

71085-23

4/7/2008

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**U.S. ENVIRONMENTAL PROTECTION AGENCY**  
**Office of Pesticide Programs**  
**Registration Division (7505P)**  
**Ariel Rios Building**  
**1200 Pennsylvania Ave., NW**  
**Washington, D.C. 20460**

EPA Reg. Number:

71085-23

Date of Issuance:

4-7-08

**NOTICE OF PESTICIDE:**

Registration  
 Reregistration  
 (under FIFRA, as amended)

Term of Issuance: Unconditional

Name of Pesticide Product:

Duet 60 DF Rice Herbicide

**Name and Address of Registrant (include ZIP Code):**

M. Sam Bondurant  
 RiceCo  
 5100 Poplar Av., Suite 2428  
 Memphis, TN 38137

**Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.**

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act. Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

Based on your response to the Reregistration Eligibility Document, EPA has reregistered the product listed above, under the authority of section 4(g)(2)(c) of the Federal Insecticide, Fungicide, and Rodenticide Act, provided that you make the following labeling changes:

1. Delete "Note to EPA Reviewer" Under "PPE" and "Engineering Control" sections.
2. Under "Precautionary Statements";
  - Delete "This product may cause allergic skin reaction. In case of contact . . .if irritation persists."
  - Change "Cause eye irritation" to "Causes substantial but temporary eye irritation."
3. Under "Personal Protective Equipment";
  - Change the effective dates from December 1, 2007 to December 1, 2008.
  - Change glove requirement to "chemical-resistant gloves made of any waterproof materials."
  - Add "Wear goggles or face shield" to all workers.
  - Add the glove requirement to applicators and handlers exposed to dilute.

Add the following requirements to "For Packaged before December 1, 2007."

  - Pilot must wear: long-sleeved shirt and long pants, and shoes plus socks.
  - Change "Mixers, loaders, applicators, and other handlers must wear" to "Mixers, loaders, and other handlers must wear."

Signature of Approving Official:

Jim Tomkins  
 Product Manager  
 Registration Division (7505P)

Date:

4-7-08

Add the following requirements to "For Packaged after December 1, 2007."

- Change Mixers, loaders, applicators, and other handlers must wear" to "Mixers, loaders, and pilots using engineering controls must wear."
- Add "Applicators and other handlers must wear:
  - Coveralls over short-sleeved shirt and short pants.
  - Chemical-resistant gloves made of any waterproof materials.
  - Socks and chemical-resistant footwear.
  - Goggles or face shield,
  - Chemical-resistant aprons for cleaning equipment.
  - Chemical-resistant headgear for overhead exposure.

4. Under "Engineering Controls";

- Change the effective date from December 1, 2007 to December 1, 2008."
- Add "Human flagging is not permitted. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flagger."

5. Under "User Safety Requirements";

Change "If no such instructions for washable" to "If no such instructions for washable exists."

6. Under "User Safety Recommendations";

Change "User should remove clothing immediately if pesticide gets inside" to "User should remove clothing/PPE immediately if pesticide gets inside."

7. Under "Agricultural Use Requirements";

Add "Do not enter or allow others to enter until the dusts have settled."

8. Under "Spray Drift Management";

- Change "Avoiding spray drift at the application site is the responsibility of the applicator" to "Avoiding spray drift at the application site is the responsibility of the applicator and the grower."
- Delete the "Boom Length" sentence.
- Change "Application should not occur" to "Application shall not occur" under "Temperature Inversions."

8. Under "Storage and Disposal";

Add "Keep containers closed when not in use" and "Open dumping is prohibited."

9. Under "General Precautions and Restrictions";

a. Replace the application rate requirements with the following:

"DO NOT apply more than 10 lbs of Duet 60 DF Rice herbicide (6.0 lbs of active ingredient) per acre per application. DO NOT apply more than 12.5 lbs of Duet 60 DF Rice herbicide (8.0 lbs of active ingredient) per acre per season."

b. Replace "Water drained from the treated rice fields must not be used to irrigate other

3013

- c. crops or released with one half mile upstream of a potable water intake in flowing water (e.g., river, stream, etc.) or within one half mile of a potable water intake in a standing body of water, such as a lake, pond or reservoir.” with

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

- c. Change “Applications to fields where catfish farming is practiced and drain water from treated field where catfish farming is practiced is prohibited” to “Applications to fields where catfish farming is practiced and drain water from treated fields **into areas** where catfish farming is practiced is prohibited **during 12 months following treatment.**”
- d. Add “**Do not** fish or commercially grow fish, shellfish or crustaceans on treated acres during the 12 months following treatment” after the “Catfish” statement.
- e. Add “Do not apply when weather conditions favor drift from area to be treated.”

10. Under “Emergency Release Provisions”

- Change “For Texan rice grown in areas north of west . . . .” to “For Texan rice grown in areas north or west . . . .”
- Change “For rice grow in California” to “For permanent flood (water seeded) rice grow in California.”

11. Under “Warranty Statement”;

Add “To the extent consistent with applicable law” before “In no case shall RiceCo be liable . . or handling of this product.

Reregistration under this section does not eliminate the need for continual reassessment of pesticides. EPA may require submission of data at any time to maintain the registration of your product.

A stamped copy of your labeling is enclosed for your records.

409B



**RICE Herbicide**  
**For Postemergence Control of Broadleaf,  
 Grass, and Sedge Weeds in Rice Fields**

**Active Ingredient:**

Propanil: (3', 4' - Dichloropropionanilide)	60.00%
Bensulfuron Methyl: (Methyl 2-[[[(4, 6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]methyl]benzoate)	0.46%
<b>Inert Ingredients:</b>	<b>39.54%</b>
<b>TOTAL</b>	<b>100.00%</b>

This product contains .6 lbs. of 3', 4'-Dichloropropionanilide and 2.1 grams of Methyl 2-[[[(4, 6-dimethoxy-2-pyrimidinyl)amino]carbonyl]amino]sulfonyl]methyl]benzoate per pound of formulated product.

EPA Registration No. 71085-23  
 EPA Establishment No.: 70253-CA-1

**KEEP OUT OF REACH OF CHILDREN**

*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.)*

<b>WARNING - AVISO</b>	
<b>FIRST AID</b>	
<b>If on Skin or Clothing:</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15 to 20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If in Eyes:</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with clean water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If Swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have the person sip a glass of water, if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>

**AGRICULTURAL CHEMICAL**  
**DO NOT SHIP OR STORE WITH FOOD, FEEDS, DRUGS, OR CLOTHING.**

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure or accident, call  
 GLOBAL LOGISTICS @ (504) 439-3140 or (504) 599-3881**

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

**MANUFACTURED FOR:**  
 RiceCo LLC  
 Memphis, TN 38137

**NET CONTENTS: 33.5 Lbs.**

**PRECAUTIONARY STATEMENTS  
HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS  
WARNING**

Causes skin irritation. Harmful if absorbed through skin. This product causes substantial but temporary eye irritation. Harmful if swallowed, or inhaled. Do not get in eyes or on clothing. Wear protective eyewear. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Remove contaminated clothing and wash clothing before reuse. Users should wash thoroughly and change into clean clothing. Dirty clothing should be washed separately from other laundry.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are ~~chemical resistant gloves listed below~~. For more information, follow instructions in Supplement Three of PR Notice 93-7. If you want more options, follow the instructions for category A on an EPA chemical resistant category selection chart.

Note to EPA reviewer: This section for Formulations Packaged before December 1, 2007:

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

- Coveralls over long-sleeve shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant footwear plus socks,
- Chemical-resistant headgear, if overhead exposure, and
- Chemical-resistant apron.

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

- Long-sleeved shirt and long pants, and
- Shoes plus socks.

See Engineering Controls for additional requirements and options.

Note to EPA reviewer: This section for Formulations Packaged after December 1, 2007:

**Mixers, loaders, applicators, and other handlers must wear:**

- Long-sleeve shirt,
- Long pants,
- Shoes and socks, and
- Chemical-resistant gloves, chemical-resistant apron, and chemical-resistant footwear when mixing/loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.

See Engineering Controls for additional requirements and options.

Note to EPA reviewer: This section for Formulations Packaged before December 1, 2007:

**ENGINEERING CONTROL STATEMENTS:**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (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. Water-soluble packets when used correctly qualify as a closed mixing/loading system under the WPS.

Note to EPA reviewer: This section for Formulations Packaged after December 1, 2007:

**ENGINEERING CONTROL STATEMENTS:**

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)]. Mixers and loaders using water-soluble packets must:

- wear the personal protective equipment required in the PPE section of this labeling for mixers and loaders, and
- be provided and must have chemical-resistant footwear immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown.

Note to EPA reviewer: The following is to appear on all labels under Engineering Control:

Human flagging prohibited. Flagging to support aerial application is limited to use of the Global Positioning System (GPS) or mechanical flaggers.

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)].

#### **USER SAFETY REQUIREMENTS:**

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.

#### **USER SAFETY RECOMMENDATION**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing 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. 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 contaminate water when disposing of equipment washwaters or rinsate. This product is toxic to fish. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water intended for irrigation or domestic purposes. Do not apply when weather conditions favor drift from target area.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical prior to flooding may result in 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. This product has a high potential for runoff. Runoff of this product will be reduced by avoiding applications 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 3-6 inch flood.

#### **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 and 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 such as or made out of any waterproof material,
- Chemical-resistant footwear plus socks, and
- Protective eyewear.

### STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Do not store this product near fertilizers, seeds, insecticides, or fungicides. Damaged or leaking containers that contain product that cannot be used immediately should be transferred to suitable sound containers and properly marked. Any spilled material should be swept up and transferred to a new or waste container for disposal as indicated under 'Pesticide Disposal'.

For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities. To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between to provide clear identification.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray, mixture, or rinsate is a violation of Federal law. Wastes resulting from the use of this product may be disposed of at an approved waste disposal facility. 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 regional office for guidance.

### CONTAINER DISPOSAL:

**Paper Bags:** Empty entire contents of bag into applicator equipment. Dispose of empty bags in a sanitary landfill or by incineration, or by burning if allowed by State and local authorities. If burned, stay out of smoke.

**Fiber Drums:** Empty entire contents of liner, including product residues that may have adhered to liner, into application equipment. Loosen and remove residues by shaking and tapping bottom and sides of liner. Dispose of liner and any drums that have become contaminated in a sanitary landfill or by incineration if allowed by State and local authorities.

**Bulk:** When the container is empty, replace the cap and seal all openings that have been opened during use, and return the container to the point of purchase, or to an alternate location designated by the registrant at the point of purchase of this product. If not returned to the point of purchase or to a designated location, triple rinse or pressure rinse the empty container and offer for recycling if available.

### Instructions for Users and Refillers

This container must only be refilled with this pesticide. **Do Not Reuse the Container for Any Other Purpose.** Do not transport if this container is damaged, leaking, or obsolete, or to obtain information about recycling refillable containers, contact RiceCo LLC at 1-888-835-1313. Cleaning is not necessary prior to refilling with the same product. Clean container before final disposal. Disposal of this container must be in compliance with state and local regulations.

### Instructions for Refillers

Prior to refilling, inspect carefully for damage, such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transporting. If the container cannot be refilled, triple rinse or pressure rinse the empty container and offer for recycling if available.

### GENERAL PRECAUTIONS AND RESTRICTIONS

**DO NOT** plant or transplant crops in the treated area for at least 60 days following an application of this product.

**DO NOT** apply this product in a greenhouse

**DO NOT** apply this product through any type of irrigation system.

**DO NOT** apply more than 13.3 pounds of **DUET 60 DF** per growing season.

**DO NOT** apply **DUET 60 DF** within 14 days before or after carbamate or organophosphate insecticide applications. Serious injury to rice may occur.

**DO NOT** apply to fields where commercial catfish or crayfish (crawfish) farming is practiced and **DO NOT** drain water from treated fields into areas where catfish or crayfish (crawfish) farming is practiced.

**DO NOT** apply this product (directly or indirectly) to any crop except rice but **DO NOT** use on wild rice (*Zizania* spp.).

**DO NOT** use on lawns, walks, driveways, tennis courts or similar areas.

**DO NOT** apply when wind conditions will allow drift to adjacent, susceptible crops such as beans, soybeans, cotton, safflower, cucurbits, vegetables, orchards (such as almonds, prunes and grapes) and other sensitive crops.

**DO NOT** graze treated fields or feed treated forage within 80 days of the last application.

**DO NOT** apply within 60 days of harvest.

**DO NOT** apply more than 6 lbs active ingredient per acre per application. Do not apply more than 8 lbs active ingredient per acre per season.

**NOTE:** Water drained from treated rice fields must not be used to irrigate other crops or be released within ½ mile of a potable water intake in flowing water (i.e., river, stream, etc.) or within ½ mile of a potable water intake in a standing body of water (i.e., lake, pond, or reservoir

### WHERE TO USE

RiceCo's **DUET® 60 DF** is used for postemergence control of broadleaf, grass, and sedge weeds in RICE fields.

### WEEDS CONTROLLED

Annual arrowhead, barnyardgrass (watergrass), blunt spikerush, brachiaria (signalgrass), cocklebur, coffeeweed, crabgrass, croton, curly indigo, dayflower, ducksalad, eclipta, eisen waterhyssop, falsepimpernel, foxtail, goosegrass, gooseweed, gulf cockspur, hemp sesbania, mexicanweed, millet (Texas), morning-glory, mud plantain, paragrass, Pennsylvania smartweed, pickerelweed, pigweed, purple ammannia, redstem, rice flatsedge, roughseed bulrush, smallflower umbrella plant, sourdock, southern naiad, spearhead, Texasweed, water plantain, waterwort, wiregrass, yellow nutsedge. (**DUET 60 DF** will not control Bermudagrass, cattail, Johnsongrass, red rice and sprangletop).

**NOTE FOR CALIFORNIA USERS:** Resistant biotypes are known to exist in California, including California arrowhead, purple Ammannia, redstem, ricefield bulrush and smallflower umbrella plant. **DUET 60 DF** may not control these biotypes. Accurate records should be kept of the pesticides applied to individual fields to obtain information regarding the spread and dispersal of the resistant biotypes. Consult your Ag dealer, consultant, applicator, and/or your State Agricultural Extension Service for specific alternative herbicide recommendations available in your area.

### GENERAL INFORMATION

Several important factors should be taken into account to achieve a high efficiency of selective weed control with **DUET 60 DF**. These include uniform application, growth stage, water management and weather conditions. To assure uniform application, mix the prescribed amount of **DUET 60 DF** with a sufficient volume of water to provide thorough coverage of target area. For aerial applications use approximately 10 gallons of water or for surface (ground) applications 20-30 gallons of water per acre at sufficient spray pressure. Agitate tank mixes thoroughly and continuously. Avoid over and under application.

Growth stage of weeds is very important. Best results for selective weed control are obtained when most grasses have reached the 1 to 3-leaf stage.

A static flood should be placed on treated fields approximately 48 hours following application for optimum weed control results. See 'Application Timing' for additional information concerning flooding.

Proper field preparation is essential to ascertain a relatively clod free and level surface and to obtain uniform flood levels and growth. Fields may be flushed prior to treatment to produce uniform and vigorous grass germination and growth. Drain water from fields prior to applying **DUET 60 DF**. Higher rates are recommended to control larger grasses or exposed weeds when rice fields are not completely drained. Inspect rice fields regularly to select the correct application time.

### WEATHER CONDITIONS:

**Temperature:** Temperatures at and before application affect product activity in controlling target weeds. Applications should be made when daily maximum temperatures are between 75°F and 100°F. Control decreases with temperatures below 75°F and increases with temperatures above 75°F.



**Application Timing:** DUET 60 DF normally requires 8 hours of DIRECT sunlight after application for absorption into target weeds; however, many atmospheric and environmental conditions can affect absorption into the target weeds. It is highly recommended that application of DUET 60 DF be planned so that the applied product remains in contact with the leaf surfaces for at least 48 hours prior to rainfall or flooding. Historically, morning applications of Propanil products, including DUET 60 DF, have produced better results in weed control.

**Relative Humidity:** DUET 60 DF is a contact herbicide; therefore, herbicidal activity is affected by humidity. High humidity and dew aid in weed control by allowing the product to remain in solution longer on the leaf surface. Low humidity decreases plant activity and thus reduces product absorption. During periods of very low humidity, higher spray volumes, 12-15 gallons per acre, should be used when applied aerially.

**Wind:** Although DUET 60 DF is less susceptible to drift than solvent-based Propanil products, application should be avoided if wind velocity is high enough to cause drift of the application spray off the target site or irregular spray patterns.

### SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application is the responsibility of the applicator. The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering these factors when making application decisions.

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)

#### Additional requirements for ground applications:

Apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

#### Additional requirements 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.

Do not make any type of application into temperature inversions

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

The distance from the outer most nozzles to the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.

Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

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

### 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.

Applications of DUET 60 DF must conform to the conditions set forth in the current CA propanil regulations (3CCR 6462). **Aerial Applications:** Each operating nozzle shall produce a droplet size, in accordance with the manufacturer's specifications, not less than 600 microns volume median diameter (Dv0.5) with 10 percent of the diameter by volume (Dv0.1) not less than 200 microns. **Ground**

**Applications:** Each operating nozzle shall produce a droplet size, in accordance with manufacturer's specifications, not less than 500 microns volume median diameter (Dv0.5) with 10 percent of the diameter by volume (Dv0.1) not less than 200 microns.

The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. 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** – Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles of increasing pressure.

**Nozzle Orientation** – Orienting nozzles so that the spray is released backward 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.

**Number of Nozzles** – Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.

**Nozzle Type:** Use nozzle type that is designed for the intended application. With most nozzle types, narrow 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 be made at a height no 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 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 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 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 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 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 temperatures 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 movement of 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**

Do not apply when wind conditions will allow drift to sensitive areas. Sensitive areas include, but are not limited to, residential areas, bodies of water, known habitat for threatened or endangered species, and non-target crops.

### **EMERGENCY RELEASE PROVISIONS**

Water holding (discharge) intervals for flood water following propanil application in all states:

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 of west of these boundaries, the water holding interval will be 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. Delayed flood (water-seeded) rice in Louisiana, north of the Highway 14 boundary, is subject to the 7-day water holding interval provisions.

For rice in California and all other parts of the US 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.

### **ADJUVANTS AND APPLICATION AIDS:**

When **DUET 60 DF** is used alone (not in combination with any other postemergent rice herbicide), a low viscosity crop oil concentrate or surfactant may be used to improve wetting of foliage and increase weed control. Use of a crop oil concentrate is recommended when application is made during cool weather conditions or unstable weather conditions that may produce rain. Under adverse weather conditions, the addition of a crop oil concentrate when tank mixing **DUET 60 DF** and other rice herbicides for application should be considered. Consult product labels for adjuvant recommendations. The use of a suitable crop oil concentrate or surfactant does not significantly increase injury to rice (leaftip burn).

### **RECOMMENDED BROADCAST RATE**

Apply 5 pounds of **DUET 60 DF** per acre when most grasses have reached the 1 to 3-leaf stage. Use 6.6 to 8.3 pounds of **DUET 60 DF** per acre when the grasses are large (4 to 5-leaf stage) or when unseasonably cool weather conditions prevail. Under dry conditions when grass and broadleaf weeds are stressed, in cases where rice fields have not been drained completely, or where weeds are large enough, higher rates of product, 6.6 to 10 pounds per acre, should be used to achieve control. Barnyardgrass may be controlled up to 30 to 45 days after planting, before rice plants have reached the fully tillered growth stage.

**NOTE:** **DUET 60 DF** applied to rice after the 4-leaf stage may cause visible injury under some climatic conditions. Rice plants usually outgrow such injury.

### **WATER MANAGEMENT**

For best weed control, establish the permanent flood as soon as possible (within 7 days of application) after the last application of **DUET 60 DF** herbicide. Loss of permanent flood following applications of **DUET 60 DF** may result in poor performance due to regrowth of treated plants or reinfestation by newly germinated weeds. Runoff caused by overflow, levee breach, seepage, or introduction of new water soon after treatment may reduce product performance.

**IN CALIFORNIA:** Use **DUET 60 DF** only where rice fields are completely drained or a minimal amount of water remains. If a higher water level is desired, relood field after 12 hours and before 7 days after treatment. This will discourage new weed infestations.

**SPRAY MIXTURE PREPARATION*****Wet Spray Application***

Thoroughly mix **DUET 60 DF** with clean water (water that is free of sediment and agricultural chemicals) in the spray tank. Do not use water from paddies. Only approved drift control agents may be used with **DUET 60 DF**. Do not use any other additives except as directed by this label.

To ensure uniform mixing and application, agitate the mixture before application. If the mixture is not sprayed immediately after agitation, re-agitate it before application. Always apply **DUET 60 DF** spray preparations within 24 hours of product mixing, or the product may degrade.

Do not store **DUET 60 DF** in nurse tanks or any other tanks used to store or transport clean water. Install one-way valves (anti-siphoning devices) on lines and hoses of mixing/loading equipment to prevent contamination of nurse tanks or other clean water sources.

Mixing and application equipment exposed to **DUET 60 DF** cannot be used for anything other than rice applications until it has been cleaned according to the procedures in the Sprayer Cleanup section of this label.

***Additional Mixing Instructions (wet spray)***

1. Fill the tank 1/4 to 1/3 full of clean water.
2. While agitating, add the required amount of **DUET 60 DF**.
3. Continue agitation until the **DUET 60 DF** is fully dispersed, at least 5 minutes.
4. Once the **DUET 60 DF** is fully dispersed, maintain agitation and continue filling the tank with water. The **DUET 60 DF** should be thoroughly mixed with water before adding any other material.
5. As the tank is filling, add the required tank mix partner (other labeled rice herbicides, adjuvants, drift control agents, etc.).
6. If the mixture is not continuously agitated, settling may occur. If settling occurs, thoroughly re-agitate before using.
7. Apply **DUET 60 DF** spray preparations within 24 hours of product mixing, or the product may degrade.
8. If **DUET 60 DF** and a tank mix partner are to be applied in multiple loads, pre-slurry the **DUET 60 DF** in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the **DUET 60 DF**.

**SPRAYER CLEANUP**

Before using equipment exposed to **DUET 60 DF** 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 nonchlorine-based detergent, taking care to remove all physical residues.
2. 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 gal of 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 gal of 21% ammonia or 7 gal of 3% ammonia per 100 gal of 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.
10. Water rinses may be applied to rice fields. Dispose of bleach rinses at an approved waste disposal facility.

**NOTE:** When applying multiple loads of **DUET 60 DF** 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 sit 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 **DUET 60 DF**.

**CONDITIONS OF SALE AND WARRANTY**

**RICECO AND SELLER OFFER THIS PRODUCT AND THE BUYER AND USER ACCEPTS THIS PRODUCT UNDER THE FOLLOWING AGREED CONDITIONS OF SALE AND WARRANTY.**

The directions for use of this product are believed to be reliable and should be followed carefully. However, it is impossible to take into account all variables and to eliminate all risks associated with its use. Injury or damage may result because of conditions that are beyond the control of RICECO or the Seller. RICECO warrants only that this product conforms to the chemical description on the label and is believed to be reasonably fit for the purposes referred to in the Directions for Use when used as directed under normal conditions. RICECO MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. In no case shall RICECO or the Seller be liable for consequential, special or indirect damages resulting from the use or handling of this product. Any variation or exception from this warranty must be in writing and signed by an authorized RICECO representative.



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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.

71085-23

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APR - 7 2008