# Stam® 80 EDF

Herbicide

#### **Water Soluble Packaging**

#### FOR POSTEMERGENCE WEED CONTROL IN RICE

Active myreulent	
Propanil: 3',4'-dichloropropionanilide	81%
Other Ingredients	19%
Total	00%
Contains 0.8 lb of active ingredient per 1 lb of product.	

EPA Reg. No. 70506-375 EPA Est. No. 65387-AR-1

#### DO NOT SELL THE SOLUBLE BAGS INDIVIDUALLY

# KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

#### **FIRST AID**

#### If on skin or clothing

Take off contaminated clothing.
 Rinse skin immediately with plenty of water for 15-20 minutes.
 Call a poison control center or doctor for treatment advice.

#### If in eyes

Active Ingredient

Hold eye open and rinse slowly and gently with water for 15-20 minutes.
 Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
 Call a poison control center or doctor for treatment advice.

#### If swallowed

Call poison control center or doctor immediately for treatment advice.
 Have person sip a glass of water if able to swallow.
 Do not induce vomiting unless told to do so by the poison control center or doctor.
 Do not give anything by mouth to an unconscious person.

#### If inhaled

 Move person to fresh air.
 If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth, if possible.
 Call a poison control center or doctor for further treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**FOR MEDICAL EMERGENCIES:** Call Rocky Mountain Poison and Drug Safety 24 hours a day at 1-866-673-6671. **FOR CHEMICAL EMERGENCY:** Spill, leak, fire, exposure or accident, call CHEMTREC at 1-800-424-9300.

See inside for complete Directions for Use, including Conditions of Sale and Limitation of Warranty and Liability.

Manufactured for: UPL NA Inc. • 630 Freedom Business Center, Suite 402 • King of Prussia, PA 19406 U.S.A. • 1-800-438-6071



Net Contents (10 - 2.5 lb bags) 25 lbs

#### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Harmful If Swallowed or Absorbed Through Skin • Causes Moderate Eye Irritation

Avoid contact with skin, eyes or clothing.

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are natural rubber ≥ 14 mils.

Mixers, loaders, and other handlers exposed to the concentrate must wear:

- Coveralls over long-sleeve shirt and long pants
- · Chemical-resistant gloves made of any waterproof materials
- · Chemical-resistant footwear plus socks
- · Chemical-resistant headgear, if overhead exposure
- Chemical-resistant apron

#### Applicators and other handlers exposed to the dilute must wear:

- · Long-sleeved shirt and long pants
- Shoes plus socks
- · Chemical-resistant gloves made of any waterproof materials

See Engineering Controls for additional requirements and options.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **Do not** reuse them.

#### **ENGINEERING CONTROLS**

Water soluble packets when used correctly qualify as a closed mixing/loading system under the Worker Protection Standard for agricultural pesticides [40 CFR 170.240(d) (4)]. Handlers handling this product while it is enclosed in intact water-soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes and socks instead of listed PPE.

IMPORTANT: When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and others handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment break-down.

When handlers use closed systems in a manner that meet 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. Pilots must use an enclosed cockpit that meets the requirements listed in the WPS for agricultural pesticides [40 CFR 170.240(d)(6)]. Human flagging is prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet
- Remove clothing/PPE 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**

This pesticide is toxic to fish and aquatic invertebrates. **Do not** apply directly to water except as specified on this label. **Do not** contaminate water when cleaning equipment or disposing of equipment washwaters or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical prior to flooding may result in some shallow groundwater contamination due to cracks in the subsoil of the rice paddy.

This product may contaminate water through runoff following rainfall events and by seepage through levees. Runoff of this product will be reduced by avoiding application when rainfall is forecasted to occur within 48 hours. Levees should be constructed with adequate time prior to chemical application so that they are compacted to reduce seepage and to hold a 3- to 6-inch flood.

Notice: Read the entire label. Use only according to label directions.

Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies elsewhere on the label. If terms are unacceptable, return at once unopened.

#### **MODE OF ACTION**

#### GROUP 7 HERBICIDE

Propanil the active ingredient in this product, is a Group 7 herbicide based on the mode of action classification system of the Weed Science Society of America. Any weed population may contain plants naturally resistant to Group 7 herbicides. Weeds resistant to Group 7 herbicides may be effectively managed utilizing another herbicide alone or in mixtures from a different Group and/or by using cultural or mechanical practices. However, a herbicide mode of action classification by itself may not adequately address specific weeds that are resistant to specific herbicides. Consult your local company representative, state cooperative extension service, professional consultants or other qualified authorities to determine appropriate actions for treating specific resistant weeds.

#### **Best Management Practices**

Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is recommended. A diversified weed management program may include the use of multiple herbicides with different modes of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance. Scouting after a herbicide application is important because it can facilitate the early identification of weed shifts and/or weed resistance and thus provide direction on future weed management practices. One of the best ways to contain resistant populations is to implement measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively. Cleaning equipment between sites and avoiding movement of plant material between sites will greatly aid in retarding the spread of resistant weed seed.

#### **DIRECTIONS FOR USE**

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

Read all Directions for Use carefully before applying.

**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 Chemical: Do not ship or store with food, feeds, drugs or clothing.

#### **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
- · Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks
- Protective evewear

#### STORAGE AND DISPOSAL

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

Keep in original packaging during storage. Store above freezing in a dry, well-ventilated area. Prolonged storage at temperatures below 0°F may cause the soluble bag to become brittle.

**Pesticide 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. Keep containers closed when not in use.

**Pesticide Disposal:** Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. For products packaged in Water-Soluble Bags (WSB), offer container and inner liner for recycling or dispose of them in the trash as long as the WSB have not broken in the container or liner. If WSB is broken, empty the remaining contents in the container and liner into application equipment or a mix tank and then dispose of container and liner at an approved waste disposal facility.

Steps to be Taken in Case Material is Released or Spilled: 1. Cover the spill with plastic or a tarp to prevent a breeze from moving the material. 2. Put weights on the cover. 3. Use a broom, dust pan or shovel to sweep up the spill while rolling back the tarp to expose only a small area at a time. 4. Place spillage in metal or plastic containers. Plastic bags may be used, but only as a last resort. 5. Secure and label the containers for later disposal. If at all possible, assess the volume of spilled material, review the label and application rates, and then apply as a legal application. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide control agency or the hazardous waste representative of the nearest EPA regional office for guidance.

#### **USE INFORMATION**

STAM® 80 EDF Herbicide for postemergence weed control in rice is formulated as an 80% active extruded dry flowable formulation. STAM 80 EDF Herbicide 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. STAM 80 EDF Herbicide has no preemergence or residual herbicidal activity. Only weeds that have emerged and are exposed at time of application will be controlled. Apply STAM 80 EDF Herbicide only to fields that have been drained of floodwater. 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 weed competition from the rice crop, saves moisture, and generally contributes to increased yields. **Do not** apply when weather conditions favor drift from area to be treated.

The STAM 80 EDF Herbicide is packaged in 10 "Water Soluble Bags". Each water-soluble bag contains 2.5 lbs product (2.0 lbs active ingredient).

Do not touch water-soluble bags with wet gloves, as the bags will dissolve. Do not open water-soluble bags.

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

#### **SPRAY DRIFT MANAGEMENT**

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid offtarget drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

- The distance of the outer most operating nozzles on the boom must not exceed 3/4 the length of the wingspan or 90% of the rotor blade diameter.
- Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
- Apply only when the wind speed is less than or equal to 10 mph at the application site.
- Apply as a medium or coarser spray (ASAE standard 572).
- For ground applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.
- · For aerial applications:
- Do not apply by air if drift can occur to sensitive nontarget crops or plants that are within 100 feet of the application site.
- Do not release spray at a height greater than 10 feet above the ground or crop canopy. The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- 3. **Do not** make any type of application into temperature inversions.
- · Where states have more stringent regulations, they must be followed.

The applicator should be familiar with and take into account the information covered in the following Aerial Drift Reduction Advisory.

#### **Aerial Drift Reduction Advisory**

**Information on Droplet Size:** The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

#### **Controlling Droplet Size:**

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- Pressure Use the lower spray pressures recommended for the nozzle. Higher
  pressure reduces droplet size and does not improve canopy penetration. When higher
  flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- Number of Nozzles Use the minimum number of nozzles that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is released parallel
  to the airstream produces larger droplets than other orientations and is the
  recommended practice. Significant deflection from horizontal will reduce
  droplet size and increase drift potential.
- Nozzle Type Use a nozzle type that is designed for the intended application.
   With most nozzle types, narrower spray angles produce larger droplets.
   Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**Application Height:** Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**Swath Adjustment:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

**Wind:** Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Avoid drift or accidental application from turning aircraft on beans, cotton, cucurbits, soybeans, corn, safflower, seedling legumes, vegetables, orchards, vineyards, gardens, shrubs and ornamentals.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity:** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**Temperature Inversions:** Applications shall not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

**Sensitive Areas:** The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

# FOR USE ON RICE GROWN IN SOUTHERN UNITED STATES ONLY – ARKANSAS, LOUISIANA, MISSISSIPPI, MISSOURI, TEXAS

#### RESTRICTIONS

- Preharvest Interval: Do not apply this product within 60 days of rice harvest.
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not apply more than a maximum of 7.5 lbs of STAM 80 EDF Herbicide (6 lbs active ingredient) per acre in a single application or exceed 10 lbs of STAM 80 EDF Herbicide (8 lbs active ingredient) per acre total dosage per season.
- Do not apply this product to any crop other than rice.
- **Do not** apply this product (directly or indirectly) to wild rice (*Zizania* spp.).
- Do not apply to fields where catfish farming is practiced and draining water from treated fields into areas where catfish farming is practiced is prohibited during 12 months following treatment.
- Do not graze treated fields or feed treated forage within 60 days of the last application.
- Do not rotate treated land to other crops or transplant to crops other than rice for 60 days following treatment of this product.
- Do not apply this product within 14 days before or after carbamate or organophosphate insecticide applications.
- Do not use water drained from treated rice fields to irrigate other crops or release 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.
- Only apply at wind speeds between 2 and 10 mph.
- Do not apply when weather conditions favor drift from area to be treated.

#### **Adverse Reaction to Insecticides**

Rice plants may be severely injured or killed if STAM 80 EDF Herbicide is applied in tank mix combinations or sequentially before or after certain insecticides.

- Do not tank mix STAM 80 EDF Herbicide with carbamate insecticides such as carbaryl, etc., or organophosphorus insecticides (such as malathion and methyl parathion, etc).
- **Do not** apply any of the carbamate or organophosphorus insecticides to rice fields within 14 days before or after applying STAM 80 EDF Herbicide.
- Do not apply STAM 80 EDF Herbicide to rice fields planted with rice seed treated with bird repellents containing methiocarb. Consult local Extension specialist for current recommendations of approved insecticides on rice.

#### **Emergency Release Provision:**

Water holding (discharge) intervals for flood water from treated rice paddies following treatment in the southern United States (AR, LA, MS, MO and TX):

- For delayed flood (water-seeded) rice grown south of Interstate Highway 10 from the Texas/Louisiana border to Houston and east of State Highway 35 from Houston to Port Lavaca Flood water must be held for 10 days after application unless excessive rainfall completely submerges the rice crop and forces premature release. For Texas rice grown in areas north or west of these boundaries, the water holding interval is 7 days.
- For delayed flood (water-seeded) rice in southern Louisiana south of Highway 14 – Flood water must be held for 15 days after propanil application unless excessive rainfall completely submerges the rice crop and forces premature release. For delayed flood (water-seeded) rice in Louisiana, north of the Highway 14 boundary, the water holding interval is 7 days.
- For rice in all other parts of the southern United States not mentioned above —
   Flood water must be held for 7 days after application unless excessive rainfall
   completely submerges the rice crop and forces premature release.

#### **WEEDS CONTROLLED**

STAM 80 EDF Herbicide provides selective postemergence control of the following weeds in rice:

Common Name	Scientific Name	
annual sedges	Cyperus spp.	
barnyardgrass <sup>†</sup>	Echinochloa crus-galli	
beakrush (spearhead)	Rhynchospora corniculata	
broadleaf signalgrass	Brachiaria platyphylla	
crabgrass species	Digitaria spp.	
curly dock	Rumex crispus	
foxtail species	Setaria spp.	
goosegrass	Eleusine indica	
gulf cockspur	Echinochloa crus-pavonis	
hemp sesbania (coffeebean)	Sesbania exaltata	
hoorahgrass	Fimbristylis miliacea	
junglerice <sup>†</sup>	E. colonum	
Mexicanweed	Caperonia castaneifolia	
paragrass	Panicum purpurascens	
redroot pigweed	Amaranthus retroflexus	
redweed	Melochia corchorifolia	
rice flatsedge	Cyperus iria	
smallflower umbrella plant	Cyperus difformis	
spikerush (wiregrass)	Eleocharis spp.	
Texas panicum	Panicum texanum	
watergrass <sup>†</sup>	Echinochloa spp.	
woolly croton	Croton capitatus	

<sup>&</sup>lt;sup>†</sup> In isolated instances, biotypes of barnyardgrass/watergrass 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 80 EDF Herbicide is effective, tank mix STAM 80 EDF Herbicide at labeled rate with other rice herbicides that are recommended for control of barnyardgrass/watergrass (up to the 3 leaf stage). It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### **TIMING AND DOSAGE**

#### **Early Timing and Rates**

Apply STAM 80 EDF Herbicide when a satisfactory stand of rice has been established that will tolerate flooding. The amount of STAM 80 EDF Herbicide to apply depends upon the growth stage and condition of the target weeds. STAM 80 EDF Herbicide is most effective if applied when susceptible grasses and broadleaf weeds are small and actively growing under favorable soil moisture and weather conditions. Use a higher rate in the rate range for heavy weed infestations, weeds in advanced stages of growth, or when growing conditions are less than optimum. Emergency treatments made to weeds in advanced growth stages, such as when grass weeds are tillering, must occur at least 60 days before harvest.

For best results, apply STAM 80 EDF Herbicide at the rate of 3.75 to 5 lbs (3 to 4 lbs active ingredient) 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.

#### Mid-Timing and Rates

Apply STAM 80 EDF Herbicide at the rate of 5 to 7.5 lbs (4 to 6 lbs active ingredient) 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.

**Use of Surfactants:** The addition of a crop oil concentrate at 1 to 2 pints per acre, or other 80% active nonionic surfactant at a rate of 1 to 2 pints per 100 gallons of spray mixture, is recommended.

#### **Rescue Timing and Rates**

Apply STAM 80 EDF Herbicide at the rate of 6.25 to 7.5 lbs (5 to 6 lbs active ingredient) in 12 to 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.

PRODUCT TABLE				
Use Rate	Number Water-Soluble Bags Required			
Lbs per Acre	10 Acre	20 Acre	30 Acre	
3.75	15	30	45	
5.00	20	40	60	
6.25	25	50	75	
7.50	30	60	90	

#### **MIXING DIRECTIONS**

STAM 80 EDF Herbicide will disperse more quickly if water temperature is 50°F or warmer. Use only clean water for spraying. With the pump and agitator running, slowly add the labeled amount of STAM 80 EDF Herbicide into a partially filled mix tank as noted in the Mixing Procedure section. The jet or tank agitators must be positioned to create a rippling or rolling action on the liquid surface and to provide complete agitation at 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. To avoid foaming, keep filling and bypass lines below the liquid surface. STAM 80 EDF Herbicide must be completely dispersed and mixed prior to application.

#### MIXING PROCEDURE:

- 1. Ensure that the sprayer is totally clean.
- Fill the spray tank three quarters full with water. Engage gentle agitation. Ensure the agitation system is working properly and that it creates a rippling or rolling action on the water surface.
- 3. Add the appropriate number of water-soluble bags of STAM 80 EDF Herbicide directly into the spray tank. **Do not** touch water-soluble bags with wet gloves. Allow eight (8) minutes for complete mixing. The water-soluble bag

- may become brittle with age and exposure to cold temperatures. Longer mixing time may be required if the bag is brittle or if the water is cold.
- Ensure STAM 80 EDF Herbicide is completely in suspension before adding other tank mix partners.
- Add tank mix partners in the following order: Water-soluble, Emulsifiable concentrates, Water-soluble additives (such as AMS or UAN when applicable).
- 6. Continue agitation while completing the filling of the sprayer.
- Continuous agitation is required to keep STAM 80 EDF Herbicide in suspension. Do not allow the spray mixture to stand without agitation.
- 8. Use the spray suspension as soon as it is prepared.
- Do not mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.

NOTE: Growers using a sprayer with by-pass agitation should allow the water-soluble bags to completely dissolve before engaging the by-pass. Otherwise, undissolved bags could be sucked into the by-pass and plug the main screen.

If a tank mixture is to be applied, always conduct a compatibility test prior to use by mixing proportional amounts of all spray ingredients in a test vessel (jar). It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. 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. Shake the mixture vigorously and allow it to stand for 15 minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and must not be applied.

As each material is added to the spray mixture, always allow for complete mixing before adding the next ingredient. Add crop oil concentrate last and continue agitation while filling the mixing tank to the desired spray volume.

**Do not** add STAM 80 EDF Herbicide directly to the spray tank of aircraft. Once properly dispersed in mix tank, pump spray mixture to aircraft spray tank (include rinsate from mix tank). To ensure uniformity of sprays, maintain good agitation throughout application.

#### 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 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 upon operating conditions and type of aircraft being used. For uniform spray coverage with fixed-wing aircraft or helicopter, spray swath width should not exceed the width of wingspan or rotor plus 10%. Measure the swaths accurately for flagging.

#### **Ground Sprayers**

Use standard low-pressure herbicide boom sprayers equipped with 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. Adjust boom height so nozzle spray patterns meet uniformity. Avoid raising boom too high.

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.

#### SPRAYER CLEANUP

Before using equipment exposed to this product to treat another crop, clean the sprayer and any other equipment (loading hoses, batch tanks, etc.) using the following procedure:

- 1. Steam-clean tank using a non-chlorine-based detergent, taking care to remove all physical residues.
- Thoroughly rinse sprayer, tanks, boom, and hoses with clean water (free of sediment and agricultural chemicals).

- 3. Fill the tank one-half full with clean water and add Nutrasol at 32 oz. per 100 gallons water. Fill the tank to capacity with clean water. Flush the nozzles, boom, and hoses, and agitate (and recirculate, if possible) the sprayer for 15 minutes. Drain the equipment, taking care to flush the boom and hoses thoroughly.
- 4. Rinse tanks, hoses and nozzles with clean water to remove Nutrasol.
- 5. Fill the tank one-half full with clean water and add 1 gallon 21% ammonia or 7 gallons 3% ammonia per 100 gallon water. Fill the tank to capacity with clean water. Flush the nozzles, boom, and hoses and agitate (and recirculate, if possible) the sprayer for 15 minutes. Drain the equipment, taking care to flush the boom and hoses thoroughly.
- 6. Remove nozzles, screens, and strainers, and clean them separately.
- 7. Rinse tanks, booms, and hoses with clean water.
- 8. Repeat steps 5 and 7 an additional 3 times.
- 9. Rinse tanks, booms, and hoses to remove all traces of ammonia.
- Water rinses may be applied to rice fields. Dispose of bleach rinses at an approved waste disposal facility.

**NOTE:** When applying multiple loads of this product several days in a row, the following procedure must be performed at the end of each day; partially fill the tank with fresh water, flush the boom and hoses, and allow to set overnight.

#### **ATTENTION**

- Do not use chlorine bleach with ammonia. All traces of liquid fertilizer containing ammonia, ammonium nitrate or ammonium sulphate must be rinsed from the mixing and application equipment using water before adding chlorine bleach solution. Failure to do so will release a gas with a musty chlorine odor that can cause eye, nose, and throat and lung irritation.
- Do not clean equipment in an enclosed area.

Perform cleanup procedures on batch tanks and any other mixing equipment separately from aircraft hoppers. Take care to clean loading hoses and any other equipment or surfaces exposed to this product.

#### 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 condition 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 exceed 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. Such conditions encourage uniform and rapid emergence of rice, grass and broadleaf weeds, allowing more accurate timing and coverage of sprays of STAM 80 EDF Herbicide for optimum weed control.

#### **Water Management**

Before application of STAM 80 EDF Herbicide, drained or dry planted fields should be flushed as often as necessary to prevent drying and crusting. Flushing encourages uniform emergence and vigorous growth of grass, broadleaf weeds and rice, which is essential for optimum weed control. Flushing of fields should occur when 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.

Treated fields should be flooded before a second infestation of grass develops. To prevent additional grass weed seed from germinating, rice 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 effect 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 exceed 100°F. Less than optimum temperature at time of application is not critical so long as the temperature exceeds 75°F 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, spray tends to evaporate before reaching weed foliage. For best results under low relative humidity conditions, increase spray volume to 12 to 15 gallons per acre.

 Do not spray if rain is expected within 8 hours to avoid loss of deposited spray and herbicide adsorption by the weeds.

#### **COMPATIBILITY WITH OTHER CHEMICALS**

Tank mix applications of STAM 80 EDF Herbicide with other herbicides, insecticides, spray adjuvants, or liquid fertilizers may reduce crop tolerance and/or weed control or impair mixing properties. It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### IMPORTANT INFORMATION READ BEFORE USING PRODUCT

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