

62719-413

6-9-2003

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Rafael Herrera  
Dow AgroSciences LLC  
9330 Zionsville  
Indianapolis, IN 46268

JUN - 9 2003

Dear Mr. Herrera:

Subject: Labeling Amendment  
Stem\* 80 EDF  
EPA Registration No. 62719-413  
Your submission dated November 1, 2002

The labeling, referred to above, submitted in connection with the application under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable, provide you make the following recommend change:

Under "Restrictions for Use - Directions for Use";

Add the following Statements:

"Do not discharge water from treated rice paddies for 30days following treatment."

The amended label supersedes all previously accepted labels. A stamped copy of the revised label is enclosed for your records. Please submit one copy of your final printed labeling before you release the product for shipment.

Sincerely yours,



Jim Fortpkins  
Product manager (25)  
Herbicide Branch  
Registration Division (7505C)

Enclosure

CONCURRENCES

SYMBOL	7505C							
SURNAME	Bien							
DATE	5-8-2003							

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# Stam\* 80 EDF

EPA Reg. No. 62719-413

Formerly Rohm and Haas EPA Reg. No. 707-226

## Registration Notes:

Source label text based on EPA accepted text dated January 7, 1998.

### Proposed Changes by Amendment:

1. Base label and label booklet: Added sale copy "For postemergence weed control in rice."
2. Based upon the following acute tox studies and PR Notice 2001-1, revised First Aid section and Precautionary Statements:

### Acute Toxicity Category by Route of Exposure:

Route of Exposure	Stam 80 EDF
Oral LD <sub>50</sub>	Cat III
Dermal LD <sub>50</sub>	Cat III
Inhalation	Cat IV
Ocular Irritation	Cat III
Dermal Irritation	Cat IV
Dermal Sensitization	Non-Sensitizer

3. Added Spanish signal word and standard sentence underneath.
4. Personal Protective Equipment and Agricultural Use Requirements: Changed "Waterproof gloves" to "Chemical-resistant gloves made of any waterproof material."
5. Environmental Hazards: Added "and shrimp" to first sentence; added groundwater and surface water advisory statements.
6. General Information: Added two paragraphs directly under heading; moved Restrictions under this heading from end of the label; added section entitled "Spray Drift Management (Aerial Application)"; added weed table specific to California.
7. Weed tables: Added column headings.
8. Timing and Dosage Recommendations: Deleted current text and added new text for Early Timing and Rates, Mid-Timing and Rates, Use of Surfactants, and Rescue Timing and Rates.
9. Mixing Directions: Revised section.
10. Application Equipment: Revised section.
11. Effect of Climatic Conditions and Cultural Practices on Weed Control: Revised section.
12. Compatibility With Other Chemicals: Revised section.
13. Deleted all references to wheat.
14. Changed Table of Contents
15. Minor spelling and punctuation errors corrected throughout.

[Editor's note: Added text is underlined and deleted text is denoted by ~~strikethrough~~.]

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Base Label:

(Logo) Dow AgroSciences

# Stam\* 80 EDF

JUN - 9 2003

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

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

6279-413

For postemergence weed control in rice

Active Ingredient	
propanil: 3', 4'-dichloropropionilide .....	81%
Inert Ingredients .....	19%
Total .....	100%

Keep Out of Reach of Children

## CAUTION      PRECAUCION

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.)

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### Precautionary Statements

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#### Hazards to Humans and Domestic Animals

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

Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material ✓
- Shoes plus socks
- Protective eyewear

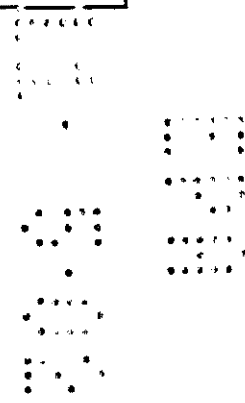
Follow manufacturer's instructions for cleaning/ maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use enclosed cabs or aircraft 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.

### User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.



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Base Label:

(Logo) Dow AgroSciences

# Stam\* 80 EDF

## For postemergence weed control in rice

Active Ingredient	
propanil: 3', 4'-dichloropropionilide .....	81%
Inert Ingredients .....	19%
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ACCEPTED  
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62719-413

Keep Out of Reach of Children

## **CAUTION      PRECAUCION**

JUN - 9 2003

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### **Precautionary Statements**

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#### **Hazards to Humans and Domestic Animals**

**Harmful if Swallowed Or Absorbed Through The Skin •Causes Moderate Eye Irritation**

**Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling**

#### **Personal Protective Equipment (PPE):**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- ~~Waterproof gloves~~ Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

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

When handlers use enclosed cabs or aircraft 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.

#### **User Safety Recommendations**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

#### **Statement of Practical Treatment First Aid**

If in eyes: Flush eye with large amounts of water for at least 15 minutes. Consult a physician if irritation persists. 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 on skin or clothing: Wash affected area with soap and water. 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.

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**First Aid**

**If in eyes:** 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 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 swallowed:** Call a 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 a poison control center or doctor. Do not give anything by mouth to an unconscious person.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

**Environmental Hazards**

This pesticide is toxic to fish and shrimp. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water except as specified on this label. Do not contaminate water when cleaning equipment or 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.

**See groundwater and surface water advisory information under Environmental Hazards in label booklet.**

**Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

**Refer to label booklet for Directions for Use including Storage and Disposal.**

**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 at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at [www.dowagro.com](http://www.dowagro.com).

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

EPA Reg. No. 62719-413

EPA Est. \_\_\_\_\_

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**Dow AgroSciences LLC Indianapolis, IN 46268 U.S.A.**

**Herbicide****Net Weight 50 lb**

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Label Booklet:

(Logo) **Dow AgroSciences**

# **Stam\* 80 EDF**

## **For postemergence weed control in rice**

Active Ingredient	
propanil: 3', 4'-dichloropropionilide .....	81%
Inert Ingredients.....	19%
Total.....	100%

### **Keep Out of Reach of Children**

## **CAUTION      PRECAUCION**

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.)

**Agricultural Use Requirements**  
 Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to the label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

**Refer to inside of label booklet for Precautionary Statements and Directions for Use including Storage and Disposal.**

**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 at end of label booklet. If terms are unacceptable, return at once unopened.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at [www.dowagro.com](http://www.dowagro.com).

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EPA Reg. No. 62719-413

EPA Est. \_\_\_\_\_

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**Dow AgroSciences LLC Indianapolis, IN 46268 U.S.A.**

## **Herbicide**

**Net Weight 50 lb**

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(Page 1 through end):

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**Precautionary Statements**

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**Hazards to Humans and Domestic Animals****CAUTION**

**Harmful If Swallowed Or Absorbed Through Skin •Causes Moderate Eye Irritation**

**Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling**

**Personal Protective Equipment (PPE)**

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Shoes plus socks
- Protective eyewear

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

When handlers use enclosed cabs or aircraft 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.

**User Safety Recommendations**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

**First Aid**

**If in eyes:** 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.

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**Environmental Hazards**

This pesticide is toxic to fish and shrimp. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not apply directly to water except as specified on this label. Do not contaminate water when cleaning equipment or 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.

**Groundwater Advisory:** 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.



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**Surface Water Advisory:** This product may contaminate water through runoff following rainfall events and by seepage through levees. This product has a high potential for runoff. 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 (2001 Mississippi Rice Growers Guide). Other guidance is located at <http://Agronomy.ucdavis.edu/ucrice/water/seep.htm> and from the document "Closed Rice Water Management Systems" from the National Resource Conservation Service of USDA. The University of Arkansas Rice Production Book (<http://www.uaex.edu/other-areas/publications/html>) also provides information concerning levee production.

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### Directions for Use

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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 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
- Shoes plus socks
- Protective eyewear

### Storage and Disposal

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

**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**

**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 the 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:** 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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## General Information

Stam\* 80 EDF herbicide for postemergence weed control in rice is formulated as an 80% active extruded dry flowable formulation containing 4 pounds active ingredient per gallon. 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. Stam 80 EDF 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 only to fields that have been drained of floodwater. Stam 80 EDF 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.

Read Mixing and Equipment label instructions before application. When tank mixing, always read all individual manufacturers' labels. In interpreting all labels for the tank mixture, the most restrictive situations must apply.

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

### Restrictions

- **Preharvest Interval:** Do not apply this product within 60 days of rice harvest.
- **Do not** apply more than a maximum of 6 lb active ingredient per acre in a single application or exceed 8 lb active ingredient per acre total dosage per season.
- **In California:** Use Stam 80 EDF only where rice fields are completely drained or a minimal amount of water remains. If high water level is desired, re-flood field after 12 hours and before 7 days after treatment. This will discourage new weed infestations.
- **Do not** apply this product to any crop other than rice. Stam 80 EDF will cause injury to 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, Stam 80 EDF does not release fumes hazardous to nearby crops.
- **Do not** apply to fields nor drain water from treated field into areas where catfish farming is practiced.
- **Do not** rotate treated land to crops other than rice for 60 days following treatment.

### Spray Drift Management (Aerial Application)

Avoiding spray drift at the application site is the responsibility of the applicator. 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 off-target 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.

1. The distance of the outer most operating nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

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

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## 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.

**Boom Length:** For some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

**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 2-10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **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 should 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.

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**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).

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

<b>Common Name</b>	<b>Scientific Name</b>
barnyardgrass (watergrass) <sup>†</sup>	<i>Echinochloa crus-galli</i> , <i>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 castanaiifolia</i>
panicum, Texas	<i>Panicum texanum</i>
paragrass	<i>Panicum purpurascens</i>
pigweed, 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>

<sup>†</sup> 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 80 EDF is effective, a tank mixture of Stam 80 EDF at 5 lb (4 lb active ingredient) per acre with either Prowl herbicide at 1.5 to 2 pints per acre, Bolero 8EC herbicide at 3 to 4 pints per acre, or Facet herbicide at labeled rates is recommended to control barnyardgrass (up to the 3 leaf stage).

### California

In addition to the weeds listed above, Stam 80 EDF can be used to control the following:

<b>Common Name</b>	<b>Scientific Name</b>
barnyardgrass	<i>Echinochloa crus-galli</i> ,
ricefield bulrush	<i>Scirpus mucronatus</i>
rice mimic*	
smallflower umbrella plant	<i>Cyperus difformis</i>
watergrass, early*	<i>Echinochloa oryzoides</i>
watergrass, late*	<i>Echinochloa phyllopogon</i>

\*Applications to rice mimic, early and late watergrass made past the 4 leaf stage will result in partial control.

## Timing and Dosage Recommendations

### Early Timing and Rates

Apply Stam 80 EDF when a satisfactory stand of rice has been established that will tolerate flooding. The amount of Stam 80 EDF to apply depends upon the growth stage and condition of the target weeds. Stam 80 EDF 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 recommended 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.

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For best results, apply Stam 80 EDF at the rate of 3.75 to 5.00 lb (3 to 4 lb 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**

Stam 80 EDF can be applied at the rate of 5.00 to 7.50 lb (4 to 6 lb 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 at the rate of 6.25 to 7.50 lb (5 to 6 lb active ingredient) 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.

### **Mixing Directions**

Stam 80 EDF 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 recommended amount of Stam 80 EDF into a partially filled mix tank. 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 must be completely dispersed and mixed prior to application.

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). 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 fifteen minutes. Rapid precipitation of the ingredients and failure to re-suspend when shaken indicates that the mixture is incompatible and should 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 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 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 or helicopter, spray swath width should not exceed the width of wing span or rotor plus 10%. Measure the swaths accurately for flagging.

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### **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 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. 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 Stam 80 EDF sprays for optimum weed control.

#### **Water Management**

Before application of Stam 80 EDF, 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 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 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 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.

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**Wind**

Do not apply when the wind speed exceeds 10 mph to avoid drift hazard to sensitive crops and the possibility of uneven (streaked) applications.

**Compatibility With Other Chemicals**

Tank mix applications of Stam 80 EDF with other herbicides, insecticides, spray adjuvants, 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 is done at the user's risk.

**Adverse Reaction to Insecticides**

Rice plants may be severely injured or killed if Stam 80 EDF is applied in tank mix combinations or sequentially with certain insecticides. Do not combine Stam 80 EDF with carbamate insecticides such as carbaryl (Sevin insecticide, etc.), methomyl (Lannate insecticide, Nudrin insecticide, 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. Do not use carbamate or systemic organophosphorus insecticides on rice fields to be treated with Stam 80 EDF.

**Do not apply Stam 80 EDF to rice fields 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.**

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**Terms and Conditions of Use**

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If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.

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**Warranty Disclaimer**

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Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

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**Inherent Risks of Use**

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It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperature, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by buyer.

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**Limitation of Remedies**

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The exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used

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