

71085-9

4.4.2007

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

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

NOTIFICATION

APR 04 2007

APR 4 2007

M. Sam Bondurant
Director, Regulatory Affairs
RiceCo LLC
5100 Poplar Avenue, Suite 2428
Memphis, TN 38137

SUBJECT: Application for Pesticide Notification –PHI/Grazing/Crop Rotation Time in CA
DUET@ CA
EPA Reg. No. 71085-9
Application Dated February 26, 2007

Dear Ms. Bondurant:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the product above. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the actions 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 me directly at 703-305-6249 or Terri Stowe of my staff at 703-305-6117.

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

Registration
 Amendment
 Other

OPP Identifier Number

Application for Pesticide - Section I

1. Company/Product Number 71085-9	2. EPA Product Manager Jim Tompkins	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) DUET (DUET CA)	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 _____	NOTIFICATION APR 04 2007
<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.)

For the State of California's requirements changing PHI to 80 days/Grazing Restriction to 80 days/Crop Rotation to 120 days for the label that will be marketed in California.
 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:				2. Type of Container	
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		<input type="checkbox"/> Metal	<input type="checkbox"/> Plastic
* 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 M. 'Sam' Bondurant	Title Director, Regulatory Affairs	Telephone No. (Include Area Code) 901-684-5381
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 (Stamped)
2. Signature <i>M. Sam Bondurant</i>	3. Title Director, Regulatory Affairs	
4. Typed Name M. 'Sam' Bondurant	5. Date February 26, 2007	



Via Federal Express TRK # 7986 1594 9849

February 26, 2007

Document Processing Desk (NOTIF)
Office of Pesticide Programs (7505C)
U. S. Environmental Protection Agency
One Potomac Yard -- South Bldg.
2777 South Crystal Drive
Arlington, VA 22202

NOTIFICATION

APR 04 2007

Attention: Mr. Jim Tompkins

**RE: EPA REG. NO. - 71085-9 - DUET (DUET CA)
NOTIFICATION AMENDMENT**

Dear Jim,

Enclosed please find the following in support of our notification amendment for the above referenced product.

- 1 - 8570 form
- 1 - Copy of Labeling

Per our telephone conversation Wednesday, February 21, 2007, this notification is changing the PHI/Grazing/Crop Rotation length of time from 60/60/80 to 80/80/120 days. We are only changing this for the product label that is currently marketed in the State of California, and would like for it to remain as is for product marketed in the rest of the United States.

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

Sincerely,

RICECO LLC

M. Sam Bondurant /js

M. 'Sam' Bondurant
Director, Regulatory Affairs

"...from the paddy to the plate"



DUET® CA

NOTIFICATION

APR 04 2007

Herbicide

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

Active Ingredient:	
3', 4' - Dichloropropionanilide	41.20%
Methyl 2-[[[(4, 6-dimethoxypyrimidin-2-yl)amino]carbonyl]amino]sulfonyl]methyl]benzoate	0.32%
Inert Ingredients:	58.48%
TOTAL	100.00%

This product contains 4 lbs. of 3', 4'-Dichloropropionanilide and 14 grams of Methyl 2-[[[(4, 6-dimethoxypyrimidin-2-yl)amino]carbonyl]amino]sulfonyl]methyl]benzoate per gallon of formulated product.

EPA Registration No. 71085-9
EPA Establishment No. 62171-MS-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.)

CAUTION

FIRST AID

If inhaled:	<ul style="list-style-type: none"> • 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 further treatment advice.
If on Skin or Clothing:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with clean water for 15-20 minutes. • Remove contact lenses, if present, after first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.
If Swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have the 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.

AGRICULTURAL CHEMICAL

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

**FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL
1-800-F-A-S-T-M-E-D (327-8833)**

**FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure or accident, call
GLOBAL LOGISTICS @ (504) 430-3140 OR (727) 374-5705**

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

MANUFACTURED FOR:
RiceCo LLC
Memphis, TN 38137

NET CONTENTS: 30 GALS.

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

CAUTION

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, such as polyethylene or polyvinyl chloride \geq 14 mils. 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 material category selection chart.

Note to EPA reviewer: This section is for formulations packaged with Built-in Probes)

Mixers, loaders, applicators, and other handlers must wear the following, except when removing an unrinsed probe:

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

Mixers, loaders, and other handlers must wear the following when removing an unrinsed probe:

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant footwear plus socks,
- Protective eyewear, if the system operates under pressure, and
- Chemical-resistant apron.

See Engineering Controls for additional requirements.

(Note to EPA reviewer: This section is for formulations not packaged with built-in probes)

Some materials that are chemical-resistant to this product are chemical-resistant gloves, such as polyethylene or polyvinyl chloride \geq 14 mils. 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-resistance category selection chart.

Mixers, loaders, applicators and other handlers must wear the following:

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

See Engineering Controls for additional requirements.

USER SAFETY RECOMMENDATIONS

Users should:

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

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.

Note to EPA Reviewer: The following Engineering Controls will be used if product packaged with built in probe

ENGINEERING CONTROLS

Mixers and loaders must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 160.240(d)(4)] for dermal protection and must:

- Wear the personal protective equipment required in the PPE section of this labeling for mixers and loaders,
- Wear protective eyewear, if the system operates under pressure, and
- Chemical-resistant footwear must be provided and be immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown.

Note to EPA Review: The following Engineering Controls will be used if product packaged without built in probe.

ENGINEERING CONTROLS

Mixers and loaders must either:

- (1) use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for dermal protection of agricultural pesticides [40 CFR 160.240(d)(4)],

OR

- (2) Use the probe system described below:

PROBE SYSTEM

Specific requirements for use of the probe closed mixing/loading system:

- ✓ Remove plug from bung of drum containing this product only when drum is sitting on the ground or on a secure level platform, with the bung end of the drum pointed up.
- ✓ Do not pour this product from its drum.
- ✓ Transfer product from the drum to the mixing tank by use of suction hose connected at one end to the suction pump on the mixing tank and connected at the other end to a probe (dip tube) that is inserted through the bung opening into the drum.
- ✓ Do not handle the probe or bung in a manner that allows dripping or splattering of the product onto yourself or any other person.
- ✓ Do not touch the portion of the probe that has been in contact with this product until after the probe has been triple rinsed with water.
- ✓ If the product is removed from the drum, then triple rinse the probe while it remains inside the drum.

UN-RINSED PROBES

- ✓ If an un-rinsed probe must be removed from the drum, then use an anti-drip flange, and immediately transfer the probe into a container of rinse water. The anti-drip flange must be designed to remove excess propanil product from the probe as it is extracted from the drum.
- ✓ Take the following steps if the probe must be disconnected from the suction hose before both the probe and the hose have been triple rinsed:
 - (1) Equip the probe end of the hose with a shut off valve,
 - (2) Install a dry break coupling between the valve and the probe,
 - (3) Close the shut-off valve before disconnecting the probe.

ALL TRANSFER SYSTEMS

In addition, mixers and loaders using all systems must:

- wear the personal protective equipment required in the PPE section of this labeling for mixers and loaders,
- wear protective eyewear, if the system operates under pressure, and
- when using a system that meets the requirements in the WPS as a closed system or using a probe system when the probe is not removed, chemical-resistant footwear must be provided, be immediately available, and be used in an emergency, such as a broken package, spill, or equipment breakdown.

All systems must be capable of removing the pesticide from the shipping container and transferring it into mixing tanks and/or application equipment. At any disconnect point, the system must be equipped with a dry disconnect or dry couple shut-off device that is warranted by the manufacturer to minimize drippage.

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

Enclosed Cabs for Aerial Applicators: 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)].

ENVIRONMENTAL HAZARDS

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 and aquatic invertebrates. 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 area to be treated.

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 production 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
- Protective eyewear

STORAGE AND DISPOSAL

PESTICIDE STORAGE: Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not store this product near fertilizers, seeds, insecticides, or fungicides. Containers should not be stacked more than 3 containers high. Reclose all partially used containers by thoroughly tightening screw cap. 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

thoroughly absorbed with a suitable absorbent, 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.

Opened, partially used pesticides should be stored in original containers when possible. When transfer to another container is necessary because of leakage or damage, carefully mark and identify contents of the new container. Keep containers closed when not in use.

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: Triple rinse (or equivalent), adding rinsate to spray tank. Offer rinsed containers for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

BULK CONTAINER DISPOSAL: 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 a designated location specified by RiceCo LLC. This container must only be refilled with this pesticide product. **Do Not Reuse the Container for Any Other Purpose.** 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. Do not transport if this container is damaged or leaking. If the container is damaged, leaking or obsolete, contact RiceCo LLC at 1-888-835-1313. If not returned to the point of purchase or to a designated location, triple rinse empty container and offer for recycling. Disposal of this container must be in compliance with state and local regulations.

WHERE TO USE

RiceCo's **DUET CA**[®] 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, ground cherry*, gulf cockspur, hemp sesbania, mexicanweed, millet (Texas), morning-glory, mud plantain, paragrass, Pennsylvania smartweed, pickerelweed, pigweed, purple ammannia, redstem, rice flatsedge, roughseed bulrush, sicklepod*, smallflower umbrella plant, sourdock, southern naiad, spearhead, Texasweed, water plantain, waterwort, wiregrass, yellow nutsedge. (**DUET CA** will not control Bermudagrass, cattail, Johnsongrass, red rice and sprangletop).

NOTE: Resistant biotypes are known to exist in California, including California arrowhead, purple ammannia, redstem, ricefield bulrush and smallflower umbrella plant. **DUET CA** 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.

*Not registered for use in California.

GENERAL PRECAUTIONS AND RESTRICTIONS

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

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

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

Applications 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 plant or transplant crops in the treated area for at least 120 days follow an application of this product.

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

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 80 days of harvest.

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).

WEATHER CONDITIONS:

Weather conditions must be observed closely. Under cool weather conditions, higher rates are required to achieve satisfactory control. Avoid application if rain threatens within 6 to 8 hours, or if wind velocities are high enough to cause drift and irregular spray patterns.

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 CA** 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 CA** 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 CA**, have produced better results in weed control.

Relative Humidity: **DUET CA** 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 CA** 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.

ADJUVANTS AND APPLICATION AIDS:

When **DUET CA** 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 CA** 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)

SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering these factors when making application decisions. The distance from the outer most nozzles to the boom must not exceed 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.

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.

IMPORTANCE OF DROPLET SIZE: The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control.

Applications of **DUET CA** 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 (Dv.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 large 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 Surface Temperature Inversions sections of this label.)

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: Use the minimum number of nozzles with the highest flow rate 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 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 $\frac{3}{4}$ 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. Applications 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 spray drift.

TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up application 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 due to high drift potential. 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 the 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 PROVISION

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 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.

BROADCAST RATE

Apply 3 quarts of **DUET CA** per acre when most grasses have reached the 1 to 3-leaf stage. Use 4 to 5 quarts of **DUET CA** 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, 4 to 6 quarts 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 CA** 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 CA** herbicide. Loss of permanent flood following applications of **DUET CA** 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 CA** 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 CA** 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 CA**. 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 CA** spray preparations within 24 hours of product mixing, or the product may degrade.

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

SPRAYER CLEANUP

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

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 Nutrasol⁴ 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 CA** 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 CA**.

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 NOT OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS OR MERCHANTABILITY OR ANY OTHER EXPRESS OR IMPLIED WARRANTY. To the fullest extent permitted by law, 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.



Manufactured for:

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St.Accp 12/27/06 /red labeling

14/14

DUET CA ® is the registered trademark of RiceCo LLC
"...from the paddy to the plate"