

JUN 24 1992

Tony Baldi
Aceto Agricultural Chemicals Corporation
One Hollow Lane
Lake Success, NY 11042-1215

Dear Mr. Baldi:

Subject: Atrazine 90
EPA Reg. No. 2749-485
RE: Amended Labeling (Risk Reduction Measures)
Your Submissions Dated June 11, 1992

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable subject to the comment listed below. A stamped label is enclosed for your records. Five copies of the finished label must be submitted prior to releasing the product for shipment.

Under directions for repeat band applications in the event of a crop failure, please indicate that the maximum application rate of 2.5 lb ai/A per calendar year should not be exceeded.

Sincerely yours,

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

BEST AVAILABLE COPY

CONCURRENCES							
SYMBOL	H7505C						
SURNAME	MJ/111						
DATE	6/23/92						

RESTRICTED USE PESTICIDE

(GROUND AND SURFACE WATER CONCERNS)

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

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



ATRAZINE 90

WATER DISPERCIBLE GRANULAR HERBICIDE

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

ACTIVE INGREDIENTS:

Atrazine (2-chloro-4-ethylamino-6-isopropylamino-s-triazine) 85.5%
Related Compounds 4.5%

INERT INGREDIENTS: 10.0%
TOTAL 100.0%

KEEP OUT OF REACH OF CHILDREN CAUTION

STATEMENT OF PRACTICAL TREATMENT

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

IF ON SKIN: Wash with plenty of soap and water. Get medical attention if irritation persists.

IF IN EYES: Flush with plenty of water. Get medical attention if irritation persists.

NET WEIGHT 25 POUNDS

EPA REG. NO. 2749-485
32622

EPA EST. NO. 9779-AR-13
05/92

PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS & DOMESTIC ANIMALS CAUTION

Harmful if swallowed, absorbed through skin, or inhaled. Avoid breathing dust. Causes eye irritation. Avoid contact with eyes, skin or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

Users are required to wear long sleeve shirts and long pants or equivalent, chemical resistant gloves, and boots (waterproofed). In addition, persons involved in mixing/loading operations are required to use heavy-duty chemical resistant gloves or neoprene gloves and a face shield or goggles.

ENVIRONMENTAL HAZARDS

Do not apply directly to lakes, streams, ponds or wetlands. Use with care when applying in areas adjacent to any body of water. Do not apply when weather conditions favor drift from target area. Do not contaminate water by cleaning of equipment or disposal of wastes.

Atrazine leaches readily and accepted label rates have been found to result in contamination of water supplies by way of groundwater. Therefore, users are advised to avoid use of Atrazine in well drained soils, particularly in areas having high groundwater tables.

This pesticide is toxic to aquatic invertebrates. Do not apply directly to water or wetlands. Runoff and drift from treated areas may be hazardous to aquatic organisms in neighboring areas.

DIRECTIONS FOR USE

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

STORAGE AND DISPOSAL

PROHIBITIONS: Do not contaminate water, food, or feed by storage or disposal. Do not store under conditions which might adversely affect the container or its ability to function properly. Such conditions include, but are not limited to, positioning of the container in storage, storage temperature, potential for crushing or damage due to stacking, and penetration of moisture.

STORAGE: Store in safe manner. Store in original container only. Store in cool, dry place. Reduce stacking height where local conditions, such as humidity or pallet overhang, can affect package strength. Personnel should use clothing and equipment consistent with good pesticide handling.

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

CONTAINER DISPOSAL: Plastic or Paper Bag: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke. **Fiberboard Box or Drum:** Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application equipment. Then dispose of liner in a sanitary landfill or by incineration if allowed by State and local authorities. If box or drum is contaminated and cannot be reused, dispose of in the same manner.

PRECAUTIONARY STATEMENTS AND INSTRUCTIONS FOR USE IN ORDER TO MINIMIZE POTENTIAL FOR ATRAZINE TO REACH GROUND WATER.

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

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

Do not apply this product through any type of irrigation system. Postemergence application to corn and sorghum must be made before corn and sorghum reaches 12 inches in height.

REENTRY STATEMENT

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.

Do not apply this product in such a manner as to directly or through drift expose workers or other persons.

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 if there is reason to believe that written warnings cannot be understood by workers. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Written or oral warnings must include the following information:

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CAUTION

(Insert area or field description) treated with Atrazine on (insert date of application).

In case of accidental exposure: Call a doctor (physician), clinic or hospital immediately. Explain that the victim has been exposed to Atrazine and describe his condition. For further information see the "STATEMENT OF PRACTICAL TREATMENT" portion of the pesticide label.

Do not enter treated areas without protective clothing until sprays have dried.

GENERAL INFORMATION

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

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.

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, non-flammable, and has low electrical conductivity.

Avoid using where adjacent desirable trees, shrubs, or plants might be injured.

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

NOTE: ACETO does not recommend applications in combination with other herbicides or oils except as specifically described on the label.

APPLICATION PROCEDURES

For soil applications prior to corn and sorghum emergence (i.e., early preplant, preplant incorporated, preplant surface, at planting or preemergence) the following applies:

- On highly erodible soils, as defined by the Soil Conservation Service (SCS), if conservation tillage is utilized ($\geq 30\%$ plant residue), the maximum rate is 2 pounds a.i./A. If plant residue is $< 30\%$, the maximum rate is 1.6 pounds a.i./A.
- On soils not highly erodible, the maximum rate is 2 pounds a.i./A.

For postemergence applications to corn and sorghum, if there has been no previous soil application to that crop, the maximum rate is 2 pounds a.i./A. If there has been a previous soil application to that crop, do not exceed a total of 2.5 pounds a.i./A per calendar year.

Ground Application

For uniform distribution use fan-type nozzles. Screens in nozzles and in suction and in-line strainers should be no finer than 50-mesh. Use a pump with capacity to (1) maintain 35-40 psi at the nozzles, and (2) provide sufficient agitation in the tank to keep the mixture in suspension. Unless otherwise specified, use a minimum of 10 gallons of spray mixture per acre for all preplant, preemergence, and postemergence applications (with or without oil or surfactant).

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

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

Aerial Application

Use only where broadcast applications are specified. Apply a minimum of 1 gal. of water for each 1-1.5 lbs. of this product applied per acre. For postemergence treatments on corn and sorghum, apply the recommended rate in a minimum of 2 gals. of water per acre. Avoid applications under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur.

Avoid application directly to humans or animals. Flagmen and loaders should wash thoroughly before eating and at the end of each day's operation.

Application In Water

Mixing procedure: (1) Be sure sprayer is clean and not contaminated with 2,4-D, residual oil, or other materials. (2) Fill tank half to two-thirds full with clean water. (3) Start agitation. (4) Pour this product directly from bag into tank. Let it wet and settle into the water. (5) Finish filling tank with water. Continue agitation during mixing and application.

Application In Liquid Fertilizer

Nitrogen solution or complete liquid fertilizer may replace all or part of the water as a carrier for preemergence or preplant application on corn and sorghum. Do not apply after corn or sorghum has emerged as liquid fertilizer may cause crop injury.

Application In Water Plus Emulsifiable Oil

Adding oil to postemergence water-based sprays on corn and sorghum may provide quicker kill of weeds. However, under certain conditions the use of oil may seriously injure the crop. To minimize this possibility, observe the following directions.

Use a crop oil designated for use with this product containing 1-2% emulsifier. Oils contaminated with water or other materials can cause compatibility problems and/or crop injury.

Mixing procedure: (1) Be sure sprayer is clean and not contaminated with 2,4-D or other materials as crop injury or sprayer clogging may result. (2) Fill tank half to two-thirds full with clean water. (3) Start agitation. (4) Pour this product directly from bag into tank. Let it wet and settle into the water. (5) Add emulsifiable oil after this product and water are mixed thoroughly. (6) Finish filling tank with water. (7) Empty the tank as completely as possible before refilling to prevent a buildup of oil in the tank. Keep the agitation system in operation to avoid separation of the oil from the water. (8) If an oil film starts to build up in the tank, drain it and clean out with a strong detergent solution or solvent. (9) Clean the sprayer thoroughly immediately after use by flushing the system with water containing a detergent.

CORN

Apply either before planting, at planting, or after planting using 1.1-2.2 lbs. per acre as indicated in the following directions for control or suppression of many annual broadleaf and grass weeds including barnyardgrass*, witchgrass* (Panicum capillare), yellow foxtail*, green foxtail*, wild oats, large (hairy) crabgrass*, giant foxtail*, velvetleaf* (buttonweed), morningglory, lambsquarters, pigweed, ragweed, nightshade, purslane, and mustard.

*Partial control or suppression only, particularly on medium and fine textured soils.

Preplant (Broadleaf and Grass control)

Broadcast in the spring after plowing at the appropriate rate in Table 1. Apply before, during or after final seedbed preparation. If soil is tilled or worked after application, avoid deep incorporation. Best results will be obtained when applied within two weeks before planting.

Preemergence (Broadleaf and Grass Control)

Apply during or shortly after planting before weed emergence at the appropriate rate in Table 1.

Postemergence (Broadleaf and Grass Control)

Apply before weeds exceed 1.5 inches in height and before corn is 12 inches tall, at the appropriate rate in Table 1.

Table 1. Broadleaf and Grass Control*

Soil Texture	Broadcast Rate		Comments
	Per Acre		
Sand, loamy sand, sandy loam	1.1-2.2	2 lbs.	
Loam, silt loam, silt, clay loam, sandy clay loam, silty clay loam, sandy clay, or silty clay with low organic matter	1.1-2.2	2 lbs.	Partial control
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)	1.1-2.2	2 lbs.	Suppression only
Peat, muck, and high organic clay (apply postemergence only)	1.1-2.2	2 lbs.	Suppressor only

* Broadleaf Control (western Kansas, western Nebraska, eastern Colorado, eastern Wyoming, New Mexico, West Texas, and the Pan Handle of Oklahoma): On sand, loamy sand, sandy loam, mild to strongly alkaline soils, and all recently leveled soils, apply 1.3 lbs. per acre either preplant or preemergence. Many broadleaf weeds including pigweed, lambsquarters, nightshade, purslane, and kochia will be controlled. On other soils in these areas, apply the appropriate rate in Table 1 for broadleaf and grass control.

Broadleaf and Grass Control

Apply 1.2-2.2 lbs. per acre in a minimum of 10 gals. of water or nitrogen solution, before weeds are 1.5 inches tall and corn is no higher than 12 inches tall. When using nitrogen solutions, direct the spray to the lower 3-4 inches of cornstalks to avoid corn foliage injury.

Postemergence with Emulsifiable Oil in Water

Broadleaf and Grass Weed Control: Apply up to 2.2 lbs. per acre after weed emergence, but before weeds reach 1.5 inches in height and before corn is 12 inches tall. Add 1 gal. of emulsifiable oil per acre for ground applications and 0.5 gal. per acre for aerial applications.

Broadleaf Weed Control: Apply up to 1.3 lbs. per acre for control of many broadleaf weeds including annual morningglory, cocklebur, lambsquarters, mustard, pigweed, ragweed, smartweed, and wild buckwheat. Apply before pigweed and lambsquarters reach 6 inches in height, before all other weeds reach 4 inches in height and before corn is 12 inches tall. Add 1 gal. of emulsifiable oil per acre for ground applica-

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tions and 0.5 gal. per acre for aerial applications. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

Precautions for Postemergence with Emulsifiable Oil in Water: (1) 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 as crop injury may occur. (2) Do not apply to inbred lines or any breeding stocks as injury may occur. (3) Adding other insecticides, herbicides, liquid fertilizers, or other materials is not recommended because they may cause compatibility problems or crop injury. (4) Store and handle emulsifiable oil carefully. Oil contaminated with even a small amount of water may not emulsify properly when added to the tank. (5) Do not make more than one application per season except as recommended for control of yellow nutsedge and Canada thistle.

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) 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 western Minnesota and eastern parts of the Dakotas, Nebraska and Kansas, do not rotate to soybeans if the rate applied to corn or sorghum was more than 2.2 lbs. per acre or equivalent band application rate, as soybean injury may occur. (5) Injury may occur to soybeans planted in north-central and northwest Iowa and south central and southwest Minnesota, southeast South Dakota and northeast Nebraska 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 as injury may occur.

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

Apply either before planting, at planting, or after planting as indicated in the following directions. See the first paragraph of the Corn section for broadleaf and grass weeds controlled by a preplant, preemergence, or postemergence application.

Preplant (Broadleaf and Grass Control)

Apply in the spring after plowing at the appropriate rate in Table 4. Apply before, during, or after final seedbed preparation, if soil is tilled or worked after application, avoid deep incorporation. Best results will be obtained when applied within two weeks before planting.

Preemergence (Broadleaf and Grass Control)

Apply during or shortly after planting, before weed or crop emergence at the appropriate rate in Table 2.

Table 2 Preplant and Preemergence Broadleaf and Grass Weed Control in Sorghum*

Soil Texture	Organic Matter	Broadcast Rate/Acre	Comments
COARSE Sand, loamy sand, sandy loam	Any level	DO NOT USE (except for preemergence use on bedded sorghum in Arizona or California)	
MEDIUM AND FINE Loam, silt loam, silt, loam, sandy clay loam, silty clay loam, sandy clay, silty clay, clay	Under 1% 1-1.5% Over 1-1.5%	See Above Note 1.7-2.2 lbs. 1.8-2.2 lbs.	Partial control

*Do not apply preplant in N. Mex., Texas, Okla., Ark., La., Tenn., Miss., Ala., Ga., Fla., S. Car., or N. Car. or preemergence in N. Mex., Texas, or Okla., except in northeast Okla. and the Texas Gulf Coast.

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

Preemergence Broadleaf Weed Control in Furrow Irrigated Bedded Sorghum (Arizona and California only): For preemergence control of many broadleaf weeds including groundcherry, lambsquarters, morning-glory, mustard, pigweed, and purslane, apply 0.9-1.3 lbs. per acre after bed preparation either during or after planting, but before sorghum and weeds emerge and before the first furrow irrigation. Follow with several

regular irrigations making sure that all soil is thoroughly wet.

Precautions for Preemergence Applications to Furrow Irrigated Bedded Sorghum in Arizona and California: To avoid possible sorghum injury, do not use on sand or loamy sand soil or on sorghum planted in the furrow. Applications to sorghum growing on alkali soils or where cuts, fills, or 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 Weed Control

Apply at the appropriate rate in Table 3 before weeds exceed 1.5 inches in height. Apply up to "close-in".

Table 3 Postemergence Broadleaf and Grass Weed Control in Sorghum

Soil texture	Minimum sorghum height at treatment	Broadcast rate per acre	Comments
Sand or loamy sand			DO NOT USE
Sandy loam		See directions for postemergence broadleaf weed control	
Silt loam to sandy clay loam	Completely emerged	1.8-2.2 lbs.	Partial control
Olton and Pullman clay soil	6 inches	1.8-2.2 lbs.	Partial control
Silty clay loam and finer textured soil	Completely emerged	1.8-2.2 lbs.	Suppression only

Postemergence Broadleaf Weed Control with Emulsifiable Oil in Water

Apply 1.3 lbs. per acre for control of many broadleaf weeds including annual morningglory, cocklebur, lambsquarters, mustard, pigweed, ragweed, smartweed and wild buckwheat. Apply before pigweed and lambsquarters reach 6 inches in height and before all other weeds reach 4 inches in height. In Texas, New Mexico, Oklahoma, western Kansas, Colorado and the desert regions of California and Arizona, apply when sorghum is about 6-10 inches tall, but before sorghum is 12 inches tall. In all other areas, apply after sorghum reaches the 3-leaf stage. Add 1 gal. of emulsifiable oil per acre for ground application and 0.5 gal. per acre for aerial application. A cultivation may be necessary if all weeds are not controlled or if weeds regrow.

Precautions for Applications with Emulsifiable Oil in Water to Sorghum: See "Precautions for Postemergence with Emulsifiable Oil in Water" in the Corn section.

Postemergence Broadleaf Weed Control with Surfactant in Oklahoma, New Mexico, Texas, western Kansas, Colorado, and desert regions of Arizona and California only: Apply 1.3 lbs. plus 0.75-1.5 pts. of surfactant per acre when sorghum is 6 to 12 inches in height, but before weeds exceed 1.5 inches in height. Apply only on sandy loam or finer textured soil.

Precautions for all Applications to Sorghum: (1) Heavy rain immediately following application tends to result in excessive concentrations of herbicide in seed furrow, resulting in possible crop injury. Do not apply furrow-planted sorghum until furrows are leveled (plowed in). Level deep planter marks or seed furrows before application. (2) Application marks to sorghum growing under stress caused by minor element deficiency or to sorghum growing on highly calcareous soils may result in crop injury. (3) Following harvest, plow (moldboard or disk-plow) and thoroughly till the soil in the fall or spring to minimize possible injury to spring-planted rotational crops, regardless of the rate used.

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

Rotational Crops

See "Rotational Crops" in the Corn section.

WHEAT, SORGHUM, FALLOW

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

Apply 3.3 lbs. to the wheat stubble immediately following wheat harvest. If weeds are present, remove them with a sweep plow or other suitable implement after application. Plant sorghum into the wheat stubble the following spring with minimum disturbance of the soil. Use a surface planter or a planter leaving a shallow furrow. If weeds are present at planting, remove them with a sweep plow or other suitable implement before planting.

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

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

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NOTICE

Aceto warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purposes stated on such label only when used in accordance with the directions under normal use conditions. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Aceto. In no case shall Aceto be liable for consequential, special or indirect damages resulting from the use or handling of this product. All such risks shall be assumed by the buyer. Aceto makes no warranties of Merchantability or fitness for a particular purpose nor any other express or implied warranty except as stated above.

ACCEPTED
1978-12-12
12/12/78

The undersigned hereby certifies that the information furnished herein is true and correct to the best of his knowledge and belief.

Registered Professional Engineer No. 12345

Manufactured for
**ACETO AGRICULTURAL
CHEMICALS CORPORATION**
One Hollow Lane, Lake Success, NY 11042-1215