3125 - 487 OI/10/200( UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

JAN 1 0 2001

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

Dear Mr. Dehart:

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SUBJECT: Label Amendment Revising First Aid Statements per PR Notice 2000-3 and Revising Directions for Use to Bring Them in Line with Current Weed Control Practices Define<sup>™</sup> DF Herbicide EPA Registration No. 3125-487 Your Submission Dated December 22, 2000

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable provided you correct the following minor typographical errors noted during our review:

- On page 4, in the paragraph under "CORN (Field and Seed)", change "preplant incorporate" to "preplant incorporated" (7th line from top).
- On page 6, in the footnote to the "Weeds Controlled" table for soybeans, insert the missing word "is" in the last sentence so that it reads: "To complement early season weed control, DEFINE is recommended for use in tank-mixture with or sequentially with other herbicides that provide additional control of these weed species."
- □ In the last sentence of column 2 on page 7, delete the word "to" between the words "labels" and "for", so that the corrected sentence reads: "Refer to the above information and the individual product <u>labels for</u> use directions, use rates and special precautions/restrictions."

RD:STANTON:PM Team 23:Rm. 239:CM-2:305-5218:Disk #14:S590628.LET

CONCURRENCES								
SYMBOL >	7505C						Í	
SURNAME •	S. Stanton						<b>[</b>	
DATE 🕨	Jan 10, 2001	••••••••••••••••••••••••••••••••••••••				, , , , , , , , , , , , , , , , , , ,		
EPA Form 132	*****	•	•·	·	L	OF	FICIAL FILE CO	PY

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This labeling supersedes previously accepted labeling for the subject product. A stamped copy of the labeling is enclosed for your records. Please submit one copy of your final printed label before you release the product for shipment.

Sincerely yours,

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

Enclosure

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# Define™

# **DF Herbicide**

For control of certain grass and broadleaf weeds in corn and, soybeans.

#### ACTIVE INGREDIENT:

Flufenacet N-(4-Fluorophenyl)-N-(1-methylethyl)-2-[[5- -(trifluoromethyl)-1,3,4-thiadiazol-2-yl]-	
oxy]acetamide	
INERT INGREDIENTS	
100.0%	

EPA Reg. No. 3125-487

EPA Est. 3125-MO-1

U.S. Patent No. 4,645,525 and 4,585,471 and 4,968,342 Net Weight: \_\_\_\_ Pounds

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

# WARNING AVISO

PRECAUCION AL USUARIO: Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.

(TO THE USER: If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID				
If swallowed	<ul> <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>			
If on skin or       • Take off contaminated clothing.         clothing       • Rinse skin immediately with plenty of water for 15 to 20 minutes.         • Call a poison control center or doctor for treatment advice.				
In case of emergency call toll free the Bayer Kansas City Emergency Response Telephone No. 800-414- 0244. Have an DEFINE container or label with you when calling a poison control center or doctor, or going for treatment.				

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

#### ACCEPTED with COMMENTS in EPA Letter Dated JAN | 0 2001

Under the Federal Insecticide, Fundicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 3/25-487

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#### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** May be fatal if swallowed. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals. Avoid contact with skin, eyes, or clothing.

#### **Personal Protective Equipment:**

Applicators and other handlers must wear:

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

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:

User 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.

#### **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.

**Ground Water:** Flufenacet is known to leach through soil into ground water under certain conditions as a result of use directions. 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 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 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, eithes directive or through drift. Only protected handlers may be in the area , scybears. DEFINE may be applied preplant surface, 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 soilincorporated, 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

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- Waterproof gloves
- Shoes plus socks

**IMPORTANT:** Read these entire Directions and Conditions of Sale before using DEFINE 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.

#### **GENERAL INFORMATION**

DEFINE is a selective herbicide for control of many annual grasses and certain broadleaf weeds in field corn, white cornacornaria and in silage, field corn grown for seed and , presiant incorporated (mix into the top 1 to 2 inch layer of soil) and preemergence. DEFINE will provide its most effective weed control when applied and subsequently moveo into the soil by rainfall, sprinkler irrigation or mechanical tillage prior to weed emergence. DEFINE controls;weeds by interfering with seed germination and seedling development.

DEFINE may be applied using either water or sprayable fluid fertilizer as a liquid carrier or be impregnated and applied on dry bulk fertilizer.

DEFINE 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 DEFINE or recommended tank mixtures may reduce effectiveness. Cultivate if weeds develop.

#### GENERAL USE RESTRICTIONS

DEFINE is for use on soybeans, field corn, white corn, corn grown for silage and field corn grown for seed. Do not use on popcorn or sweetcorn.

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 DEFINE.

Do not apply more than 21 ounces DEFINE per acre per use season in corn and 12 ounces per acre per use season in soybeans.

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

Corn and soybean seed should be planted a minimum of 1 to 1-1/2 inches deep.

If any crop treated with DEFINE is lost, corn or soybeans may be replanted immediately. Do not make a second application of DEFINE.

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. Conferment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipmerits' 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.

#### **RATE SELECTION/SOIL TEXTURE**

The recommended rates of DEFINE 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 Corporation 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 groupings:

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

#### MIXING INSTRUCTIONS

#### LIQUID CARRIERS:

DEFINE is a dry flowable herbicide that must be mixed in water or sprayable fluid fertilizer. Compatibility of DEFINE or its labeled tank mix products with these liquid carriers should always be predetermined prior to spraying. Refer to the SPRAYABLE FLUID FERTILIZER COMPATIBILITY TEST (Appendix I) of this label to determine product compatibility in fluid fertilizer carriers.

Before mixing DEFINE 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 optimum spray tank mixing and efficacy, DEFINE is recommended to be added to the spray tank via an eductor system.

The proper mixing sequence for DEFINE 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.
- Start 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 of

compatibility agent to the spray tank.

- If ammonium sulfate is to be used, add it now.
- Next add the recommended quantity of DEFINE through 5.
- the eductor or to the spray tank [slowly add DEFINE if
  - water or sprayable grade nitrogen fertilizers (28-0-0, 32-Q20) are the carriers; for other sprayable grade fertilizers first check compatibility and then either mix directly or
  - preslurry in water depending in the results of the
- compatibility test]. 37
- If tark mixing with wettable powders or other dry flowable 6 ploclucts in water, they may be added now.

If tank mixing these products in a sprayable fertilizer carrier, first make a slurry of the products with water and then add the slurry slowly to the spray tank.

- 7. If tank mixing with emulsifiable concentrates or soluble products, add the products to the spray tank.
- 8. If tank mixing with Gramoxone Extra®, a glyphosatecontaining product or Touchdown®, add the products to the spray tank.
- If mixing spray adjuvants in the mixture, add them after all other products have been mixed.
- 10. Fill the spray tank to the desired level with the appropriate liquid carrier.
- 11. Continue agitation during transport and application until the spray tank is empty.

DEFINE and all registered mixtures should be kept agitated once mixed and then sprayed 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:**

DEFINE may be impregnated or coated on dry bulk fertilizers for application. Refer to Appendix II of this label for details.

#### **APPLICATION INFORMATION**

#### SPRAYER APPLICATION

Ground Broadcast Treatment: Accurately calibrate the sprayer prior to mixing the herbicide treatments. Apply DEFINE 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. 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 the tank mix product 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:** DEFINE 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:

Band width in inches	х	Broadcast rate	=' Band rote
Row width in inches		per acre	per acre

#### **DRY FERTILIZER APPLICATION**

Apply using a minimum of 200 lb of dry fertilizer per acre.

#### **APPLICATION METHODS AND TIMING**

DEFINE 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. DEFINE may be used in either a single or split application program. Do not apply when environmental conditions favor drift.

Preplant Surface: For use in conservation, minimum or notillage crop production systems, DEFINE alone or as a recommended tank mixture may be applied as a broadcast spray up to 45 days before planting in corn and 14 days before planting in soybeans. A sequential application is recommended for applications made 30 to 45 days prior to planting, where 2/3 of the highest recommended broadcast rate for the crop and soil texture is applied initially and the remaining 1/3 is applied at planting. Treatments made less than 30 days before planting may use either a single or sequential application. If weeds are present at the time of application, apply the DEFINE treatment in tank mixture with a recommended nonselective herbicide such as Gramoxone Extra, a glyphosate-containing product or Touchdown. 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 DEFINE 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 since reduced weed control and/or crop injury may result. Incorporate with implements which provide uniform, shallow incorporation (example -finishing disk, harrow, rolling cultivator, etc.)

Preemergence: DEFINE alone and its recommended tank mixes may be applied to the soil surface as a broadcast spray or band application after planting of the crop but prior to weed or crop emergence. If weeds are present at the time of application, apply DEFINE with a nonselective herbicide such as Gramoxone Extra, a glyphosate-containing product or Touchdown. Rainfall and/or overhead sprinkler irrigation is necessary to move DEFINE 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 applications 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.

Special Applications: Fall Application (for use only in IA, MN, ND, SD, WI, north of Route 20 in NE, north of Route 136 in IL, and north of Interstate 70 in OH):

, Following harvest of crops in the fall, DEFINE may be , applied to grap stude leafter October 15, when the sustained

soil temperature at the four-inch soil depth is less than 50 °F, but before the ground is frozen. This application is limited to only medium- and fine-textured soils with an organic matter of 2.5% or greater and which will be planted to corn the itelloving spring. The soil may be tilled before or after
application with incorporation depth no more than two to three inches following herbicide application. If a spring application of DEFINE follows the fall application, the total DEFINE rate for both applications must not exceed 21 ounces.

## CORN (Field and Seed)

DEFINE dry flowable herbicide is a selective herbicide for control of most annual grasses and selected annual broadleaf weeds in corn. A single or split application program may be used and the product may be applied alone or in tank-mix combination with certain registered herbicides. The following types of applications are allowed: preplant surface, preplant incorporate and preemergence. 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.

Special Precautions (Field Seed Corn Inbreds): Field seed corn inbred lines may vary in their response to DEFINE. Do not apply DEFINE to inbreds without first verifying with your local seed corn company (supplier) the DEFINE selectivity on your inbred line.

#### WEED SPECIES CONTROLLED BY DEFINE

DEFINE herbicide applied at recommended dosages and application timings will control many important annual grasses and broadleaf weeds.

WEEDS CO	NTROLLED			
ANNUAL GRASS WEEDS				
Barnyardgrass (Echinocloa crusgalli)	Johnsongrass (seedling) (Sorghum halepense)			
Crabgrass, large (Digitaria sanguinalis)	Lovegrass, India (Eragrostis sp)			
Crabgrass, smooth (Digitaria ischaernum)	Panicum, browntop (Panicum fasciculatum)			
Foxtail, giant (Setaria faberi)	Panicum, fall (Panicum dichotomiflorum)			
Foxtail, green (Setaria viridis)				
Foxtail, yellow (Setaria glauca)	Signalgrass, broadleaf (Brachiarla platyphylla)			
Goosegrass (Eleusine indica)	Witchgrass (Panicum capillare)			
ANNUAL BROADLEAF WEEDS				
Carpetweed (Mullugo verticillata)	Pusley, Florida ( <i>Richardia scabra</i> )			
Purslane, common (Portulaca oleracea)	Spurge, spotted ( <i>Euphorbia maculata</i> )			

#### WEED SPECIES PARTIALLY CONTROLLED BY DEFINE

DEFINE herbicide will provide partial control or reduced competition for many additional grass and broadleaf weeds. ' Reduced competition weeds will be stunted in growth and/or, ' be of reduced populations as compared to non-troated areas' ' but control will generally not be commercially acceptable.

WEED SPECIES PARTIALLY CONTROLLED				
ANNUAL GRASS/SEDGE WEEDS				
Cupgrass, woolly	Panicum, Texas			
(Eriochloa villosa)	(Panicum texanum)			
Millet, wild-proso	Sandbur, field			
(Panicum miliaceum)	( <i>Cenchrus incertus</i> )			
Nutsedge, yellow	Shattercane			
(Cyperus esculentus)	(Sorghum bicolor)			
ANNUAL BROADLEAF WEEDS				
Beggarweed, Florida	Ragweed, common			
(Desmodium tortuosum)	(Ambrosia artemisiifolia)			
Lambsquarters, spp.	Sida, prickly ( <i>Sida spinosa</i> )			
(Chenopodium spp.)	Waterhemp, common			
Mustard spp. (Brassica spp.)	(Amaranthus rudis)			
Nightshade, eastern black	Waterhemp, tall			
(Solanum ptycanthum)	(Amaranthus tuberculatus)			
Pigweed spp. (Amaranthus spp.)				

#### DEFINE USE RATES IN PREPLANT SURFACE,

#### PREPLANT INCORPORATED AND PREEMERGENCE APPLICATIONS

For FALL Application (For use only in IA, MN, ND, SD, WI, north of Route 20 in NE, north of Route 136 in IL, and north of Interstate 70 in OH):

After October 15, when the sustained soil temperature at the four inch soil depth is less than 50 °F, DEFINE may be applied to remaining crop stubble following harvest. In conservation, minimum and no-tillage systems on soils having 2.5% organic matter or greater, apply DEFINE at 19 to 21 oz/A on *medium textured soils* and 21 oz/A on fine *textured soils*. Apply before the ground is frozen. The soil may be tilled before or after application with an incorporation depth no more than two to three inches following the fall application. Minimize furrow and ridge formation in the tillage operations after application of DEFINE. If a spring application is made, the total rate of both fall and spring must not exceed the maximum total rate for corn, or illegal residues may occur.

#### For CONVENTIONAL Tillage Systems With Applications Made TWO WEEKS OR LESS Preplant Surface, Preplant Incorporated or Preemergence:

Recommended DEFINE use rates are located in Table 1.

Rates are based on soil texture and organic matter and are for applications made within two weeks of planting and until corn emergence.

#### TABLE 1

2	DEFINE USE RATES IN CONVENTIONAL TILLAGE APPLICATIONS MADE TWO WEEKS OR LESS PREPLANT SURFACE, PREPLANT INCORPORATED , ', ' J' ' OR PREEMERGENCE. , ', ' DEFINE, RATE (OUNCES PER ACRE).1.2						
	SOIL TEXTURAL	SOIL ORGANIC M	ATTER CONTENT				
,	GROUP <sup>3</sup>	Less than 3%	3% or More				
3	GOARSE	12 oz	14 oz				
2	MEDIUM	14 to 16 oz	16 to 18 oz				
1	FINE	18 to 20 oz	18 to 21 oz				
	<sup>1</sup> Use the higher rate of DEFINE within the applicable rate range under any of the following conditions: heavy surface plant residues, heavy weed pressure and/or when soit organic matter is at the upper end of the range.						
	<ul> <li><sup>2</sup> Not recommended for use on peat or muck soils (soils with 20% or more organic matter).</li> <li><sup>3</sup> For more information, refer to the "Rate Selection/Soil Texture" section of this label.</li> </ul>						

#### For CONSERVATION, MINIMUM, and NO-TILLAGE Systems; or CONVENTIONAL Tillage Systems With Applications GREATER THAN TWO WEEKS Preplant:

Recommended DEFINE use rates are located in Table 2. Rates are higher for these types of tillage systems and application timings than in Table 1 due to the extended period of weed control needed and the increased crop residue present. Refer to the "Application Methods and Timing" section of the label for details. Weed control will generally be greater the closer the applications are made to planting but prior to weed emergence. If weeds are present at application, a nonselective herbicide such as or Gramoxone Extra, a glyphosate-containing product or Touchdown used at recommended rates may be mixed with DEFINE treatments.

#### TABLE 2

#### DEFINE USE RATES IN CONSERVATION, MINIMUM, AND NO-TILLAGE SYSTEMS; OR CONVENTIONAL TILLAGE SYSTEMS WITH APPLICATIONS GREATER THAN TWO WEEKS PREPLANT SURFACE.

DEFINE RATES (OUNCES PER ACRE).1.2

SOIL TEXTURAL	SOIL ORGANIC M	ATTER CONTENT
GROUP <sup>3</sup>	Less than 3%	3% or More
COARSE	13 oz	15 oz
MEDIUM	16 to 18 oz	18 to 20 oz
FINE	20 to 21 oz	20 to 21 oz

<sup>1</sup> Use the higher rate of DEFINE within the applicable rate range under any of the following conditions: heavy surface plant residues, heavy weed pressure an/or when soil organic matter is at the upper end of the range.

- <sup>2</sup> Not recommended for use on peat or muck soils (soils with 20% or more organic matter).
- For more information, refer to the "Rate Selection/Soil Texture" section of this label.

#### DEFINE TANK MIXTURES

DEFINE may be applied in tank mixture with certain herbicides to improve control of broadleaf weeds such as velvetleaf, common cocklebur and morningglory species. Mixtures may be used in either conventional, cosservation, similar timings and methods as DEFINE alone unless specifically prohibited in the mix partner's product label. 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.

Herbicides recommended for tank mixtures with DEFINE include:

Atrazine	Python®
Balance®	Marksman®
Bladex®	Eradicane®
Banvel®	Gramoxone Extra®
Clarity®	Roundup®
Extrazine II®	Roundup Ultra®
Glyphosate	2,4-D
Hornet®	Sencor®
Pentagon®	Touchdown®
Prowl®	

#### **DEFINE SEQUENTIAL APPLICATIONS**

Sequential herbicide applications either before or following DEFINE treatments may be used to control additional weeds. Herbicides recommended for sequential applications include:

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

#### SOYBEAN

DEFINE is a selective herbicide for control/suppression of most annual grasses in soybeans. DEFINE may be applied , **)** corice per usessesson either alone, in tank mix combination with or servientially with certain registered herbicides. The minimum and no-tillage systems. They may be applied with in following types of application 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 form the soil.

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

#### WEED SPECIES CONTROLLED BY DEFINE

DEFINE herbicide applied alone at the recommended dosages and application timings will provide control of certain annual grasses.

WEEDS CONTROLLED <sup>1</sup> ANNUAL GRASS WEEDS				
Bamyardgrass (Echinocloa crusgalli)	Foxtail, yellow ( <i>Setaria glauca</i> )			
Crabgrass, large ( <i>Digitaria sanguinalis</i> ) Crabgrass, smooth ( <i>Digitaria ischaemum</i> )	Goosegrass ( <i>Eleusine indica</i> ) Lovegrass, India ( <i>Eragrostis sp</i> )			
Foxtail, giant ( <i>Setaria faber</i> i) Foxtail, green ( <i>Setaria viridis</i> )	Panicum, fall (Panicum dichotomiflorum)			
<sup>1</sup> Full season weed control will be achieved only on coarse textured soils using the maximum 12 ounce use rate. Use rates of 7 to 12 ounces will provide only early season weed control on all other soil textures. To complement early season weed control, DEFINE recommended for use in tank- mixture with or sequentially with other herbicides that provide additional control of these weed species.				

#### WEED SPECIES PARTIALLY CONTROLLED BY DEFINE

DEFINE Herbicide will provide partial control or reduced competition for additional annual grasses. Reduced competition weeds will be stunted in growth and/or be of reduced populations as compared to non-treated areas but control will generally not be commercially acceptable.

WEED SPECIES PARTIALLY CONTROLLED ANNUAL GRASS WEEDS			
Johnsongrass, seedling	Signalgrass, broadleaf		
(Sorghum halepense)	(Brachiaria platyphylla)		
Panicum, browntop	Shattercane		
(Panicum fasciculatum)	(Sorghum bicolor)		
Sandbur, field	Witchgrass		
(Cenchrus incertus)	(Panicum capillare)		

#### **DEFINE USE RATES**

The recommended use rates for DEFINE applied alone, in tank mix combination with and/or sequentially with other herbicides for all application methods and timings is , <u>T to 12 ounces</u> per acre. The 12 ounce rate of DEFINE will provide full season control of annual grasses in charse, textured soils but will provide only early season weed control on medium and fine textured soils. Rates lower than 12 ounces will provide <u>only</u> early season weed control on all soil textures. To complement this early season weed control, DEFINE should be used in tank-mixture or sequentially with, other herbicides that provide additional control of these weed species.

#### **DEFINE TANK MIXTURES**

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DEFINE may be applied in tank mixture with certain herbicides to improve control of annual grasses and/or broadleaf weeds such as velvetleaf, common cocklebur and morningglory species. Mixtures may be used in either conventional, conservation, minimum and no-tillage systems. They may be applied with similar timings and methods as DEFINE alone unless specifically prohibited in the mix partner product label. Three-way or multiple tank mixtures are permitted unless restricted by the mix partner product labels. Refer to the individual product labels for recommended use rates, precautions and/or restrictions. Herbicides recommended for tank mixtures with DEFINE include:

Authority Broadleaf®	Pursuit®
Canopy®	Roundup®
Canopy XL®	Roundup Uttra®
Chlorimuron-ethyl DF	Scepter®
Command®	Sencor® (Metribuzin)
FirstRate®	Scnolan HFP®
Glyphosate	Tcuchdown®
Gramoxone Extra®	Trifuralin
Linuron (Lorox® and others)	Turbo®
Pentagon®	2.4-D LVE
ProwK®	

#### **DEFINE SEQUENTIAL APPLICATIONS**

Sequential herbicide applications may be used in a DEFINE weed control program to control additional weeds. Harcicides recommended for use either before or following DEFINE treatmonts include:

Assure II®	Poast®
Basagran®	Poast Plus®
Bjazer©	Prowl®
Canopy®	Pursuit®
Classic®	Raptor®
Cobra®	Reflex®
Command®	Reliance STS®
Concert®	Resource®
FirstRate®	Roundup®
Flexstar®	Roundup Ultra®
Fusilade®	Scepter®
Fusion®	Select®
Galaxy®	Sencor®
Glyphosate	Sonalan HFP®
Gramoxone Extra®	Storm®
Liberty®	Synchrony STS®
Linuron	Tornado®
Option II®	Touchdown®
Pentagon®	Trifluralin
Pinnacle®	2,4-D

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

# CORN AND SOYBEAN CROP ROTATION RECOMMENDATIONS

Waiting period after DEFINE herbicide application before the following crops can be planted.

In mediately	*						
Com							
Soybean							
1 m onth							
Poab							
4 m onths							
C abbage	Lettuce	Sugarbeets					
Campts	Peppers	Allother leafy					
Comon	Radish	vegetables					
12 m onths							
Азь	M illet, pearl	Triirale					
Barey	M illet prose	W heat					
Bern udagrass	Oats	Wild Rice					
Bliegrass	Popcom	All other crops not					
Biom egizass	Rice	listed (except root					
Buckwheat	Rye	caops)					
Cbver	Sorghum						
Fescue	Teosinte						
18 m onths							
Onions	Sugarbeets	Allothermotcmps					

#### STORAGE AND DISPOSAL

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

Pesticide Styrage; Store in a cool, dry place and in such a maniper as to provent cross contamination with other pesticides, fartilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Hancle 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 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.

**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.

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

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# **APPENDIX I**

#### SPRAYABLE FLUID FERTILIZER COMPATIBILITY TEST

A compatibility test is highly recommended for a pplications 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 the 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 the mixture for signs of phase separation, flakes, particles, gels, precipitates, etc. 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.
- If the mixture is now compatible, a compatibility agent should be used in the spray mixture at its recommended rate.
- 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 representative for further recommendations on testing spray solution compatibilities.

# APPENDIX II

#### IMPREGNATION AND APPLICATION ON DRY FERTILIZER, •,

Dry Bulk fertilizer near that be impregnated or coated with
 DEFINE for applications to corn and soybeans. Follow all DEFINE label recommendations, special instructions and precautions. All state regulations relating to dry bulk fertilizer bloncing, impregnating and labeling must also be followed.

'Hate':' Select the recommended DEFINE 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 DEFINE needed per ton of fertilizer applied.

Oz. DEFINE per acre x 2000	=	Oz. DEFINE
Pounds fertilizer per acre		per ton fertilizer

**Impregnation:** DEFINE 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 DEFINE on bulk fertilizer, use a closed rotarydrum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Mix DEFINE 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 is 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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