

**THAD COCHRAN**  
**NATIONAL WARMWATER AQUACULTURE CENTER**

Delta Branch Experiment Station



**Mississippi State**  
UNIVERSITY

April 1, 2008

To: Mississippi Catfish Producers

Subject: Use of Karmex® DF, Karmex® XP, or Direx® 4L to Control Off-Flavor Compounds in Commercial Catfish Ponds

In January 2008, DuPont™ and the Catfish Farmers Registration Corporation entered into an agreement that allows for a FIFRA Section 24(c) Special Local needs registration for “qualified farmers” to purchase and use Karmex® DF, Karmex® XP, or Direx® 4L to control macroalgae responsible for production of off-flavor compounds in commercially operated catfish ponds in Alabama, Arkansas, Mississippi, Louisiana, and Texas and commercially operated freshwater ponds for bass production in Texas. Mississippi catfish farmers may qualify under this agreement if: 1) they have a current Private Applicator Certificate, 2) have signed and submitted an Acknowledgement and Release form, and 3) are a member of Catfish Farmers of America.

Copies of the Supplemental Labels and the Acknowledgement and Release form are enclosed. The labels must be in the possession of the user at time of application. If you plan to purchase any of these products during 2008, fill out the form and return it to:

Catfish Farmers Registration Corporation  
1100 Hwy 82 E., Suite 202  
Indianola, MS 38751  
Attn: Sissy Bridges

Ms. Bridges will confirm your membership status with Catfish Farmers of America.

You will need to provide your Private Applicator Certificate number on the form. If your Certificate has expired, contact your local Mississippi State University Extension Service office concerning the next available training. A training session may be held at the National Warmwater Aquaculture Center if a sufficient number of catfish producers need to be certified.

There is a question on the form concerning the quantity of Karmex® DF, Karmex® XP, or Direx® 4L purchased. Since you are filling out this form prior to actually purchasing any product, you will need to estimate the amount of product you will purchase during the 2008 calendar year. This estimate should be based on the application rate as stated on the supplemental labels and prior use experience. It is important that this estimate be as accurate as possible since the combined estimated usage for the five states will be reported at the end of the 2008 calendar year.

If I can be of assistance in this process, please let me know.

Sincerely,

A handwritten signature in black ink, appearing to read "Jimmy Avery".

Jimmy Avery, Ph.D.  
Extension Aquaculture Leader and Professor  
National Warmwater Aquaculture Center  
Mississippi State University

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*Mississippi State University and U.S. Department of Agriculture Cooperating*

## **Karmex® DF, Karmex® XP, or Direx 4L® herbicide Acknowledgement and Release**

On behalf myself and my company (if applicable), I have read, understand, and agree to the following:

1. I am purchasing Karmex® DF, Karmex® XP, or Direx® 4L herbicide under a FIFRA Section 24(c) "Special Local Needs" registration of the Catfish Farmers Registration Corporation (CFRC) for use in states of Alabama, Arkansas, Louisiana, Mississippi and Texas (collectively, the "Authorized States") for the control of macroalgae that is responsible for production of off flavor compound, methylisoborneol ("MIB") in commercially operated freshwater ponds for catfish production, and/or for such use in the state of Texas in commercially operated freshwater ponds for bassfish production. I understand that this is a special registration and that the DuPont Company has not registered the product with the U.S. EPA or any other state for this use.
2. I will only use Karmex® DF, Karmex® XP, or Direx® 4L herbicide in accordance with, and under the conditions of, one or more of the Authorized States' 24(c) label only for use in the control of macroalgae that is responsible for production of MIB in commercially operated freshwater ponds for catfish production in the Authorized States and/ commercially operated freshwater ponds for bassfish in Texas, and not for any other use including a consumer, homeowner or hobby use. I agree not distribute it or resell Karmex® DF, Karmex® XP, or Direx® 4L herbicide I purchase.
3. I am a Certified Applicator under the laws of one or more of the Authorized States.
4. I acknowledge that hazards may be involved in the sale, storage, or use of Karmex® DF, Karmex® XP, or Direx® 4L herbicide and I agree to take the necessary precautions in the storage, use and disposal of Karmex® DF, Karmex® XP, or Direx® 4L herbicide to avoid an unhealthy or unsafe work environment, injuries to persons, damage to or contamination of property, the environment, or cause pollution. I agree to become familiar with and to ensure that my employees and are familiar with and follow precautions given on Karmex® DF Karmex® XP, or Direx® 4L herbicide labeling concerning the safe handling and use limitations of the product.
5. IN CONSIDERATION OF THE DUPONT COMPANY'S AGREEMENT TO ASSIST THE CATFISH FARMERS REGISTRATION CORPORATION TO OBTAIN THE FIFRA 24(C) SPECIAL LOCAL NEEDS REGISTRATIONS FOR ONE OR MORE OF THE AUTHORIZED STATES, I DO HEREBY WAIVE, RELEASE, AND FOREVER DISCHARGE E.I. DU PONT DE NEMOURS AND COMPANY, GRIFFIN LLC (VALDOSTA, GEORGIA), THEIR DISTRIBUTORS, THEIR RETAILERS AND THEIR OFFICERS, DIRECTORS, EMPLOYEES, MEMBERS, REPRESENTATIVES, AND CONTRACTORS (EACH OF THEM A "RELEASED PARTY") FROM ANY AND ALL RESPONSIBILITY OR LIABILITY FOR PERSONAL INJURY OR FOR DAMAGES (INCLUDING BUT NOT LIMITED TO PERSONAL, ECONOMIC, PROPERTY OR ENVIRONMENTAL DAMAGES) TO ME OR ANY OTHER PERSONS OR ENTITIES RESULTING FROM MY PURCHASE OR USE OF KARMEX® DF, KARMEX® XP, OR DIREX® 4L HERBICIDE, EXCEPT IF SUCH DAMAGES OR INJURIES ARE CAUSED SOLELY BY THE WILLFUL OR RECKLESS MISCONDUCT OF A RELEASED PARTY.

I have read and agree.

Name of Company:

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Phone Number:

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Address:

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State of Alabama, Arkansas, Louisiana,  
Mississippi, and/or Texas Certified  
Applicator ID Number:

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Name (Please Print):

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Signature:

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Quantity of Karmex® DF, Karmex® XP, or Direx®  
4L Herbicide Purchased:

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State:

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Date:

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**CATFISH FARMERS REGISTRATION CORPORATION (CFRC)  
1100 HIGHWAY 82 EAST, SUITE 202  
INDIANOLA, MS 38751**

**SPECIAL LOCAL NEED  
24(c) LABELING**

**DUPONT™ KARMEX® XP AND KARMEX® DF  
HERBICIDES**

**FOR DISTRIBUTION AND USE IN COMMERCIAL FARM PRODUCTION OF  
CHANNEL CATFISH IN THE STATE OF MISSISSIPPI**

**MS-070006**

**DUPONT™ KARMEX® XP AND DUPONT KARMEX® DF HERBICIDES  
EPA Reg. No. 352-692**

**FOR CONTROL OF THE ALGAE RESPONSIBLE FOR THE PRODUCTION OF  
THE OFF-FLAVOR COMPOUND, METHYLISOBORNEOL, IN COMMERCIAL  
FARM PRODUCTION OF CHANNEL CATFISH IN MISSISSIPPI**

**FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL  
MAY RESULT IN POOR ALGAE CONTROL, ILLEGAL RESIDUES AND/OR CHANNEL  
CATFISH INJURY**

**USE OF KARMEX® XP (DF) (THE “PRODUCTS”) IN CHANNEL CATFISH (THE  
“CROP”) PONDS FOR THIS SPECIAL LOCAL NEED MAY RESULT IN CROP  
INJURY, CROP YIELD REDUCTIONS AND/OR CROP LOSS AS FURTHER  
DISCUSSED BELOW. READ AND UNDERSTAND THESE CONDITIONS AND RISKS  
OF USE FOR THIS SPECIAL LOCAL NEED BEFORE USING THE PRODUCT ON  
THE CROP.**

E. I. DuPont de Nemours and Company (“DuPont”) and Catfish Farmers Registration Corporation (“CFRC”) intend to offer this product only to those end users and/or growers who have liability and indemnification agreements with DuPont as executed through CFRC with respect to liability arising from use of Karmex® XP (DF) in channel catfish ponds. If, after purchasing the product, said release of liability and indemnification agreement is unacceptable to the user / grower, DuPont and CFRC request that the user/grower return the unopened Karmex® XP (DF) product to the place of purchase at once for refund.

This product when used in channel catfish ponds may lead to crop injury, loss or damage to property. DuPont recommends that the user and /or grower test this product in order to determine its suitability for such intended use. DuPont makes the product available to the user and /or grower solely to the extent the benefit and utility, in the sole opinion of the user and /or grower, outweigh the extent of potential injury or damage associated with the use of this product. The decision to use or not to use this product must be made by each individual user and /or grower on

the basis of possible injury or damage arising from the use of Karmex® XP (DF), the severity of algae infestation, the cost of alternate control measures and other factors, because of the risk of crop damage all such use is at the user's and /or grower's risk.

These conditions and Risks of Use for Special Local Need supersede any contrary representations or recommendations by DuPont or their respective agents or representatives, and any provisions in or on any Product literature or labeling including any provisions on the label affixed to the Product container.

These conditions and risks of use for the Special Local Need are required by DuPont and not specified by the US EPA or the State of Mississippi.

**DIRECTIONS FOR USE:**

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

In the controlled farm production of channel catfish, DuPont™ Karmex® XP (DF) Herbicide is effective for controlling the algae that is responsible for the production of the off-flavor compound, methylisoborneol or MIB. Apply at the rate of 0.5 ounce of Karmex® XP (DF) Herbicide per acre foot (0.01 ppm diuron) every seven days, but not to exceed nine applications per year (56 days).

Do not apply more than 0.225 pounds of active ingredient per acre foot per year.

**APPLICATION INFORMATION:**

Determine the number of acre feet of water in the pond and multiply the number of acre feet of water in the pond times 0.5 ounce/acre foot to give the number of ounces of Karmex® XP (DF) Herbicide that must be applied to the pond. Turn on the pond aerator to establish a current in the pond.

Weigh the correct amount of Karmex® XP (DF) Herbicide into a five gallon bucket and fill the bucket half full with pond water. Stir the contents of the bucket. Pour the contents of the stirred bucket into the pond on the outflow side of the operating aerator and rinse the bucket in pond water. Operate the aerator for one hour after the addition of the Karmex® XP (DF) Herbicide to the pond.

Do not treat ponds when the average daily temperatures are below 60° F or 15° C.

Care should be taken in Noxubee County to avoid any exposure of pond water treated with diuron on the American Chaffseed (*Schwalbea americana*) a federally-listed endangered species.

**IMPORTANT**

With the exception of the prohibition on the registered label for Karmex® XP (DF) Herbicide (EPA Reg. No. 352-692) restricting treatment to water bodies, all applicable directions, restrictions and precautions on the EPA registered label are to be followed.

This labeling must be in the possession of the user at the time of application.

<p>24(c) Registrant: Catfish Farmers Registration Corporation 1100 Highway 82 East, Suite 202 Indianola, MS 38751</p>
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**CATFISH FARMERS REGISTRATION CORPORATION (CFRC)  
1100 HIGHWAY 82 EAST, SUITE 202  
INDIANOLA, MS 38751**

**SPECIAL LOCAL NEED  
24(c) LABELING**

**DUPONT™ DIREX® 4L HERBICIDE**

**FOR DISTRIBUTION AND USE IN COMMERCIAL FARM PRODUCTION OF  
CHANNEL CATFISH IN THE STATE OF MISSISSIPPI**

**MS-070005  
DUPONT™ DIREX® 4L HERBICIDE  
EPA Reg. No. 352-678**

**FOR CONTROL OF THE ALGAE RESPONSIBLE FOR THE PRODUCTION OF  
THE OFF-FLAVOR COMPOUND, METHYLISOBORNEOL, IN COMMERCIAL  
FARM PRODUCTION OF CHANNEL CATFISH IN MISSISSIPPI**

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY  
RESULT IN POOR ALGAE CONTROL, ILLEGAL RESIDUES AND/OR CHANNEL CATFISH  
INJURY

**USE OF DIREX® 4L (THE “PRODUCT”) IN CHANNEL CATFISH (THE “CROP”)  
PONDS FOR THIS SPECIAL LOCAL NEED MAY RESULT IN CROP INJURY, CROP  
YIELD REDUCTIONS AND/OR CROP LOSS AS FURTHER DISCUSSED BELOW.  
READ AND UNDERSTAND THESE CONDITIONS AND RISKS OF USE FOR THIS  
SPECIAL LOCAL NEED BEFORE USING THE PRODUCT ON THE CROP.**

E. I. DuPont de Nemours and Company (“DuPont”) and Catfish Farmers Registration Corporation (“CFRC”) intend to offer this product only to those end users and/or growers who have liability and indemnification agreements with DuPont as executed through CFRC with respect to liability arising from use of Direx® 4L in channel catfish ponds. If, after purchasing the product, said release of liability and indemnification agreement is unacceptable to the user / grower, DuPont and CFRC request that the user/grower return the unopened Direx® 4L product to the place of purchase at once for refund.

This product when used in channel catfish ponds may lead to crop injury, loss or damage to property. DuPont recommends that the user and /or grower test this product in order to determine its suitability for such intended use. DuPont makes the product available to the user and /or grower solely to the extent the benefit and utility, in the sole opinion of the user and /or grower, outweigh the extent of potential injury or damage associated with the use of this product. The decision to use or not to use this product must be made by each individual user and /or grower on the basis of possible injury or damage arising from the use of Direx® 4L, the severity of algae infestation, the cost of alternate control measures and other factors, because of the risk of crop damage all such use is at the user’s and /or grower’s risk.

These conditions and Risks of Use for Special Local Need supersede any contrary representations or recommendations by DuPont or their respective agents or representatives, and any provisions in or on any Product literature or labeling including any provisions on the label affixed to the Product container.

These conditions and risks of use for the Special Local Need are required by DuPont and not specified by the US EPA or the State of Mississippi.

**DIRECTIONS FOR USE:**

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

In the controlled farm production of channel catfish, DuPont™ Direx® 4L Herbicide is effective for controlling the algae that is responsible for the production of the off-flavor compound, methylisoborneol or MIB. Apply at the rate of 0.8 ounce of Direx® 4L Herbicide/acre foot (0.01 ppm diuron) every seven days, but not to exceed nine applications per year (56 days). Do not apply more than 0.225 pounds of active ingredient per acre foot per year.

**APPLICATION INFORMATION:**

Determine the number of acre feet of water in the pond and multiply the number of acre feet of water in the pond times 0.8 ounce/acre foot to give the number of ounces of Direx® 4L Herbicide that must be applied to the pond. Turn on the pond aerator to establish a current in the pond.

Measure the correct amount of Direx® 4L Herbicide into a five gallon bucket and fill the bucket half full with pond water. Stir the contents of the bucket. Pour the contents of the stirred bucket into the pond on the outflow side of the operating aerator and rinse the bucket in pond water. Operate the aerator for one hour after the addition of the Direx® 4L Herbicide to the pond. Do not treat ponds when the average daily temperatures are below 60° F or 15° C.

Care should be taken in Noxubee County to avoid any exposure of pond water treated with diuron on the American Chaffseed (*Schwalbea americana*) a federally-listed endangered species.

**IMPORTANT**

With the exception of the prohibition on the registered label for Direx® 4L (EPA Reg. No. 352-678) restricting treatment to water bodies, all applicable directions, restrictions and precautions on the EPA registered label are to be followed. This labeling must be in the possession of the user at the time of application.

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