



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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

FEB 29 2008

Ms. Judy Smith
Product Registration
RiceCo. LLC
5100 Poplar Ave., Suite 2428
Memphis, TN 38137

SUBJECT: Application for Pesticide Notification (PRN 98-10)
Request General Label Change
EPA Reg. No. 71085-16
Application Dated January 28, 2008

Dear Ms. Smith:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated 01/28/2008 for the above product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action(s) requested fall within the scope of PRN 98-10. The label submitted with the application has been stamped "Notification" and will be placed in our records.

If you have any questions, please call me directly at 703-305-6249 or Owen F. Beeder of my staff at 703-308-8899.

Sincerely,

A handwritten signature in black ink, appearing to read "Linda Arrington".

Linda Arrington
Notifications & Minor Formulations Team Leader
Registration Division (7505P)
Office of Pesticide Programs



	United States Environmental Protection Agency Washington, DC 20460	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="padding: 2px;">Registration</td> </tr> <tr> <td style="width: 20px; height: 20px; text-align: center;">X</td> <td style="padding: 2px;">Amendment</td> </tr> <tr> <td style="width: 20px; height: 20px;"></td> <td style="padding: 2px;">Other</td> </tr> </table>		Registration	X	Amendment		Other	OPP Identifier Number _____
	Registration								
X	Amendment								
	Other								

Application for Pesticide - Section I

1. Company/Product Number 71085-16	2. EPA Product Manager Jim Tompkins	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Duet DF	PM# 25	
5. Name and Address of Applicant (Include ZIP Code) RiceCo LLC 5100 Poplar Avenue, Suite 2428 Memphis, TN 38137 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

Explanation: Use additional page(s) if necessary. (For section I and Section II.)

Notification adding the scientific name to the each of the weeds listed in the "Weeds Controlled" section and correcting For Chemical Emergency telephone information. This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Section - III

1. Material This Product Will Be Packaged In:					
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If "Yes" Unit Packaging wgt. _____ No. per container _____	If "Yes" Package wgt. _____ No. per container _____		
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container _____		5. Location of Label Directions <input type="checkbox"/> _____	
6. Manner in Which Label is Affixed to Product <input checked="" type="checkbox"/> Lithograph Paper glued Stenciled <input type="checkbox"/> Other _____					

Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Judy Smith	Title Regulatory Consultant	Telephone No. (Include Area Code) 901-684-5390
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received <div style="border: 1px solid black; width: 100px; height: 50px; margin: 0 auto; text-align: center; line-height: 50px;"> (Stamped) </div>
2. Signature 	3. Title Regulatory Consultant	
4. Typed Name Judy Smith	5. Date January 28, 2008	



FEDERAL EXPRESS TRK. NO. 7914 8606 3704

January 28, 2008

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7504P)
U. S. Environmental Protection Agency
One Potomac Yard
2777 South Crystal Drive
Arlington, VA 22202

RE: DUET DF - EPA REG. NO. 71085-16
NOTIFICATION AMENDMENT

Dear Sir or Madam:

Enclosed please find the following in support of our notification amendment:

- 1 - Notification Amendment Application Form (8570-1)
2 - Copies of Revised Labeling

This notification is adding the scientific name to each of the weeds listed in the "Weeds Controlled" section. In addition RiceCo has updated the chemical emergency contact.

If further information is needed, please contact Sam Bondurant by telephone @ (901) 684-5381 or by email at sam.bondurant@ricecollc.com.

Sincerely,

RiceCo LLC

Judy Smith (handwritten signature)

Judy Smith
Regulatory Consultant

Encls.

Vertical text on the right side of the page, possibly a stamp or barcode.

"...from the paddy to the plate"



DUET•DF

Rice Herbicide

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

Active Ingredient:

Propanil, (3', 4' – Dichloropropionanilide).....	80.00%
Methyl 2-[[[(4, 6-dimethoxy-2-pyrimidinyl) amino] carbonyl]amino]sulfonyl]methyl]benzoate	0.62%
INERT INGREDIENTS:	19.38%
TOTAL	100.00%

This product contains 0.8 lbs. of 3', 4'-Dichloropropionanilide and 2.8 grams of Methyl 2-[[[(4, 6-dimethoxy-2-pyrimidinyl) amino] carbonyl] amino] sulfonyl] methyl] benzoate per pound of formulated product.

EPA Registration No. 71085-16

EPA Establishment No. 62171-MS-01; 34704-MS-1; 37429-GA-1; 46193-GTM-1; 68848-BRA-1; 5905-IA-1; 5905-GA-1; 1812-GA-1

KEEP OUT OF REACH OF CHILDREN WARNING - AVISO

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 Inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth to mouth if possible. 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 to 20 minutes. Call a poison control center or doctor for treatment advice.
If in Eyes:	Hold eye open and rinse slowly and gently with water for 15 to 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 a poison control center or doctor immediately for treatment advice. Have a 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.
FOR CHEMICAL SPILL, LEAK, FIRE OR EXPOSURE CALL GLOBAL LOGISTICS @ (504) 439-3140 OR (727) 374-5705	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
AGRICULTURAL CHEMICAL DO NOT SHIP OR STORE WITH FOOD, FEEDS, DRUGS, OR CLOTHING.	

NET CONTENTS: 50 Lbs.

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

Harmful if swallowed, absorbed through skin or inhaled. Causes eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes, or clothing. This product may cause an allergic skin reaction. In case of contact, immediately flush eyes or skin with plenty of water. Remove contaminated clothing and wash clothing before reuse. Get medical attention if irritation persists.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Some materials that are chemical-resistant to this product are chemical-resistant gloves. 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:

- Coverall over short-sleeved shirt and long pants,
- Chemical resistant gloves,
- Chemical resistant footwear plus socks,
- Chemical resistant headgear for 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

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, 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 RECOMMENDATIONS

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. This product is toxic to shrimp. 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 (REI). 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 into 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. Open dumping is prohibited.

PESTICIDE STORAGE: Do not store this product near fertilizers, seeds, insecticides, or fungicides. Damaged or leaking containers, which 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 the 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.

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 more than 7.5 lbs of Duet DF (6.0 lbs of active ingredient) per acre per application. **DO NOT** apply more than 10.0 lbs of Duet DF (8.0 lbs active ingredient) per acre per season.

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

DO NOT apply more than 10 lbs. of **DUET DF** per growing season.

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

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

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 harvest within 60 days of application.

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

GENERAL INFORMATION

WHERE TO USE

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

WEEDS CONTROLLED

Annual arrowhead	<i>Sagittaria</i> spp.
Barnyardgrass (watergrass)	<i>Echinochloa crus-galli</i>
Blunt spikerush	<i>Eleocharis obtuse</i>
Brachiaria (signalgrass)	<i>Brachiaria platyphylla</i>
Cocklebur	<i>Tanithium</i> spp.
Coffeeweed	<i>Sesbania herbacea</i>
Crabgrass	<i>Digitaria</i> spp.
Croton	<i>Croton</i> spp.
Curly indigo	<i>Aeschynomene virginica</i>
Dayflower	<i>Commelina communis</i>
Ducksalad	<i>Heteranthera limosa</i>
Eclipta	<i>Eclipta prostrate</i>
Eisen waterhyssop	<i>Bacopa eisenii</i>
Falsepimpernel	<i>Lindernia dubia</i>
Foxtail	<i>Setaria</i> spp.
Goosegrass	<i>Eleusine indica</i>
Gooseweed	<i>Sphenoclea zeylandica</i>
Gulf cockspur	<i>Echinochloa crus-pavonis</i>
Hemp sesbania	<i>Sesbania herbacea</i>
Mexicanweed	<i>Caperonia castanifolia</i>
Millet (Texas)	<i>Urochloa texana</i>
Morningglory	<i>Ipomoea</i> spp.
Mud plantain	<i>Heteranthera reinformis</i>
Paragrass	<i>Urochloa mutica</i>
Pennsylvania smartweed	<i>Polygonum Pennsylvanicum</i>
Pickerelweed	<i>Pontederia cordata</i>
Pigweed	<i>Amaranthus</i> spp.
Purple ammannia	<i>Ammannia coccinea</i>
Redstem	<i>Ammannia auriculata</i>
Rice flatsedge	<i>Cyperusiria</i>
Roughseed bulrush	<i>Scirpus mucronatus</i>
Smallflower umbrella plant	<i>Cyperus difformis</i>
Sourdock	<i>Rumex arcticus</i>
Southern naiad	<i>Najas guadalupensis</i>
Spearhead	<i>Phacelia hastate</i>
Texasweed	<i>Caperonia palustris</i>
Water plantain	<i>Alisma subcordatum</i>
Waterwort	<i>Elatinaceae</i> spp.
Wiregrass	<i>Aristida</i> spp.
Yellow nutsedge	<i>Cyperus esculentus</i>

(DUET 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 umbrellaplant. DUET 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.

Several important factors should be taken into account to achieve a high efficiency of selective weed control with DUET DF. These include uniform application, growth stage, water management and weather conditions. To assure uniform application, mix the prescribed amount of DUET 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 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 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 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 DF**, have produced better results in weed control.

Relative Humidity: **DUET 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 aurally.

Soil Moisture: Under dry conditions grass and broadleaf weeds are less susceptible to control. Higher rates of product, 4 to 6 pounds per acre, should be used to achieve control.

Wind: Although **DUET 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 and the grower. The interactions 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.

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 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 on the boom must not exceed ¾ 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.

INFORMATION ON DROPLET SIZE:

The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applications of **DUET DF** must conform to the conditions set forth in the current 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.

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.

Number of Nozzles: Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Use the minimum number of nozzles that provide uniform coverage.

Nozzle Orientation: Aircraft nozzles shall be equipped with orifices directed backward parallel to the horizontal axis of the aircraft in flight. Significant deflection from horizontal will reduce droplet size and increase drift potential.

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 or 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 permanent flood (water-seeded) 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 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 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 (leaf tip burn).

Consult Extension Service for detailed application rates.

RECOMMENDED BROADCAST RATE

Apply 3.75 pounds of **DUET DF** per acre when most grasses have reached the 1 to 3-leaf stage. Use 5.0 to 6.25 pounds of **DUET DF** per acre when the grasses are large (4 to 5 leaf stage) or when unseasonably cool weather conditions prevail, grass and broadleaf weeds are stressed due to dry conditions or in cases where rice fields have not been drained completely and where weeds are large enough.

Barnyardgrass may be controlled up to 30 to 45 days after planting, before rice plants have reached the fully tillered growth stage.

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

IN CALIFORNIA: Use **DUET 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 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 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, reagitrate it before application. Always apply **DUET DF** spray preparations within 24 hours of product mixing, or the product may degrade.

Do not store **DUET 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 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 DF**.
3. Continue agitation until the **DUET DF** is fully dispersed, at least 5 minutes.
4. Once the **DUET DF** is fully dispersed, maintain agitation and continue filling the tank with water. The **DUET 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 DF** spray preparations within 24 hours of product mixing, or the product may degrade.
8. If **DUET DF** and a tank mix partner are to be applied in multiple loads, pre-slurry the **DUET 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 DF**.

SPRAYER CLEANUP

Before using equipment exposed to **DUET 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 (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.

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8. Repeat steps 5 and 7 an additional 3 times.
9. Rinse tanks, booms, and hoses to remove all traces of ammonia.
10. Dispose of the rinsate on site or at an approved waste disposal facility.

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

CONDITIONS OF SALE AND WARRANTY

RiceCo LLC 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 LLC or the Seller. RiceCo LLC 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 LLC MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANYOTHER EXPRESS OR IMPLIED WARRANTY. To the fullest extent permitted by law, in no case shall RiceCo LLC 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 LLC representative.



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