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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

FEB 2 1994

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

WILLIAM T. LYJCH  
ROHM & HAAS COMPANY  
AGRI. CHEMICALS REGISTRATION &  
REGULATOR  
INDEPENDENCE MALL WEST  
PHIL., PA. 19105

Subject: Label Amendment Submission of 9/17/93 In Response to PR Notice 93-7  
EPA Reg. No. 707-226  
STAM 80DF HERBICIDE

**IMPORTANT NOTICE:** This Letter Requires You to Submit a Notification to the Office  
of Compliance Monitoring within 20 Days.

Dear Registrant:

The labeling cited above and submitted in connection with registration under the  
Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted  
subject to the comments listed on the enclosed sheet. A copy of your proposed labeling  
stamped "ACCEPTED WITH COMMENTS" is enclosed.

**SERIOUS ERROR(S) ON SUBMITTED LABELING:**

EPA has determined that one or more of the errors on the labeling you submitted  
to the Agency is categorized as "serious" as defined in PR Notice 93-11. In general, serious  
errors are those that may create a potential for harm to workers, handlers, other persons,  
or the environment; or those that prevent the achievement of the basic goals of the Worker  
Protection Standard (WPS) or FIFRA.

**YOU MUST NOT SELL OR DISTRIBUTE (INCLUDING RELEASE FOR  
SHIPMENT) ANY PRODUCT BEARING THE SUBMITTED LABELING.** Sale or  
distribution of any product with the incorrect labeling is a violation of FIFRA that could  
result in initiation of an action for civil penalties and/or cancellation of your product. This  
matter has been referred to the Office of Compliance Monitoring (OCM) for further action.

**YOU MUST SUBMIT A NOTIFICATION TO THE OFFICE OF COMPLIANCE  
MONITORING WITHIN 20 DAYS OF THE DATE OF THIS LETTER.**



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contains at least 50% recycled fiber

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Each notification must include the following information:

1. Registrant's name and address.
2. EPA Registration number of the product for which the labeling was submitted.
3. Whether any product already has been sold or distributed (this includes released for shipment) bearing the submitted labeling.

In addition, the notification must include the following information, IF you have already sold or distributed any product bearing the submitted labeling:

1. Quantity of the product that has been sold or distributed.
2. EPA Producing Establishment number.
3. Location of the product, if known.
4. Proposed plan for assuring that product with the incorrect labeling in your control, as well as that in the hands of dealers/distributors/users, will be corrected. The plan must include your proposal for assuring that the labeling is corrected as soon as possible.

Submit the notification to:

Michael Wood, Director  
Compliance Division, (7203)  
Worker Protection Notification  
Office of Compliance Monitoring  
U.S. Environmental Protection Agency  
401 M Street SW  
Washington, DC 20460

Failure to submit a notification also may result in initiation of an action under FIFRA for civil penalties, if you sold or distributed (this includes released for shipment) product bearing the incorrect labeling.

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IN ADDITION, YOU SHOULD CONTACT IMMEDIATELY THE PERSONS TO WHOM YOU SOLD OR DISTRIBUTED YOUR PRODUCT AND INFORM THEM NOT TO SELL OR DISTRIBUTE ANY PRODUCT WITH THE INCORRECT LABELING.

**WHAT THIS ACCEPTANCE MEANS:**

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the WPS labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have neither been reviewed nor accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

**WHAT YOU NEED TO DO NEXT:**

Submit the required notification. Then by the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling as amended

**AND**

- WITHIN one year from date of this acceptance.

Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs (7505C)  
U.S. Environmental Protection Agency  
401 M Street, SW  
Washington, D.C. 20460-0001

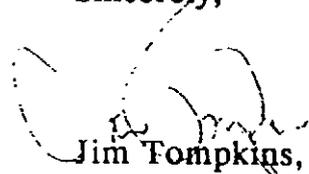
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Hand or courier deliveries of final labeling may be made to:

Document Processing Desk (FIN-LABEL)  
Office of Pesticide Programs  
Room 266A, Crystal Mall 2  
1921 Jefferson Davis Highway  
Arlington, VA 22202

Sincerely,



Jim Tompkins, Deputy Chief  
Registration Support Branch  
Registration Division (7505W)

Attachment

cc: Office of Compliance Monitoring

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# STAM<sup>®</sup> 80 EDF HERBICIDE



### ACTIVE INGREDIENT

propanil

3',4'-dichloropropionanilide.....80%

INERT INGREDIENTS.....20%

TOTAL 100%

EPA REG NO. 707-226  
EPA EST NO. 5905-IA-01

**NOTICE:** Before using this product, read the entire Precautionary Statements, Condition of Sale and Warranty, Directions for Use, Use Restrictions and Storage and Disposal Instructions. If the Conditions of Sale and Warranty are not acceptable, return the product unopened within thirty days of purchase to the place of purchase.

## KEEP OUT OF REACH OF CHILDREN CAUTION

### STATEMENTS OF PRACTICAL TREATMENT

**IF IN EYES:** Flush eyes with large amounts of water for at least 15 minutes. Consult a physician if irritation persists.

**IF ON SKIN:** Wash affected area with soap and water.

**IF SWALLOWED:** Call a physician or Poison Control Center. Drink 1 to 2 glasses of water and induce vomiting by touching back of throat with finger. Do not 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.

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

FEB 2 1994

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

707-226

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

**CAUTION**

Avoid contact with eyes or skin. Do not take internally. Avoid breathing dust or spray mist.

**Personal Protective Equipment (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

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 Standards(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.

**ENVIRONMENTAL HAZARDS**

This pesticide is toxic to fish. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. For terrestrial uses, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not treat irrigation ditches, or water used for crop irrigation or water used for domestic uses.

Do not contaminate water when disposing of equipment washwaters.

Water drained from treated rice fields must not be used to irrigate other crops or released within 1/2 mile upstream of a potable water intake in flowing water (e.g. river, stream, etc.) or within 1/2 mile of a potable water intake in a standing body of water, such as a lake, pond or reservoir.

**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 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.

**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 **24 hours**.

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
- Water-proof gloves
- Shoes plus socks

**CONDITIONS OF SALE AND WARRANTY**

Rohm and Haas warrants that the product conforms to its chemical description and is reasonably fit for the purpose stated on the label only when used in accordance with label directions under normal conditions of use. **ROHM AND HAAS MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES EITHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE.** Handling, storage and use of the product by Buyer or User are beyond the control of Rohm and Haas and Seller. Risks such as crop injury, ineffectiveness or other unintended consequences resulting from, but not limited to, weather or soil conditions, presence of other materials, disease, pest, drift to other crops or property or failure to follow label directions will be assumed by the Buyer or User. **IN NO CASE WILL ROHM AND HAAS OR SELLER BE HELD LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE HANDLING, STORAGE OR USE OF THIS PRODUCT.**

**CHEMIGATION**

**DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.**

**•GENERAL INFORMATION-FOR RICE GROWN IN SOUTHERN UNITED STATES ONLY**

STAM 80 EDF is a selective postemergence herbicide for use in rice only for control of the following weeds:

*BARNYARDGRASS (WATERGRASS)	<i>Echinochloa crus-galli, E.colonum</i>
BEAKRUSH(SPEARHEAD)	<i>Rhynchospora corniculata</i>
COCKSPUR,GULF	<i>Echinochloa crus-pavonis</i>
CRABGRASS SPECIES	<i>Digitaria spp.</i>
CROTON, WOOLLY	<i>Croton capitatus</i>
DOCK, CURLY	<i>Rumex crispus</i>
FOXTAIL SPECIES	<i>Setaria spp.</i>
GOOSEGRASS	<i>Eleusine indica</i>
HOORAHGRASS	<i>Fimbristylis miliaceae</i>
MEXICANWEED	<i>Caperonia castanaefolia</i>
PANICUM, TEXAS	<i>Panicum texanum</i>
PARAGRASS	<i>Panicum purpurascens</i>
PIGWEEED, REDROOT	<i>Amaranthus retroflexus</i>
REDWEED	<i>Melochia corchorifolia</i>
SESBANIA, HEMP (COFFEEBEAN)	<i>Sesbania exaltata</i>
SIGNALGRASS, BROADLEAF	<i>Bracharia platyphylla</i>
SPIKERUSH (WIREGRASS)	<i>Eleocharis spp.</i>

\*In isolated instances, biotypes of barnyardgrass may develop that cannot be effectively controlled by propanil alone. Where these biotypes are known or suspected to be present, and are found in a mixed weed population in which STAM is effective, a tank mixture of STAM 80 EDF herbicide at 5 lbs. (4 lbs. active) /A with either Prowl at 1.5 to 2 pints/A or Bolero 8EC at 3 to 4 pints/A is recommended to control barnyardgrass (up to the 3 leaf stage). The addition of a crop oil concentrate at 1 to 2 pints per acre is recommended. These tank mixtures may reduce crop tolerance and are applied at the user's risk. Read and observe all label directions before using. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

STAM 80 EDF is not a hormone-type herbicide, but kills susceptible weeds by direct contact action. For this reason, thorough coverage of emerged weeds is essential for best results. Only weeds that have emerged and are exposed at time of application will be controlled. STAM 80 EDF herbicide has no preemergence or residual herbicidal activity. Apply STAM 80 EDF only to fields that have been drained of flood water. STAM 80 EDF herbicide is most effective if applied when susceptible grasses and broadleaf weeds are small and growing actively under favorable soil moisture and weather conditions. Early weed control removes competition, saves moisture and generally contributes to increased yields.

**TIMING AND DOSAGE RECOMMENDATIONS**

Treat grassy and weedy fields when a satisfactory stand of rice that will tolerate flooding is established. The amount of STAM 80 EDF herbicide to apply depends primarily upon the stage and growth condition of the grasses. The growth stage of the rice is also a factor in dosage and timing limitations, so as to avoid the possibility of excessive residues.

Apply STAM 80 EDF herbicide at the rate of 3.75 to 5.00 lbs. (3 to 4 lbs. active) per acre when the grasses are actively growing in the 1 to early 4 leaf stage. This rate will also control many seedling broadleaf and aquatic weeds. Generally this will be 15 to 25 days after planting of the rice.

Apply STAM 80 EDF herbicide at the rate of 5.00 to 7.50 lbs. (4 to 6 lbs. active) per acre to actively growing grasses in the 4 to 6 leaf and early tillering stage or when they are in the 2 to 4 leaf stage, but stressed under dry soil conditions. Generally this will be 20 to 30 days after planting of the rice.

The addition of crop oil concentrate at a rate of 1 to 2 pints per acre to STAM 80 EDF herbicide is required to achieve consistent weed control.

**EMERGENCY TREATMENT:** Apply STAM 80 EDF herbicide at the rate of 6.25 to 7.50 lbs. (5 to 6 lbs. active) in 15 gallons of spray per acre for emergency control of older tillering grass.

Generally this will be 30 to 40 days after planting. If the field is already flooded, the water should be lowered or drained before spraying to expose more of the grass and weeds. Emergency treatment should be considered as a salvage operation only and cannot be relied upon for total control of grass and weeds.

**TO AVOID EXCESSIVE RESIDUES AT HARVEST, DO NOT APPLY AFTER THE END OF TILLERING FOR THE RICE VARIETY BEING TREATED. DO NOT APPLY MORE THAN A MAXIMUM OF SIX POUNDS ACTIVE INGREDIENT PER ACRE IN A SINGLE APPLICATION OR EXCEED EIGHT POUNDS ACTIVE INGREDIENT PER ACRE TOTAL DOSAGE PER SEASON.**

**MIXING DIRECTIONS-**See Rohm and Haas Technical Bulletin AG2346 for Mixing directions.

**APPLICATION EQUIPMENT**

**Aircraft-** Fixed wing aircraft or helicopters should have well-designed spray systems that produce a uniform pattern of medium-fine spray droplets. Apply STAM 80 EDF herbicide on small grass in no less than 10 gallons of total spray per acre with boom-nozzle sprayers. Increase volume to 12 to 15 gallons per acre for larger or denser stands of grass or during periods of low humidity.

The optimum effective spray swath width depends on operating conditions and type of aircraft being used. For uniform spray coverage with fixed-wing aircraft, do not exceed a spray swath width 10 percent greater than the wingspan or the length of the boom in helicopters. Measure the swaths accurately for flagging.

**Ground Sprayers-** Use standard low-pressure herbicide sprayers equipped with boom and flat fan nozzles. Use nozzle sizes that deliver a medium-fine droplet in 15 to 20 gallons total spray per acre at 40 to 50 psi and at ground speeds not in excess of 3 to 4 mph. Avoid raising boom too high. Spray patterns should meet uniformly.

Flush all equipment with clear water after each day's use. Clean all equipment, including nurse tanks used for STAM 80 EDF herbicide, with detergent wash followed by a water rinse, BEFORE AND AFTER spraying other pesticides or other crops.

**CROP TOLERANCE AND GROWING CONDITIONS**

All leading commercial varieties of rice are exceptionally tolerant to STAM 80 EDF herbicide. A temporary yellowing or tip burn of rice may be noted after treatment, but new growth is normal. Severe leaf burn and partial killing of rice may occur if the product is applied when rice is under stress and in a weakened growth conditions due to disease or insect infestations, excessive soil salts, overwatering, or prolonged drought and extremely hot weather. Growers are cautioned not to spray under such conditions and/or when maximum daily temperatures have been or are expected to go above 100°F.

**EFFECT OF CLIMATIC CONDITIONS AND CULTURAL PRACTICES ON WEED CONTROL**

**Field and Seedbed Preparation**

Fields should be accurately leveled and contoured and have well-prepared seedbeds free of clods. This encourages uniform and rapid emergence of rice, grass and broadleaf weeds and permits better timing and coverage of STAM 80 EDF herbicide sprays resulting in optimum weed control.

**Water Management**

Before application of STAM 80 EDF herbicide, drained or dry planted fields should be flushed as often as needed to prevent drying and crusting. Flushing encourages uniform emergence and vigorous growth of grass, broadleaf weeds and rice which is essential for best results. Flush fields in sufficient time so that weeds and rice are actively growing at time of treatment. Make sure the field is drained prior to treatment so that grasses and broadleaf weeds are fully exposed. Weeds that are partially submerged in standing water at time of application will not be satisfactorily controlled

After treatment, treated fields should always be flooded before a second infestation of grass has a chance to develop. To prevent more grass from germinating after treatment, fields should be flooded within 24 hours after spraying, or as soon as possible after 24 hours.

**Temperature**

The temperature a few days before and after applying STAM 80 EDF herbicide has an important bearing on the weed-killing activity. The activity increases as daily maximum temperatures increase above 75°F and decreases as the daily maximum temperatures decline below 75°F. Do not apply STAM 80 EDF herbicide when maximum temperatures have been or are expected to stay below 65°F or to go above 100°F. Low temperature at time of application is not so important as long as it warms up later during the day.

**Relative Humidity and Rain**

Grasses and weeds are more responsive to STAM 80 EDF herbicide during periods of high humidity when the foliage is moist or covered by dew. When the humidity is very low, increase spray volume to 12 to 15 gallons per acre for best results. Do not spray when rain threatens within eight hours, to avoid loss of the spray deposit before adsorption by the grass.

**Wind**

Avoid applications when the wind speed exceeds 10 mph because of drift hazard to sensitive crops and the possibility of uneven (streaked) applications.

**COMPATIBILITY WITH OTHER CHEMICALS**

Tank-mix applications of STAM 80 EDF herbicide with other herbicides, insecticides, or liquid fertilizers may reduce crop tolerance and/or weed control or impair mixing properties. Use of these products in tank-mix applications with STAM 80 EDF herbicide is done at the users' risks.

**Insecticides**

Severe injury or kill of rice plants may result from tank-mix combinations or separate sprays of STAM 80 EDF herbicide and certain insecticides. Do not combine STAM 80 EDF herbicide with carbamate insecticides such as carbaryl (Sevin, etc.) methomyl (Lannate, Nudrin, etc.) or organophosphorus insecticides such as parathion, methyl parathion, Guthion, malathion, Systox, EPN, Phoshamidon, etc. Do not apply any of the above insecticides to rice fields within 14 days before or after STAM 80 EDF herbicide. Do not use carbamate or systemic organophosphorus insecticides on rice fields to be treated with STAM 80 EDF herbicide.

**Do not apply STAM 80 EDF herbicide to rice fields that were planted with rice seed treated with bird repellents containing methiocarb such as Mesuroi, Borderland Red, etc. Consult local Extension specialist for current recommendations of approved insecticides on rice.**

**USE RESTRICTIONS**

Do not apply to any crop other than rice. STAM 80 EDF herbicide injures most crops except cereal grains and perennial grasses. Avoid drift or accidental application from turning aircraft on cotton, soybeans, corn, safflower, seedling legumes, vegetables, orchards, vineyards, gardens, shrubs and ornamentals. Once applied, it does not release fumes hazardous to nearby crops.

Do not apply to fields where catfish farming is practiced and do not drain water from treated fields into areas where catfish farming is practiced.

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**•GENERAL INFORMATION -FOR CONTROL OF GREEN AND YELLOW FOXTAIL (Wild millet, pigeongrass) AND SPECIFIC BROADLEAF WEEDS IN HARD RED SPRING WHEAT, SPRING BARLEY, AND DURUM WHEAT IN NORTH DAKOTA, SOUTH DAKOTA, MINNESOTA AND MONTANA.**

STAM 80 EDF is a selective postemergence herbicide when tank mixed with MCPA, for the control of green and yellow foxtail (wild millet, pigeongrass) and specific broadleaf weeds in hard red spring wheat, spring barley, and durum wheat in North Dakota, South Dakota, Minnesota and Montana.

STAM 80 EDF is a contact herbicide, therefore, thorough coverage of emerged susceptible weeds is essential for acceptable postemergence control. STAM 80 EDF has no preemergence or residual herbicidal activity. The most effective control is achieved when foxtail (pigeongrass) and susceptible broadleaf weeds are small and growing actively under favorable soil moisture and weather conditions.

**WEEDS CONTROLLED POSTEMERGENCE**

Weeds Controlled		Seedling Stage*
Pigeongrass		
Foxtail, Green	<i>Setaria viridis</i>	1 to 3 leaf
Foxtail, Yellow	<i>Setaria lutescens</i>	1 to 3 leaf
Buckwheat, Wild	<i>Polygonum convolvulus</i>	1 to 4 leaf
Kochia**	<i>Kochia scoparia</i>	1 to 4 leaf
Lambsquarters, Common	<i>Chenopodium album</i>	1 to 4 leaf
Mustard, Wild	<i>Brassica kaber</i>	1 to 4 leaf
Pigweed, Prostrate	<i>Amaranthus blitoides</i>	1 to 4 leaf
Pigweed, Redroot	<i>Amaranthus retroflexus</i>	1 to 4 leaf

\* Refers to weed seedling stages for control. Pigeongrass greater than the 3 leaf stage or listed broadleaf weeds beyond the 4 leaf stage will not be controlled.

\*\* Suppression -- may cause spotting, stunting or death of kochia, not exceeding the 4 leaf stage.

## DOSAGE RATE RECOMMENDATIONS -- SPRING BARLEY, DURUM AND HARD RED SPRING WHEAT

STAM 80 EDF herbicide is recommended for control of susceptible weed seedlings when applied as a single postemergence application at the rate of 1.25 to 1.40 lb (1.0 to 1.13 lb active) per acre, in a tank mixture with MCPA isooctyl ester at 0.25 pound acid equivalent per acre (equivalent to 0.5 pint (8 oz) of a formulation containing 4 pounds of MCPA acid equivalent per gallon).

Only isooctyl ester formulations of MCPA are recommended for use in tank mix applications with STAM 80 EDF. When tank mixing, always read all individual manufacturers labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

The addition of crop oil concentrate at a rate of 1 pint per acre to STAM 80 EDF is required to achieve consistent weed control.

Do not apply STAM 80 EDF when soil moisture levels are deeper than 1.5 inches from the soil surface and active plant growth stops.

### APPLICATION TIMING

**WEED CONTROL** - The STAM 80 EDF tank mix with MCPA is most effective in controlling foxtail if spray applications are made when the majority of the emerged foxtail are in the 2 to 3 leaf stage. The effectiveness of the tank mix to provide control declines rapidly as the 4th leaf of the foxtail begins to emerge. Since foxtail at these early stages is often less than one inch tall, close inspection of the field is essential to determine correct application timing. Fields should be checked frequently for emerging pigeongrass starting 2 to 2 1/2 weeks after planting. The best time to apply the STAM 80 EDF tank mix often will be 10 to 17 days after crop emergence when the cereal grain is in the 3 to 4 leaf stage.

### CROP TOLERANCE

STAM 80 EDF causes temporary yellowing or tip browning to the leaves of the grain crop 2 to 5 days after application. The effects are temporary and usually will disappear 10 to 14 days after application. New leaves will have normal green color. Application of the STAM 80 EDF tank mix under adverse growing conditions may result in greater crop injury and slower recovery. Care should be taken not to spray STAM 80 EDF on grain crops that are under growth stress caused by drought, flooding, excess soil salts, hail damage, disease or extreme temperatures. Do not apply STAM 80 EDF if frost is expected within 24 hours or when temperatures are above 85°F, especially with drying winds.

Applications of the STAM 80 EDF tank mix should be made only to actively growing (healthy) grain crops in the seedling stages recommended below:

CROP	Seedling Stage*
Hard Red Spring Wheat	2 to 5 leaf
Durum Wheat	2 to 4 leaf
Spring Barley	2 to 4 leaf

\* Refers to crop seedling stages for best tolerance. To avoid crop injury, do not apply the STAM 80 EDF tank mix to labeled grain crops beyond the recommended seedling stage.

## MIXING AND EQUIPMENT

STAM 80 EDF herbicide is an 80% active extruded dry flowable formulation. With the pump and agitator running, slowly add the recommended amount of STAM 80 EDF into a partially filled mix tank for aerial application or spray tank for ground application. The jet or tank agitators must be correctly positioned to create a rippling or rolling action on the liquid surface and to provide complete agitation on the bottom of the tank, preventing dead spots where the material can accumulate. A centrifugal pump is suggested to provide additional propeller shear action for dispersing and mixing this product. Keep filling and bypass lines below the liquid surface. The STAM 80 EDF must be completely dispersed and mixed prior to application.

If a tank mixture is to be applied, conduct a compatibility test prior to use. The order of addition to water should be dry flowables or wettable powders first, flowables second, liquid formulations third and crop oil concentrate last. Allow for each material to go into solution prior to the addition of the next material.

While filling tank to the desired spray water volume, add the crop oil concentrate. Spray water should be clean and a minimum temperature of 50°F or warmer when mixed. STAM 80 EDF may be applied with conventional low pressure herbicide sprayers.

It is not recommended to add STAM 80 EDF directly to the spray tank of aircraft. Once properly dispersed in mix tank, pump to plane (include rinsate from mix tank). Maintain good agitation throughout application.

## GROUND APPLICATION

**Field Sprayers:** Spra-Coupe, tractor-drawn or truck-mounted ground sprayers, floaters (Big A, Terragator, etc.)

STAM 80 EDF herbicide should be thoroughly mixed with clean water, at recommended concentrations and applied in a minimum of 10 gallons of water per acre. Use conventional ground spray equipment with flat fan nozzles (suggested 20 inch spacing) at a minimum spray pressure of 40 psi. Recommended ground speeds should not exceed 8 mph (1st or 2nd gears only) for Spra-Coupe, 5 mph for tractor-drawn sprayers and 10 mph for truck-mounted sprayers. Hollow cone or flood jet nozzles are not recommended on these sprayers.

## AERIAL APPLICATION

STAM 80 EDF herbicide can be applied either by fixed wing aircraft or helicopter. Make applications at the recommended dosage and timing in a minimum of 5 gallons of water per acre. Aircraft should be equipped with a well designed spray distribution system that is adjusted and operated to provide a uniform patter of medium-sized droplets (400 micron size) distributed over an optimum width swath. Only hollow cone nozzles with cores are recommended for STAM 80 EDF aerial application. Nozzles should be angled 0° to 20° downward and to the rear, depending on air speed. Nozzles should not be placed within 2 to 3 feet of the wing tips in fixed wing aircraft and extras should be placed on the right side of the fuselage. Use a spray pump of at least 1 1/2 to 2 inches in diameter and operate at 20 to 50 psi. Application should be made with boom height 6 to 10 feet above crop. The optimum or effective spray swath width depends on operating conditions and type of aircraft being used. For uniform spray coverage with fixed wing aircraft do not exceed a spray swath width 10% greater than the wingspan or the length of the boom in helicopters. Measure the swaths accurately for flagging.

DO NOT APPLY STAM 80 EDF HERBICIDE IN AERIAL APPLICATIONS WITHIN 600 FEET OF ANY PERMANENT BODY OF WATER OR WHEN WIND SPEED EXCEEDS 10 MPH.

## CALIBRATION

Sprayers should be checked carefully for pressure, ground speed, and uniformity of spray pattern, and calibrated accurately for spray volume.

## CLEANING SPRAYERS

Thoroughly flush spray equipment (tank, pump, hoses and bloom) with clean water before and after each use. Repeat this procedure at the end of each day's spraying and before changing to or from another pesticide. This cleaning operation of tank and lines is especially important if insecticides such as Sevin or any of the organophosphorus insecticides are used in the sprayer prior to or after STAM 80 EDF. Interaction of these insecticides and STAM 80 EDF can injure the crop severely. See COMPATIBILITY WITH OTHER CHEMICALS section.

## EFFECT OF CLIMATIC CONDITIONS AND CULTURAL PRACTICES ON WEED CONTROL

### Field and Seedbed Preparation

Fields under conventional tillage should have well prepared seedbeds, free of large clods, to encourage more uniform and rapid emergence of the crop, foxtail, and broadleaf weeds. This permits better timing of sprays. In no-till grain fields, pigeongrass and other weeds may emerge rapidly and very thickly because of the firm seedbed. Monitoring of no-till fields should begin early to assure proper timing of sprays.

### Soil Moisture and Rainfall

Weed control with the STAM 80 EDF tank mix with MCPA is strongly influenced by soil moisture. Weed control and crop tolerance is best when adequate moisture is available for active weed and crop growth. The performance of STAM 80 EDF is reduced substantially during periods of prolonged dry weather. STAM 80 EDF IS NOT RECOMMENDED FOR USE WHEN SOIL MOISTURE LEVELS ARE DEEPER THAN 1 1/2 INCHES FROM THE SOIL SURFACE AND ACTIVE PLANT GROWTH STOPS.

STAM 80 EDF herbicide enters the leaf rapidly. Spraying of weeds at the correct stage should not be postponed even if showery weather is expected; however, a heavy rain of 1 inch or more, within 4 hours after application, may reduce control. Fields may be sprayed when the plants are dry or wet with dew or rain.

## TEMPERATURE

Providing soil moisture is not a limiting factor, the herbicidal activity of STAM 80 EDF improves as daily maximum temperatures increase. Best weed control occurs when the daily maximum temperatures are 65°F and above. Do not apply STAM 80 EDF when daily maximum temperatures will remain below 50°F or when they are expected to exceed 85°F.

## COMPATIBILITY WITH OTHER CHEMICALS

### Foliar-Applied Chemicals

If another herbicide is required, a 3 day interval should be allowed between the application of the STAM 80 EDF tank mixture with MCPA, and the other herbicide.

Severe injury or kill of cereal grains may result from tank mix or separate applications of STAM 80 EDF herbicide and certain insecticides. Grain crops that have been or will be treated with STAM 80 EDF should not be treated with carbamate insecticides such as carbaryl (Sevin, etc.), methomyl (Lannate, Nudrin, etc.) or organophosphorus insecticides such as methyl parathion, Guthion, etc.

If a foliar insecticide is necessary, malathion or pyrethroids can be safely applied 14 days before or after the STAM 80 EDF herbicide treatment.

### Soil-Applied Chemicals

Do not spray STAM 80 EDF herbicide on cereal grains if the field was treated the previous year with soil-applied systemic organophosphorus insecticides (Counter, Di-syston, Thimet, and others).

Do not spray STAM 80 EDF herbicide on cereal grains that has been treated at planting time with soil-applied systemic insecticides e.g., Di-syston, Furadan, Thimet, and others.

Grain crops protected with maneb/lindane seed dressings may be treated with STAM 80 EDF herbicide.

**USE RESTRICTIONS**

- Do not apply STAM 80 EDF herbicide to any crops other than spring, barley, durum, hard red spring wheat or oats.
- Do not mix or apply STAM 80 EDF herbicide with any other pesticide, spray adjuvant or with fertilizer except as specifically recommended on this label.
- Do not apply STAM 80 EDF herbicide under windy conditions that will allow spray drift to adjacent susceptible crops such as sunflowers, soybeans, sugarbeets, potatoes, forage legumes, gardens, orchards, and shelter belts.
- Do not graze treated crop or cut for green chop feed.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**STORAGE:** Do not use, pour, spill or store near heat or open flame.

**IF THE ENTIRE CONTENTS ARE NOT USED, PROTECT REMAINING MATERIAL FROM MOISTURE AND HEAT. RESEALING BY ROLLING TOP DOWN AND STORAGE UNDER ROOF ARE RECOMMENDED**

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA region office for guidance.

**CONTAINER DISPOSAL**

**PAPER BAGS:** 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.

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Sweep or shovel into containers for disposal or reworking. Keep dusting to a minimum. Flush contaminated area with a large amount of water to a chemical or sanitary sewer containing a settling pit.

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