ACCEPTED
MAR 13 1985
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 100-585

Pm 25
100-585

Supplemental Labeling

AAtrex® Nine-0® Herbicide
EPA Reg. No. 100-585

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

AAtrex Nine-0 Applied Alone - Corn or Grain Sorghum

Preplant Surface-Applied, Preplant Incorporated, or Preemergence (or Postemergence at 2.2 lb/A with oil)

Broadleaf and Grass Weeds Controlled

barnyardgrass (watergrass)
giant foxtail
green foxtail
large (hairy) crabgrass
wild oats
witchgrass (*Panicum capillare*)
yellow foxtail

cocklebur
groundcherry
jimsonweed
kochia
lambsquarters
annual morningglory
mustards
nightshade
pigweed
purslane
ragweed
sicklepod
velvetleaf (buttonweed)

Turfgrass for Fairways, Lawns, Sod Production* and Similar Areas

*In states other than Florida. For use on turfgrass for sod in Florida, see "Turfgrasses for Sod (Florida only)" section above.

Bermudagrass, Centipedegrass, St. Augustinegrass, and Zoysia Grass

Apply AAtrex Nine-0 after October 1 before emergence of winter annual weeds for control of annual bluegrass, burclover, carpetburweed, chickweed, corn speedwell, henbit, hop clover, and spurweed. AAtrex Nine-0 will control annual bluegrass even if it is emerged at time of treatment. For control of summer annual weeds listed in the preemergence portion of the AAtrex Nine-0 Applied Alone - Corn or Grain Sorghum section of this label, also apply AAtrex Nine-0 in late winter before the weeds emerge. Apply in a minimum of 15 gals. of water per acre or 1 gal. per 1,000 sq. ft.

Where annual bluegrass is the major weed, use 1.1 lbs. of AAtrex Nine-O per acre (0.4 fl. oz. per 1,000 sq. ft.). Use 2.2 lbs. per acre (0.8 fl. oz. per 1,000 sq. ft.) for control of the other weeds named above. Do not exceed 1.1 lbs. 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 lbs. 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.

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

Refer to the AAtrex Nine-O product label for further directions, precautions, and limitations.

This label must be in the possession of the user at the time of application.

AAtrex® trademark of CIBA-GEIGY for atrazine

Nine-O® trademark of CIBA-GEIGY

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Agricultural Division
CIBA-GEIGY Corporation
Greensboro, North Carolina 27419

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30610

AAtrex® Nine-O®

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	95.5%
Related compounds	4.5%
Inert Ingredients:	19.8%
Total:	100.0%

AAtrex Nine-O is a water dispersible granule

Keep Out of Reach of Children.

Caution

See additional precautionary statements at end of label booklet.

See directions for use inside booklet.

EPA Reg. No. 100-585/EPA Est. 100-LA-1

AAtrex® trademark of CIBA-GEIGY for atrazine

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CGA 7L101C 084

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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 THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

Do not apply this product 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 Nine-O 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 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 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 noncorrosive to equipment and metal surfaces, nonflammable, and has low electrical conductivity.

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

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap, as crop injury may result.

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

Note: 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

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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:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

Aerial application: Use aerial application only where broadcast applications are specified. Apply in a minimum of 1 gal of water for each 1 lb of AAtrex Nine-O 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 broadcast 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 suspension or fluid fertilizers as serious compatibility problems are more likely to occur. Commercial application equipment may improve compatibility in some instances. The following test assumes a spray volume of 25 gal per acre. For other spray volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

1. Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.
2. To one of the jars add ¼ tsp or 1.2 milliliters of a compatibility agent approved for this use, such as Compex® or Unite® (¼ tsp is equivalent to 2 pt per 100 gal 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 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 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 herbicides(s) in water before addition, or (B) add ½ of the compatibility agent to the fertilizer and the other ½ to the emulsifiable concentrate or flowable herbicide before addition to the mixture. If incompatibility is still observed, do not use 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 properly emulsified:

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 AAtrex 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: (1) Be sure sprayer is clean and not contaminated with any other materials, or crop injury or sprayer clogging may result. (2) Fill tank ¼ 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 bag into tank. (6) Continue filling tank until 50% full. Increase agitation if necessary to maintain surface action. (7) Add emulsifiers, 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.

Center pivot sprinkler application

Preemergence or postemergence: Apply AAtrex Nine-O alone, or in tank mixtures with other herbicides on this label 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 (30-36 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. Injecting a larger volume of a more dilute slurry per hour will secure more accurate calibration of metering equipment. Maintain sufficient agitation to keep herbicide in suspension. Meter slurry into irrigation water during active period. Apply in ½-1 inch of water. Use the lower water volume on coarser textured soils, the higher volume on finer textured soils. More than 1 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 well 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 shutoff. (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.

AAtrex Nine-O Applied Alone — Corn or Grain Sorghum

Preplant Surface-Applied, Preplant Incorporated, or Preemergence (or Postemergence at 2.2 lb/A with Oil)

Broadleaf and Grass Weeds Controlled

barnyardgrass (watergrass)	cocklebur	mustards
giant foxtail	groundcherry	nightshade
green foxtail	jimsonweed	pigweed
large (hairy) crabgrass	kochia	purslane
wild oats	lambsquarters	ragweed
witchgrass (*Panicum capillare*)	annual morningglory	velvetleaf (buttonweed)
yellow foxtail		

Postemergence with Emulsifiable Oil or Oil Concentrate in Water (at 1.3 lb/A)

Broadleaf Weeds Controlled

annual morningglory	lambsquarters	ragweed
cocklebur	mustards	smartweed
jimsonweed	pigweed	wild buckwheat
		velvetleaf

Corn

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 ⅔ the recommended rate of AAtrex 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.

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AAtrex® Nine-O®

Table 1: Broadleaf and Grass Weed Control on Corn*

Soil texture	Broadcast rate/A
COARSE Sand, loamy sand, sandy loam	2.2 lb
MEDIUM Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter	2.6 lb
FINE Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with medium to high organic matter, and clay (including the dark prairie soils of the Corn Belt)	3.3 lb
Peat, muck and high organic clay (apply postemergence only)	3.3 lb

**Broadleaf control (eastern CO, western KS, western NE, 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 lb/A, either preplant surface, 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 1.1-2.2 lb/A before weeds are 1.5 inches tall and before corn is 20-30 inches tall. When using nitrogen solutions, direct the spray to lower 3-4 inches of cornstalks 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	½-1 qt/A
Petroleum-derived oil	1 gal/A	2 qt/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 these weeds listed under Preplant Incorporated and Preemergence, broadcast 2.2 lb/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 these weeds listed under Postemergence with emulsifiable oil or oil concentrate in water, broadcast 1.3 lb/A plus emulsifiable oil or oil concentrate before pigweed and lambsquarters reach 6 inches in height and before all other weeds reach 4 inches in height. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

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

Problem weeds

Yellow nutsedge and Canada thistle: This product will control 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 an economic problem. If yellow nutsedge or Canada thistle regrow following last application, cultivate once.

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 2 or 4.

1. Broadcast 2.2 lb/A plus 1 gal of emulsifiable oil or 1 qt of oil concentrate. Apply 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 lay-by (20-30 inches), 10-20 days after the first application.
2. Broadcast 2.2 lb/A preplant incorporated for control of yellow nutsedge, or broadcast 2.2 lb/A during or shortly after planting, but prior to crop or weed emergence for control of Canada thistle. Follow with an application of 2.2 lb/A plus 1 gal of emulsifiable oil or 1 qt of oil concentrate after corn and weeds emerge, but before yellow nutsedge or Canada thistle reaches a height of 6 inches.
3. Broadcast 4.4 lb/A plus 1 gal of emulsifiable oil or 1 qt of oil concentrate after crop emerges, but prior to lay-by (20-30 inches). Apply after yellow nutsedge and Canada thistle emerge, but before yellow nutsedge is 3 inches tall or Canada thistle is 6 inches tall.
4. Broadcast 4.4 lb/A before, during, or shortly after planting, but before crop or weed emergence (yellow nutsedge control only).

Note: Do not use emulsifiable oil or oil concentrate when corn is wet or under stress, especially when using 4.4 lb/A of this product, as crop injury may occur. See "Precautions for applications with emulsifiable oil or oil concentrate in water" for additional directions.

Quackgrass control on land going into corn production:
Split application: Broadcast 2.2 lb/A in fall or spring. Plow 1-3 weeks later. Apply a second application at 2.2 lb/A in spring before, during, or after planting, but before weeds are 1.5 inches high. This split application will control quackgrass and most annual broadleaf and grass weeds.

Single application: Broadcast 3.3-4.4 lb/A in fall or spring. Plow 1-3 weeks later.

Tank Mixtures for Corn

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

Dual® (metolachlor)	Lasso® or Lasso EC (alachlor)
Dual + paraquat	Lasso or Lasso EC + Roundup
Dual + Roundup® (glyphosate)	Lasso or Lasso EC + paraquat
Dual + Princep®	Paraquat
Dual + Princep + paraquat	Princep
Dual + Princep + Roundup	Princep + paraquat
Sutan® or Ramrod® (prepachlor)	Princep + Roundup
	Roundup
	Sutan +®

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

Note: When the labels of the above herbicides refer to atrazine 80W, use equivalent rate of AAtrex Nine-O. One lb of 80W equals 0.9 lb Nine-O.

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

In addition to the weeds listed under AAtrex Nine-O Applied Alone — Corn and Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence, this combination also controls crabgrass, fall panicum, and carpetweed.

Broadcast tank mix before planting, at planting, or after planting, but before crop and weeds emerge, at rates in Table 2. Use the 1:1 ratio for control of most weeds. Use the 1:2 ratio for expected heavy infestations of crabgrass and fall panicum. Cultivate shallowly if weeds develop.

Preplant Surface-Applied: Use on medium- and fine-textured soils with minimum-tillage or no-tillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, and WY. Apply ⅔ the recommended rate of AAtrex and Princep shown in Table 2 for the soil textures 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. Refer to the AAtrex 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 Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

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

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

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

Refer to Corn sections of the label and to Princep 80W, Princep Caliber 90, or Princep 4L (4LC) labels for further directions, limitations, and precautions.

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Table 2: Tank Mixtures with Princep on Corn

Soil texture	Broadcast rate/A			
	1:1 Ratio*		1:2 Ratio**	
	This product	Princep 80W[1]	This product	Princep 80W[1]
Sand, loamy sand, sandy loam	1.1 lb	1.25 lb	0.73 lb	1.67 lb
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter	1.3 lb	1.5 lb	0.88 lb	2 lb
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with medium to high organic matter, and clay (including dark prairie soils of the Corn Belt)	1.6 lb	1.8 lb	1.07 lb	2.4 lb

*For control of most weeds.

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

[1] When using Princep Caliber 90 or Princep 4L (4LC), use equivalent rates. One lb of Princep 80W equals 0.9 lb of Princep Caliber 90 or 1.6 pt of Princep 4L (4LC).

Princep 80W, Princep 4L (4LC), or Princep Caliber 90 plus Roundup: Use as tank mixture for preemergence and postemergence control of certain broadleaf and grass weeds where corn will be planted directly into a cover crop, established sod, or in previous crop residues. Refer to Roundup label for all directions, weeds controlled, 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, established sod, or in previous crop residues. 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 1.1-2.2 lb of this product plus 1.25-2.5 lb Princep 80W [or 2-4 pt Princep 4L(4LC), or 1.1-2.2 lb Princep Caliber 90] plus 1-2 pt paraquat in 20-60 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 pt 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, and paraquat.

Precautions for all applications to corn: (1) To avoid crop injury and illegal residues, do not apply more than 4.4 lb/A of this product per year. (2) Following harvest, plow (moldboard or disk-plow) and thoroughly till soil in fall or spring to minimize possible injury to spring-seeded rotational 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, or illegal residues may result.

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 3.3 lb/A of AAtrex Nine-O, or 3.3 lb/A of AAtrex Nine-O plus Princep Caliber 90 (or equivalent of another 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, KS, western MN, and NE, do not rotate to soybeans if the rate applied to corn or sorghum was more than 2.2 lb/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 calcareous 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-sudan Hybrids (Grain and Forage Types)

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 ⅔ 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 will be 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.

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

Table 3: Preplant Surface, Preplant Incorporated, and Preemergence Broadleaf and Grass Weed Control in Sorghum*

Soil texture	Organic matter	Broadcast rate/A
COARSE Sand, loamy sand, sandy loam	any level	DO NOT USE (except for preemergence use on bedded sorghum in AZ and CA)
MEDIUM AND FINE Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, silty clay, clay	less than 1%	
	1-1.5%	1.7-2.2 lb
	more than 1.5%	2.2-2.6 lb

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

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

Preemergence broadleaf weed control in furrow irrigated bedded sorghum (AZ and CA only): For preemergence control of many broadleaf weeds, broadcast 0.9-1.3 lb/A after bed preparation, during or after planting but before sorghum and weeds emerge and before the first furrow irrigation. Follow with several regular irrigations, making sure to thoroughly wet all soil.

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

Postemergence (Broadleaf and grass control): Apply at rate shown in Table 4 before weeds exceed 1.5 inches in height. Apply up to close-in.

Table 4: Postemergence Broadleaf and Grass Weed Control in Sorghum

Soil texture	Minimum sorghum height at treatment	Broadcast rate/A
Sand or loamy sand	DO NOT USE	
Sandy loam	See directions for postemergence broadleaf weed control.	
Silt loam to sandy clay loam	Completely emerged	2.2-2.6 lb
Otton and Pullman clay soil	6 inches	2.2-2.6 lb
Silty clay loam and finer textured soil	Completely emerged	3.3 lb

Postemergence broadleaf weed control with emulsifiable oil or oil concentrate in water: Broadcast 1.3 lb/A for control of many broadleaf weeds. 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 6-10 inches in height, but before it reaches boot stage. In all other areas, apply after sorghum reaches the 3-leaf stage. Add 1 gal of emulsifiable oil/A for ground application and 0.5 gal/A for aerial application, or add 1 qt of oil concentrate for ground application. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

For the list of weeds controlled, see AAtrex Nine-O Applied Alone — Corn or Grain Sorghum — Postemergence with Emulsifiable Oil or Oil Concentrate in Water.

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

Postemergence broadleaf weed control with surfactant (CO, western KS, NM, OK, TX, and desert regions of AZ and CA only): Broadcast 1.3 lb/A plus 0.75-1.5 pt of surfactant after sorghum reaches 6 inches in height, but before weeds exceed 1.5 inches in height. Apply only on sandy loam and finer textured soil.

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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 (ridged 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) Following harvest, plow (moldboard or disk-plow) and thoroughly till soil in fall or spring to minimize possible injury to spring-seeded rotational crops, regardless of rate used. (4) Injury may occur if both this herbicide, preplant surface, preplant incorporated, or preemergence, and an at-planting systemic insecticide applied in-furrow are used.

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

Rotational crops: See "Rotational crops" at end of Corn section.

Tank Mixtures for Grain Sorghum

Igran® 80W: Use as tank mixture for control of certain broadleaf and grass weeds in grain sorghum. Refer to Igran 80W label for all directions, weeds controlled, precautions, and limitations.

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

Winter Weed Control in Texas

For postemergence control of winter weeds only, such as henbit, seedling dock, and annual thistle on fall bedded land in the Gulf Coast and Blacklands of Texas. Apply 0.9-1.1 lb/A postemergence to the weeds in November or December to land that will be planted to corn, grain sorghum, or forage sorghum the following spring. For best results, add a suitable surfactant, such as X-77, at the rate of 0.5% of the spray volume, an emulsifiable oil at the rate of 1.0% of the spray volume, or an oil concentrate at the rate of 1 qt per acre.

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

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

AAtrex Alone — Chemical Fallow

Wheat-Sorghum-Fallow: To control annual broadleaf and grass weeds following wheat harvest and in the following sorghum crop when grown under minimum tillage, broadcast 3.3 lb/A to wheat stubble immediately following wheat harvest. If weeds are present at application, remove them with a sweep plow or other suitable implement after application, or use an approved contact herbicide before or after the application of AAtrex. Plant sorghum into wheat stubble the following spring with minimum soil disturbance. Use a surface planter or a planter leaving a shallow furrow. If weeds are present at planting, remove them with a sweep plow or other suitable implement before planting.

For the list of weeds controlled, see AAtrex Nine-O Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

Precautions: (1) Use only on silt loam or finer textured soil, or crop injury may result. (2) 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, cheat), 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 preemergence control of cheatgrass (downy brome, cheat), 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 lb/A 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)

Igran 80W: Use as tank mixture for control of certain broadleaf and grass weeds in wheat-sorghum-fallow or wheat-corn-fallow rotations. Refer to Igran 80W label for directions, weeds controlled, precautions, and limitations.

Paraquat: If weeds are present at application, a tank mix with paraquat may be used. Broadcast 3.3 lb of AAtrex Nine-O plus 1-2 pt of paraquat in 20-60 gal of water/A by ground equipment. Add 0.5-1 pt of a nonionic surfactant, such as X-77, per 100 gal of spray mixture. Add AAtrex to spray tank first and thoroughly mix with water. Then add paraquat, followed by surfactant. Use the 2 pt 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, NE, ND, SD, and WY)

Igran 80W: Use as tank mixture for control of certain broadleaf and grass weeds in wheat-fallow-wheat rotations. Refer to Igran 80W label for directions, weeds controlled, precautions, and limitations.

Paraquat: If weeds are present at application, a tank mix with paraquat may be used. Broadcast 0.5-1.1 lb of AAtrex Nine-O plus 1-2 pt of paraquat in 20-60 gal of water/A by ground equipment. Add 0.5-1 pt of a nonionic surfactant, such as X-77, per 100 gal of spray mixture. Add AAtrex to spray tank first and thoroughly mix with water. Then add paraquat, followed by surfactant. Use the 2 pt 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 this product is used alone, use either an approved contact herbicide before or after treatment, or tillage after treatment.

Use tillage to control weeds which occur 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) To avoid crop injury, (1) Do not use on sand soil. (2) Do not treat eroded hillsides, caliche and rocky out-croppings, or exposed calcareous subsoil. (3) Do not treat soils of the Renohow and Canyon Series in western NE and adjoining counties in CO and WY. (4) Do not treat soils with calcareous surface layers. (5) Avoid spray overlap.

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

Aerial application: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft, using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when wind speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply AAtrex Nine-O alone by aircraft at a minimum upwind distance of 400 ft from sensitive plants, or apply AAtrex Nine-O + Igran 80W at a minimum upwind distance of 800 ft from sensitive plants. When applying AAtrex Nine-O + Igran 80W by aircraft, use a minimum of 5 gal of water per acre.

Proso Millet

For preplant incorporated or preemergence control of foxtails, kochia, common lambsquarters, redroot pigweed, Russian thistle, stinkgrass lambsquarters and spotted spurge, apply 0.9-1.1 lb/A on soils with less than 2% organic matter, or apply 1.1-2.2 lb/A on soils with 2% or higher organic matter.

Precaution: To avoid crop injury and illegal residues, make only one application per year.

Rotational crops: See "Rotational crops" in Corn section.

Rangeland

To control certain weeds, including cheatgrass (downy brome, cheat), common (annual) broomweed, little barley, medusahead, sagewort, and tumble mustard: Use lower rate where cheatgrass is major problem weed; use higher rate for other weeds.

Poisonous plants: Tansymustard, pigweeds, lambsquarters, tumble mustard, cocklebur, and Ridlonock are controlled at 1.1 lb/A. Other mustards (*Brassica* spp.), groundcherry (annual), broomweed, and threeawn or poverty grass (*Aristida* spp.) are partially controlled at 1.1 lb/A and controlled at 2.2 lb/A. Snoseweed and dogbane are partially controlled at 2.2 lb/A.

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 nontarget plants, apply AAtrex Nine-O by aircraft at a minimum upwind distance of 400 ft from sensitive plants.

Establishment of perennial range grasses in West (CA, ID, NV, OR, UT, WA): Broadcast 0.9-1.1 lb/A in fall after rains begin but before ground freezes. Perennial range grass may be seeded when rain begins the next fall following treatment. Plant in deep furrows such as those made by a deep furrow rangeland drill. Treated areas may be grazed 7 months after seeding. However, to provide sufficient time for establishment of desirable range grasses, treated areas should not be grazed until the fall following seeding.

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Renovation of existing stands of perennial range grasses

Central Great Plains (CO, KS, MT, NE, ND, SD, WY): Broadcast 0.8-1.1 lb/A in fall before ground freezes.

Southwest (AR, KS, LA, MS, NM, OK, TX): Apply 1.1 lb/A AAtrex Nine-O in early spring, before regrowth, to established rangeland or pasture species such as Asiatic (Old World) bluestems, little and big bluestems, buffalograss, switchgrass, and Indiangrass.

West (CA, ID, NV, OR, UT, WA): Do not graze area to be treated for 6 months prior to application. Broadcast 0.8-0.8 lb/A in fall before ground freezes.

Bluegrass and intermediate wheatgrass may be injured by this product at recommended rates.

Notes: To avoid illegal residues, (1) Do not apply more than once per year. (2) Apply only on neutral to acid soils. (3) Do not cut or feed range grass hay. (4) Do not graze treated areas within 3 months following spring application, or within 7 months following fall application. (5) Do not dump or spill product or dispose of container within reach of livestock.

Pure stands of Switchgrass and Big Bluestem (IA, IL, IN, KS, MN, MO, ND, NE, OH, SD, WI): For control of these weeds listed under AAtrex Nine-O Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

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

Establishment: Broadcast 2.2 lb/A after planting but before weeds and crop emerge. 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. Clip weeds that escape in July or August. Avoid clipping switchgrass or big bluestem seedlings.

Renovation of existing stands: Broadcast 2.2 lb/A in early spring before regrowth of the crop, and before weed emergence.

Notes: To avoid illegal residues, (1) Do not cut for hay. (2) Do not graze treated areas within 4 months following application at seeding or 3 months following application to established switchgrass or big bluestem. (3) Treat only once per year.

Rotational crops: See "Rotational crops" in Corn section. Do not plant small-seeded legumes the year following application, or injury may occur.

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 lb/A 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, blue grama, bromegrass, buffalo grass, crested wheatgrass, Indiangrass, little bluestem, side-oats grama, switchgrass, and Western wheatgrass. Apply only once per year. Temporary discoloration or other form of injury to the desirable perennial grasses may occur following application.

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

Perennial Ryegrass Grown for Seed (Pacific Northwest only)

For control of annual ryegrass and rattail fescue, broadcast 1.33 lb/A after first fall rain.

Precautions: To avoid crop injury. (1) Apply only to perennial ryegrass from which seed crop has been harvested. (2) Do not apply to ryegrass more than 2 years in succession.

Notes: To avoid illegal residues, (1) Do not graze treated land within 10 days after application. (2) Do not plant treated land to other crops for 10 months.

Established Orchardgrass Grown for Seed (Pacific Northwest Only)

AAtrex aids in control of annual ryegrass, rattail fescue, and volunteer orchardgrass. Broadcast 2.2 lb of AAtrex Nine-O in at least 15 gal of water to field which has been burned after first fall rain.

Precautions: Some yellowing or crop stunting can occur. To avoid crop injury, (1) Apply only to orchardgrass from which seed crop has been harvested. (2) Do not apply to orchardgrass more than two years in succession.

Notes: To avoid illegal residues, (1) Do not graze treated land within 6 months of application. (2) Do not plant treated land to other crops for 10 months.

Sugarcane

For control of many broadleaf and grass weeds, including amaranths, crabgrass, firewood, Flora's paintbrush, foxtails, junglerice and wiregrass, broadcast 2.2-4.4 lb/A of AAtrex Nine-O at time of planting or ratooning, but before sugarcane emerges. Broadcast serially in a minimum of 5 gal of spray per acre, or broadcast or band by ground equipment in a minimum of 20 gal per acre, unless indicated otherwise. One additional application may be made over the sugarcane as it emerges, and two additional applications may be made interline after emergence as directed spray. Repeat treatments, where needed, may be applied broadcast, band, or interline as suggested with the first 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 AAtrex are used, apply in a minimum of 1 gal of water for each 1 lb of product applied per acre.

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

Florida

For control of emerged pelitory weed: Apply 0.4-0.6 lb/A in at least 40 gal of water as a directed spray by ground equipment prior to close-in. Add 4 qt of surfactant for each 100 gal of spray. Thoroughly cover weed foliage.

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

1. Apply 4.4 lb/A preemergence. Follow with one or two applications, as needed, postemergence to sugarcane and weeds, at 2.2 lb/A. Treat before weeds exceed 1.5 inches in height.
2. Apply 1-3 times, as needed, at 2.2 lb/A postemergence to sugarcane and weeds. Treat before weeds exceed 1.5 inches in height.

Louisiana

For control of annual weeds during the summer fallow period, apply 2.2 lb/A to weed-free beds immediately after bed formation. Follow normal weed control program after planting.

Precautions: To avoid crop injury, (1) Do not apply more than 11 lb/A to any one crop of sugarcane. (2) If making a 2.2 lb/A application during the summer fallow period, do not exceed 0.8 lb/A during the remainder of the growing season, or illegal residues may result.

Texas

Use AAtrex Nine-O for control of barnyardgrass, pigweed, purslane and sunflower, in plant or ratoon sugarcane.

Apply 4.4 lb/A of AAtrex Nine-O preemergence. Follow with one or two applications, as needed, at 3.3 lb/A postemergence to sugarcane and weeds.

For best results when weeds are emerged, add a nonionic surfactant at a concentration of 2 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 adsorptive capacity, or when land is first cropped to sugarcane. (2) Do not apply after close-in. (3) Do not apply more than 11 lb/A to any one crop of sugarcane, or crop injury may result.

Turf Grasses for Sod (Florida only)

St. Augustinegrass, Centipedegrass, and Zoysia Grass

Broadcast 2.2-4.4 lb/A according to soil texture to control these weeds listed under AAtrex Nine-O Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

Muck or peat	4.4 lb	Old beds: Within 2 days after lifting sod
		New beds: 3-4 days after sprigging or plugging
Sandy soil	2.2 lb	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 lb/A on muck or peat, or 1.1 lb/A on sandy soil.

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

Macadamia Nuts

For preemergence control of many broadleaf and grass weeds, including crabgrass, foxtail, wiregrass, Flora's paintbrush, spanishneedles, and firewood, broadcast 2.2-4.4 lb/A before harvest and before weeds emerge. Repeat as necessary. Do not spray when nuts are on ground during harvest period. Do not apply by air.

Pineapple

For control of purslane, spanishneedles, annual grasses, annual bindweed, ageratum, amaranth, rattleweed, Flora's paintbrush, firewood, sponge, indigo, and papala, apply up to 7.1 lb/A as a blanket spray immediately after planting or following harvest. Make additional blanket or interspace applications of up to 1.7 lb/A at 1-2 month intervals as needed, prior to differentiation. Apply in 20-40 gal of water/A to assure thorough coverage.

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Precautions: (1) Do not apply more than 22.2 lb/A per cycle, or crop injury or illegal residues may result. (2) Repeated monthly applications to plant foliage may slow plant growth and delay fruiting.

Note: Do not apply within 45 days of fruit harvest, or forage harvest if forage is to be fed to livestock, or illegal residues may result.

Guava

Use only on established plantings which are at least 10 months old. Apply as a directed spray at 2.2–4.4 lb/A of AAtrex Nine-O in 20-50 gal of spray mix preemergence or early postemergence to weeds. When applying postemergence, the use of a surfactant and greater spray volume (50-100 gal 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.

Notes: To avoid illegal residues, (1) Do not allow spray to contact foliage or fruit. (2) Do not apply more frequently than at 4 month intervals. (3) Do not apply more than 8.8 lb of AAtrex Nine-O per year.

Conifers

For control of annual broadleaf and grass weeds prior to transplanting, after transplanting or in established conifers (including Douglas fir, grand fir, noble fir, white fir, Austrian pine, bishop pine, Jeffrey pine, knobcone pine, loblolly pine, lodgepole pine (shore pine), monterey pine, ponderosa pine, Scotch pine, slash pine, blue spruce, and Sitka spruce): Broadcast 2.2–4.4 lb in a minimum of 5 gal of water per acre by air or 10 gal by ground before weeds are 1.5 inches tall. Apply to established trees between fall and early spring while trees are dormant. For new transplants, apply during or soon after transplanting. For applications prior to transplanting, allow sufficient precipitation to activate AAtrex before transplanting. In areas where spring and summer rainfall is inadequate to activate AAtrex, apply during fall prior to spring transplanting.

For the list of weeds controlled, see AAtrex Nine-O Applied Alone — Corn or Grain Sorghum — Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

Quackgrass control: Broadcast 4.4 lb in a minimum of 5 gal of water per acre by air or 10 gal by ground between fall and early spring while trees are dormant and before quackgrass is more than 1.5 inches tall.

Precautions: Temporary injury to trees may occur following the use of AAtrex on coarse-textured soil. To avoid crop injury, (1) Do not apply to seedbeds. (2) Apply only once per year.

Note: Do not graze treated areas, or illegal residues may result.

Aerial application: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft 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 AAtrex Nine-O by aircraft at a minimum upwind distance of 400 ft from sensitive plants.

Nonselective Weed Control on Noncrop Land

This product provides long-term weed control on industrial sites, highway medians and shoulders, railroad rights-of-way, lumberyards, petroleum tank farms, and in noncrop areas on farms, such as around buildings, equipment and fuel storage areas, along fences, and lanes. Do not use near adjacent desirable plants or in greenhouses, or injury may occur.

Apply before or soon after weeds begin growth. Make postemergence applications when weeds are young and actively growing. Use the higher rates on fine clay and muck soils. Use sufficient water to assure thorough coverage. Use at least 1 gal of water for each pound of product; use more if practical.

Note: Do not allow livestock to graze treated areas, or illegal residues may result.

Annual broadleaf and grass weeds (including barnyardgrass, cheatgrass, crabgrass, lambsquarters, foxtail, ragweed, puncturevine, and turkey mullein): Broadcast 5.3-11.1 lb/A.

Hard-to-kill annual and many perennial broadleaf and grass weeds (including bluegrass, burdock, Canada thistle, dogfennel, orchardgrass, plantain, quackgrass, purpletop, redtop, and smooth brome): Broadcast 11.1-22.2 lb/A.

Hard-to-kill biennial and perennial weeds (including bullthistle and sowthistle): Broadcast 22.2-44.4 lb/A.

For longer residual control in regions of high rainfall and a long growing season, broadcast 22.2-44.4 lb/A.

For small areas, 4 oz per 1,000 sq ft is equivalent to 11.1 lb/A.

Tank Mixture with Princep 80W or Princep Caliber 90

Use only for long-term control of broadleaf and grass vegetation in areas listed in respective labels. Do not use on cropland, or near desirable plants, or in greenhouses, or injury may occur.

This tank mixture has similar activity and moisture requirements as described under above General Information section, except that Princep provides preemergence control only.

For best results, apply to the soil shortly before weed growth begins or apply postemergence to young, actively growing plants not over 6 inches tall.

Use sufficient water for thorough soil and plant coverage. Use at least 1 gal of water for each lb of tank mixture herbicide. More water may be needed for heavy weed growth. Maintain agitation during mixing and application.

Broadcast tank mixtures at the following rates to control those weeds listed. Use the lower rates for light weed infestations and the higher rates for heavier infestations.

Use 2.9–5.6 lb/A of this product plus 3.25–6.25 lb/A of Princep 80W (or 2.9-5.6 lb/A of Princep Caliber 90) to control weeds listed in the General Information and the several crop sections of the Princep 80W and Princep Caliber 90 labels.

The above rates will also control California burclover, *Orthocarpus purpurascens*, ripgut brome, smooth catsear, summer lupine, and turkey mullein.

Use 5.6 lb/A of this product plus 6.25 lb/A of Princep 80W (or 5.6 lb/A of Princep Caliber 90) to control burdock, daisy fleabane, goldenrod, horseweed, little mallow, milkweed, orchardgrass, quackgrass, Russian thistle, shortpod mustard, wild barley, and wood sorrel.

Use 11.1 lb/A of this product plus 12.5 lb/A of Princep 80W (or 11.1 lb/A of Princep Caliber 90) to control eveningprimrose, shepherds-needle, and tall fescue.

For small areas, ½ cup (4 oz) of this product per 1,000 sq ft is equivalent to 11.1 lb/A; ⅔ cup (4.5 oz) of Princep 80W or ½ cup (4 oz) of Princep Caliber 90 per 1,000 sq ft is equivalent to 12.5 lb/A of Princep 80W or 11.1 lb/A of Princep Caliber 90, respectively.

Tank Mixture with Diuron 80W

Use only for long-term control of broadleaf and grass vegetation in areas listed in respective labels. Do not use on cropland, or near desirable plants, or in greenhouses, or injury may occur.

This tank mixture has activity and moisture requirements similar to that described in above General Information section and in the diuron 80W label. For best results, apply to soil shortly before weed growth begins or apply to young, actively growing plants not over 6 inches tall. For increased contact activity, add a surfactant, such as Surfactant WK, at 2 qt per 100 gal of spray volume. Add surfactant as last ingredient to nearly full spray tank.

Use sufficient water for thorough ground and plant coverage. Use at least 1 gal of water for each lb of tank mixture. More water may be needed for heavy weed growth. Maintain agitation during mixing and application.

Broadcast tank mixtures at the following rates to control those weeds listed. Use the lower rates for light weed infestations and the higher rates for heavier infestations.

Use 4.4–5.6 lb/A of this product plus 5–6.25 lb/A of diuron 80W, for example, Karmex® 80W, to control weeds listed in crop and noncrop Directions for Use on the diuron 80W label.

Use 5.6 lb/A of this product plus 6.25 lb/A of diuron 80W to control broomsedge, buckhorn plantain, Carolina geranium, chicory, downy brome, eveningprimrose, fleabane, goldenrod, horseweed, lespedeza, little mallow, orchardgrass, Russian thistle, shortpod mustard, tall fescue, wild barley, and wood sorrel.

Use 11.1 lb/A of this product plus 12.5 lb/A of diuron 80W to control alfalfa, black nightshade, leafy spurge, and shepherds-needle.

To determine compatibility of tank mixtures, thoroughly mix products in a small container at the ratio of 1 qt of water to 1.75 oz of this product plus 2 oz of diuron 80W. Let stand for 5 minutes. If the mixture remains mixed, or can be remixed readily, it is compatible and can be sprayed.

For small areas, ½ cup (4 oz) of this product or 1.25 cups of diuron 80W, such as Karmex 80W, per 1,000 sq ft is equivalent to 11.1 lb/A of this product or 12.5 lb/A of diuron 80W.

Storage and Disposal

Pesticide Storage and Disposal

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

Container Disposal

Completely empty bag into application equipment. Dispose of empty bag in a sanitary landfill or by incineration, or by open burning, if allowed by state and local authorities. If burned, keep out of smoke.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire or other emergency, call (800) 292-7100 day or night.

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Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Do not breathe dust or spray mist. Avoid contact with eyes, skin or clothing.

First Aid: If swallowed, contact your local poison control center, hospital, or physician. If the patient is unconscious, maintain breathing and heartbeat (cardiopulmonary resuscitation). If the patient is conscious and alert, induce vomiting (syrup of ipecac or stimulate the back of the throat with a finger). NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON!!

In case of skin contact, remove contaminated clothing and wash with soap and water. In case of contact with eyes, flush with plenty of water. Get medical attention if irritation persists.

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

Environmental Hazards

Do not apply directly to any body of water. Do not apply where runoff is likely to occur. Do not contaminate water by cleaning of equipment or disposal of wastes. Do not apply when weather conditions favor drift from treated areas.

AAtrex® trademark of CIBA-GEIGY for atrazine

Banlan® trademark of Dow Chemical Co. for propachlor

Caliber® trademark of CIBA-GEIGY

Compal® trademark of KALO Agricultural Chemicals, Inc.

Concep® trademark of CIBA-GEIGY

Dual® trademark of CIBA-GEIGY for metolachlor
U.S. Patent No. 3,547,730

Igran® trademark of CIBA-GEIGY for terbutryn

Karmex® trademark of E. I. duPont de Nemours & Co. for diuron

Lasso® trademark of Monsanto Company for alachlor

Nine-O® trademark of CIBA-GEIGY

Princep® trademark of CIBA-GEIGY for simazine

Ramrod® trademark of Monsanto Company for propachlor

Roundup® trademark of Monsanto Company for glyphosate herbicide

Sutan+® trademark of Stauffer Chemical Co. for butylate

Unifor® trademark of Hopkins Agricultural Chemical Co.

X-77® trademark of KALO Agricultural Chemicals, Inc.

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