

PA 15 3000-1111 18

Beverley Neale
 Label Development Specialist
 Riverside / Terra Corporation
 P.O. Box 171376
 Memphis, Tennessee 38187-1376

Dear Ms. Neal:

Subject: Fluometuron 80DF
 EPA Reg. No. 9779-311
 RE: Label Amendment /Alternate Formula
 Your Submission Dated September 17, 1991

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records.

Your request for alternate formula is pending Agency review.

Sincerely yours,

Robert J. Taylor
 Product Manager (25)
 Fungicide-Herbicide Branch
 Registration Division (H7505C)

BEST AVAILABLE COPY

CONCURRENCES

SYMBOL	H7505C						
SURNAME	Mullin						
DATE	9/3/91						

R®

FLUOMETURON 80DF

For weed control in cotton

ACCEPTED
 OCT - 7 1991

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 9779-311

ACTIVE INGREDIENT

Fluometuron [1,1-dimethyl-3-(alpha, alpha, alpha, trifluoro-m-tolyl) urea].....80.00Z
 INERT INGREDIENTS..... 20.00Z
 Total 100.00Z

STOP-READ LABEL BEFORE USING.

KEEP OUT OF REACH OF CHILDREN

WARNING/AVISO

PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.

STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Immediately flush with large amounts of water. Get medical attention if irritation persists.
 IF ON SKIN: Wash affected skin areas thoroughly with soap and water. Get medical attention if irritation persists.
 IF SWALLOWED: Drink water and induce vomiting by placing fingers at back of throat. Call a physician, hospital, or Poison Control Center immediately.
 IF INHALED: Move subject to fresh air. Get medical attention.
 NOTE TO PHYSICIAN: If the patient has ingested fluometuron, induce emesis or lavage stomach. Administer a saline laxative and supportive treatment.

See additional PRECAUTIONARY STATEMENTS on side panel.

EPA Reg. No. 9779-311

EPA Est. No. 9779-AR-13

Manufactured For
 RIVERSIDE/TERRA CORPORATION
 Terra Centre, 600 Fourth Street, Sioux City, Iowa 51101
 Riverside Serves Agriculture. Agriculture Serves Everyone.

NET CONTENTS
 3 LBS.

BEST AVAILABLE COPY

PRECAUTIONARY STATEMENTS
WARNING
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Causes eye irritation. Wear goggles, face shield or safety glasses. Do not get in eyes, on skin, or on clothing. Harmful if swallowed, inhaled or absorbed through the skin. Wear protective clothing as this product may cause skin rash after repeated exposure. Avoid breathing vapors or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

Do not apply directly to water or wetlands. Do not contaminate water when disposing of equipment washwaters.

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 through any type of irrigation system.

STORAGE AND DISPOSAL
DO NOT CONTAMINATE WATER, FOOD OR FEED BY STORAGE OR DISPOSAL.

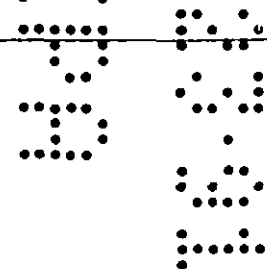
STORAGE

Store in a dry location away from children, animals, foods, feeds, seeds, or other agricultural chemicals. Handle in accordance with information given under PRECAUTIONARY STATEMENTS. In the event of spillage or leakage, scrape up spillage. If spillage is not suitable for use, dispose of in accordance with information given under DISPOSAL. Repackage and relabel useable product in a sound container. In case of fire or other emergency, report at once by toll-free telephone to 800-424-9300.

DISPOSAL

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or if allowed by state or local authorities, by burning. If burned, stay out of smoke.



GENERAL INFORMATION

FLUOMETURON 80DF is effective for annual grass and annual broadleaf weed control in cotton. FLUOMETURON 80DF applied according to label directions will control the following annual weeds:

ANNUAL BROADLEAF WEEDS

Spurred anoda	Prickly sida (teaweed)
Cocklebur	Purslane
Florida pusley	Ragweed
Groundcherry (Wright)	Sesbania
Jimsonweed	Sicklepod
Lambsquarters	Smartweed
Morningglory	Tumbleweed
Pigweed	

ANNUAL GRASS WEEDS

Barnyardgrass	Foxtail
Crabgrass	Goosegrass
Crowfootgrass	Ryegrass
Fall panicum	Signalgrass (<u>Brachiaria</u>)

Established perennial weeds such as Johnsongrass from rhizomes are not controlled.

APPLICATION PROCEDURES

BAND TREATMENT: For band applications, the following formula may be used to calculate the amount of FLUOMETURON 80DF required:

$$\frac{\text{band width (inches)}}{\text{row width (inches)}} \times \text{broadcast rate per acre} = \text{amount needed per acre}$$

EQUIPMENT: Thoroughly clean sprayer prior to use. Do not use a sprayer contaminated with 2,4-D or other materials as crop damage or sprayer clogging may result.

Use properly calibrated conventional spray equipment that will apply spray uniformly and has hydraulic or mechanical agitation, except in California or Arizona where only mechanical agitators are recommended. Screens in nozzles, in suction, and in-line strainers should be no finer than 50-mesh. Use a pump with capacity to maintain 35-40 psi at the nozzles. If hydraulic agitation is used, the pump should also provide sufficient agitation in the tank to keep the mixture in suspension. Avoid leaving spray mixture in tank without constant agitation. If bypass agitation is used, it should terminate at the bottom of the tank to minimize foaming. Wash sprayer thoroughly with clean water immediately after use.

Apply in a minimum of 10 gallons per acre for preplant incorporated or pre-emergence applications, or apply in a minimum of 20 gallons per acre for postemergence application.

MIXING INSTRUCTIONS: Fill spray tank 1/2 full with water or nitrogen solution. Start agitation. Pour FLUOMETURON 80DF directly from the container into the partially filled spray tank. If FLUOMETURON 80DF is to be tank mixed with another herbicide, add that product after the FLUOMETURON 80DF is thoroughly mixed. Add the rest of the water or nitrogen solution. Agitate during mixing and application to maintain uniform suspension.

To determine compatibility, add two teaspoons of FLUOMETURON 80DF to one pint of a nitrogen solution, equivalent to 2.5 pounds in 25 gallons. If using other application rates, adjust compatibility test rates proportionally. Stir or shake thoroughly. Let stand 5 minutes. If it remains mixed or can be remixed readily, the mixture is compatible. If FLUOMETURON 80DF settles out when mixed with a nitrogen solution, a compatibility agent at 1 to 3 pints per 100 gallons fertilizer may improve compatibility. Add 1/8 to 3/8 teaspoon of the compatibility agent to determine effectiveness.

Cotton

FLUOMETURON 80DF may be applied as a preemergence treatment to the surface of the soil, or lightly incorporated immediately after planting, or as a directed, semidirected, or over-the-top postemergence application. For preemergence treatment only, FLUOMETURON 80DF may be tank-mixed with most liquid nitrogen fertilizers. FLUOMETURON 80DF may be combined with other herbicides in cotton as directed in the section, "Combinations."

FLUOMETURON 80DF is most effective when used as follows:

1st Application: Preemergence broadcast. See Preemergence Treatment below.

2nd Application: Postemergence, directed, semidirected, or over-the-top when cotton is 3-6 inches high. See Postemergence Treatments below.

3rd Application: If needed, postemergence, directed, or semidirected, at layby (last normal cultivation), using no more than 1.25 pounds per acre.

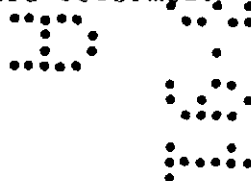
Preemergence Treatment

Apply FLUOMETURON 80DF at a rate of 1.25 to 2.5 pounds per acre. On light silt and sandy soils low in organic matter, use the lower rate.

FLUOMETURON 80DF may be applied to the surface of the soil or lightly incorporated into the soil after planting cotton.

Preplant Incorporated Use (Arizona, California, and New Mexico)

FLUOMETURON 80DF may be applied preplant as a broadcast spray at 2.0 pounds per acre after the beds for preplant irrigation have been formed... Apply before the beds are dragged off (using a bed shaper set to remove 1 to 2 inches from beds) in preparation for planting. Furrow irrigation should precede the application and planting should follow as soon as possible. Plant into untreated soil after drag-off and return treated soil to the beds when furrows are reformed. Do not allow furrow irrigation water to pond over the beds.



Postemergence Treatments

FLUOMETURON 80DF may be applied postemergence to cotton but preemergence to weeds, or postemergence to both cotton and weeds. FLUOMETURON 80DF should be applied at rates of 1.25 to 2.5 pounds per acre. Apply as a directed, semidirected, or over-the-top spray. FLUOMETURON 80DF may be applied to cotton plants at any stage of growth from 3 inches high to layby. Use the higher rate when applying postemergence to weeds; weeds should be 2 inches high or less. Use of a surfactant that is approved by FDA for use on food and feed crops and is compatible with FLUOMETURON 80DF when applied to cotton may enhance the postemergence herbicidal activity of FLUOMETURON 80DF. The surfactant rate should not exceed 0.5% of the carrier volume (1 pint per 25 gallons of water).

Application Precautions: Rainfall that is sufficient to germinate seeds or for growing crops is adequate to activate the herbicidal activity of FLUOMETURON 80DF. Where dry weather conditions prevail, the herbicidal activity of FLUOMETURON 80DF may be delayed or reduced. Cultivate if necessary.

Do not make more than three applications of FLUOMETURON 80DF to the same crops or field in any one year. Do not plant crops other than cotton or sugarcane within 6 months of the last application of FLUOMETURON 80DF or injury may result.

The use of FLUOMETURON 80DF as a preemergence or early postemergence application, following the use of a systemic insecticide at planting, may result in injury to cotton.

West Texas only: Do not use FLUOMETURON 80DF on sandy, loamy sand, or fine sandy loam soils. Do not use FLUOMETURON 80DF on cotton planted in furrows.

Arkansas, Louisiana, and Mississippi only: Use 1 pound of FLUOMETURON 80DF per acre on sandy loam soils low in organic matter.

Arizona, California, and New Mexico only: Cotton, corn, and grain sorghum can be planted the next spring. Do not plant treated areas to other crops until one year after last application. Do not use on sandy or coarse-textured soil of less than 1% organic matter.

Do not apply within 60 days of harvest.

Do not feed foliage from cotton plants or gin trash to livestock.

Combinations for Use on Cotton

Dual® 8E: Use in a tank mixture with FLUOMETURON 80DF preemergence in cotton for control of all weeds as listed on both labels. This combination will also control spotted spurge, hyssop spurge, nodding spurge, and prostrate spurge. Apply to the soil surface at planting or after planting, but before weeds or crop emerge, using the appropriate rates from the table below. **Note:** Incompatibility may occur, add Activate Plus at 0.5% volume/volume spray (2 pints/100 gal.) to help overcome this condition.



FLUOMETURON 80DF + Dual 8E - Cotton (AR, LA, MS, Eastern OK, TN, Bootheel of MO, and Gulf Coast, Rio Grand Valley and Eastern TX)

Soil texture	Broadcast Rates Per Acre	
	FLUOMETURON 80DF	Dual 8E
Sand, loamy sand	DO NOT USE	
Sandy loam*	1.25 pounds	1.25-1.5 pints
Loam, silt, silt loam	1.25-2 pounds	1.5-2 pints
Silty clay loam, sandy clay loam, silty clay, sandy clay, clay loam, clay	2-2.5 pounds	2 pints

*Use on sandy loam soils only in eastern OK and Gulf Coast, Rio Grande Valley, and eastern TX.

Precautions: (1) Do not apply on sand or loamy sand soils or in areas where water is likely to "pond" over the bed, or crop injury may occur. (2) Do not apply broadcast to furrow-planted cotton. (3) The use of FLUOMETURON 80DF following the use of a systemic insecticide at planting may result in crop injury. (4) Do not use on Taloka silt loam or crop injury may occur.

Refer to the Dual 8E label for further instructions, precautions, and limitations.

Note: Do not feed treated forage or gin trash to livestock or graze treated areas.

Rotational Crops: Refer to the crop rotation instructions for FLUOMETURON 80DF alone on this label and for Dual 8E alone on the Dual 8E label.

Trifluralin 4EC: Use in a tank mixture with FLUOMETURON 80DF (all areas except Arizona and California) or before an overlay with FLUOMETURON 80DF in cotton for control of all weeds listed on both labels.

For the tank mixture, follow soil preparation and incorporation procedures for Trifluralin 4EC. Apply FLUOMETURON 80DF + Trifluralin 4EC tank mix rates specified below in a minimum of 15 gallons of water per acre.

FLUOMETURON 80DF + Trifluralin 4EC Tank Mixture (except Arizona and California).

Soil texture	Broadcast rates per acre	
	FLUOMETURON 80DF	Trifluralin 4EC
Sand, loamy sand, sandy loam	1.25 pounds	1 pint
Loam, silty clay loam*, silt loam, silt, sandy clay loam*	2.0 pounds	1.5 pints
Clay, clay loam, silty clay loam*, silty clay, sandy clay, sandy clay loam*	2.5 pounds	2 pints

*Silty clay loam and sandy clay loam are transitional soils. If these soils are predominately sand or silt, they are usually classified as medium-textured soils. If predominately clay, they are classified as fine-textured soils.

For the overlay, apply FLUOMETURON 80DF as a preemergence soil surface treatment as recommended on this label at 1.25 to 2.5 pounds per acre after a preplant soil incorporated treatment of trifluralin. Apply Trifluralin 4EC as recommended on the label at 1 to 2.5 pints per acre.

Do not use the tank mix in Arizona and California. Do not apply the tank mix of FLUOMETURON 80DF + Trifluralin 4EC in liquid fertilizer. Refer to the Trifluralin 4EC label for directions, precautions, and limitations for use of that product, as well as the directions, precautions, and limitations on this FLUOMETURON 80DF label.

Prowl®: Apply FLUOMETURON 80DF as a preemergence surface treatment as recommended on this label at 1.25 to 2.5 pounds per acre after a preplant soil incorporated treatment of Prowl for control of all weeds listed on both labels. Apply Prowl as recommended on its label at 1-3 pints per acre. Refer to the Prowl label for directions, precautions, and limitations for use of that product.

Zorial® Rapid 80: Apply FLUOMETURON 80DF according to directions on this label as a preemergence soil surface treatment following a preplant incorporated application of Zorial Rapid 80 or tank mix with Zorial Rapid 80 and apply as a preemergence treatment. Refer to the Zorial Rapid 80 label for directions for use, precautions, and limitations for use of that product.

DSMA or MSMA: FLUOMETURON 80DF may be tank-mixed with DSMA or MSMA and applied as a directed spray to cotton from three inches high to first bloom. Use the broadcast rate of 1.25 to 2.5 pounds per acre and the necessary amount of DSMA or MSMA plus 0.5% (1 pint per 25 gallons) of a surfactant that is approved by FDA for use on food and feed crops and is compatible with FLUOMETURON 80DF + DSMA or FLUOMETURON 80DF + MSMA when applied to cotton. When using this mixture, do not allow spray to contact cotton foliage. Do not graze treated areas or feed treated forage or gin trash to livestock. Adhere strictly to the dosage, precautions and limitations of the labels of the products.

Dual® trademark of Ciba-Geigy for metolachlor

Prowl® trademark of American Cyanamid for pendimethalin

Zorial® Rapid 80 trademark of Sandoz Ltd.

NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of merchantability or fitness for a particular purpose, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller and Buyer assumes the risk of any such

