeds emerge.

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

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

This product is nonflammable.

Avoid using near adjacent desirable plants or in greenhouses, or injury may occur.

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

Note: CIBA-GEIGY does not recommend applications in combination with other herbicides or oils, except as specifically described on the label or in literature published by CIBA-GEIGY.

Application Procedures

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

Use a pump with capacity to (1) maintain 35-40 psi at nozzles; (2) provide sufficient agitation in tank to keep mixture in suspension; and (3) to provide a minimum of 20% bypass at all times. Use centrifugal pumps which provide propeller shear action for dispersing and mixing this product. The pump should provide a minimum of 10 gal/minute 100 gal 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 50 mesh or coarser screens between the pump and boom and where required at the nozzles. Check nozzle manufacturer's recommendations.

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

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

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

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

Application in water or liquid fertilizer: Nitrogen solution or complete liquid fertilizer may replace all or part of the water as a carrier for preemergence, preplant, incorporated, or preplant surface ground application on corn and sorghum. Check the compatibility of this product with liquid fertilizer and/or nitrogen solution as shown below before use. Do not apply in nitrogen solution or complete liquid fertilizer after corn or sorghum emerges, except as noted under Lay-by Treatment for corn 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 suspensions or fluid fertilizers as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gal/acre. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

1. Add 1 pint of fertilizer to each of 2 one quart jars with tight lids.
2. To one of the jars add 1 tsp or 1 1/2 m. liters of a compatibility agent approved for this use, such as Compex[®] or Unifex[®] (1 tsp is equivalent to 2 pts. per 100 gal. spray). Shake or stir gently to mix.

3. To both jars add the appropriate amount of herbicide. If more than one herbicide is used, add them separately with dry herbicides first, flowables next and emulsifiable concentrates last. After each addition, shake jar vigorously to thoroughly mix. The appropriate amount of herbicide 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 or 2.5 milliliters to each jar.

4. After adding all ingredients, put lids on and tighten and invert each jar ten times to mix. Let the mixtures stand 15 minutes and then look for compatibility. Large flakes, precipitates, gels, heavy settling in the jar or other signs of incompatibility. Determine if the compatibility agent is needed in this 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) Is surfactant (dry herbicide) in water before addition, or (B) add 1% of the compatibility agent to the herbicide and the other 1% to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use the mixture.

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

Use one of the following: (1) Apply emulsifier.

1. 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 Complex or Lite should be used. Any of the above oils contaminated with water or other materials can cause compatibility problems and/or crop injury.

Mixing procedures—all uses: (1) Before 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 in frozen solution or complete liquid form. (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 container into tank. (6) Continue filling tank until full. (7) Increase agitation if necessary to maintain surface action. (8) Add emulsifier or oil concentrate or tank mix herbicides after this product is thoroughly suspended. (9) Finish filling tank. (10) Empty tank as completely as possible before refilling to prevent buildup of oil or emulsifiable concentrate residue. Maintain a tank log and separate in all materials. (11) If an oil or emulsifiable concentrate is used, be sure to clean tank drain and clean with strong detergent solution or solvent. (12) Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent.

Center pivot sprinkler application

Preemergence or postemergence. Apply this product at the end of tank mixtures with other herbicides on this date, which are registered for center pivot application with irrigation water. Apply either after planting before crop and weeds emerge, or after crop emergence, but before lay by (20-30 inches), and before weeds exceed 1.5 inches in height. Apply at rates recommended on this label. Prepare mixture with a minimum of 1 part water to 1 part product, mixing a larger volume of a more dilute slurry per hour will assure more accurate calibration of metering equipment. Maintain sufficient agitation to keep herbicide in suspension. Meter slurry into irrigation water during entire period. Apply in 1/2 inch of water. Use the lower water volume on coarser textured soils, the higher volume on finer textured soils. More than 1/2 inch of water may reduce weed control by moving herbicide below the effective zone in the soil. Inject dilute slurry into system through a positive displacement pump.

Refer to supplemental literature published by CIBA-GEIGY for more information on calibrating.

Precautions: (1) Apply only through irrigation systems containing anti-siphon and check valves to prevent contamination of wells during shutdown and overflow of solution tank. (2) Inject ahead of any right angle turn in the main line to insure adequate mixing. (3) Chemical injection pumps and water pumps must have interlocking controls to insure simultaneous shut-off. (4) Application when drift may occur from windy conditions, when system joints and connections are leaking, or when nozzles are not providing uniform distribution may cause crop injury. (5) Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

AAAtrex 4L Applied Alone—Corn or Grain Sorghum

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

Broadleaf or Grass Weeds Controlled

Barnyardgrass	Cockspur	Hairy vetch
Watergrass	Ground cherry	Pigweed
Yellow foxtail	Red root	Ragweed
Green foxtail	Yellow foxtail	Smartweed
Alopecurus crabgrass	Amaranth	Wild buckwheat
Wild oats	Amaranth	Velvetleaf
Wild sorghum	Amaranth	
Mustard	Mustard	
Yellow foxtail		

Postemergence with Emulsifiable Oil or Oil Concentrate in Water (2 + 2.4 pt. A)

Broadleaf Weeds Controlled

annual morningglory	pigweed
cockspur	ragweed
smartweed	smartweed
lambquarters	wild buckwheat
mustards	velvetleaf

Corn

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

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

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

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

Preemergence (Broadleaf and grass control): Apply during or shortly after planting before weed emergence at rate in Table 1.

Postemergence (Broadleaf and grass control): Apply before weeds exceed 1.5 inches in height at rate in Table 1.

Table 1. Broadleaf and Grass Weed Control on Corn*

Soil texture	Broadcast rate A
COARSE	
Sand, loamy sand, sandy loam	4 pt.
MEDIUM	
Loam, silt loam, silty loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter	4.75 pt.
FINE	
Loam, silt loam, silty loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with medium to high organic matter and clay, including the dark prairie soils of the Corn Belt†	6 pt.
Peat, muck, and high organic clay apply postemergence only	6 pt.

*Broadleaf control: eastern CO, western KS, western NE, NM, OK, Panhandle west TX, and eastern WY. On sand, loamy sand, sandy loam, silt loam, silty loam, sandy clay, and silty clay, recently leveled soil, apply no more than 2.4 pt. A either preplant surface-applied, preplant incorporated, or preemergence. On other soils in these areas, apply rate in Table 1 for broadleaf and grass control.

Lay-by treatment (Broadleaf and grass control): Broadcast 2.4 pt. A before weeds are 1.5 inches tall and before corn is 20-30 inches tall. When using no-till or strip-till, direct the spray to lower 3-4 inches of corn stalks to avoid corn foliage injury.

Postemergence with emulsifiable oil or oil concentrate in water: Add the following volume of one of the type oils indicated for aerial or ground application unless the oil label specifies otherwise:

Type Oil	Ground Application	Aerial Application
Oil concentrate (Crop or Petroleum derived)	1 qt. A	1.2 qt. A
Petroleum derived oil	1 gal. A	2 qts. A

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 postemergence control of those weeds listed under **Preplant Incorporated** and **Preemergence**, broadcast 4 pt. A plus emulsifiable oil or oil concentrate after weed emergence, but before weeds reach 1.5 inches in height.

Broadleaf control: For postemergence control of those weeds listed under **Postemergence with emulsifiable oil or oil concentrate in water**, broadcast 4 pt. A plus emulsifiable oil or oil concentrate before pigweed and lambquarters reach 6 inches in height and before all other weeds reach 4 inches in height. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

Precautions for applications with emulsifiable oil or oil concentrate: (1) Do not apply when crops are under stress from prolonged cold, wet weather, poor fertility, or other factors, or when crops are wet and succulent from recent rainfall. Crop injury may occur. (2) Inbred lines of any breeding stock may be severely injured by applications with emulsifiable oil or oil concentrate. (3) Adding other insecticides, herbicides, or fertilizers to other materials is not recommended, because they may cause compatibility problems or crop injury. (4) Store and handle emulsifiable oil and oil concentrate carefully. Do not contaminate with even a small amount of water may not emulsify properly when added to the tank. (5) Do not move more than one application per season. Harvest as recommended for control of yellow nutsedge, blue grass, and Canada thistle.

Problem weeds

Yellow nutsedge and Canada thistle. This product will control yellow nutsedge (*Cyperus esculentus*) and Canada thistle (*Cirsium altissimum*) when applied according to directions. For best results, apply early in the spring when nutsedge and Canada thistles are small or reaching a level of infestation where further control is an economic problem. If yellow nutsedge or Canada thistle is a major weed, a single application will control it.

Four 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 4.

1. Broadcast 4 pt A plus 1 qt of emulsifiable concentrate of 2,4-D. Apply after crop and yellow nutsedge or Canada thistle emerge, but before yellow nutsedge reaches the 7th leaf stage. In Canada thistle reaches a height of 6 inches. Repeat application if necessary 2 to 3 weeks later, 2 to 3 days after the first application.
2. Broadcast 4 pt A plus 1 qt of emulsifiable concentrate of 2,4-D. Apply after crop and yellow nutsedge or Canada thistle emerge, but before yellow nutsedge reaches the 7th leaf stage. In Canada thistle reaches a height of 6 inches. Repeat application if necessary 2 to 3 weeks later, 2 to 3 days after the first application.
3. Broadcast 4 pt A plus 1 qt of emulsifiable concentrate of 2,4-D. Apply after crop and yellow nutsedge or Canada thistle emerge, but before yellow nutsedge reaches the 7th leaf stage. In Canada thistle reaches a height of 6 inches. Repeat application if necessary 2 to 3 weeks later, 2 to 3 days after the first application.
4. Broadcast 8 pt A before, during or shortly after planting, but before crop or weed emergence. Apply with the following directions:

Note: Do not use emulsifiable concentrate of 2,4-D when the soil is dry or when stress is present. When using 2,4-D, apply it in a spray form. For additional directions, see the emulsifiable concentrate label.

Quackgrass control on land going into corn production

Spot application: Broadcast 4 pt A in late spring. Repeat 3 weeks later. Apply a second application of 4 pt A in spring before planting or after planting. In late spring, weeds are 1.5 ft high. This is the last application. Control quackgrass and other annual broadleaf and grass weeds.

Single application: Broadcast 8 pt A in late spring. Repeat 3 weeks later.

Tank Mixtures for Corn

This product may be tank mixed with these herbicides for control of certain broadleaf and grass weeds. Do not:

Dual® (im. tolachlor)	Lasso or Lasso EC + Roundup
Dual + paraquat	Lasso or Lasso EC + paraquat
Dual + Roundup + glyphosate	Paraquat
Dual + Princep*	Princep
Dual + Princep + paraquat	Princep + paraquat
Dual + Princep + Roundup	Princep + Roundup
Bexton® or Hamrod® (propachlor)	Roundup
Lasso® or Lasso EC (alachlor)	Sutan®*

Use tank mix directions appearing on the label of the active herbicide 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, use equivalent rates of AAtrex 4L. One quart 80W equals 1.6 pt 4L.

Princep 80W, Princep 4L (4LC), or Princep Caliber® 90

In addition to the weeds listed under **AAtrex 4L Applied Alone — Corn and Grain Sorghum — Preplant Surface Applied, Preplant Incorporated, or Pre-emergence**, this combination also controls quackgrass, 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 only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, and WY. Apply at the recommended rate of AAtrex and Princep shown in Table 2 for the soil texture as a split treatment 10-45 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. On coarse textured soils, do not apply more than two weeks prior to planting. Refer to the AAtrex 4L one 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 Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

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

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

Pre-emergence: Apply during or shortly after planting, but before crop and weeds emerge.

Refer to corn sections of this label for directions for use of Princep 4L (4LC) or Princep Caliber 90.

Table 2. Tank Mixtures with Princep on Corn

Soil texture	Broadcast rate A			
	1:1 Ratio*		1:2 Ratio**	
	This product	Princep 80W†	This product	Princep 80W†
Sand, loamy sand, sandy loam	2.4 pt	1.25 qt	1.2 pt	1.6 qt
Loam, silt loam, silty clay loam, sandy clay loam, silty clay loam	2.4 pt	1.5 qt	1.2 pt	2.0 qt
Sandy clay or silty clay with low organic matter	2.4 pt	1.5 qt	1.2 pt	2.0 qt
Loam, silt loam, silty clay loam, sandy clay loam, silty clay loam, sandy clay or silty clay with medium, high organic matter and clay including dark frame soils of the Corn Belt	2.4 pt	1.5 qt	1.2 pt	2.0 qt

* For control of most weeds.

** For control of expected heavy infestations of crabgrass in the Corn Belt.

† When using Princep Caliber 90, Princep 4L (4LC), use equivalent rates of 1 qt of Princep 80W equals 1.6 qt of Princep 4L (4LC) or Princep Caliber 90.

Princep 80W, Princep 4L (4LC), or Princep Caliber 90 plus Roundup. Use as tank mixture for pre-emergence and post-emergence control of broadleaf and grass weeds where corn will be planted directly into a cover crop. Apply at rates shown in previous section of this label. Roundup is a contact herbicide. Observe directions, precautions, and limitations.

Princep 80W, Princep 4L (4LC), or Princep Caliber 90 plus Paraquat. Use as tank mixture with Princep and paraquat to kill existing vegetation and for residual weed control where corn will be planted directly into a cover crop. Apply at rates shown in previous section of this label. Paraquat is a contact herbicide. Observe directions, precautions, and limitations. Add this product and Princep to water in spray tank, agitating until thoroughly mixed. Then add paraquat and a nonionic surfactant such as X-77®. Continue agitation during application. Broadcast 2.4 pt of this product plus 1.25 qt of Princep 80W or 1.5 qt of Princep 4L (4LC) or 1.2 pt of Princep Caliber 90 plus 1.2 pt of paraquat in 40 to 60 gal of water per sprayed acre. Apply before, during or after planting, but before corn emerges. Add 0.5 pt of a nonionic surfactant such as X-77 per 100 gal of spray mixture. Use the 2:1 ratio of paraquat to existing vegetation on 5:4 to 6:1 chestnut to stamule with 1:1 control weeds later than 6 inches.

Refer to further limitations and precautions on label of this product, Princep, and paraquat.

Precautions for all applications to corn: Do not apply more than 7 pt A of this product per year. Following harvest, plow, moldboard, or disking and thoroughly till the soil to spring to minimize possible injury to spring-seeded rotation crops, regardless of rate used.

Note for all applications to corn: Do not graze or feed forage from treated areas for 21 days following application.

Rotational crops: (1) Do not rotate to any crop except corn or sorghum until the following year, or injury may occur. (2) If applied after June 10, do not rotate with crops other than corn or sorghum the next year, or crop injury may occur. (3) If the broadcast rate, or equivalent band application rate, exceeds 6 pt A of AAtrex 4L, or 6 pt A of AAtrex 4L plus Princep 4L or equivalent of either Princep formulation, a crop of untreated corn or sorghum should precede the next rotational crop. (4) In the High Plains and Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use only when corn or sorghum is to follow corn or sorghum or when a crop of untreated corn or sorghum is to precede other rotational crops. (5) In eastern parts of the Dakotas, Minn., and N.E. do not rotate to soybeans. (The rate applied to corn or sorghum was more than 4 pt A or equivalent band application rate, or soybean injury may occur. (6) Injury may occur to soybeans planted the year following application on soils having a large, carefree surface layer. (7) Do not plant sugar beets, tobacco, vegetables including dry beans, spring-seeded small grains, or small-seeded legumes and grasses the year following application, or injury may occur.

Sorghum and Sorghum-budon Hybrids (Grain and Forage Types)

Preplant Surface Applied (Broadleaf and grass control): Use on medium and fine textured soil with minimum tillage or no tillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, WY. Apply at the recommended rate of AAtrex shown in Table 3 for the soil texture as a split treatment 30-45 days prior to planting and the remainder at planting. Applications made less than 30 days prior to planting may be as either a split or single treatment. Under dry conditions, irrigation after application is recommended to move AAtrex 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 Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

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

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

Pre-emergence (Broadleaf and grass control): Apply during or shortly after planting, but prior to weed or crop emergence. Apply at rate shown in Table 3.

10:00

Site D: 1st grade treated areas 6 to 6 months after application

Aerial application. For control of annual grasses and weeds, apply AAtrex 4L at 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft. For control of annual grasses and weeds, apply AAtrex 4L at 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft. For control of annual grasses and weeds, apply AAtrex 4L at 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft.

Proso Millet

For preparation, incorporate in the soil. For control of annual grasses and weeds, apply AAtrex 4L at 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft.

Precaution. Make only one application per year.

Rotational crops. See Rotational crops in this section.

Rangeland

To control certain weeds, apply AAtrex 4L at 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft.

For control of annual grasses and weeds, apply AAtrex 4L at 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft.

Aerial application. In order to assure that spray will be controlled with the target area, when used according to label directions, make applications at a maximum height of 10 ft above vegetation, use a low drift nozzle at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph.

Establishment of perennial range grasses in West (CA, ID, NV, OR, UT, WA). Broadcast 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft.

Renovation of existing stands of perennial range grasses

Central Great Plains (CO, KS, MT, NE, ND, SD, WY). Broadcast 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft.

Southern Great Plains (OK, TX). Broadcast 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft.

West (CA, ID, NV, OR, UT, WA). Broadcast 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft.

Bluegrass and intermediate wheatgrass may be injured by AAtrex 4L at recommended rates.

Note. Do not cut or feed range grass hay. Do not graze treated areas within 12 months following last application. In 3 months following last application, AAtrex 4L may be applied only once per year.

Warm season perennial range grasses — Midwest

Switchgrass and Big Bluestem. For control of these weeds, listed under AAtrex 4L Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

Use only on loam, silty loam, silty clay loam, clay loam, and silty clay soils with at least 1 percent organic matter.

New seeding. Broadcast 4 pt/A after planting but before weeds emerge. Prepare a good firm seedbed. Plant 1/2 inch deep with a grass and grain preferred method, or a conventional drill. If a conventional drill is used on prepared seedbeds, remove all tines on the disk openers. For best results, cut back in row after planting. Control weeds that escape in July or August. Avoid 2 pt/A switchgrass or big bluestem seedlings.

Established stands. Broadcast 4 pt/A in April or early May, before weed emergence.

Note. Do not cut for hay. Do not graze treated areas within 12 months following last application. In 3 months following last application, AAtrex 4L may be applied only once per year.

Rotational crops. See Rotational crops in this section.

Perennial Ryegrass Grown for Seed (Pacific Northwest Only)

For control of annual ryegrass and other grasses, apply AAtrex 4L at 1.6 to 2.0 pt/A in a minimum upward distance of 400 ft.

Precautions. 1. Apply only to perennial ryegrass from which seed is to be harvested. 2. Do not apply to ryegrass more than 2 years in succession.

Note. Do not graze treated, and within 10 days after application, do not plant treated, and to other crops for 12 months.

Established Orchardgrass Grown for Seed (Pacific Northwest Only)

AAtrex 4L may be used to control annual grasses and weeds, listed under AAtrex 4L Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

Precautions. 1. Apply only to orchardgrass from which seed is to be harvested. 2. Do not apply to orchardgrass more than 2 years in succession. 3. Some yellowing or stunting can occur.

Note. Do not graze treated, and within 6 months of application, do not plant treated, and to other crops for 12 months.

Sugarcane

For control of many broadleaf and grass weeds, including amaranths, crabgrass, and weeds, listed under AAtrex 4L Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

Note. Do not graze treated, and within 6 months of application, do not plant treated, and to other crops for 12 months.

Aerial application. In order to assure that spray will be controlled with the target area, when used according to label directions, make applications at a maximum height of 10 ft above vegetation, use a low drift nozzle at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph.

Florida. For control of emerged perennials, weeds, listed under AAtrex 4L Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

For control of emerged perennials, weeds, listed under AAtrex 4L Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

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

2. Apply 1.3 times, as needed, at 4 pt/A, to control sugarcane and weeds. Treat before weeds exceed 1.5 inches in height.

Texas

Use AAtrex 4L for control of annual grasses and weeds, listed under AAtrex 4L Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

Apply 8 pt/A of AAtrex 4L preemergence. Follow with one or two applications, as needed, at 4 pt/A postemergence to sugarcane and weeds.

For best results when weeds are emerged, add a nonionic surfactant at a concentration of 4 qt/100 gal to the spray and apply before weeds exceed 1.5 inches in height.

Precautions. 1. Injury to sugarcane may occur when under moisture stress when soil is of low absorptive capacity, or when and is first dropped in sugarcane. 2. Do not apply after use in 3. Do not apply more than 20 pt/A to any one crop of sugarcane.

Turf Grasses for Sod

St. Augustinegrass, Centipedegrass, and Zoysia Grass

Broadcast 4.8 pt/A according to soil texture to control those weeds, listed under AAtrex 4L Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, or Preplant Incorporated, or Preemergence.

Muck or peat	8 pt	Old beds, within 2 days after finishing sod
		New beds, 3-4 days after spreading and plugging
Sandy soil	4 pt	Old beds, within 2 days after finishing sod
		New beds, 7-10 days after spreading and plugging

1. Weeds that escape in July or August. Avoid 2 pt/A switchgrass or big bluestem seedlings.

Precautions. 1. Do not apply within 30 days prior to cutting sod. 2. Do not apply in combination with surfactants or other spray additives, or in any way, to turf grass.

Macadamia Nuts

For control of emerged perennials, weeds, listed under AAtrex 4L Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

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4L

Herbicide

For season-long weed control in corn and sorghum

For weed control in certain other crops, in noncrop areas, and industrial sites

Active Ingredients

Atrazine 2-chloro-4-ethylamino-6-isopropylamino-s-triazine 40.8%
Related compounds 2.2%

Inert Ingredients 57.0%

Total 100.0%

See directions for use in attached booklet

EPA Reg. No. 100-497

EPA Est. 100-LA-1

AAtrex® trademark of CIBA-GEIGY for atrazine

1984 CIBA-GEIGY Corporation

2½ Gallons

U.S. Standard Measure

AAtrex 4L contains 4 lbs. active ingredients per gallon.

Shake well before using.

Use entire contents at one time

Keep Out of Reach of Children.

Caution

Precautionary Statements

Hazards to Humans and Domestic Animals

Read label carefully. Do not use if you are pregnant or nursing. Do not use if you are allergic to any of the ingredients. Do not use if you have a history of asthma or other respiratory disease.

First Aid: If swallowed, drink water. If inhaled, get fresh air. If on skin, wash with soap and water. If in eyes, flush with water. If on clothing, remove clothing and wash skin.

Do not use in areas where children or domestic animals may be present. Do not use in areas where food crops are growing.

Note to Physician: This product contains atrazine, which may cause birth defects. If you are pregnant or nursing, do not use this product.

Environmental Hazards

This product is highly toxic to fish and aquatic life. Do not use in areas where fish or other aquatic life may be present.

Agricultural Division

CIBA-GEIGY Corporation
Greensboro, North Carolina 27419
CGA 7L38R 024

CIBA-GEIGY