

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JUL 8 1993

Mary Long
Administrative Assistant
Van Diest Supply Co.
Highway 20 West
Box 610
Webster City, IA 50595-0610

Subject: Cornbelt Atrazine 90DF
EPA Reg. No. 11773-13
Label Amendment
Your Submission Dated June 24, 1993

Dear Ms. Long:

The above mentioned amendment submitted in connection with registration under FIFRA is acceptable. Changes in the Statement for Restricted Use Classification and the Environmental Hazards Statement conform to the requirements outlined in PR Notice 93-1 and PR Notice 93-3.

This acceptance of your label does not relieve you of any obligation to comply with the Worker Protection Standards (WPS). Under the WPS labeling regulations at 40 CFR part 156, subpart K, section 156.200(c)(3), you are prohibited from distributing or selling any product within the scope of the WPS requirements after April 21, 1994, without amended labeling accepted by the Agency.

A stamped copy of your label is enclosed for your records.

Sincerely,

Robert J. Taylor
Product Manager (25)
Fungicide-Herbicide Branch
Registration Division (H7505C)

Enclosure

CONCURRENCES

SYMBOL	H7505C						
SURNAME	[Signature]						
DATE	7-8-93						

**RESTRICTED USE PESTICIDE
DUE TO GROUND AND SURFACE WATER CONCERN**

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

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

**CORNBELT
ATRAZINE 90DF**

Herbicide for season-long weed control in corn, sorghum and certain other crops.

ACCEPTED
with COMMENTS
in EPA Letter Dated
JUL 8 1993

ACTIVE INGREDIENTS:

Atrazine: 2-chloro-4-ethylamino-6-isopropylamino-s-triazine.....	85.5%
Related compounds.....	4.5%
INERT INGREDIENTS.....	10.0%
Total.....	100.0%

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

Cornbelt Atrazine 90DF is a water dispersible granule. 11773-13

EPA Reg. No. 11773-13

EPA Est. No. 11773-IA-1

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

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

STATEMENT OF PRACTICAL TREATMENT

If swallowed: Call a physician or Poison Control Center immediately. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger, or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.

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

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

If in eyes: Flush eyes with plenty of water. Call a physician if irritation persists.

NOTE TO PHYSICIAN

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

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS (& DOMESTIC ANIMALS)

Harmful if swallowed, inhaled, or absorbed through skin. Do not breathe dust or spray mist. Avoid contact with eyes, skin or clothing. Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

Personal Protective Equipment:

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

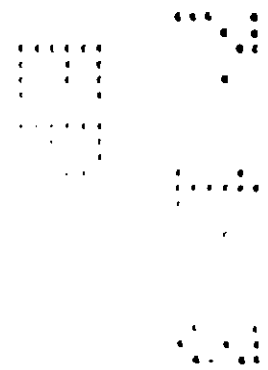
- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as neoprene
- Chemical-resistant footwear plus socks

Mixers and loaders must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, such as neoprene
- Chemical-resistant footwear plus socks
- Protective eyewear

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

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



User Safety Recommendations:

Users should:

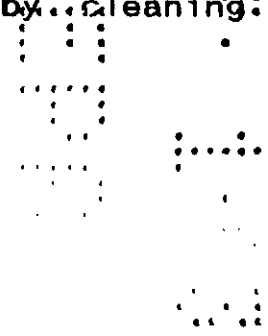
- . Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- . Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- . Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon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

ENVIRONMENTAL HAZARDS

Atrazine can travel (seep or leach) through soil and can enter ground water which may be used as drinking water. Atrazine has been found in ground water. Users are advised not to apply Atrazine to sand and loamy sand soils where the water table (ground water) is close to the surface and where these soils are very permeable, i.e., well-drained. Your local agricultural agencies can provide further information on the type of soil in your area and the location of ground water.

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

This pesticide is toxic to aquatic invertebrates. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply where runoff is likely to occur. Do not apply when weather conditions favor drift from treated areas. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by cleaning of equipment or disposal of wastes.



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 a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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

AGRICULTURAL USE REQUIREMENTS

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

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

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

- Coveralls
- Chemical-resistant gloves, such as neoprene
- Chemical-resistant footwear plus socks

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

Container Disposal

Completely empty bag into application equipment. 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 Chemtrec at (800) 424-9300.

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 Van Diest Supply Co. or the Seller. All such risks shall be assumed by the Buyer.

Van Diest Supply Co. 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. Van Diest Supply Co. makes no other express or implied warranty of Fitness or Merchantability or any other express or implied warranty. In no case shall Van Diest Supply Co. or the Seller be liable for consequential, special, or indirect damages resulting from the use or handling of this product. Van Diest Supply Co. 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 Van Diest Supply Co.

GENERAL INFORMATION

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

Following many years of continuous use of this product and chemically related products, biotypes of some of the weeds listed on this label have been reported which cannot be effectively controlled by this and related herbicides. Where this is known or suspected, and weeds controlled by this product are expected to be present along with resistant biotypes, we recommend the use of this product in combinations or in sequence with other registered herbicides which are not 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: VAN DIEST SUPPLY CO. does not recommend applications in combination with other herbicides or oils, except as specifically described on the label or in literature published by Van Diest Supply Co.

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 gals. 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 gals./minute/100 gals. 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:

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

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 Cornbelt Atrazine 90DF applied per acre. For postemergence treatments on corn and sorghum, apply recommended rate in a minimum of 2 gals. of water/A. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

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

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

volumes, make appropriate changes in the ingredients. Check compatibility using this procedure:

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

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

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 herbicide(s) in water before addition, or (B) add 1/2 of the compatibility agent to the fertilizer and the other 1/2 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 Cornbelt Atrazine 90DF 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 1/4 full with clean water, nitrogen solution, or complete liquid fertilizer. (3) Start agitation. (4) Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface. (5) Pour product directly from bag into tank. (6) Continue filling tank until 90% full. Increase agitation if necessary to maintain surface action. (7) Add emulsifiable oil, oil concentrate, or tank mix herbicide(s) after this product is thoroughly suspended. (8) Finish filling tank. (9) Empty tank as completely as possible before refilling to prevent buildup of oil or emulsifiable concentrate residue. Maintain agitation to avoid separation of materials. (10) If an oil 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.

Rotational Crops - All Uses: (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) In the High Plains and Intermountain areas of the West where rainfall is sparse and erratic or where irrigation is required, use only when corn or sorghum is to follow corn or sorghum or when a crop of untreated corn or sorghum is to precede other rotational crops. (4) In eastern parts of the Dakotas, KS, western MN, and NE, do not rotate to soybeans if the rate applied to corn or sorghum was more than 2.2 lbs./A or equivalent band application rate, or soybean injury may occur. (5) Injury may occur to soybeans planted the year following application on soils having a calcareous surface layer. (6) Do not plant sugar beets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small-seeded legumes and grasses the year following application, or injury may occur.

CORNBELT ATRAZINE 90DF APPLIED ALONE --

CORN OR GRAIN SORGHUM*

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

Broadleaf and Grass Weeds Controlled

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

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

Broadleaf Weeds Controlled

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

*Where there are state/local requirements regarding atrazine use (including lower maximum rates and/or set-backs) which are different from the label, the more restrictive/protective requirements must be followed.

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

**Partial control only.

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

CORN

Preplant Surface-Applied (Broadleaf and Grass Control): Use on medium- and fine-textured soils with minimum-tillage or no-tillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, WY. Apply the recommended rate of Cornbelt Atrazine 90DF shown in Table 1 up to 30 days prior to planting. On coarse-textured soils, do not apply more than two weeks prior to planting.

If weeds are present at the time of treatment, apply in tank mix combination with a contact herbicide (for example, Gramoxone Extra,

or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

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

Preplant Incorporated (Broadleaf and Grass Control): Broadcast in 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 or At-Planting (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 and before corn exceeds 12 inches in height at rates recommended in Table 1.

Table 1: Broadleaf and Grass Weed Control in Corn*

FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE

On Highly Erodible Soils (As Defined by SCS)

If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply 2.2 lbs./A as a broadcast spray.

If the soil coverage with plant residue is less than 30% at planting, a maximum of 1.8 lbs./A may be applied.

On Soils Not Highly Erodible

Apply 2.2 lbs./A as a broadcast spray.

FOR POSTEMERGENCE APPLICATION

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

*Broadleaf control (eastern CO, western KS, western NE, NM, OK Panhandle, west TX, and eastern WY): On sand, loamy sand, sandy loam, mild to strongly alkaline soil, and all recently leveled soil, apply no more than 1.3 lbs./A, either preplant surface, preplant incorporated, or preemergence. On other soils in these areas, apply rate in Table 1 for broadleaf and grass control.

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

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	1/2-1 qt./A
Petroleum-derived oil	1gal./A	2qts./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 2.2 lbs./A plus emulsifiable oil or oil concentrate after weed emergence, but before weeds reach 1.5 inches in height and before corn exceeds 12 inches in height.

Broadleaf Control: For postemergence control of those weeds listed under Postemergence With Emulsifiable Oil or Oil Concentrate in Water, broadcast 1.3 lbs./A plus emulsifiable oil or oil concentrate before pigweed and lambsquarters reach 6 inches in height and before all other weeds reach 4 inches in height. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

Precautions For Applications With Emulsifiable Oil or Oil Concentrate in Water: (1) Inbred lines or any breeding stock may be severely injured by applications with emulsifiable oil or oil concentrate. (2) Adding other insecticides, herbicides, liquid fertilizers, or other materials is not recommended, because they may cause compatibility problems or crop injury. (3) Store and handle emulsifiable oil and oil concentrate carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank. To avoid crop injury, (4) Do not apply when crop is under stress from prolonged cold, wet weather, poor fertility, or other factors, or when crop is wet and succulent from recent rainfall. (5) Do not exceed 2.5 lbs. active ingredient (or 2.8 lbs. of this product) per acre per calendar year. (6)

Postemergence applications to corn must be made before corn exceeds 12 inches in height.

TANK MIXTURES FOR CORN

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

Dual (metolachlor)	Lasso or Lasso EC (alachlor)
Dual + Gramoxone Extra	Lasso or Lasso EC + Roundup
Dual + Roundup (glyphosate)	Lasso or Lasso EC + Gramoxone Extra
Dual + Princep	Princep
Dual + Princep + Gramoxone Extra	Princep + Gramoxone Extra Princep + Roundup
Dual + Princep + Roundup	Ramrod (propachlor)
Gramoxone Extra	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 product used in a particular tank mix.

NOTE: When the labels of the above herbicides refer to atrazine 80W, use equivalent rate of Cornbelt Atrazine 90DF. One lb. of 80W equals 0.9 lb. Dry Flowable.

Princep 80W, Princep 4L, or Princep Caliber 90

In addition to the weeds listed under Cornbelt Atrazine 90DF Applied Alone - Corn or Grain Sorghum - Preplant Surface-Applied, Preplant Incorporated, or Preemergence, this combination also controls crabgrass, fall panicum, and carpetweed.

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

Preplant Surface-Applied: Use on medium- and fine-textured soils with minimum-tillage or no-tillage systems only in CO, IL, IN, IA, KS, KY, MN, MO, MT, NE, ND, SD, WI, and WY. Apply the recommended rate of Cornbelt Atrazine 90DF and Princep shown in Table 2 up to 30 days prior to planting. Applications made less than 30 days prior to planting may be as either a split or single treatment. On coarse-textured soils, do not apply more than two weeks prior to planting. Refer to the Cornbelt Atrazine 90DF 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, Gramoxone Extra

or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide.

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

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

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

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

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	2.0 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, use equivalent rates. One lb. of Princep 80W equals 0.9 lbs. of Princep Caliber 90 or 1.6 pts. of Princep 4L.

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

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

Precautions For All Applications to Corn: (1) To avoid crop injury and illegal residues, do not apply more than 2.8 lbs./A of this product per year. (2) For best control of velvetleaf and cocklebur, the application rate cannot be less than 2 lbs./A active ingredient, either alone or in tank mix combinations. (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.

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

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

Preplant Surface-Applied (Broadleaf and Grass Control): Use on medium- and fine-textured 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 2/3 the recommended rate of Cornbelt Atrazine 90DF 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 Cornbelt Atrazine 90DF into the soil.

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

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

Preplant Incorporated (Broadleaf and Grass Control): Broadcast in 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.

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

Table 3: Broadleaf and Grass Weed Control in Sorghum 1,2

FOR ALL SOIL APPLICATIONS PRIOR TO CROP EMERGENCE

On Highly Erodible Soils (As Defined by SCS)

If conservation tillage is practiced, leaving at least 30% of the soil covered with plant residues at planting, apply 2.2 lbs./A as a broadcast spray.

If the soil coverage with plant residue is less than 30% at planting, a maximum of 1.8 lbs./A may be applied.

On Soils Not Highly Erodible

Apply 2.2 lbs./A as a broadcast spray.

FOR POSTEMERGENCE APPLICATION

If no atrazine was applied prior to sorghum emergence, apply 2.2 lbs./A broadcast. If a postemergence treatment is required following an earlier herbicide application, the total atrazine applied may not exceed 2.5 lbs. active ingredient (2.8 lbs. of this product) per acre per calendar year.

1 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 and Blacklands areas.

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

In case of planting failure, sorghum or corn may be replanted. 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 provided the maximum application rate of 2.5 ai/A per calendar year is not exceeded.

Postemergence Broadleaf Weed Control With Emulsifiable Oil or Oil Concentrate in Water: Broadcast 1.3 lbs./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, and TX, apply when sorghum is 6-12 inches in height, but before it reaches boot stage. In all other areas, apply after sorghum reaches the 3-leaf stage but before it exceeds 12 inches in height. 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 Cornbelt Atrazine 90DF 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, and TX): Broadcast 1.3 lbs./A plus 0.75-1.5 pts. of surfactant after sorghum reaches 6 inches in height, but before weeds exceed 1.5 inches in height. Apply only on sandy loam and finer textured soil.

Precautions For All Applications to Sorghum: (1) Heavy rain immediately following application tends to cause excessive concentrations of herbicide in seed furrow, resulting in possible crop injury. Do not apply to furrow-planted sorghum until

furrows are leveled (plowed in). Level deep planter marks or seed furrows before application. (2) Application to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous 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. (5) Do not apply more than 2.5 lbs. active ingredient (2.8 lbs. of this product) per acre per calendar year. (6) For all soil applications prior to crop emergence do not apply to coarse-textured soils, i.e., sand, loamy sand, sandy loam, or to medium and fine-textured soils having less than 1% organic matter, or injury may occur. (7) For postemergence applications, do not apply to sand or loamy sand, or injury may occur.

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

TANK MIXTURES FOR GRAIN SORGHUM

Dual 8E: Use as tank mixture with Dual 8E for control of those weeds listed on the Dual 8E label, as well as on this label. Use this tank mixture only on sorghum seed treated with Concep. Refer to 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 lbs./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 Cornbelt Premier 90, at the rate of 0.5% of the spray volume, an emulsifiable oil at the rate of 1.0% of the spray volume, or an oil concentrate at the rate of 1 qt. per acre.

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

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

ATRAZINE 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 lbs./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 Cornbelt Atrazine 90DF. 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. In the event that grasses are present the following spring, use a grass herbicide registered for use on sorghum.

For the list of weeds controlled, see Cornbelt Atrazine 90DF 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 and NE): This product controls cheatgrass (downy brome, chess), kochia, mustards, pigweed, Russian thistle, wild lettuce, wild sunflower, and volunteer wheat during period after wheat harvest. Weed control may extend into following corn crop grown under minimum tillage.

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

Wheat-Fallow-Wheat (CO, KS, MT, NE, ND, SD, and WY): For preemergence control of cheatgrass (downy brome, chess), common lambsquarters, field pennycress, kochia, mustard, Russian thistle, wild lettuce, and suppression of volunteer wheat during fallow period of wheat-fallow-wheat rotation, broadcast 0.5-1.1 lbs./A on all soil 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)

Gramoxone Extra: If weeds are present at application, a tank mix with Gramoxone Extra may be used. Broadcast 3.3 lbs. of Cornbelt Atrazine 90DF plus a suitable amount of Gramoxone Extra in 20-60 gals. of water/A by ground equipment. Refer to the Gramoxone Extra label for the appropriate rates to utilize in this tank mixture. Add 0.5-1 pt. of nonionic surfactant, such as Cornbelt Premier 90, per 100 gals. of spray mixture. Add Cornbelt Atrazine 90DF to spray tank first and thoroughly mix with water. Then add Gramoxone Extra, followed by surfactant. Use the higher rate of Gramoxone Extra specified on the label 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 Gramoxone Extra label for further directions, precautions, and limitations.

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

Gramoxone Extra: If weeds are present at application, a tank mix with Gramoxone Extra may be used. Broadcast 0.5-1.1 lbs./A of Cornbelt Atrazine 90DF plus a suitable amount of Gramoxone Extra in 20-60 gals. of water/A by ground equipment. Add 0.5-1 pt. of a nonionic surfactant, such as Cornbelt Premier 90, per 100 gals. of spray mixture. Add Cornbelt Atrazine 90DF to spray tank first and thoroughly mix with water. Then add Gramoxone Extra, followed by surfactant. Use the higher rate of Gramoxone Extra specified on the label 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 Gramoxone Extra 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 escape during fallow period. Till before planting. For this product applied alone or in tank mixture with Gramoxone Extra, plant at least 2 inches deep and 12 months or more after application.

Precautions: To avoid crop injury, (1) Do not use on sand soil. (2) Do not treat eroded hillsides, caliche and rocky outcroppings, or exposed calcareous subsoil. (3) Do not treat soils of the Rosebud and Canyon Series in western NE and adjoining counties in CO and WY. (4) Do not treat soils with calcareous surface layers or soils with a pH greater than 7.5. (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 Cornbelt Atrazine 90DF alone by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

ROADSIDES

To control certain annual weeds in established perennial grasses along roadsides in CO, KS, MT, NE, ND, SD, and WY, including cheatgrass (downy brome, chess), common (annual) broomweed, little barley, medusahead, sagewort, and tumble mustard, broadcast 1.1 lbs./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 established grasses green-up and before weeds emerge. Examples of desirable established grasses include big bluestem, bluegrama, bromegrass, buffalograss, crested wheatgrass, Indiangrass, little bluestem, sideoats grama, switchgrass, and Western wheatgrass. Apply only once per year. Temporary discoloration or other form of injury to the desirable perennial grasses may occur following application.

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

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 lbs. in a minimum of 5 gals. of water per acre by air or 10 gals. 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 Cornbelt Atrazine 90DF before transplanting. In areas where spring and summer rainfall is inadequate to activate Cornbelt Atrazine 90DF, apply during fall prior to spring transplanting.

For the list of weeds controlled, see Cornbelt Atrazine 90DF Applied Alone - Corn or Grain Sorghum - Preplant Surface-Applied, Preplant Incorporated, or Preemergence.

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

Precautions: (1) In areas west of the Rocky Mountains (except the Great Basin), grazing may begin 7 months after a fall application or 3 months after a winter or spring application. (2) To prevent illegal residues, do not graze treated areas of the Great Basin, or to areas east of the Rocky Mountains. (3) Temporary injury to trees may occur following use of Cornbelt Atrazine 90DF on coarse-textured soil. (4) To avoid crop injury, do not apply to seedbeds. (5) Also apply only once per year.

Aerial Application: In order to assure that spray will be controllable within the target area when used according to label directions, make applications at a maximum height of 10 ft. above vegetation, using low drift nozzles at a maximum pressure of 40 psi, and restrict application to periods when winds speed does not exceed 10 mph. To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply Cornbelt Atrazine 90DF by aircraft at a minimum upwind distance of 400 ft. from sensitive plants.

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