

264-800

07/30/2003

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U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (H7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:  
264-800

Date of Issuance:  
JUL 30 2003

NOTICE OF PESTICIDE:  
 Registration  
 Reregistration

Term of Issuance:  
Conditional

Name of Pesticide Product:  
EPIC DF Herbicide

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Bayer CropSciences, LP  
P.O. Box 12014  
2 T. W. Alexander Drive  
Research Triangle Park, NC 27709

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 section 3(c)(7)(A) and (B) of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) provided that you:

1. Submit the following data for the flufenacet component of this product.

- a. 28-day inhalation toxicity study in rats
- b. A special comparative sensitivity study in thyroid hormone levels in neonatal and adult rats.
- c. Any data and/or information required to resolve any deficiencies remaining after the Agency completes review of submitted data.

2. Submit/cite all data required for registration/reregistration of your product when the Agency requires all registrants of similar products to submit such data.

3. Make the labeling changes listed below before you release the product for shipment.

- a. Add the phrase "EPA Registration No. 264-800".

Signature of Approving Official:

Date:

7-30-03

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b. Add a statement similar to below to the sections of your label where you recommend generic names such as glyphosate, atrazine, or 2,4-D as tank-mix partners.

"The herbicides listed below are may be tank-mixed with EPIC DF provided the product to be tank-mixed is registered for use on this use site."

Submit three (3) copies of your final printed labeling before you release the product for shipment.

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 labeling is enclosed for your records.

This registration expires November 1, 2004.

ACCEPTED  
with COMMENTS  
In EPA Letter Dated:

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JUL 30 2002

# RESTRICTED USE PESTICIDE

May injure (phytotoxic) susceptible non-target plants.

For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the Certified Applicator's certification.

Commercial and certified applicators must ensure that all persons involved in these activities are informed of the precautionary statements.

Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 264-XXX

# Epic<sup>TM</sup> DF Herbicide

For weed control in field corn and corn grown for silage in the states of Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri, Montana, Nebraska, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas and Wyoming. In the states of Colorado, Kansas, Missouri and South Dakota a section 24C label has been established that has more restrictive conditions on the use of this product. You should check with your state regulatory authority prior to use.

### ACTIVE INGREDIENT:

- Flufenacet, N-(4-Fluorophenyl)-N-(1-methylethyl)-2-[[5-(trifluoromethyl) 1,3,4-thiadiazol-2-yl]oxy]-acetamide ..... 48%
- Isoxaflutole, [5-cyclopropyl-4-(2-methylsulfonyl-4-trifluoromethylbenzoyl) isoxazole]..... 10%

INERT INGREDIENTS: ..... 42%  
100%

EPA Reg. No. 264-XXX

EPA Est. No.

## STOP - Read the label before use KEEP OUT OF REACH OF CHILDREN CAUTION

For MEDICAL And TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-334-7577  
For PRODUCT USE Information Call 1-866-99BAYER (1-866-992-2937)

Obtain prompt medical aid if poisoning should occur.

### FIRST AID

<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If inhaled</b>	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
<p>In case of emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577. Have an Epic<sup>TM</sup> container or label with you when calling a poison control center or doctor, or going for treatment.</p>	
<p><b>Note To Physician:</b> No specific antidote is available. Treat the patient symptomatically.</p>	

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### CAUTION

Harmful if swallowed or inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing dust.

**Personal Protective Equipment:** Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category A on an EPA Chemical Resistant Category Selection Chart.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Chemical resistant gloves Category A, such as butyl rubber  $\geq 14$  mils, or nitrile rubber  $\geq 14$  mils, or neoprene rubber  $\geq 14$  mils, or natural rubber  $\geq 14$  mils.
- Shoes plus socks.
- Chemical resistant apron (when mixing/loading and cleaning equipment).

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 Personal Protective Equipment immediately after handling this product.
- Wash the outside of gloves before removing.
- As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

Drift or runoff may adversely affect non-target plants. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. 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 cleaning equipment or disposing of equipment washwaters.

Do not use the same spray equipment for other purposes unless thoroughly cleaned. Do not allow sprays to drift onto adjacent desirable plants. This chemical is known to leach through soil into shallow ground water under certain conditions as a result of agricultural use. Use of Epic™ in areas where soils are permeable or coarse and ground water is near the surface could result in ground water contamination.

Epic™ residues can contaminate surface water through spray drift. Under some conditions, Epic™ residues may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying 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 over-laying tile drainage systems that drain to surface water.

In fields having sands, loamy sands and sandy loam soils, special care should be taken not to over-irrigate since substantial over-irrigation promotes the leaching of Epic™.

This pesticide is toxic to some plants at very low concentrations. Non-target plants may be adversely affected if the pesticide is allowed to drift from areas of application. Exposure to isoxaflutole residues may injure or kill susceptible plants. Symptoms of phytotoxicity as a result of exposure to isoxaflutole include whitening or chlorosis of the foliage of affected plants. Cotton is particularly susceptible to isoxaflutole; therefore, a direct or indirect (physical spray drift) application on emerged cotton may affect yield. To prevent damage to crops and other desirable plants, read and follow all directions and precautions on this label before using.

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), 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 properly 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 or equipment rinse or washwater, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or 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.

### 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. Do not use on other crops grown for food or forage. 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 involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical resistant gloves Category A, such as butyl rubber >14 mils, or nitrile rubber >14 mils, or neoprene rubber >14 mils, or natural rubber >14 mils.
- Shoes plus socks

#### 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, and 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. Do not walk through spilled material. Dispose of pesticide as directed below. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer CropScience Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer CropScience Emergency Response Telephone No. is 1-800-334-7577, 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.

#### GENERAL INFORMATION

Epic™ DF Herbicide is a selective herbicide for control of important annual grasses and broadleaf weeds in field corn and corn grown for silage. Epic™ is formulated as a 58 % water dispersible granule (DF). Epic™ may be used in either conventional, conservation or no-tillage crop management systems and may be applied preplant surface, preplant incorporated (mix into the top 1 to 2 inch layer of soil) and preemergence. Do not apply after corn emergence or crop injury may occur. Epic™ 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. Epic™ has multiple modes of actions: inhibition of protein synthesis/cell division and inhibition of enzymes that are essential to the protection of chlorophyll in plant leaves.

Epic™ DF Herbicide may be applied using either water or sprayable grade fluid fertilizer as a liquid carrier.

Epic™ 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.

Epic™ can be effective in controlling triazine- or ALS-resistant populations of weed species.

#### GENERAL USE RESTRICTIONS

For weed control in field corn and corn grown for silage in the states of Arkansas, Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Missouri, Montana, Nebraska, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas and Wyoming. In the

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states of Colorado, Kansas, Missouri and South Dakota a section 24C label has been established that has more restrictive conditions on the use of this product. You should check with your state regulatory authority prior to use.

**Use in coarse textured soils with a shallow water table:** In the states of CO, KS, KY, MO, and TN, if the water table (ie, level of saturation) is less than 25 feet below the ground surface, do not use on loamy sand or sand surface soil and subsoils with an average organic matter (in the upper 12 inches) of less than 2% by weight.

In the states of IA, IL, IN, MT, ND, NE, OH, PA, SD, and WY if the water table (ie, level of saturation) is less than 25 feet below the ground surface, do not use on sandy loam, loamy sand or sand surface soils and subsoils with an average organic matter (in the upper 12 inches) of less than 2% by weight.

**Labeled crops:** Epic™ is intended for use on field corn or corn grown for silage. Do not use on popcorn, sweetcorn, high oil corn hybrids or corn grown for seed.

Corn hybrids vary in their response to Epic™. Consult your seed corn company and/or your local Bayer CropScience representative for advice on varieties before applying Epic™. If the tolerance of a corn hybrid is not known, apply Epic™ to a small area to first determine if this hybrid is tolerant prior to spraying large acreages of that hybrid.

**Planting depth:** Corn seed should be planted a minimum of 1-1/2 inches deep and must be completely covered with soil or reduced crop stand or injury may occur.

**Application:** Apply Epic™ only with ground equipment. Do not apply this product using aerial application equipment. Do not apply this product through any type of irrigation system nor use flood irrigation for activation or incorporation.

Do not exceed maximum labeled rate for soil type. **Spray overlaps produce areas of over application which increase the potential for crop damage.**

Do not make more than one application of Epic™ per season.

Do not apply more than 0.78 lb/A of flufenacet per season.

If soil pH is > 7.5 on coarse textured soils, or if soil pH is > 7.5 and organic matter content is < 2.5% by weight on medium textured soils, use only reduced rates of Epic™ DF Herbicide + Define™ DF Herbicide as defined in a later section of this label.

On fine textured soils with 1.5% OM or less and a pH of 7.5 or greater it is recommended that reduced rates of Epic™ + reduced rates of Define™ be used. See directions for use in later section of this label.

To prevent off-site movement of soil containing this product to non-target areas, do not apply Epic™ DF Herbicide to areas receiving less than 15 inches of average annual precipitation unless supplemented to at least the equivalent of 15 inches of annual precipitation with irrigation water.

**Effect of adverse weather:** Following an application of Epic™, extended periods of cool/cold, wet conditions (cool/cold daytime/nighttime temperatures, saturated soil conditions, recurring rainfall events, etc.) during corn seed germination and/or early crop development period may result in temporary crop injury. Injury symptoms may appear as leaf tissue bleaching (whitening) and/or crop stunting. Corn plants usually recover from this injury without affecting yield.

**Effect of variable soils on use rate:** The proper use rate of Epic™ is affected by several soil factors, including soil texture, organic matter, and soil pH. Soils which contain variations in one or more of these factors in a given area are termed variable soils and may be more likely to incur localized corn injury symptoms from an application of Epic™, especially in those localized areas containing a more coarse soil texture, a lower organic matter and/or a higher pH (alkaline/calcareous) soil than other areas of the same field. The user is responsible for selecting the rate of Epic™ that is appropriate for all soils in the area of application.

**In the event of crop failure:** If the corn crop treated with Epic™ is lost, only corn may be replanted immediately. Do not make a second application of Epic™.

**RATE SELECTION/SOIL TEXTURE**

The recommended rates of Epic™ are defined by texture and organic matter content of the soil being treated. Unless a specific soil texture is mentioned, rate tables throughout this label refer to the following three soil texture groups: coarse, medium and fine. If you are not sure how to classify your soil, contact your Bayer CropScience representative, the Cooperative Extension Service or other knowledgeable person. The following chart includes a complete listing of soil textures included in each of the soil textures grouping:

COARSE	MEDIUM	FINE
Sand, Loamy sand, Sandy loam	Loam, Silt loam, Silt, Sandy clay loam, Sandy clay	Silty clay loam, Silty clay, Clay loam, Clay

**MIXING INSTRUCTIONS**

**LIQUID CARRIERS**

Epic™ DF Herbicide is a dry flowable herbicide that must be mixed in water or certain sprayable fluid fertilizers. Epic™ can be directly added to water, or 28-0-0 or 32-0-0 liquid fertilizers. Compatibility of Epic™ with its labeled tank mix products in other liquid carriers should always be predetermined prior to spraying. Refer to the COMPATIBILITY TEST (Appendix I) of this label to determine product compatibility in fluid carriers.

Before mixing Epic™ and its labeled tank mixtures, examine the spray equipment making sure it is completely free of rust and corrosion. Be sure the equipment is free of any residues from previously used pesticides. Flush the 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, Epic™ is recommended to be added to the spray tank via an eductor system.

The proper mixing sequence for Epic™ 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 the recirculation and agitation system and continue throughout mixing and application.
3. If the compatibility test indicates the need of a compatibility agent, add the recommended amount to the spray tank.
4. If ammonium sulfate is to be used, add it now.
5. Next add the recommended quantity of Epic™ through the eductor system or to the spray tank [slowly add Epic™ if water or sprayable grade nitrogen fertilizers (28-0-0, 32-0-0) are the carriers; for other sprayable grade fertilizers first check compatibility and then either mix directly or preslurry Epic™ first in water depending on the results of the compatibility test].
6. If tank mixing with wettable powders or other dry flowable products, in water as the carrier, they may be added now. If tank-mixing these products in a sprayable grade fertilizer carrier, first preslurry these products with water if indicated on their product label or by the results of the compatibility test and then slowly add them to the sprayable grade fertilizer carrier.
7. If tank mixing with suspension concentrates, add the products to the spray tank.
8. If tank mixing with emulsifiable concentrates, add the products to the spray tank.
9. If tank mixing with Gramoxone Extra®, a glyphosate- containing product, Touchdown® or other soluble concentrates, add the products to the spray tank.
10. If mixing any additional spray adjuvants in the mixture, add them after all other products have been mixed.
11. Fill the spray tank to the desired level with the appropriate liquid carrier.
12. Continue agitation during transport and application until the spray tank is empty.

Epic™ 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.

#### **Sprayer Cleanup**

To avoid injury or exposure to non-target crops, thoroughly clean all mixing and spray equipment, including pumps, nozzles, lines and screens, with a good quality tank cleaner, on an approved rinse pad or on a field site where an approved crop is grown.

## **APPLICATION INFORMATION**

### **SPRAYER APPLICATION**

**Ground Broadcast Treatment:** Accurately calibrate the sprayer prior to mixing the herbicide treatments. Apply Epic™ and the labeled tank mixtures in a minimum of 10 gallons of total spray volume per acre using broadcast boom equipment. Application 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 any tank mix product used or 10 gallons, whichever is greater. Use appropriately sized mesh screens and in-line strainers. Agitate thoroughly before and during application with either bypass or mechanical agitation. Rinse the sprayer thoroughly with clean water immediately after each use.

### **APPLICATION METHODS AND TIMINGS**

Epic™ may be applied either alone or in recommended tank mixtures in conventional, conservation or no-till crop management systems. Applications may be made preplant surface, preplant incorporated or preemergence. Do not make more than one application of Epic™ per use season. Do not apply when environmental conditions favor drift.

**Preplant Surface:** Epic™ alone or as a recommended tank mixture may be applied as a broadcast spray up to 21 days before planting corn. Epic™ may be applied up to 30 days prior to planting when used in conjunction with an appropriate planned sequential herbicide application. If possible, do not move treated soil out of the row or move untreated soil to the soil surface during planting, since weed control may be reduced.

**Preplant Incorporation:** Apply Epic™ 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 21 days before planting. Epic™ may be applied up to 30 days prior to planting when used in conjunction with an appropriate planned sequential herbicide application. Avoid deep incorporation since reduced weed control and/or crop injury may result. Incorporate with implements which provide uniform, shallow incorporation (Example- finishing disk, harrow, rolling cultivator, field cultivator, etc.)

**Preemergence:** Epic™ alone and its recommended tank mixes may be applied to the soil surface during planting (behind the planter after furrow closure) or after planting of the crop but prior to weed or crop emergence. Ensure that the seed furrow is closed prior to herbicide application or crop injury may result. Rainfall and/or overhead sprinkler irrigation is necessary to move Epic™ 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 and minimize crop damage. Excessive rainfall or irrigation after application may reduce weed control and/or increase crop damage.

**Preplant / Preemergence Burndown:** If weeds are present at the time of treatment, a tank-mixture of Epic™ with crop oil concentrate or methylated seed oil is recommended for burndown control of labeled weeds less than 3 inches in height. If weeds greater than 3 inches in height or weeds not controlled by Epic™ are present, the addition of a nonselective herbicide such as Gramoxone Extra, Touchdown or a glyphosate-containing product is recommended. For additional broadleaf weed control, a recommended formulation of 2,4-D may also be added. If giant ragweed or Pennsylvania smartweed are present at time of application, the addition of atrazine will improve control. Observe directions for use, precautions and restrictions on the labels of all products selected for a burndown tank-mixture. Burndown tank-mixtures containing atrazine will result in the burndown of labeled broadleaf weeds less than 6 inches in height.

**WEEDS CONTROLLED / SUPPRESSED**

Epic™ applied at recommended dosages and application timings will control many annual grasses and broadleaf weeds, including triazine and ALS resistant weed populations.

**WEED CONTROL LISTING**

ANNUAL GRASS WEEDS		
Barnyardgrass	Foxtail, robust white	Panicum, fall
Crabgrass, large	Foxtail, robust purple	Panicum, browntop
Crabgrass, smooth	Foxtail, yellow	Panicum, Texas**
Cupgrass, woolly** 1	Goosegrass	Sandbur, field**
Foxtail, bristly	Johnsongrass, seedling	Signalgrass, broadleaf
Foxtail, giant	Lovegrass, India	Witchgrass
Foxtail, green	Millet, wild proso**	
ANNUAL BROADLEAF WEEDS		
aAmaranth, palmer	Lambsquarters, common	Pusley, Florida
Beggarweed, Florida	Mallow, Venice	Radish, wild
Buffalobur	Marestail	Ragweed, giant**
Burcucumber**	Morningglory, annual**	Ragweed, common
Carpetweed	Mustard, wild	Russian thistle**
Chamomile spp.	Nightshade, black	Shepherd's-purse
Chickweed, common	Nightshade, eastern black	Smartweed, Penn.
Cocklebur**	Pennycress, field	Spurge, spotted
Dandelion, seedling	Pigweed, redroot	Sunflower, wild**
Galinsoga	Pigweed, prostrate	Velvetleaf
Jimsonweed	Pigweed, smooth	Waterhemp, tall
Kochia	Purslane, common	Waterhemp, common
<p>** These weeds will be suppressed / or be reduced in competition. Reduced competition weeds will be stunted in growth and / or be of reduced populations as compared to non-treated areas. Commercially acceptable control may require the application of an appropriate preemergence tank mixture or sequential postemergence herbicide treatment.</p> <p>1 Woolly cupgrass at rates less than 13 oz is suppressed only. For residual control use the higher rates indicated for woolly cupgrass control on designated soil types from the following tables.</p>		



**USE RATES**

Epic™ may be applied alone, in tankmixture with, or sequentially with additional registered herbicides to provide control of annual grasses and broadleaf weeds. Application rates may vary according to application timing and soil texture grouping. Choose the correct rate of Epic™ according to your cropping management and soil texture group.

COARSE TEXTURED SOIL				
Conventional tillage / Conservation tillage / No-till				
Application Timing	Soil Organic Matter (% by weight)			
	<1.5	1.5 to 2	2 to 3	>3
<b>Preemergence</b>	Use reduced rates of Epic™ + Define™ DF Herbicide only. See directions for use in later section of this label.	6 to 8 oz/A	8 to 9 oz/A	8 to 10 oz/A
<b>Preplant</b> (surface or incorporated, 0 to 7 days before planting)				
<b>Preplant</b> (surface or incorporated) 8 to 21* days before planting		7 to 9 oz/A	9 to 10 oz/A	9 to 11 oz/A

Use the higher rate of Epic™ within the applicable rate range under any of the following conditions: high soil organic matter, heavy surface plant residues, heavy weed pressure, or when applying no-till, or with earlier preplant applications.

Use the lower rate of Epic™ within the applicable rate range under any of the following conditions: low soil organic matter, increased tillage and/or incorporation of surface plant residues, or preplant applications made near the minimum interval prior to planting.

\* Epic™ may be applied up to 30 days prior to planting when used in conjunction with an appropriate planned sequential herbicide application.

MEDIUM TEXTURED SOIL			
Conventional tillage / Conservation tillage / No-till			
Application Timing	Soil Organic Matter (% by weight)		
	<1.5	1.5 to 2	>2**
<b>Preemergence</b>	Use reduced rates of Epic™ + Define™ DF Herbicide only. See directions for use in later section of this label	7 to 10 oz/A	9 to 13 oz/A
<b>Preplant</b> (surface or incorporated, 0 to 7 days before planting)			
<b>Preplant</b> (surface or incorporated) 8 to 21* days before planting		9 to 11 oz/A	11 to 15 oz/A

Use the higher rate of Epic™ within the applicable rate range under any of the following conditions: high soil organic matter, heavy surface plant residues, heavy weed pressure, or when applying no-till, or with earlier preplant applications.

Use the lower rate of Epic™ within the applicable rate range under any of the following conditions: low soil organic matter, increased tillage and/or incorporation of surface plant residues, or preplant applications made near the minimum interval prior to planting.

\* Epic™ may be applied up to 30 days prior to planting when used in conjunction with an appropriate planned sequential herbicide application.

\*\* For residual control of woolly cupgrass on medium textured soils with >2% organic matter by weight, the grower may select 13 - 15 oz of Epic™. Use of these Epic™ rates 0-7 days preplant or preemergence on the indicated medium soil types may increase the potential for crop damage.

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FINE TEXTURED SOIL**		
Conventional tillage / Conservation tillage / No-till		
Application Timing	Soil Organic Matter (% by weight)	
	<1.5***	>1.5
<b>Preemergence</b>		
<b>Preplant</b> (surface or incorporated, 0 to 7 days before planting)	10 to 11 oz/A	11 to 15 oz/A
<b>Preplant</b> (surface or incorporated) 8 to 21* days before planting	11 to 13 oz/A	12 to 17 oz/A

Use the higher rate of Epic™ within the applicable rate range under any of the following conditions: high soil organic matter, heavy surface plant residues, heavy weed pressure, or when applying no-till.

Use the lower rate of Epic™ within the applicable rate range under any of the following conditions: low soil organic matter, increased tillage and/or incorporation of surface plant residues, or preplant applications made near the minimum interval prior to planting.

\* Epic™ may be applied up to 30 days prior to planting when used in conjunction with an appropriate planned sequential herbicide application.

\*\* For residual control of woolly cupgrass on fine textured soils the grower may select 13 - 15 oz of Epic™. Use of these Epic™ rates on fine textured soils with <1.5% organic matter by weight may increase the potential for crop damage.

\*\*\* On fine textured soils with 1.5% OM or less and a pH of 7.5 or greater it is recommended that reduced rates of Epic™ + reduced rates of DEFINE be used. See directions for use in later section of this label.

**TANK MIX COMBINATIONS**

Epic™ may be tank-mixed with additional herbicides to provide improved control of certain hard-to-control weeds such as morningglories, cocklebur and giant ragweed and may be applied in either conventional, conservation or no-till crop management systems. Mix partners may be applied with similar timings and methods as Epic™ alone unless specifically prohibited in the mix partner's product label. Three-way or multiple tank mixtures are permitted unless restricted by any mix partner's label. Refer to the individual product labels for recommended use rates (unless mentioned specifically on this label), precautions and restrictions. The tank mix must be used in accordance with the more restrictive label limitations and precautions for all pesticides used.

Herbicides recommended for tank mixture with Epic™ include:

TANK MIX PARTNER	RECOMMENDED USE RATES
Atrazine	0.5 to 1.25 lb ai/A*
Axiom® **	1/2 to 1x Labeled Use Rates
Axiom® AT**	1/2 to 1x Labeled Use Rates
Banvel®	Labeled Use Rates
Clarity®	Labeled Use Rates
Define™**	Labeled Use Rates
Glyphosate	Labeled Use Rates
Gramoxone Extra®	Labeled Use Rates
Hornet®	Labeled Use Rates
Marksman®	Labeled Use Rates
Roundup®	Labeled Use Rates
Roundup Ultra®	Labeled Use Rates
Touchdown®	Labeled Use Rates
2,4-D	Labeled Use Rates

\* Use the higher rate under any of the following conditions: heavy surface plant residues, heavy morningglory/cocklebur pressure, medium/fine textured soils with > 3% organic matter by weight, no-till crop management systems.

\*\* These products and Epic™ contain flufenacet. The maximum application rate of flufenacet is 0.78 lb (ai) per year.

## SEQUENTIAL APPLICATIONS

Sequential herbicide applications either before or following Epic™ treatments may be used to control additional weeds.

2,4-D	Bladex®	Glyphosate	Python®
Accent Gold®	Bromoxynil	Gramoxone Extra®	Resolve®
Accent®	+ Atrazine	Hornet®	Resource®
Aim®	Bromoxynil	Laddok S-12®	Roundup Ultra®
Atrazine	Buctrik® Gel	Liberty®	Roundup®
Banvel®	Buctrik® + Atrazine®	Lightning®	Scorpion III®
Basagran®	Buctrik®	Marksman®	Sencor®
Basis Gold®	Clarity®	Permit®	Shotgun®
Basis®	Contour®	Poast®	Spirit®
Battalion®	Exceed®	Prowl®	Touchdown®
Beacon®	Extrazine®	Pursuit®	Tough®

Refer to the above information and the individual product labels for detailed explanations on use rates and directions and special precautions/restrictions.

### USE OF REDUCED RATE TANK MIXTURES OF EPIC™ DF HERBICIDE + DEFINE™ DF HERBICIDE

Epic™ DF Herbicide may be applied at reduced rates in tank mixtures with reduced rates of Define™ DF Herbicide to provide control of annual grasses and broadleaf weeds listed on the Epic™ and Define™ labels. Application rates may vary according to application timing, soil texture grouping, soil organic matter and pH, and crop management system. From the table below choose the specific rate of Epic™ according to your application timing, soil texture group and soil organic matter. To further refine the Epic™ rate needed, see the footnotes below the table. Tank-mix Epic™ with Define™ at 1.2 times the Epic™ rate selected from the table below.

EXAMPLE: If 7.5 oz/acre of Epic™ DF Herbicide is used, tank-mix with 9 oz/acre of Define™ DF Herbicide.

OUNCES PER ACRE OF EPIC™ DF HERBICIDE USED IN TANK MIXTURES WITH DEFINE™ DF HERBICIDE ( Tank-mix Define™ DF with Epic™ DF at a rate determined by multiplying the Epic™ DF rate selected below times 1.2 )							
Application timing	Soil Texture						
	COARSE			MEDIUM			FINE
	Soil organic matter (%)						
	<1.5	1.5 to 3.0	>3.0	<1.5	1.5 to 3.0	>3.0	
Preemergence							
Preplant (surface or incorporated, 0 to 7 days before planting)	3.5 to 4.5	4 to 5.5	5.5 to 7	5 to 7.5	5 to 8	7 to 9	7 to 10.5
Preplant (surface or incorporated, 8 to 21* days before planting)	4 to 5	4.5 to 6	6 to 8	5.5 to 8	6 to 9	8 to 10.5	8 to 10.5

Use rates at the **lower** end of the specified range of Epic™ + Define™ under any of the following conditions: soil organic matter near the lower specified limit, pH > 7.5, increased tillage and/or incorporation of surface plant residues, or preplant applications made near the minimum interval prior to planting.

Use rates at the **higher** end of the specified range of Epic™ + Define™ under any of the following conditions: soil organic matter near the higher specified limit, heavy surface plant residues, heavy weed pressure, or when applying no-till, or with earlier preplant applications.

Under all conditions of the specified rate range the lower rates can be selected, but an appropriate tank mix partner or planned sequential herbicide application may be required to gain commercially acceptable control of all weed species including those listed on this label.

\* Epic™ + Define™ may be applied up to 30 days prior to planting when used in conjunction with an appropriate planned sequential herbicide application.

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**HERBICIDE COMBINATIONS WITH REDUCED RATE TANK MIXTURES OF EPIC™ DF HERBICIDE + DEFINE™ DF HERBICIDE**

Epic™ + Define™ combinations may be tank-mixed with additional herbicides to provide improved residual weed control, and control of certain hard-to-control weeds such as morningglories, cocklebur and giant ragweed. Tank mix combinations may be applied in either conventional, conservation or no-till crop management systems. Mix partners may be applied with similar timings and methods as Epic™ + Define™ unless specifically prohibited in the mix partner's product label. Multiple tank-mix partners are permitted with the Epic™ + Define™ combinations unless restricted by any mix partner's label. Refer to the individual product labels for precautions, restrictions and recommended use rates (unless mentioned specifically on this label).

Herbicides recommended for tank mixture with reduced rates of Epic™ + Define™ in combination	
TANK MIX PARTNER	RECOMMENDED USE RATES
Atrazine	0.5 to 1.5 lb ai/A <sup>1</sup>
Banvel®	Labeled Use Rates
Clarity®	Labeled Use Rates
Glyphosate	Labeled Use Rates <sup>2</sup>
Gramoxone Extra®	Labeled Use Rates
Roundup®	Labeled Use Rates <sup>2</sup>
Roundup Ultra®	Labeled Use Rates <sup>2</sup>
Touchdown®	Labeled Use Rates <sup>2</sup>
2,4-D	Labeled Use Rates

<sup>1</sup> Use the **lower** rates of atrazine with Epic™ + Define™ on specified coarse soils with soil organic matter near the lower end of the ranges, and/or on soils with pH >7.5.  
Use the **higher** rates of atrazine with Epic™ + Define™ where heavy surface plant residues exist, heavy morningglory/cocklebur/ giant ragweed/wild sunflower pressure exist, on medium/fine textured soils with >3% organic matter, or when using no-till crop management systems.

<sup>2</sup> Always mix with sprayable grade ammonium sulfate at 17 lb. per 100 gal. spray solution.

**SEQUENTIAL APPLICATIONS WITH REDUCED RATE TANK MIXTURES OF EPIC™ DF HERBICIDE + DEFINE™ DF HERBICIDE**

Epic™ + Define™ combinations may be used in sequential applications with other herbicides as described in the earlier "Sequential Applications" section of the label.

**CROP ROTATION RESTRICTIONS**

In the event of a crop failure, only corn can be replanted immediately. Do not make a second application of Epic™. Do not plant rotational crops for at least 6 months following the initial Epic™ application. After the application of Epic™, the following crops may be planted after the waiting period listed below.

Waiting periods after EPIC™ DF Herbicide application before the following crops can be planted.			
<b>IMMEDIATELY</b>	Corn		
<b>6 MONTHS</b>	Cotton	Potato	Soybean
<b>12 MONTHS</b>	Alfalfa	Edible beans	Rice
	Barley	Fescue	Rye
	Bermudagrass	Lettuce	Sorghum
	Bluegrass	Millet pearl	Sugar beets
	Bromegrass	Millet prose	Teosinte
	Buckwheat	Oats	Triticale
	Cabbage	Peppers	Wheat
	Carrots	Popcorn	Wild Rice
	Clover	Radish	All other leafy vegetables

## APPENDIX I

### COMPATIBILITY TEST

A compatibility test is highly recommended for all applications with liquid fertilizers. Prior to mixing products in the spray tank, small quantities of each product can be mixed in proportionate quantities to evaluate compatibilities. The following test assumes a spray volume of 25 gallons per acre. If other spray volumes are to be used, adjust the appropriate amounts of ingredients. To check for compatibility, use the following procedure:

1. Add two inches of the liquid carrier (water or liquid fertilizer) to a one-quart jar fitted with a tight lid.
2. Add the appropriate amount of herbicide. If more than one product is used, the recommended mix sequence is the dry herbicide first, flowables next and emulsified concentrates last. For dry herbicides, add 1-1/2 level teaspoons/pound/acre use rate and for liquids add 1/2 teaspoon/pint/acre use rate.
3. Add one pint of the liquid carrier (water or liquid fertilizer) to the jar. Place the lid on the jar and gently shake the jar for one minute. Place the jar on a level surface and let it stand for 30 minutes.
4. Reagitate the mixture and observe for signs of phase separation, flakes, particles, gels, precipitates, etc., that would prevent the mixture from being a sprayable solution. If none of these conditions occur, the mix is compatible.
5. If incompatible, use of a compatibility agent is recommended. Rerun the above test but first add a compatibility agent (1/4 teaspoon is equal to a use rate of 2 pints/100 gallons spray mix) and gently shake the jar prior to adding herbicides.
6. If the mixture is now compatible, a compatibility agent should be used in the spray mixture at its recommended rate.
7. If the components of the solution are still incompatible, the mixture should not be attempted for use in the spray tank.
8. Contact your Bayer CropScience representative for further recommendations on testing spray solution compatibilities.

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### IMPORTANT: READ BEFORE USE

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

**CONDITIONS:** The directions for use of this product are believed to be adequate and should be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of Bayer CropScience. All such risks shall be assumed by the user or buyer.

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