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PROZINE® 70DF
herbicide

FOR USE IN CORN AND GRAIN SORGHUM

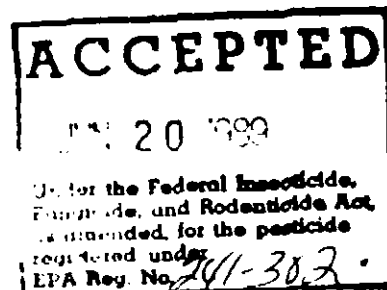
ACTIVE INGREDIENTS:

Pendimethalin (N-(1-ethylpropyl)-3,4-dimethyl-2,6-dinitrobenzenamine).....	35.0%
Atrazine (2-chloro-4-ethylamino-6-isopropylamino-s-triazine).....	35.0%
INERT INGREDIENTS.....	30.0%
TOTAL	100.0%

STOP-READ LABEL BEFORE USING

KEEP OUT OF REACH OF CHILDREN

CAUTION



PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

STATEMENT OF PRACTICAL TREATMENT

- IF ON SKIN:** Remove contaminated clothing and wash with plenty of soap and water.
- IF IN EYES:** Flush eyes with plenty of water. Get medical attention if irritation persists.
- IF INHALED:** Remove victim to fresh air and apply respiration if indicated.

See next page for additional Precautionary Statements.

EPA Reg. No. 241-302

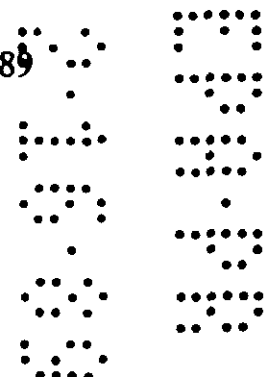
EPA Est. No.

AMERICAN CYANAMID COMPANY
AGRICULTURAL DIVISION
CROP PROTECTION CHEMICALS DEPARTMENT
WAYNE, NJ 07470 c1989

Net Contents: 20 l inds

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**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION**

Harmful if swallowed, inhaled, or absorbed through skin. Do not breathe vapors or spray mist. Avoid contact with eyes, skin or clothing. Remove contaminated clothing and wash before reuse. Wash thoroughly with soap and water after handling.

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

ENVIRONMENTAL HAZARDS

Atrazine can travel (seep or leach) through soil and can enter groundwater which may be used as drinking water. Atrazine has been found in 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 groundwater.

This product is toxic to fish and aquatic invertebrates. DO NOT apply directly to water or wetlands. DO NOT apply where runoff is likely to occur. DO NOT apply when weather conditions favor drift from treated areas. DO NOT contaminate water when disposing of equipment washwaters.

DIRECTIONS FOR USE

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

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

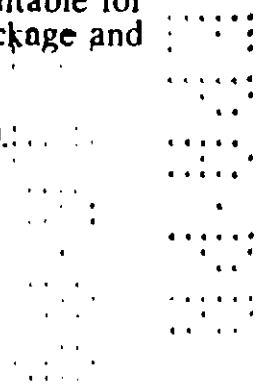
STORAGE AND DISPOSAL

DO NOT CONTAMINATE WATER, FOOD, OR FEED BY STORAGE OR DISPOSAL.

STORAGE

Store in a dry location away from children, animals, foods, feeds, seeds, or other agricultural chemicals. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. In the event of spillage, scrape up spillage. If spillage is not suitable for use, dispose of in accordance with information given under DISPOSAL. Repackage and relabel useable product in a sound container.

In case of fire or other emergency, call collect, day or night, Area Code 201-835-3100.



DISPOSAL

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: Completely empty bag into application equipment. Then dispose of bag in a sanitary landfill, or by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

RE-ENTRY STATEMENT (FOR USE IN SWEET CORN IF HAND LABOR IS INVOLVED)

Do not enter treated areas without protective clothing until sprays have dried. Protective clothing means, at least, a hat or other suitable head covering, a long-sleeved shirt and long-legged trousers or a coverall-type garment (all of closely woven fabric covering the body, including the arms and legs), impermeable gloves and boots. Because certain states may require more restrictive re-entry 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. 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 PROZINE on (date of application). Do not enter without appropriate protective clothing."

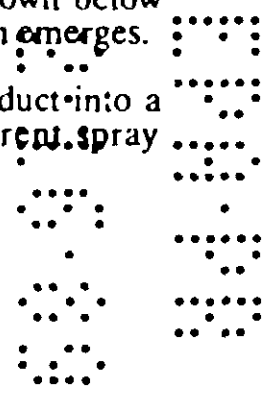
GENERAL INFORMATION

PROZINE controls many annual broadleaf and grass weeds in corn and sorghum. It may be applied before or after weeds emerge. The effectiveness of this product 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. Unusually cold, excessively wet, or hot and dry conditions that delay germination or extend germination over a long period of time can reduce weed control.

Seedling diseases, cold weather, excessive moisture, deep planting, low or high soil pH, high soil salt concentration, or drought can weaken seedlings and plants and increase the possibility of crop damage from this herbicide. Under these conditions, crop yields can be reduced.

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 use on corn. 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 emerges.

To determine the compatibility of PROZINE with liquid fertilizer, pour the product into a small container of liquid fertilizer in the proportions shown below. For different spray volume or herbicide rate, make appropriate changes in the ingredients.



For each pound of PROZINE to be applied per acre, add 1 heaping teaspoon of the product to one pint of liquid fertilizer solution (assuming a volume of 25 gallons per acre).

After thorough mixing, let stand 5 minutes. If the herbicide/fertilizer combination remains mixed, or can be remixed readily, make a slurry with the herbicide before adding fertilizer and use the mixture only if this test shows it is compatible.

ROTATIONAL CROPS: (1) Do not rotate to any crop except corn or sorghum until the following year, as injury may occur. (2) 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. (3) Injury may occur to soybeans planted in north-central and northwest Iowa, south-central and southwest Minnesota, northeast Nebraska, southeast South Dakota, and other areas the year following application on soils having a calcareous surface layer. (4) Do not plant sugarbeets, tobacco, vegetables (including dry beans), spring-seeded small grains, or small-seeded legumes and grasses the year following application as injury may occur.

APPLICATION PROCEDURES

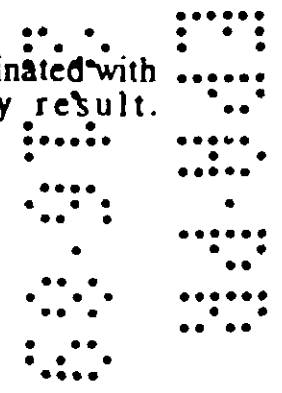
GROUND APPLICATION: Use conventional ground sprayers equipped with nozzles that provide accurate and uniform application. Be certain that nozzles are uniformly spaced and are the same size. Calibrate sprayer before use and recalibrate at the start of each season and when changing carriers. Unless otherwise specified, use a minimum of 10 gallons of spray mixture per acre for pre-emergence and post-emergence applications 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 gallons per minute per 100 gallons 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.

AERIAL APPLICATION: Apply in a minimum of 5 gallons of water per acre. Avoid application to humans, animals, or non-target areas. 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.

MIXING PROCEDURES - ALL USES: Be sure sprayer is clean and not contaminated with any other materials, or crop injury or sprayer clogging may result.



Fill tank 1/4 full with clean water, nitrogen solution, or complete liquid fertilizer. Start agitation. Be certain that the agitation system is working properly and creates a rippling or rolling action on the liquid surface. Pour product directly from container into tank. Let it wet and settle into solution. Continue filling tank until 90% full. Increase agitation if necessary to maintain surface action. Finish filling tank. Maintain agitation to avoid separation of materials. Clean sprayer thoroughly immediately after use by flushing system with water containing a detergent.

WEED SPECIES CONTROLLED

GRASSES CONTROLLED

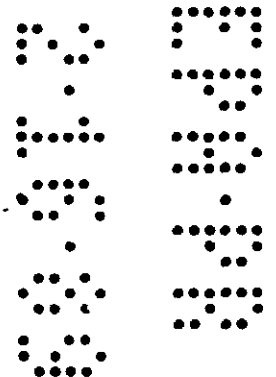
- Barnyardgrass (Echinochloa crus-galli)
- Crabgrass (Digitaria spp.)
- Crowfootgrass (Dactyloctenium aegyptium)
- Fall panicum (Panicum dichotomiflorum)
- Field sandbur (Cenchrus incertus)
- Foxtail (giant) (Setaria faberi)
- Foxtail (green) (Setaria viridis)
- Foxtail (yellow) (Setaria glauca)
- Goosegrass (Eleusine indica)
- Johnsongrass (from seed) (Sorghum halepense)
- Signalgrass (Brachiaria platyphylla)
- Texas panicum (Panicum texanum)
- Witchgrass (Panicum capillare)

BROADLEAF WEEDS CONTROLLED

- Black nightshade (Solanum nigrum)
- Carpetweed (Mollugo verticillata)
- Common ragweed (Ambrosia artemisiifolia)
- Florida pusley (Richardia scabra)
- Kochia (Kochia scoparia)
- Lambsquarters (Chenopodium album)
- Mustard (Brassica spp.)
- Pennsylvania smartweed (Polygonum pennsylvanicum)
- Pigweed (Amaranthus spp.)
- Purslane (Portulaca oleracea)
- Spurge, annual (Euphorbia spp.)
- Velvetleaf (Buttonweed) (Abutilon theophrasti)
- Venice mallow (Hibiscus trionum)

PROZINE will aid in the control and reduce competition from:

- Annual morningglory (Ipomoea spp.)
- Cocklebur (Xanthium strumarium)
- Groundcherry (Physalis spp.)
- Jimsonweed (Datura stramonium)
- Shattercane (Sorghum bicolor)
- Wild oats (Avena fatua)
- Wild proso millet (Panicum miliaceum)



CORN - FIELD AND SWEET

GENERAL INSTRUCTIONS

Use only where adequate tillage is practiced to provide good soil coverage of the corn seed. Plant corn AT LEAST 1 1/2 inches deep to ensure good seed coverage.

PROZINE is most effective in controlling weeds when adequate rainfall or overhead irrigation is received within 7 days after application. If cultivation is necessary because of soil crusting, soil compaction or germination before rain or irrigation, use shallow tillage (such as rotary hoe), and make certain corn seeds are below the tilled area. For maximum effectiveness, wait at least 7 to 10 days before cultivating early postemergence treatments.

Field Corn Grown in Minimum Tillage Systems

PROZINE may be used in field corn in minimum tillage systems where adequate tillage is practiced to provide a seedbed without living vegetation and which allows for good seed coverage. The use of no-till planters in minimum tillage corn under conditions which do not allow good soil coverage of the corn seed can result in reduced crop stand or injury if PROZINE contacts the germinating corn seed. Check equipment to ensure good seed coverage. Apply in 20 or more gallons of spray solution per acre.

PREEMERGENCE (Surface Treatment After Planting)

Apply PROZINE preemergence after planting, but before weeds or crop emerge. Apply in water or liquid fertilizer with ground equipment or in water with aircraft. Refer to section on application in water or liquid fertilizer for liquid fertilizer compatibility determinations. DO NOT INCORPORATE or serious corn injury will result.

EARLY POSTEMERGENCE

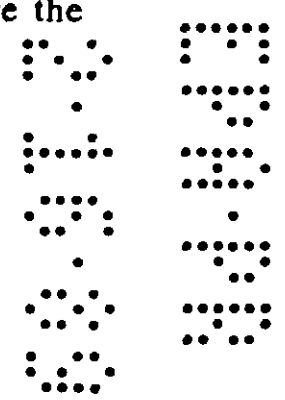
Apply PROZINE after corn emergence but no later than when corn is in the 4- leaf stage of growth and when weeds are no more than 1 inch high, except for Texas panicum which must be no larger than the 1 to 2 leaf stage. Apply with ground equipment or aircraft in water ONLY. For ground applications, flat fan nozzles are preferred. DO NOT apply following PROWL preemergence treatment.

RESTRICTIONS FOR EARLY POSTEMERGENCE APPLICATIONS

To avoid serious crop injury with early postemergence applications, observe the following restrictions:

DO NOT INCORPORATE.

DO NOT apply in liquid fertilizer.



**BROADCAST RATE PER ACRE OF PROZINE
Preemergence and Early Postemergence in Corn¹**

Soil Texture	Less than 1.5% Organic Matter	1.5 to 3.0% Organic Matter	More than 3% Organic Matter
COARSE	3.0 lbs.	3.0 lbs.	4.25 lbs.
MEDIUM	3.0 lbs.	4.25 lbs.	4.25 lbs.
FINE	3.0 lbs.	4.25 lbs.	4.25 lbs.

¹PROZINE may be applied in sweet corn in Illinois, Minnesota, Wisconsin, and New York only.

NOTE: If corn crop loss occurs due to weather conditions and corn is replanted, seeding depth must be below retilled area.

NOTE FOR ALL APPLICATIONS TO CORN: DO NOT graze or feed forage from treated areas for 21 days following application.

FIELD CORN AND GRAIN SORGHUM

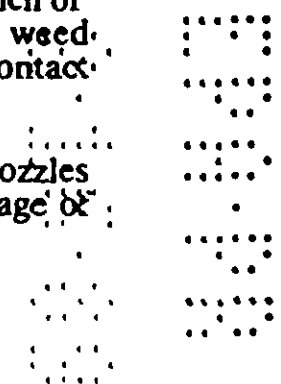
POSTEMERGENCE INCORPORATED APPLICATIONS

GENERAL INFORMATION: Winter wheat and winter barley may be planted in the fall 90 days after an application with PROZINE preemergence incorporated in irrigated field corn or grain sorghum or 120 days after an application in dry land field corn or grain sorghum. The treated crop must be grown to maturity and harvested before planting wheat or barley. See GENERAL INFORMATION for complete rotational instructions.

PROZINE applied as a postemergence incorporated treatment will control most late season annual grasses and certain broadleaf weeds in field corn or grain sorghum. Treatments can be applied from the 4-inch growth stage to as late as the last cultivation (layby) of field corn or grain sorghum. Treatments will not control established weeds. **EMERGED WEEDS MUST BE DESTROYED BY CULTIVATION PRIOR TO APPLICATION.**

APPLICATION TECHNIQUES: The field must be cultivated and all emerged weeds must be destroyed prior to application. Cultivation should be accomplished with a sweep-type or rolling cultivator operated at sufficient speed to throw at least one inch of soil over the bases of the field corn or grain sorghum plants. This will kill small weed seedlings growing in the field corn or grain sorghum row and will prevent direct contact of the zone of brace root formation during application.

Apply with ground sprayer. Uniform soil coverage must be obtained. Drop nozzles should be used if field corn or grain sorghum foliage will prevent uniform coverage of the soil surface within the rows.



Treatments must be thoroughly and uniformly incorporated into the soil (1) with a sweep-type or rolling cultivator set to provide thorough incorporation in the top 1 inch of soil or (2) with adequate irrigation water or rainfall. For best results, treatments should be incorporated as soon as possible after application but incorporation must be completed within 7 days after application. If adequate moisture is not received within 7 days after application, PROZINE must be incorporated with a sweep-type or rolling cultivator.

Under situations of low rainfall or soil moisture, when deep germinating weeds such as shattercane or field sandbur are anticipated, mechanical incorporation will provide best results.

If cultivation is needed after application and incorporation, the depth of cut should be no deeper than the depth of cut used to incorporate.

DO NOT APPLY PROZINE in field corn or grain sorghum more than once per crop season.

WEEDS CONTROLLED: When applied as directed, shattercane (*Sorghum bicolor*) and wild proso millet (*Panicum miliaceum*) in addition to the WEED SPECIES CONTROLLED previously listed.

ADDITIONAL HERBICIDE APPLICATION: Postemergence incorporated applications of PROZINE can be applied in field corn or grain sorghum previously treated with herbicides registered for use in field corn or grain sorghum. Consult the labels of those herbicides for suggested treatments, rates to be used, and precautions or restrictions for use in field corn or grain sorghum and for restrictions on following crops.

FIELD CORN

DO NOT APPLY PROZINE preplant incorporated in field corn as serious crop injury can result.

BROADCAST RATE PER ACRE

SOIL TEXTURE	SOUTHERN STATES ²	NORTHERN STATES ²
COARSE	2.0 lbs.	3.0 lbs.
MEDIUM	3.0 lbs.	4.25 lbs.
FINE	4.25 lbs.	4.25 lbs.

²See map below.

GRAIN SORGHUM

DO NOT APPLY in grain sorghum preplant incorporated or preemergence as serious crop injury can result.

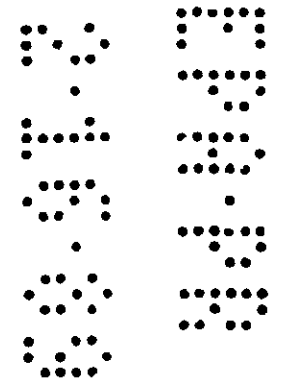
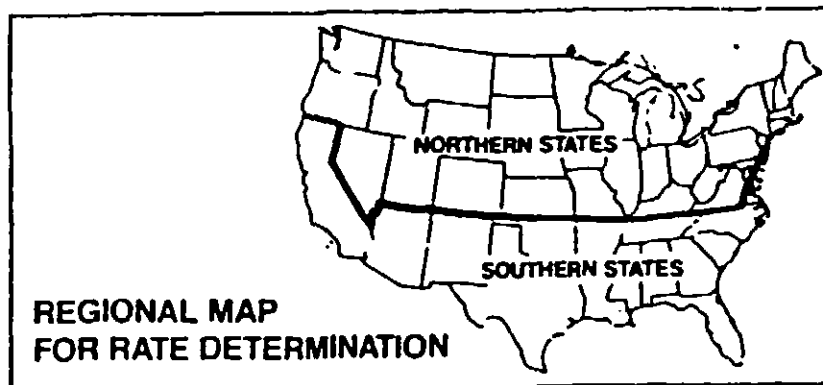
DO NOT APPLY in grain sorghum which is planted in double row beds since this cultural practice does not permit adequate soil coverage of the bases of the grain sorghum plants with cultivation.

BROADCAST RATE PER ACRE

SOIL TEXTURE	SOUTHERN STATES ³	NORTHERN STATES ³
COARSE	DO NOT USE	DO NOT USE
MEDIUM	3.0 lbs.	4.25 lbs.
FINE	4.25 lbs.	4.25 lbs.

³See map below.

NOTE: Observe all precautions, limitations, and cropping restrictions referred to in GENERAL INFORMATION section. Livestock can graze or be fed forage from treated sorghum fields 21 days following application.



DISCLAIMER

The label instructions for the 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 use of application of the product contrary to label instructions, all of which are beyond the control of American Cyanamid Company. All such risks shall be assumed by the user.

American Cyanamid Company warrants only that the material contained herein conforms to the chemical description on the label and is reasonably fit for the use therein described when used in accordance with the directions for use, subject to the risks referred to above.

Any damages arising from a breach of this warranty shall be limited to direct damages, and shall not include any other express or implied warranty of FITNESS or MERCHANTABILITY.

