



003125-00527-042199

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Systems Integration Group, Inc.

PM 25

3125-527

4-21-99

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U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:  
3125-527

Date of Issuance:  
APR 21 1999  
Expiration Date:  
APR 30 2003

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:  
Conditional

Name of Pesticide Product:  
Metribuzin +  
Flufenacet DF  
Herbicide

Name and Address of Registrant (include ZIP Code):

Bayer Corporation  
8400 Hawthorn Road  
P.O. Box 4913  
Kansas City, MO 64120-0013

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

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

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

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(C) provided that you:

1. Comply with all the terms and conditions as stated in attached correspondence dated March 26, 1998 from Bayer Corporation concerning additional data requirements for N-(4-fluorophenyl)-N-(1-methylethyl)-2-[[5-(trifluoromethyl)-1,3,4-thiadiazol-2-yl]oxy]acetamide [proposed common name flufenacet].
2. Make the following label changes listed below before you release the product for shipment:
  - a. Add the phrase, "EPA Reg. No. 3125-527".

Signature of Approving Official:

Date:

4/21/99

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b. Since this product is in Toxicity Category IV for Eye Irritation, delete "Causes Moderate Eye Irritation" and "If in eyes:...." Precautionary and First Aid Statements.

3. Submit production information (pounds or gallons produced) for this product for the fiscal year in which the use on soybeans is conditionally registered, in accordance with FIFRA section 29. The fiscal year begins October 1, and ends September 30. The product information will be submitted to the Agency no later than November 15, following the end of the preceding fiscal year.

This information is to be submitted to:

Registration Support Branch  
Registration Division (7505C)  
Environmental Protection Agency  
Washington, DC 20460

If production will exceed 26% of the total soybeans acres planted in the U.S. at the average application rates for products containing flufenacet, Agency permission must be obtained.

4. Submit one (1) copy of your final printed labeling before you release the product for shipment. Refer to the A-79 enclosure for a further description of final printed labeling.

5. Submit by October 31, 2002 the following Studies conducted on accordance with the Good Laboratory Practice Standards, 40 CFR Part 160 and appropriate test guidelines as referenced in EPA's Data Requirements for Registration Regulations, 40 CFR Part 158:

a. Acute Toxicity of the thiadone degradate to Aquatic Species [Guideline #'s 72-1, 72-2, and 72-3]

b. Environmental Fate Data on the thiadone degradate [Guideline #'s 161-1, 161-2, 162-1, 162-2 or 162-3, 162-4, and 163-2]

c. Freshwater Fish Life-Cycle Test conducted with FOE 5043 Technical [Guideline # 72-5]

d. Two Prospective Groundwater Monitoring Studies at vulnerable sites

e. Tier II Terrestrial Plant Test conducted with Axiom DF [Guideline # 123-1]


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- f. Data regarding the stability of the glucoside conjugate and the malonylalanine conjugate of thiadone and subsequent bioavailability of any release free thiadone
- g. A revised analytical method
- h. Validation of the product chemistry enforcement analytical method [OPPTS 830.1800]
- i. Additional Crop Rotation data [Guideline # 165-2]
- j. Surface Water Monitoring
- k. A Developmental Neurotoxicity Study

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

  
James A. Tompkins  
Product Manager (25)  
Herbicide Branch  
Registration Division (7505C)

Enclosure

4010

XXX-9158.YLD

U.S. LABEL

Base Pre-Reg (9158)

Reason to Issue: New product registration.

Date of Pre-Reg Draft: 01/25/99 (D)

# Metribuzin + Flufenacet

## DF Herbicide

For control of certain grass and dicot weeds in soybeans.

### ACTIVE INGREDIENTS:

Flufenacet: N-(4-Fluorophenyl)-N-(1-methylethyl)-2- -[[5-(trifluoromethyl)-1,3,4-thiadiazol-2-yl]oxy]acetamide	24.0%
Metribuzin: 4-Amino-6-(1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5(4H)-one	36.0%
INERT INGREDIENTS:	40.0%
	100.0%

EPA Reg. No. 3125-~~EXLET~~

EPA Est. 3125-MO-1

U.S. Patent No. 4,645,525 and 4,585,471 and 4,968,342

Net Weight: \_\_\_ Pounds

**ACCEPTED**  
**with COMMENTS**  
**In EPA Letter Dated:**  
**APR 21 1999**

**STOP - Read the label before use.**  
**Keep out of reach of children.**

## CAUTION

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

~~3125-527~~

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION:** Harmful if swallowed, or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing.

#### Personal Protective Equipment:

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Waterproof gloves

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.

#### 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.

### STATEMENTS OF PRACTICAL TREATMENT

**If swallowed:** Call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. If person is unconscious, do not give anything by mouth and do not induce vomiting. **If on skin:** Wash with plenty of soap and water. Get

medical attention. **If in eyes:** Flush eyes with plenty of water. Call a physician if irritation persists.

**To Physician:** No specific antidote is available. Treat the patient symptomatically.

# Metribuzin + Flufenacet DF

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### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwaters.

Do not allow sprays to drift onto adjacent desirable plants.

Metribuzin has properties that may result in ground water contamination. Application in areas where soils are permeable or coarse and groundwater is near the surface could result in groundwater contamination.

**Ground Water:** Flufenacet is known to leach through soil into ground water under certain conditions as a result of label use. Use of this chemical in areas where soils are

permeable, particularly where the water table is shallow, may result in ground-water contamination.

**Surface Water:** Flufenacet and metribuzin residues can contaminate surface water through spray drift. Under some conditions, they also have high potential for runoff into surface water (primarily via dissolution in runoff water or erosion), for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlying tile drainage systems that drain to surface waters.

### 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 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 12 hours following application.

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that

#### AGRICULTURAL USE REQUIREMENTS continued

involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

**IMPORTANT:** Read these entire Directions and Conditions of Sale before using Metribuzin + Flufenacet Dry Flowable Herbicide.

**CONDITIONS OF SALE OR OF DELIVERY FOR USE:** THE DIRECTIONS ON THIS LABEL WERE DETERMINED THROUGH RESEARCH TO BE THE DIRECTIONS FOR CORRECT USE OF THIS PRODUCT. THIS PRODUCT HAS BEEN TESTED FOR A RANGE OF WEATHER CONDITIONS SIMILAR TO THOSE WEATHER CONDITIONS THAT ARE ORDINARY AND CUSTOMARY IN THE GEOGRAPHIC AREA WHERE THE PRODUCT IS USED. INSUFFICIENT CONTROL OF PESTS AND/OR INJURY TO THE CROP TO WHICH THE PRODUCT IS APPLIED MAY RESULT FROM THE OCCURRENCE OF EXTRAORDINARY OR UNUSUAL WEATHER, OR FROM FAILURE TO FOLLOW LABEL DIRECTIONS. IN ADDITION, FAILURE TO FOLLOW LABEL DIRECTIONS MAY CAUSE INJURY TO OTHER CROPS, ANIMALS, MAN, OR THE ENVIRONMENT. BAYER OFFERS, AND THE BUYER ACCEPTS AND USES, THIS PRODUCT SUBJECT TO THE CONDITIONS THAT EXTRAORDINARY OR UNUSUAL WEATHER, OR FAILURE TO FOLLOW LABEL DIRECTIONS ARE BEYOND THE CONTROL OF BAYER AND ARE, THEREFORE, THE RESPONSIBILITY OF THE BUYER.

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### GENERAL INFORMATION

Metribuzin + Flufenacet is a selective soil-applied herbicide for early season control/suppression of many annual grass and dicot weeds in soybeans and should be utilized in conjunction with additional tank mix partners and/or a planned postemergence weed control program. Metribuzin + Flufenacet is formulated as a 60 % dry flowable. Metribuzin + Flufenacet may be applied preplant surface, preplant incorporated (mix into the top 1 to 2 inch layer of soil) and preemergence. Metribuzin + Flufenacet will provide its most effective weed control when applied and subsequently moved into the soil by rainfall, sprinkler irrigation or mechanical tillage prior to weed emergence. Metribuzin + Flufenacet controls weeds by interfering with seed germination and seedling development and by inhibiting photosynthesis.

Metribuzin + Flufenacet may be applied using water as a liquid carrier or be impregnated and applied on dry bulk fertilizer.

Metribuzin + Flufenacet may be applied either alone or in tank mix combination with additional herbicides. When tank mixing, always observe all precautionary statements and limitations on labeling of all products.

Dry weather following preemergence application of Metribuzin + Flufenacet or recommended tank mixtures may reduce effectiveness. Cultivate if weeds develop where possible.

### GENERAL USE RESTRICTIONS

Metribuzin + Flufenacet is intended for use **only** on soybeans.

Do not apply more than 16 ounces of Metribuzin + Flufenacet per acre per use season.

Soybean seed should be planted a minimum of 1.5 inches deep.

**Due to sensitivity of certain soybean varieties/cultivars, Metribuzin + Flufenacet is not recommended for use on the following soybean varieties or cultivars:** A6520, Altona, AP 2122, AP55, AP71, Burlison, Coker 102, Coker 156, Dassel, GH 1265, GL 3202, Govan, Hartz 5545, Hartz 5545 RR, M83-1010, Maple Amber, Maple Ridge, Narow, Nattawa, NB 2560, NB 2776, NB 3350, Poloma 350, Protage, Regal, S81-84, Semmes, SOI 269, SOI 398, TE 606, Tracy, Vansoy and Vinton 81.

Injury to soybean varieties may occur when Metribuzin + Flufenacet is used under certain conditions such as when 1) soils have a calcareous surface area or a pH of 7.5 or greater, 2) applied in conjunction with a soil-applied organic phosphate pesticide, 3) applied unevenly or poorly incorporated into the soil, 4) applied to any soil with less than 1/2% organic matter, and 5) heavy rains occur soon after application, especially in poorly drained areas where water may stand for several days.

Do not apply this product through any type of irrigation system. Do not apply aerially.

Do not use flood irrigation to apply, activate or incorporate Metribuzin + Flufenacet.

Do not apply Metribuzin + Flufenacet or Metribuzin + Flufenacet tank mixtures when environmental conditions may favor drift to non-target sites.

If the soybean crop treated with Metribuzin + Flufenacet is lost, only soybeans may be replanted immediately. Do not apply a second application of Metribuzin + Flufenacet.

This product may not be mixed or loaded within 50 feet of any well (including abandoned wells and drainage well), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or property diked mixing/loading areas.

Operations that involve mixing, loading, rinsing or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

This product must be used in a manner which will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

### MIXING INSTRUCTIONS

#### LIQUID CARRIERS:

Metribuzin + Flufenacet is a dry flowable herbicide that must be mixed in water.

Before mixing Metribuzin + Flufenacet and its labeled tank mixtures, examine the spray equipment making sure it is completely clean and free of rust or corrosion. Be sure the equipment is free of any residues from previously used pesticides. Flush lines with clean water or recommended detergents after the last application. Use an approved method for disposing of rinsate.

For optimal spray tank mixing convenience and efficiency, Metribuzin + Flufenacet is recommended to be added to the spray tank via an eductor system.

The proper mixing sequence of Metribuzin + Flufenacet and recommended tank mixtures with the appropriate liquid carrier is as follows:

1. Fill the spray tank or nurse tank 1/4 full with the appropriate liquid carrier.
2. Start recirculation and agitation system and continue throughout mixing and application.
3. If ammonium sulfate is to be used, add it now.
4. Next slowly add the recommended quantity of Metribuzin + Flufenacet through the eductor system or to the spray tank.

5. If tank mixing with wettable powders or other dry flowable products, they may be added now.
6. If tank mixing with emulsifiable concentrates or soluble products, add the products to the spray tank.
7. If tank mixing with Gramoxone Extra®, a glyphosate-containing product or Touchdown®, add the products to the spray tank.
8. If mixing any additional spray adjuvants in the mixture, add them after all other products have been mixed.
9. Fill the spray tank to the desired level with the appropriate liquid carrier.
10. Continue agitation during transport and application until the spray tank is empty.

Metribuzin + Flufenacet and all registered mixtures should be kept agitated once mixed and then sprayed out immediately. Do not allow mixtures to stand for prolonged periods of time. Water quality, pH, temperature and/or other components of the mixture may affect how long the mixture may stand before application.

#### DRY FERTILIZER CARRIERS:

Metribuzin + Flufenacet may be impregnated or coated on dry bulk fertilizers for application. Refer to Appendix I of this label for details.

### APPLICATION INFORMATION

#### SPRAYER APPLICATION:

##### Ground Broadcast Treatment:

Accurately calibrate the sprayer prior to mixing the herbicide treatments. Apply Metribuzin + Flufenacet and the labeled tank mixtures in a minimum of 10 gallons of total spray volume per acre using broadcast boom equipment. Use a pump with capacity to maintain 30 to 40 psi at the nozzles, maintain adequate in-tank agitation to keep the spray mixture in suspension and provide a minimum of 20% bypass at all times. Applications must be made at a sufficient spray pressure and volume to provide accurate and uniform application of spray particles to a given area without causing spray drift to non-target areas. If mixed with other labeled herbicides, the spray volume may be no less than the minimum volume recommended by the tank mix products or 10 gallons, whichever is greater. The use of screens to protect the pump and nozzles is recommended. Screens placed on the suction side of the pump should be 16-mesh or coarser. Do not place a screen in the recirculation line. Use 50-mesh or coarser screens between

the pump and boom, and where required, at the nozzles. Refer to the nozzle manufacturer for additional recommendations. Agitate thoroughly before and during application with either bypass or mechanical agitation. Rinse the sprayer thoroughly with clean water immediately after each use.

##### Band Treatment:

Metribuzin + Flufenacet and the labeled tank mixtures may be applied as a band treatment. Use the following formula to calculate the amount of herbicide needed for band treatments:

$$\frac{\text{Band width in inches}}{\text{Row width in inches}} \times \frac{\text{Broadcast rate}}{\text{per acre}} = \frac{\text{Band rate}}{\text{per acre}}$$

##### DRY FERTILIZER APPLICATION:

Apply using a minimum of 200 lb of dry fertilizer per acre. See Appendix I for additional details.

### APPLICATION METHODS AND TIMING

Metribuzin + Flufenacet may be applied either alone or in tank mixtures with or sequentially with certain other registered and recommended herbicides. Applications may be made preplant surface, preplant incorporated or preemergence.

##### Preplant Surface:

For use in conservation, minimum or no-tillage crop production systems, Metribuzin + Flufenacet alone or as a recommended tank mixture may be applied as a broadcast spray up to 14 days before planting. If weeds are present at the time of application, Metribuzin + Flufenacet + crop oil



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**Metribuzin + Flufenacet Dry Flowable Herbicide**

concentrate (1% v/v) will provide burndown of certain broadleaf weeds which are up to 3" tall (See Preplant Burndown Directions). To control a broader spectrum of emerged weeds or if emerged weeds are more than 3" tall, Metribuzin + Flufenacet may be applied in tank mixture with a recommended nonselective herbicide such as Gramoxone Extra, a glyphosate-containing product or Touchdown. 2,4-D LVE may also be added to any of the above treatments to enhance broadleaf control. Apply only those 2,4-D LVE formulations which are registered and recommended for preplant and burndown use in soybeans. Refer to the 2,4-D LVE label for specific use rate, application timing and additional restriction information. Following herbicide application, if possible, do not move treated soil out of the row or move untreated soil to the soil surface during planting, as weed control may be reduced.

**Preplant Incorporation:**

Apply Metribuzin + Flufenacet alone or in combination with recommended tank mixes as a broadcast spray and incorporate into the upper 1 to 2 inches of the soil surface up to 14 days before planting. Avoid deep incorporation as reduced weed control may result. Incorporate with

implements which provide uniform, shallow incorporation (example - finishing disk, harrow, rolling cultivator, etc.)

**Preemergence:**

Metribuzin + Flufenacet alone and its recommended tank mixes may be applied to the soil surface as a broadcast spray or band application after planting of soybeans but prior to weed or crop emergence. If weeds are present at the time of application, either apply Metribuzin + Flufenacet + crop oil concentrate [ (1% v/v, see burndown weed control chart for weeds controlled) or Metribuzin + Flufenacet with a nonelective herbicide such as Gramoxone Extra, a glyphosate-containing product or Touchdown. Rainfall and/or overhead sprinkler irrigation is necessary to move Metribuzin + Flufenacet into the upper soil surface where weed seeds germinate. Dry weather conditions following application may reduce weed control. If adequate moisture is not received within 7 to 10 days after application and weeds begin to emerge from the soil, a light rotary hoeing or shallow incorporation (no deeper than 1/2 inch deep) will improve performance. Excessive rainfall or irrigation after application may reduce weed control.

**SOYBEAN**

Metribuzin + Flufenacet is a selective dry flowable herbicide for the control/suppression of annual grasses and selected broadleaf weeds in soybeans. Metribuzin + Flufenacet may be applied once per use season either alone or in tank mix combination with or sequentially with certain registered herbicides. The following types of applications are allowed: preplant surface, preplant incorporated and preemergence.

The preplant surface and preplant incorporated treatments may be applied up to 14 days before planting. The most effective weed control will occur when the applied product is moved into the soil by rainfall, sprinkler irrigation or mechanical tillage prior to weed emergence from the soil.

Do not graze or feed forage, hay or straw to livestock.

**WEED SPECIES CONTROLLED BY Metribuzin + Flufenacet**

Metribuzin + Flufenacet herbicide applied alone at the recommended dosages and application timings will provide early season (3 to 6 weeks) control of many annual grasses and broadleaf weeds. Length of early season residual weed control is dependent upon the rate of Metribuzin + Flufenacet

applied. To broaden the spectrum of weeds controlled or increase residual control, Metribuzin + Flufenacet is recommended for use in tank mixture with or sequentially with additional registered herbicides.

EARLY SEASON WEED CONTROL	
ANNUAL GRASS WEEDS	ANNUAL BROADLEAF WEEDS
Barnyard grass ( <i>Echinochloa crus-galli</i> )	Beggarweed, Florida ( <i>Desmodium tortuosum</i> )
Crabgrass, large ( <i>Digitaria sanguinalis</i> )	Carpetweed ( <i>Mullugo verticillata</i> )
Crabgrass, smooth ( <i>Digitaria ischaemum</i> )	Galinsoga spp. ( <i>Galinsoga spp.</i> )
Foxtail, giant ( <i>Setaria faberi</i> )	Jimson weed ( <i>Datura stramonium</i> )
Foxtail, green ( <i>Setaria viridis</i> )	Kochia ( <i>Kochia scoparia</i> )*
Foxtail, yellow ( <i>Setaria glauca</i> )	Lambsquarters, common ( <i>Chenopodium album</i> )*
Goosegrass ( <i>Eleusine indica</i> )	Ladysthumb ( <i>Polygonum persicaria</i> )
Lovegrass, India ( <i>Eragrostis sp</i> )	Mallow, Venice ( <i>Hibiscus trionum</i> )
Panicum, fall ( <i>Panicum dichotomiflorum</i> )	Marestail ( <i>Erigeron canadensis</i> )
Signalgrass, broadleaf ( <i>Brachiaria platyphylla</i> )	Pigweed spp ( <i>Amaranthus spp.</i> )*
	Purslane, common ( <i>Portulaca oleracea</i> )
	Pusley, Florida ( <i>Richardia scabra</i> )
	Ragweed, common ( <i>Ambrosia artemisiifolia</i> )
	Sesbania, hemp ( <i>Sesbania exaltata</i> )
	Shepherd's-purse ( <i>Capsella bourse-a-pasteur</i> )
	Sicklepod ( <i>Cassia tora</i> )**
	Sida, prickly ( <i>Sida spinosa</i> )
	Smartweed, Pennsylvania ( <i>Polygonum pennsylvanicum</i> )
	Spurge, spotted ( <i>Euphorbia maculata</i> )
	Sunflower, common ( <i>Helianthus annuus</i> )**
	Velvetleaf ( <i>Abutilon theophrasti</i> )
	Waterhemp, common ( <i>Amaranthus rudis</i> )*
	Waterhemp, tall ( <i>Amaranthus tuberculatus</i> )*

\* Metribuzin + Flufenacet will not provide acceptable control of triazine-resistant biotypes.  
 \*\* Weed suppression. Suppressed weeds may be stunted in growth or be of reduced populations as compared to non-treated areas but control will generally not be commercially acceptable.

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**PREPLANT BURNDOWN OF BROADLEAF WEEDS**

If weeds are emerged at the time of preplant surface application, Metribuzin + Flufenacet will provide burndown control of many broadleaf weeds which are up to 3" in height. To improve burndown weed control, Metribuzin + Flufenacet may be tank mixed with crop oil or other surfactants,

sprayable grade fluid fertilizers or with a recommended nonselective herbicide such as a glyphosate-containing product, Touchdown or Gramoxone Extra. For additional broadleaf control, an appropriate formulation of 2,4-D may be added to the mixtures.

PREPLANT BURNDOWN WEED CONTROL BY Metribuzin + Flufenacet ALONE	
ANNUAL BROADLEAF WEEDS	
Beggarweed, Florida ( <i>Desmodium tortuosum</i> )	Pennycress, field ( <i>Thlaspi arvense</i> )
Carpetweed ( <i>Mollugo verticillata</i> )	Pigweed spp. ( <i>Amaranthus spp</i> )*
Chickweed, common ( <i>Stellaria media</i> )	Pineappleweed ( <i>Matricaria matricariodes</i> )
Cocklebur, common ( <i>Xanthium strumarium</i> )	Purselane, common ( <i>Portulaca oleracea</i> )
Galinsoga ( <i>Galinsoga parviflorum</i> )	Shepherdspurse ( <i>Capsella bursa-pastoris</i> )
Henbit ( <i>Lamium amplexicaule</i> )	Sicklepod ( <i>Cassia obtusifolia</i> )
Lambsquarters, common ( <i>Chenopodium album</i> )*	Thistle, Russian ( <i>Salsola kali</i> )
Lettuce, prickly ( <i>Lactuca scariola</i> )	Velvetleaf ( <i>Abutilon theophrasti</i> )
Marestail ( <i>Conyza canadensis</i> )	Waterhemp, common ( <i>Amaranthus rudis</i> )*
Mustard, blue ( <i>Chorispora tenella</i> )	Waterhemp, tall ( <i>Amaranthus tuberculatus</i> )*
Mustard, wild ( <i>Sinapis arvensis</i> )	

\* Metribuzin + Flufenacet will not provide acceptable burndown control of triazine-resistant biotypes.

**Metribuzin + Flufenacet USE RATES**

Metribuzin + Flufenacet (dry flowable) may be applied preplant surface, preplant incorporated and/or preemergence at broadcast use rates of **9 to 16 ounces per acre** on most soils which contain 0.5% organic matter or greater. At these use rates, Metribuzin + Flufenacet will provide **only** early season (from 3 to 6 weeks) residual weed control. The greater the Metribuzin + Flufenacet rate applied, the longer the early season weed control (up to 6 weeks). Use of the higher rates of Metribuzin + Flufenacet are also recommended when: weed pressures are heavy, applications are to be made preplant incorporate, early

applications are planned and/or on soils with 3% or higher organic matter. Metribuzin + Flufenacet is **not recommended** for use on sand with less than 1% organic matter or on peat or muck soils with 20% or greater organic matter.

To provide increased residual weed control and/or control of a broader spectrum of weeds, Metribuzin + Flufenacet is recommended for use in tank mixtures with or sequentially with additional registered herbicides.

**Metribuzin + Flufenacet USE IN TANK MIXTURES AND/OR SEQUENTIAL APPLICATIONS**

Metribuzin + Flufenacet may be used in tank mixture with or sequentially with any other herbicides which are registered for use in soybeans unless specifically prohibited by the label of the tank mix or sequentially-applied product. These mixtures or sequential applications may be used in conventional, conservation, minimum and no-till crop

management systems. Three-way or multiple tank mixtures are permitted unless restricted by the product label. Refer to the individual product labels for recommended use rates, precautions and/or restrictions.

**CROP ROTATION RECOMMENDATIONS**

In the event of a crop failure, soybeans can be replanted immediately. Do not make a second application of Metribuzin + Flufenacet. After application of Metribuzin + Flufenacet,

only the following crops can be planted, after the waiting period as listed below.

IMMEDIATELY	1 MONTH	4 MONTHS	12 MONTHS				
Soybeans	Corn Potatoes	Carrots	Alfalfa	Bromegrass	Millet, pearl	Rice	Tritical
			Barley	Buckwheat	Millet, prose	Rye	Wheat
			Bermudagrass	Clover	Oats	Sorghum	Wild Rice
			Bluegrass	Fescue	Popcorn	Teosinte	

100/10

### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, or feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized

people away. You may contact the Bayer Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer Kansas City Emergency Response Telephone No. is 800-414-0244, or contact Chemtrec at 800-424-9300.

**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:** Triple rinse (or equivalent). Then offer 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.

### APPENDIX I

## IMPREGNATION AND APPLICATION ON DRY FERTILIZER

Dry bulk fertilizer may be impregnated or coated with Metribuzin + Flufenacet for applications to soybeans. Follow all Metribuzin + Flufenacet label recommendations, special instructions and precautions. All state regulations relating to dry bulk fertilizer blending, impregnating and labeling must also be followed.

**Rates:** Select the recommended Metribuzin + Flufenacet use rate per acre from the crop section of this label and determine the quantity of dry bulk fertilizer to be applied per acre (use a minimum of 200 pounds and a maximum of 450 pounds per acre). Use the equation below to determine the amount of Metribuzin + Flufenacet (M + F) needed per ton of fertilizer applied.

$$\frac{\text{Ounces M + F per acre} \times 2000}{\text{lb fertilizer per acre}} = \frac{\text{Ounces M + F}}{\text{per ton fertilizer}}$$

**Impregnation:** Metribuzin + Flufenacet may be impregnated on many commonly used dry fertilizers but should not be impregnated on ammonium nitrate, fertilizers containing ammonium nitrate, potassium nitrate, sodium nitrate or powder limestone.

To impregnate Metribuzin + Flufenacet on bulk fertilizer, use a closed rotary-drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Mix Metribuzin + Flufenacet with sufficient water to form a sprayable slurry mixture. Spray nozzles must be directed to provide uniform fertilizer coverage while avoiding spray contact with mixing equipment. Nonuniform impregnation can cause crop injury or unsatisfactory performance.

Spray the herbicide mixture onto the fertilizer after blending has started. If necessary, include a suitable drying agent to ensure a spreadable herbicide impregnated fertilizer. If the fertilizer materials are excessively dusty, use diesel fuel or other suitable additive to reduce dust prior to impregnation. Apply the treated fertilizer immediately after impregnation to avoid lump formation and spreading difficulties.

**Application:** Accurate calibration of fertilizer application equipment and uniform fertilizer distribution are essential for satisfactory weed control. Air flow or auger metered application equipment is preferred (one pass application). If other equipment is used, the recommended application method is to apply one-half the recommended rate and overlap 50 percent or to double apply by splitting the middles to obtain the best distribution pattern.

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