

100-1059

10/30/2003

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

Mr. Thomas Parshley  
Syngenta Crop Protection, Inc.  
P.O. Box 18300  
Greensboro, NC 27419-8300

OCT 30 2003

Dear Mr. Parshley:

Subject: Fusion Herbicide  
EPA Registration Number 100-1059 ✓  
Application dated September 2, 2003

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act as amended is acceptable, provided you make the following changes before you release the product for shipment.

1. Change order of Precautionary Statements to match order of First Aid statements. Both should be ordered so that the most severe routes of exposure are listed first.
2. Remove the word "Prohibitions" from under Storage and Disposal
3. Move "Open dumping is prohibited" to under Pesticide Disposal
4. Move "Do not reuse empty container" to under Container Disposal.
5. Change "Storage" to "Pesticide Storage"
6. Add Spray Drift Management text for aerial applications. See attached.

Submit three (3) copies of final printed labeling incorporating the above changes before you release the product for shipment. Amended labeling will supercede all previously accepted ones. A stamped copy of labeling is enclosed for your records.

Sincerely,

JSI

Joanne Miller, haj  
Product Manager 23  
Herbicide Branch  
Registration Division (7505C)

2823

**FUSION®**  
Herbicide

**Postemergence Herbicide for Control of Perennial and Annual Grass Weeds**

**ACTIVE INGREDIENTS:**

<b>Fluazifop-P-butyl</b>	
Butyl( <i>R</i> )-2-[4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propanoate .....	24.15%
<b>Fenoxaprop-P-ethyl</b>	
(+)-ethyl-2-[4-[6-(chloro-2-benzoxazolyl)oxy]phenoxy]propanoate .....	6.76%
<b>INERT INGREDIENTS*:</b>	<u>69.09%</u>
<b>TOTAL</b> .....	<b>100.00%</b>

Contains 2 lbs (+) isomer (fluazifop-P-butyl) and 0.56 lbs fenoxaprop-P-ethyl active ingredient per gallon.

\*Contains aromatic petroleum distillates.

**KEEP OUT OF REACH OF CHILDREN**

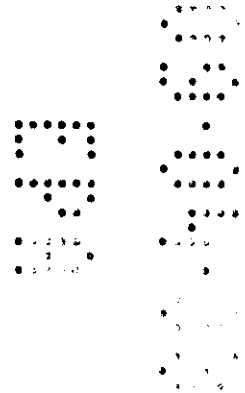
**CAUTION**

EPA Reg. No. 100-1059  
EPA Est. No.

Made in U.S.A.

SCP 100-xxxx

NET WEIGHT/U.S. Standard Measure



**ACCEPTED**  
with **COMMENTS**  
In EPA Letter Dated  
**OCT 30 2003**

Under the Federal Insecticide,  
Fungicide, and Rodenticide Act  
as amended for the pesticide  
registered under EPA Reg. No.  
100-1059

<b>FIRST AID</b>	
<b>If in eyes</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• 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 on skin or clothing</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>If swallowed</b>	<ul style="list-style-type: none"> <li>• Immediately call a poison control center or doctor.</li> <li>• Do not induce vomiting unless told to do so by a poison control center or doctor.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not give anything by mouth to an unconscious person.</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>
<b>NOTE TO PHYSICIAN</b>	
Contains petroleum distillate – vomiting may cause aspiration pneumonia.	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<b>HOT LINE NUMBER</b>	
<b>For 24-Hour Medical Emergency Assistance (Human or Animal) or Chemical                      Emergency Assistance (Spill, Leak, Fire, or Accident) Call:</b> <b>1-800-888-8372</b>	

**PRECAUTIONARY STATEMENTS**

**HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**CAUTION**

HARMFUL IF SWALLOWED. HARMFUL IF ABSORBED THROUGH SKIN. CAUSES MODERATE EYE INJURY. Avoid contact with skin, eyes or clothing. Avoid breathing dust (vapor or spray mist). Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

### 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 G on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as Barrier Laminate or Viton.
- 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.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### 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.

### ENVIRONMENTAL HAZARDS

This product is toxic to fish. 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 contaminate water when disposing of equipment washwaters. Do not apply when weather conditions favor drift from target area.

### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

**CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product should be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Syngenta Crop Protection, Inc. or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Syngenta and Seller harmless for any claims relating to such factors.

Syngenta warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Syngenta, and Buyer and User assume the risk of any such use. SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall Syngenta or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Syngenta and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of sale and limitations of warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Syngenta.

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**DIRECTIONS FOR USE**

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It is a violation of Federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at the time of application.

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 24 hours.

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, such as Barrier Laminate or Viton.
- Shoes plus socks.

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**STORAGE AND DISPOSAL**

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**PROHIBITIONS:** Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

**STORAGE:** Store in original container only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth or synthetic absorbent. Remove to chemical waste area.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or

Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:**

**Metal Containers:** Triple-rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

**Plastic Containers:** Triple-rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, by incineration or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**FOR BULK AND MINI-BULK CONTAINERS:**

**CONTAINER PRECAUTIONS:** Before refilling, inspect thoroughly for damage, such as cracks, punctures, bulges, dents, abrasions and damaged or worn threads on closure devices.

**REFILL ONLY WITH FUSION® HERBICIDE.** The contents of this container cannot be completely removed by cleaning. Refilling with materials other than FUSION herbicide will result in contamination and may weaken container. After filling and before transporting, check for leaks. Do not refill or transport damaged or leaking container.

**CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.**

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**GENERAL INFORMATION**

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Read all label directions before using.

FUSION herbicide is a selective postemergence herbicide for control of annual and perennial grass weeds in soybeans, cotton and highway rights-of-way. FUSION herbicide provides effective control of grass weeds in conventional tillage, minimum tillage, and no-till plantings. FUSION herbicide may be applied for control of emerged grass weeds before, during or after planting or after harvest of soybeans or cotton. FUSION herbicide does not control broadleaf weeds or sedges (nutgrass).

FUSION herbicide is a systemic herbicide which moves from the treated foliage into the shoots, roots, rhizomes, stolons, and growing points (meristematic regions) of treated grass weeds.

**Rainfastness** - Since FUSION herbicide is rapidly absorbed by the grass foliage, rain occurring one (1) hour or more after application will not affect the activity of FUSION herbicide. When tank mixing with broadleaf herbicides, observe the rainfast statement of the most restrictive label.

**Control Symptoms** - Growth of treated grass weeds stops soon after application. Symptoms include loss of vigor, yellowing and/or reddening, and eventual death of the treated grass plant. Symptoms are generally observed within one week after treatment, depending on grass weed species and environmental conditions.

## INFORMATION ON WEED RESISTANCE

Naturally occurring biotypes of certain grass species with resistance to this herbicide and related products (same mode of action) are known to exist. Selection of resistant biotypes, through repeated use of these herbicides, may result in control failures.

If poor performance cannot be attributed to adverse weather conditions or improper application methods, a resistant biotype may be present. In such a case, additional treatments with this herbicide or related products is not recommended. Consult your local company representative or agricultural advisor for assistance.

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## APPLICATION DIRECTIONS

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Thorough coverage of all grass weed foliage is important for good activity. Optimum weed control is achieved when young actively growing grass weeds are treated that are not under stress from low soil moisture, extreme temperatures, low soil fertility, mechanical, or chemical injury.

**Spray Additives** - Only crop oil concentrate, nonionic surfactants and other adjuvants cleared for use on growing crops may be used in spray mixture. Under dry conditions, crop oil concentrate is the preferred adjuvant.

### ALWAYS ADD ONE OF THE FOLLOWING:

- **Crop Oil Concentrate (COC)** - Add a non-phytotoxic crop oil concentrate or a once-refined vegetable oil concentrate containing 15-20% approved emulsifier, at 0.5-1% v/v (1-2 pints/25 gallons) of the finished spray volume. For aerial applications, add 1 pint of crop oil concentrate per acre.
- **Nonionic Surfactant (NIS)** - Add nonionic surfactant containing at least 75% surface-active agent, at 0.25-0.5% v/v (1/2-1 pint per 25 gallons) of the finished spray volume for ground sprays. For aerial application, add 1 pint of surfactant per acre.
- **Other Adjuvants** - Adjuvants other than COC or NIS may be used providing the product meets the following criteria:
  1. Contains only EPA exempt ingredients.
  2. Is nonphytotoxic to the target crop.
  3. Is compatible in mixture. (May be established through a jar test.)
  4. Is supported locally for use with FUSION on the target crop through proven field trials and through university and extension recommendations.



Always refer to the product label and follow recommendations concerning rates, target crops, environmental effect such as drought or weed stress, and use in tankmix with other labeled pesticides.

## Directions For Ground Application

### Nozzle Selection

The use of flat fan nozzles will result in the most effective application of FUSION herbicide. Flood nozzles are generally not as good as flat fans since they produce large uneven droplets. The use of nozzles other than flat fans may result in reduced grass control due to inadequate coverage. Do not apply FUSION herbicide with recirculating sprayers, rope-wick applicators, controlled droplet applicators (CDA) or any similar devices.

### Spray Volume and Pressure

Use sufficient spray volume and pressure to ensure complete coverage of the target grasses. Apply in 5-40 gallons per acre of spray mixture with spray pressures of 30-60 psi at the nozzle tip. When grass foliage is dense, use 60 psi and a minimum of 20 gallons per acre to ensure coverage of weed foliage.

**Band Applications** - Use a minimum of two nozzles, one directed to each side of the planted row. Application with a single nozzle directed over the top of the row is not recommended. Cultivation of untreated areas may be needed following band applications.

When making band applications and cultivating in the same operation, position nozzles in advance of the cultivation device. This will reduce dust in the spray area. Dust can intercept the spray, reducing weed coverage resulting in less than adequate weed control.

Calculate the amount of herbicide and water volume needed for band treatment by the following formulas:

$$\frac{\text{Band-width-in-inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{Band herbicide rate per acre}$$

$$\frac{\text{Band-width-in-inches}}{\text{row width in inches}} \times \text{broadcast volume per acre} = \text{Band water volume per acre}$$

Band applications to perennial grasses are not recommended, as reinfestation of the treated band from the untreated middle may result.

**Spot Treatments** - Mix FUSION herbicide and crop oil concentrate or nonionic surfactant with water according to the amounts shown below. Spray to obtain thorough coverage, but do not spray to runoff. Re-treat if necessary.

TABLE 1  
SPOT SPRAY RECOMMENDATIONS

To Make This Spray Volume	Add These Amounts		
	FUSION	Crop Oil Concentrate	OR Nonionic Surfactant
1 gallon	3/4 fl. oz. (1-1/2 tbsp.)	1-1/2 fl. oz.	1/2 fl. oz.
10 gallons	6.5 fl. oz.	13 fl. oz.	3 fl. oz.
25 gallons	1 pint	1 quart	1/2 pint
50 gallons	1 quart	2 quarts	1 pint

**Chemigation** - Do not apply FUSION herbicide through any type of irrigation system.

**Directions for Aerial Application**

Use sufficient spray volume to ensure complete coverage of target grasses. A minimum of 5 gallons per acre should be applied. When grass foliage is dense, use a minimum of 10 gallons per acre to ensure coverage of weed foliage.

**Application Timing** - Best control of susceptible grasses is obtained when FUSION herbicide is applied to actively growing grasses before they exceed the recommended growth stages shown on this label. Refer to Tables 2, 3, 4 and 5 for specific recommendations on use rates and weed growth stages.

**Cultivation** - Cultivation of treated grasses is not recommended within 7 days prior to or within 7 days after application of FUSION herbicide as weeds may be put under stress resulting in reduced weed control. Timely cultivation 2-3 weeks after applying FUSION herbicide may assist weed control.

**GENERAL USE PRECAUTIONS**

- Apply to actively growing grasses. Avoid application to grasses which are stressed due to moisture, temperature, low soil fertility, mechanical or chemical injury.
- Apply at the recommended rate to grasses at the recommended growth stages as outlined in Tables 2, 3, 4 and 5.
- Apply when the first grass weed species in a mixed grass weed population reaches the recommended growth stage for treatment. Use the highest recommended rate for grasses in that group.
- Where irrigation is used as part of normal cropping practice, best results are usually obtained when FUSION herbicide is applied within 7 days after irrigation.

11 8 23

- Best perennial grass control can be obtained if rhizomes or stolons are cut up by preplant tillage practices (discing, plowing, etc.) to stimulate maximum emergence of grass shoots.
- Do not plant rotational grass crops such as corn, sorghum, and cereals within 60 days of last application of FUSION herbicide.
- Avoid drift to all other crops and nontarget areas. Grass crops are highly susceptible to FUSION herbicide. Avoid application when wind velocity exceeds 15 mph. Do not make ground or aerial applications during temperature inversions.
- Tankmixes of FUSION herbicide with other pesticides, liquid fertilizers or other additives except as specified on this label or on approved Syngenta supplemental labels may result in tankmix incompatibility, unsatisfactory performance and/or crop injury.
- Thoroughly clean spray tank with water and a commercial tank cleaner before and after each use.
- Do not apply FUSION herbicide if rainfall is expected within 1 hour.

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**SPECIFIC RESTRICTIONS FOR SOYBEANS AND COTTON**

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- Do not apply a total of more than 24 oz. of FUSION herbicide per acre per season to soybeans and cotton.
- Do not apply to cotton after boll set.
- Do not harvest cotton within 90 days of FUSION application.
- Make the last FUSION herbicide application to soybeans before bloom.
- Do not graze or harvest for forage or hay.

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**DIRECTIONS FOR ANNUAL AND PERENNIAL GRASS WEED CONTROL IN SOYBEANS AND COTTON**

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**REGION A**

**SOYBEANS:**

FUSION herbicide may be applied in the following states: Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma (east of Interstate 35), Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas (east of Interstate 35), Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

**COTTON:**

FUSION herbicide may be applied in the following states: Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma (east of Interstate 35), South Carolina, Tennessee, Texas (east of Interstate 35), and Virginia.

**TABLE 2  
FUSION HERBICIDE ANNUAL GRASS CONTROL USE RATE  
RECOMMENDATIONS IN SOYBEANS AND COTTON**

**REGION A**

Annual Grass Species <sup>1</sup>	Ht. (In.)	Special FUSION Rate When Used Alone <sup>2</sup> (fl. oz./A)	FUSION Rate When Used Alone (fl. oz./A)	FUSION Rate When Tankmixed <sup>2</sup> (fl. oz./A)
Barnyardgrass	2-4	6	8	8-12
Broadleaf signalgrass	2-4	-	8-10	10-12
Crabgrass	1-4	-	8	8-12
Downy Brome	2-6	-	6	6-10
Fall Panicum	2-6	-	8	8-12
Field Sandbur	2-4	-	8	8-12
Foxtails				
Giant foxtail	2-8	6	7	7-12
Green foxtail	2-4	6	8	8-12
Yellow foxtail	2-4	6	8	8-12
Goosegrass	2-4	-	8	8-12
Italian Ryegrass	2-4	-	8	8-12
Itchgrass	4-24	-	6	6-10
Johnsongrass, seedling	2-8	-	6	6-10
Junglerice	2-3	-	8	8-12
Red rice	0.5-3	-	10-12	10-12
Shattercane	6-12	-	6	6-10
Sorghum-almum	6-12	-	6	6-10
Southern sandbur	2-6	-	8	8-12
Texas Panicum	2-8	-	8	8-12
Volunteer Cereals				
V. Barley	2-6	-	8	8-12
V. Corn <sup>3</sup>	12-24	4	6	6-10
V. Milo	6-12	-	6	6-10
V. Oats	2-6	-	8	8-12
V. Rye	2-6	-	8	8-12
V. Wheat	2-6	-	8	8-12
Wild Oats	2-6	-	8	8-12
Wild Proso Millet	4-8	-	6	6-10
Witchgrass	2-4	-	8	8-12
Woolly Cupgrass	2-4	-	8	8-12

- <sup>1</sup> Retreatment at the recommended rate may be needed to control later germinating grasses or if regrowth occurs.
- <sup>2</sup> The lowest rate of FUSION herbicide listed above may be used under the following conditions:
  - Application under favorable soil moisture and humidity conditions, normally within a few days after rainfall or irrigation. Avoid extreme air temperatures.
  - Application at earliest growth stages indicated on rate tables.
  - Application in highly competitive crop stands such as narrow row or drilled soybeans, or where cultivation is planned.
  - Application to light or moderate weed densities.
  - Application with 1% v/v crop oil concentrate only.
 If the conditions above do not exist, use the high rate for the species indicated.

<sup>3</sup> Fusion will provide suppression of Sethoxydim resistant volunteer corn.

**TABLE 3  
FUSION HERBICIDE PERENNIAL GRASS CONTROL USE RATE  
RECOMMENDATIONS IN SOYBEANS AND COTTON**

**REGION A**

Perennial Grass Species	Application	Ht. (In.)	Rate (fl. oz./A)
Bermudagrass <sup>1</sup>	1st	4-8 (Runner)	12
	2nd	4-8	8
Quackgrass <sup>2</sup>	1st	6-10	12
	2nd	10 in.	8
Rhizome johnsongrass <sup>3</sup>	1st	8-18	10-12
	2nd	6-12	8
Wirestem muhly <sup>4</sup>	1st/2nd	4-12	10-12

- <sup>1</sup> Make second application to Bermudagrass if regrowth occurs (usually about 4 weeks after first application). Bermudagrass control may be improved by directing the spray beneath the crop canopy. To improve coverage, make applications in a minimum of 15 gallons per acre.
- <sup>2</sup> Make second application 2-3 weeks after the first, but before the quackgrass exceeds 10 inches in height. Always use 1% v/v crop oil concentrate.
- <sup>3</sup> Make first application before the boot stage. In eastern Oklahoma, the Brazos Bottoms, the Blacklands, Coastal Bend and Rio Grande areas of eastern Texas, make the first application at 8-12 inches. If new shoots emerge or regrowth occurs, make a second application at 4-6 inches.

<sup>4</sup> Make second application if regrowth occurs.

#### **RESCUE APPLICATION IN SOYBEANS**

FUSION herbicide applied at 8-14 fl. oz./A may be used to control giant foxtail, wild proso millet and woolly cupgrass up to 16 inches in height. Applications must be made prior to soybean bloom. Use 12-14 fl. oz./A if grasses appear stressed due to drought, unfavorable temperatures and/or low soil fertility. Do not tank mix FUSION with broadleaf herbicides for rescue applications.

**DIRECTIONS FOR ANNUAL AND PERENNIAL GRASS WEED CONTROL IN COTTON**

**REGION B**

New Mexico, Oklahoma (West of I-35), and Texas (West of I-35).

**TABLE 4  
FUSION HERBICIDE ANNUAL GRASS CONTROL USE RATE  
RECOMMENDATIONS**

**REGION B**

<b>Annual Grass Species<sup>1</sup></b>	<b>Ht. (In.)</b>	<b>No. of Leaves Not to Exceed</b>	<b>Rate(s) fl. oz/A</b>
Barnyardgrass	1-2	3	12
Canarygrass, Littleseed	2-4	4	12
Crabgrass, Large	1-2	3	12
Crabgrass, Smooth <sup>2</sup>	1-2	4	12
Johnsongrass, seedling	2-4	3	8
Junglerice	2-3	3	12
Panicums			
Fall Panicum <sup>2</sup>	2-6	6	12
Texas Panicum <sup>2</sup>	8	8	12
Rabbitfootgrass	2-4	4	12
Volunteer Cereals			
V. Barley	2-4	3	12
V. Corn	12-18	6	12
V. Milo	2-4	4	12
V. Oats	2-4	3	12
V. Wheat	2-4	3	12
Wild Oats <sup>2</sup>	2-4	4	12

<sup>1</sup> Retreatment at the recommended rate may be needed to control late germinating grasses or if regrowth occurs.

<sup>2</sup> Recommended for use in Oklahoma and Texas on these species.



**TABLE 5  
FUSION HERBICIDE PERENNIAL GRASS CONTROL USE RATE  
RECOMMENDATIONS**

**REGION B**

<b>For best results, apply FUSION 3 days before to 7 days after irrigation.</b>			
<b>Perennial Grass Species</b>	<b>Application</b>	<b>Ht. (In.)</b>	<b>Rate fl. oz/A</b>
Bermudagrass <sup>1/2</sup>	1st	4-8 (runner length)	16-24
Rhizome johnsongrass <sup>3/4</sup>	1st	12-18	10-24

- <sup>1</sup> Make second application to Bermudagrass if regrowth occurs. (Usually about 4 weeks after first application.) Bermudagrass control may be improved by directing the spray beneath the crop canopy. To improve coverage, make applications in a minimum of 20 gallons per acre. Do not apply more than 24 oz. in one season.
- <sup>2</sup> In Oklahoma (west of Interstate 35) and Texas (west of Interstate 35) under good soil moisture and favorable growing conditions, make applications at reduced rates of 12-16 fl. oz./A.
- <sup>3</sup> Make first application before the boot stage. If new shoots emerge or regrowth occurs, make a second application. (Usually about 4 weeks after the first application.) Do not apply more than 24 oz. in one season.
- <sup>4</sup> In Oklahoma (west of Interstate 35) and Texas (west of Interstate 35) under good soil moisture and favorable growing conditions, make the first application to 8-18 inch johnsongrass at a reduced rate of 12 fl. oz./A. Make the second application to 6-12 inch johnsongrass at a rate of 12 fl. oz./A.

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## TANKMIX AND SEQUENTIAL APPLICATIONS

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### Soybeans

FUSION can be used sequentially or in tankmix with one or more of the following: FLEXSTAR®, Basagran®, Blazer®, Canopy®\*\*, Classic®\*\*, Cobra®, Concert®\*\*, FirstRate®, Galaxy™, GRAMOXONE®, Pinnacle®\*\*, Prowl®, Pursuit®, REFLEX®, Scepter®\*\*, Scepter® OT\*\*, Storm®, Synchrony® STS®\*\*, TORNADO®, TOUCHDOWN® 5\*\*\*\*, TYPHOON®, 2,4-D (LVE)\*\*\*.

- \* FUSION at 4 oz/A plus Pursuit for volunteer corn and shattercane only.
- \*\* **If the grass population consists mainly of yellow foxtail, barnyardgrass, woolly cupgrass, field sandbur, smooth or large crabgrass, Texas panicum, broadleaf signalgrass or red rice and conditions are less than optimum (see footnote 2, Table 2), a sequential application is recommended to provide satisfactory performance.**
- \*\*\* FUSION + 2,4-D (LVE) tankmix at 4 -8 fl. oz./A + 0.5 lb. AE/A may be used as a preplant treatment for the control of giant foxtail and fall panicum and broadleaf weeds as specified on the 2,4-D label. Use the higher rate of FUSION on grasses greater than 2 inches. The tankmix should be used with a crop oil concentrate.
- \*\*\*\* FUSION can be tankmixed with Touchdown 5 for improved postemergence control of volunteer corn (including Roundup Ready® volunteer corn) in Roundup Ready Soybeans. Follow FUSION rate recommendations for volunteer corn. NOTE: Postemergence application of this tankmix on soybean varieties which do not contain the Roundup Ready gene will result in severe crop injury or death of the soybean crop. Always read and follow the recommendations, restrictions and limitations for all products used. The most restrictive labeling of any product applies.

Under certain conditions, the mixture of FUSION with one or more of the above-mentioned broadleaf herbicides may cause a reduction in grass activity.

For sequential applications, allow 2 to 3 days after the application of FUSION before applying a broadleaf herbicide or mixture. In case the broadleaf herbicide or mixture is applied first, apply FUSION when the grass weeds begin to develop new leaves (generally around 7 days).

Liquid nitrogen fertilizer (28% UAN or similar) may be added to the spray mixture up to 1 gallon per 25 gallons (4% v/v). Dry nitrogen fertilizer (ammonium sulfate) may be added up to 4 lbs product per acre. Liquid and dry nitrogen fertilizers should not be used as a substitute for crop oil concentrate or nonionic surfactant in the spray mixture.

Always read and follow the application directions, restrictions and limitations for all products whether used alone or in a tankmix. The most restrictive labeling of any product used applies in tank mixtures.

**Note:** Tankmix applications sometimes have resulted in reduced grass weed control and possible increases in crop injury as compared to the products used alone. If grass regrowth occurs following an application of the tankmix or an additional flush of grasses emerge, make a second application of FUSION herbicide to actively growing grass weeds, as per the label recommendations. When perennial grasses are the predominant grass to be controlled, a sequential application is recommended. Follow the directions for sequential applications of FUSION herbicide and the appropriate broadleaf herbicide.

### Cotton

Tankmixes with other herbicides labeled for use in cotton are not recommended unless specified on this label or other supplemental labeling.

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## ANNUAL AND PERENNIAL GRASS WEED CONTROL IN RIGHTS-OF-WAY

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### NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not treat areas while unprotected humans or domestic animals are present in the treatment areas. Do not allow entry into treated areas without protective clothing until sprays have dried.

Written or oral warnings must be given to workers who are expected to be in a treated area or in an area about to be treated with this product. When oral warnings are given, warnings shall be given in a language customarily understood by workers. Oral warnings must be given if there is reason to believe that written warnings cannot be understood by workers. Warnings must include the following information:

**CAUTION:** Area treated with FUSION herbicide on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure to pesticide spray, wash the skin thoroughly with soap and water. Remove contaminated clothing and wash before reuse. If in eyes, flush with plenty of water. If irritation persists, get medical attention.

FUSION herbicide can be applied to roadside rights-of-way for the control of annual and perennial grassy weeds. FUSION herbicide can be applied to the following grass species:

Common Bermudagrass	<i>Cynodon dactylon</i>
Fine Fescue	<i>Festuca rubra</i>
Perennial Ryegrass	<i>Lolium perenne</i>
Smooth Brome	<i>Bromus inermis</i>
Tall Fescue	<i>Festuca arundinaceae</i>

FUSION herbicide will control the following grassy weeds at a rate of 7-9 fluid ounces per acre:

Barnyardgrass	<i>Echinochloa crus-galli</i>
Foxtail species	<i>Setaria</i> spp.
Goosegrass	<i>Elusine indica</i>
Large Crabgrass	<i>Digitaria sanguinalis</i>
Johnsongrass	<i>Sorghum halepense</i>
Panicum species	<i>Panicum</i> spp.
Roughstalk Bluegrass	<i>Poa trivialis</i>
Smooth Crabgrass	<i>Digitaria ischaemum</i>
Wild Oats	<i>Avena fatua</i>

When annual grasses are the target weed species, apply the 7 fluid ounce rate when the grassy weeds are in the 1-leaf to 1-tiller stage of growth. Apply the 8 fluid ounce rate when the annual grassy weeds are in the 2-3 tiller stage of growth.

When rhizome johnsongrass in the target weed species, apply the 8 fluid ounce rate when the johnsongrass is up to 20 inches tall. Apply the 9 fluid ounce rate when the johnsongrass is larger than 20 inches tall. If a second application is needed for rhizome johnsongrass control, apply at 6 oz/A when the johnsongrass reaches 15-20 inches in height.

**HIGH VOLUME SPRAY APPLICATION FOR HIGHWAY RIGHTS-OF-WAY**

Apply with ground equipment using 30-100 gallons of water per acre and 30-60 PSI of water to uniformly cover the vegetation in the area to be treated. Use a fixed boom, off-center nozzles or boomless straight stream nozzles properly calibrated to a constant speed of travel and rate of delivery. Allow mowed areas to regrow for at least 14 days before applying FUSION herbicide.

**ADDITIVES**

The addition of a nonionic surfactant or paraffin-based crop oil at a rate of 32 ounces per 100 gallons of spray solution is recommended for spray volumes between 30 and 100 gallons per acre. Thorough spray coverage is extremely important for optimum results.

**BACKPACK SPRAY APPLICATION**

Apply 0.25 oz/gallon of water and spray to wet prior to runoff. Good coverage is very important for best results: A nonionic surfactant at 0.25% volume by volume is recommended for optimum results.

**NOTES FOR ANNUAL AND PERENNIAL GRASS WEED CONTROL IN RIGHTS-OF-WAY**

1. Adequate soil moisture will enhance the performance of FUSION herbicide. Reduced control may occur with FUSION herbicide applied under DROUGHT STRESS conditions.
2. Rainfall within one hour following application may cause a reduction in grass control.
3. Broadleaf herbicides containing 2,4-D may reduce the effectiveness of FUSION herbicide. Tankmixes with Telar®, Escort® or Garlon® are recommended. Broadleaf herbicides containing 2,4-D may be applied 5 days before or after a FUSION herbicide application.
4. FUSION herbicide is a selective grassy weed herbicide, and has little or no activity on broadleaf plants or sedges.
5. Applications to bermudagrass may result in temporary injury. Bermudagrass should be well established at the time of application or severe injury may result.

**APPENDIX**

Scientific names are listed for those weeds referred to in the FUSION herbicide label.

<b>COMMON NAME</b>	<b>SCIENTIFIC NAME</b>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bermudagrass	<i>Cynodon dactylon</i>
Bluegrass, roughstalk	<i>Poa trivialis</i>
Broadleaf signalgrass	<i>Brachiaria platyphylla</i>
Brome, Downy	<i>Bromus tectorum</i>
Brome, Smooth	<i>Bromus inermis</i>
Crabgrass, Large	<i>Digitaria sanguinalis</i>
Crabgrass, Smooth	<i>Digitaria ischaemum</i>
Crabgrass, Southern	<i>Digitaria ciliaris</i>
Crabgrass, Tropical	<i>Digitaria bicornis</i>
Fall Panicum	<i>Panicum dichotomiflorum</i>
Fescue, Fine	<i>Festuca rubra</i>
Fescue, Tall	<i>Festuca arundinaceae</i>
Field Sandbur	<i>Cenchrus incertus</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria lutescens</i>
Goosegrass	<i>Eleusine indica</i>
Guineagrass, seedling	<i>Panicum maximum</i>
Itchgrass	<i>Rottboellia exaltata</i>
Johnsongrass, Rhizome	<i>Sorghum halapense</i>
Johnsongrass, Seedling	<i>Sorghum halapense</i>
Junglerice	<i>Echinochloa colonum</i>
Prairie cupgrass	<i>Eriochloa contracta</i>
Quackgrass	<i>Agropyron repens</i>
Red Rice	<i>Oryza sativa</i>
Ryegrass, Italian	<i>Lolium multiflorum</i>
Ryegrass, Perennial	<i>Lolium perenne</i>
Shattercane	<i>Sorghum bicolor</i>
Sorghum Alnum	<i>Sorghum alnum</i>
Southern Sandbur	<i>Cenchrus echinatus</i>
Southwestern cupgrass	<i>Eriochloa gracilis</i>
Texas Panicum	<i>Panicum texanum</i>

COMMON NAME	SCIENTIFIC NAME
Volunteer Cereals	
V. Barley	<i>Hordeum vulgare</i>
V. Corn	<i>Zea mays</i>
V. Milo	<i>Sorghum bicolor</i>
V. Oats	<i>Avena sativa</i>
V. Rye	<i>Secale cereale</i>
V. Wheat	<i>Triticum aestivum</i>
Wild Oats	<i>Avena fatua</i>
Wild Proso Millet	<i>Panicum miliaceum</i>
Wirestem Muhly	<i>Muhlenbergia frondosa</i>
Witchgrass	<i>Panicum capillare</i>
Wooly cupgrass	<i>Eriochloa villosa</i>

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