



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

JAH 28 1994

ANNE L. PEDERSEN ZENECA INC. 1800 CONCORD PIKE WILMINGTON, DE 19897

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

Subject:

Label Amendment Submission of 08/27/93 In Response to PR Notice 93-7

EPA Reg. No. 10182-343 FUSION HERBICIDE

# Dear Registrant:

The labeling cited above and submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is accepted subject to the comments reflected on the enclosed sheet. A copy of your proposed labeling stamped "ACCEPTED WITH COMMENTS" is enclosed.

#### WHAT THIS ACCEPTANCE MEANS:

Based on your certification, the Agency has accepted the labeling changes that are necessary to comply with the Worker Protection Standard (WPS) labeling requirements of 40 CFR part 156, subpart K, described in PR Notices 93-7 and 93-11. Any other labeling changes submitted in connection with this amendment application but not directly related to compliance with the WPS have not been reviewed or accepted by the Agency. If you wish to make such changes, you must submit a separate amendment application proposing them. If your product is currently suspended, the acceptance of this labeling amendment does not affect the suspension in any way.

### WHAT YOU NEED TO DO NEXT:

By the next label printing make all the specified changes to your labeling. Send to EPA one (1) copy of the final printed labeling:

- BEFORE selling or distributing any product bearing the final printed labeling AND
- WITHIN one year from date of this acceptance.

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Submit the final printed labeling via the U.S. Postal Service to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs (7505C)
U.S. Environmental Protection Agency
401 M Street, SW
Washington, D.C. 20460-0001

Hand or courier deliveries of final printed labeling may be made to:

Document Processing Desk (FIN-LABEL)
Office of Pesticide Programs
Room 266A, Crystal Mall 2
1921 Jefferson Davis Highway
Arlington, VA 22202

Sincerely,

Jim Tompkins, Deputy Chief Registration Support Branch Registration Division (7505W)

Attachment

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division

Anne L Pedersen ZENECA INC 1800 CONCORD PIKE WILMINGTON DE 19897

Comment for: SPA Reg Nr.10182-343
FUSION HERBICIDE

The following specific comments pertain to your WPS labeling submission concerning the product cited above:

User Safety Recommendations must either be placed in a box or printed on the label in a contrasting color from surrounding text.

The Agricultural Use Requirements section must be located in a clearly separate box on the product labeling -- with lines or other graphic indicators (such as contrasting color) to separate the section from the surrounding text.

You have incorrect wording in the first paragraph in the Agricultural Use Requirements box on your proposed label. That paragraph must contain the exact wording of the paragraph shown as "2" in Section F on Part 2 of the Product Worksheet in Supplement Three-A to "R Notice 93-7.

You have incorrect wording in the second-to-last sentence in the first pararaph in the Agricultural Use Requirements box on your proposed label. The sentence must be as follows: "It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers and restricted-entry interval."

The wording in the first two statements in the Non-Agricultural Use Requirements box on your proposed label is incorrect. Remove the incorrect statements and replace them with the following: "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."

ZENECA INC

EPA Reg. Number: 10182-343

FUSION HERBICIDE

Application date: 08/27/93

Original Submission

The circled and asterisked statement(s) in the Non-Agricultural Use Requirements box does not belong. Delete the sentence(s) from the Non-Agricultural Use Requirements box and place it where it appeared in your original labeling. If there are no remaining requirements in the box after you delete the sentence(s), delete the entire Non-Agricultural Use Requirements box.

Delete the crossed-out statements on your proposed label. They are redundant statements or phrases.

Page 1 of 21 **FUSION Booklet** FUS343B.RSD - RS-081993D

# FUSION" Herbicide

Postemergence Herbicide for Control of Perennial and Annual Grass Weeds

ACTIVE INGREDIENTS:	
fluazifop-p-butyl	
Butyl(R)-2-[4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propanoate	24.15%

fenoxaprop-ethyl

(±)-ethyl-2-[4-[6-(chloro-2-benzoxazolyl]oxy]phenoxy]propanoate ..... INERT INGREDIENTS\*: ..... 67.90%

TOTAL ..... 100.00%

Contains 2 lbs (+) isomer (fluazifop-p-butyl) and 0.66 lbs fenoxaprop-ethyl active ingredient per gallon.

\*Contains aromatic petroleum distillates.

EPA Reg. No. 10182-343 EPA Est. No.

**Net Weight** 

# KEEP OUT OF REACH OF CHILDREN

# CAUTION

# SEE SIDE PANEL FOR PRECAUTIONARY STATEMENTS AND STATEMENT OF PRACTICAL TREATMENT

Made in U.S.A. ZENECA Ag Products ZENECA Inc. Wilmington, DE 19897

ACCEPTED WILL COMMENTS In EPA Letter Dated

Fandicide, and Redenticide Act an amended, for the pesticide registered under EPA Reg. No. 10182-343

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#### STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Call a physician if irritation persists.

IF ON SKIN: Wash with plenty of soap and water. Get medical attention.

IF SWALLOWED: Immediately give several glasses of water but do not induce vomiting. If vomiting does occur, give fluids again. Have a physician determine if condition of patient will permit induction of vomiting or evacuation of stomach. Do not give anything by mouth to an unconscious or convulsing person.

IF INHALED: Remove to fresh air. Get medical attention if respiratory irritation occurs or if breathing becomes difficult.

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE ALL 1-800-F-A-S-T-M-E-D (327-8633)

FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300

#### 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). Wash thoroughly with soap and water after handling. 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.

BEST AVAILABLE COPY

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#### **DIRECTIONS FOR USE**

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 protection equipment (PPE). 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.

#### REENTRY STATEMENTS

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. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

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<sup>™</sup> herbicide on (date of application). Do not enter without appropriate protective clothing until sprays have dried. In case of accidental exposure to posticide 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.

#### **GENERAL INFORMATION**

Read all label directions before using.

FUSION herbicide is a selective postemergence herbicide for control of annual and perennial grass weeds in soybeans and highway rights-of-way. FUSION herbicide provides effective control of grass weeds in conventional tillage, minimum tillage, and no-till plantings. 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.

#### **APPLICATION DIRECTIONS**

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.



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**Spray Additives** - Only crop oil concentrate and nonionic surfactants 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 - 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.

or

Nonionic Surfactant - Add nonionic surfactant containing at least 75% surface-active agent, at 0.25-0.5% v/v (½-1 pint per 25 gallons) of the finished spray volume for ground sprays. For aerial application, add 1 pint of surfactant per acre.

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.

# **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. With flat fan nozzles, adjust the spray boom such that there is a 30% overlap of the spray pattern at the top of the weed canopy. 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 40-60 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.

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

Band-width-in-inches x broadcast rate x Band herbicide rate per acre per acre

Band-width-in-inches x broadcast volume Band water volume per acre per acre

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

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. Add one pint/A of crop oil concentrate or nonionic surfactant in the spray mixture.

**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	Add These Amounts		
This Spray Volume	FUSION	Crop Oil <u>OF</u> Concentrate	Nonionic Surfactant
1 gallon	3/4 fl. oz. (1½ tbsp.)	1½ fl. oz.	½ fl. oz.
10 gallons	6.5 fl. oz.	13 fl. oz.	3 fl. oz.
25 gallons	1 pint	1 quart	½ pint
50 gallons	1 quart	2 quarts	1 pint

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

**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 and 3 for specific recommendations on use rates and weed growth stages.

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**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. Do not apply 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 and 3.
- 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.
- 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, except as specified, are highly susceptible to FUSION herbicide.
- Do not tank mix FUSION herbicide with other pesticides, liquid fertilizers or other additives except as specified on this label or on EPA-approved ICI supplemental labels..
- Sequential applications of herbicides, except as specified in Table 4 of this label, may result in crop injury and/or reduced grass control.
- 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.

#### SPECIFIC RESTRICTIONS FOR SOYBEANS

- Do not apply a total of more than 24 oz. of FUSION herbicide per acre per season to soybeans.
- Make the last FUSION herbicide application to soybeans before bloom.
- Do not graze or harvest for forage or hay.

# DIRECTIONS FOR ANNUAL AND PERENNIAL GRASS WEED CONTROL IN 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.

TABLE 2
FUSION HERBICIDE ANNUAL GRASS CONTROL USE RATE RECOMMENDATIONS

Annual Grass Species¹	Ht. (In.)	Special FUSION Rate When Use 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	8-10
Broadleaf signalgrass	2-4	•	8	8-10
Crabgrass	1-4	•	8	8-10
Downy Brome	2-6	•	6	6-8
Fall Panicum	2-6	•	8	8-10
Field Sandbur	2-4	•	8	8-10
Foxtails				
Giant foxtail	2-8	6	7	7-10
Green foxtail	2-4	6	8	8-10
Yellow foxtail	2-4	6	8	8-10
Goosegrass	2-4	•	8	8-10
Italian Ryegrass	2-4	_	8	8-10
Itchgrass	4-24		6	6-8
Johnsongrass, seedling	2-8		6	6-8
Junglerice	2-3		8	8-10
Red rice	0.5-1	_	10	10-12
Shattercane	6-12		6	6-8
Sorghum-almum	6-12	-	6	6-8

Annual Grass Species¹	Ht. (ln.)	Special FUSION Rate When Use 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)
Southern sandbur	2-6	-	8	8-10
Texas Panicum	2-8	•	8	8-10
Volunteer Cereals				
V. Barley	2-6		8	8-10
V. Com	12-24	4	6	6-8
V. Milo	6-12		6	6-8
V. Oats	2-6	-	8	8-10
V. Rye	2-6	-	8	8-10
V. Wheat	2-6	-	8	8-10
Wild Oats	2-6	-	8	8-10
Wild Proso Millet	4-8		6	6-8
Witchgrass	2-4	•	8	8-10
Woolly Cupgrass	2-4	-	8	8-10

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

- 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>&</sup>lt;sup>2</sup> The lowest rate of FUSION herbicide listed above may be used under the following conditions:

TABLE 3
FUSION HERBICIDE PERENNIAL GRASS CONTROL USE RATE TABLE

Perennial Grass Species	Application	Ht. (ln.)	Rate (fl. oz./A)
Bermudagrass <sup>1</sup>	1st	4-8 (Runner)	12 oz.
	2nd	4-8	8 oz.
Quackgrass <sup>2</sup>	1st 2nd	6-10 10 in.	12 oz. 8 oz.
Rhizome johnsongrass <sup>3</sup>	1st 2nd	8-18 6-12	12 oz. 8 oz.
Wirestem muhly⁴	1st/2nd	4-12	8 oz.

- <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. In no-till soybeans, a preplant application of GRAMOXONE® EXTRA herbicide is recommended. Spot treatment is not recommended.
- <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**

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.

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#### TANKMIX AND SEQUENTIAL APPLICATIONS

FUSION herbicide may be used with selective postemergence broadleaf herbicides in a postemergence program for broad-spectrum weed control in soybeans. FUSION herbicide may be applied either sequentially or in a tankmix as specified below. The growth stage of the grass and broadleaf weeds at the time of application will determine if a sequential or a tankmix application should be used.

**Sequential Applications** 

Sequential applications of herbicides, except as specified in Table 4 of this label, may result in crop injury and/or reduced grass control.

Sequential applications should be used when the grass and broadleaf weed are not both at the proper growth stage for treatment. If the grass weeds reach the proper treatment stage before the broadleaf weeds, apply FUSION herbicide first at the recommended rate listed in Tables 2 and 3. Following the application of FUSION herbicide, allow the Minimum Interval listed in Table 4 for the corresponding broadleaf herbicide to elapse before making the sequential application.

If the broadleaf weeds reach the proper treatment stage before the grass weeds, apply the broadleaf herbicide first as directed on the product label. Following the application of the broadleaf herbicide, allow the Minimum Interval for FUSION herbicide listed in Table 4 to elapse before making the FUSION herbicide application. Following the guidelines listed in Table 4 below is necessary to allow for adequate translocation and performance of FUSION herbicide. Failure to follow the Minimum Time Intervals below may result in reduced performance of FUSION herbicide.

# TABLE 4 SEQUENTIAL APPLICATIONS

Order of A	Application	Minimum Interval
Product Applied First	Product Applied Second	Between Applications
FUSION	Basagran <sup>®</sup> herbicide or Classic <sup>®</sup> herbicide or Classic + Pinnacle <sup>®</sup> herbicide	1 day
FUSION	REFLEX® 2LC herbicide or REFLEX 2LC + Basagran or REFLEX 2LC + Classic or REFLEX 2LC + Pinnacle or 2,4-DB or Blazer or Basagran + Blazer or Pursuit® herbicide or Galaxy® herbicide	3 days
Basagran	FUSION	1 day
Classic or Classic + Pinnacle	FUSION	7 days
Pursuit	FUSION	10 days
REFLEX 2LC or REFLEX 2LC + Basagran or REFLEX 2LC + Classic or REFLEX 2LC + Pinnacle or 2,4-DB or Blazer or Basagran + Blazer or Galaxy or Storm	FUSION	Appearance of new grass leaf*

<sup>\*</sup>Diphenyl ether herbicides such as REFLEX 2LC herbicide and Blazer herbicide can injure grasses, placing them under temporary stress. Before making an application of FUSION herbicide, allow the grasses to recover from this injury. The appearance of a new leaf from the treated grass is a good indication that the grass has recovered.

# **Tankmix Applications**

FUSION herbicide may be tank mixed with postemergence broadleaf herbicides as specified on this label when annual grasses and broadleaf weeds are both at the proper stage of growth for treatment, as per the respective product labels.

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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 tank mix is not recommended. Follow the directions for sequential applications of FUSION herbicide and the appropriate broadleaf herbicide.

# Order of Tankmixing

Fill the spray tank with half the amount of required water and add the recommended amounts of FUSION herbicide, an appropriate broadleaf herbicide, and proper rate of approved adjuvant while the agitator is running, then add the remaining quantity of water.

#### **Recommended Tankmixes**

FUSION herbicide may be tank mixed with the herbicides listed below for broad-spectrum control of susceptible annual grass and broadleaf weeds. These products must be used at the recommended rates and growth stages in a manner consistent with their respective labels. SEE TANKMIX USE PRECAUTIONS SECTION FOR ADDITIONAL INFORMATION.

FUSION + REFLEX 2LC	FUSION + PINNACLE**
FUSION + BASAGRAN	FUSION + CLASSIC**
FUSION + REFLEX 2LC + BASAGRAN	FUSION + REFLEX 2LC+ CLASSIC**
FUSION + BLAZER	FUSION + REFLEX 2LC + PINNACLE**
FUSION + BLAZER + BASAGRAN	FUSION + CLASSIC + PINNACLE**
FUSION + GALAXY	FUSION + PURSUIT*
FUSION + STORM	FUSION + 2,4-D***

- \* Volunteer com and shattercane only.
- \*\* If the grass population consists mainly of yellow foxtail, barnyardgrass, woolly cupgrass, field sandbur, smooth or large crabgrass and conditions are dry, a sequential application should be used.
- \*\*\* FUSION + 2,4-D (LVE) tankmix at 4 fl. oz./A + 0.5 lb. AE/A may be used as a preplant treatment for the control of giant foxtail (up to 2 inches) and broadleaf weeds as specified on the 2,4-D label. The tankmix should be used with a crop oil concentrate.

#### SOYBEAN TANKMIX USE PRECAUTIONS

- 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.
- Do not apply tank mixes if rain is threatening. Consult the label of the broadleaf herbicide for rain-free period recommendations.
- In case of crop failure, only soybeans may be immediately replanted following use of Basagran, Blazer, REFLEX 2LC, and Classic, Pinnacle and Pursuit.
- Do not make sequential or tankmix applications of any of these herbicides if the weeds appear stressed due to unfavorable temperatures, drought and/or low soil fertility.

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

# NON-AGRICULTURAL USE REQUIREMENTS

Do not apply this product in such a manner as to directly or through drift expose workers or other persons. The area being treated must be vacated by unprotected persons.

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. Because certain states may require more restrictive reentry intervals for various crops treated with this product, consult your State Department of Agriculture for further information.

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	Cynodon dactylon
Fine Fescue	Festuca rubra
Perennial Ryegrass	Lolium perenne
Smooth Brome	Bromus inermis
Tall Fescue	Festuca arundinaceae



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

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

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.

#### 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.

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

- 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.



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- 3. Broadleaf herbicides containing 2,4-D will reduce the effectiveness of FUSION herbicide. Tankmixes with Telar<sup>®</sup>, Escort<sup>®</sup> or Garlon<sup>®</sup> 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.

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# **APPENDIX**

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

COMMON NAME	SCIENTIFIC NAME
Barnyardgrass	Echinochloa crus-galli
Bermudagrass	Cynodon dactylon
Bluegrass, roughstalk	Poa trivialis
Broadleaf signalgrass	Brachiaria platyphylla
Brome, Downy	Bromus tectorum
Brome, Smooth	Bromus inermis
Crabgrass, Large	Digitaria sanguinalis
Crabgrass, Smooth	Digitaria ischaemum
Crabgrass, Southern	Digitaria ciliaris
Crabgrass, Tropical	Digitaria bicomis
Fall Panicum	Panicum dichotomiflorum
Fescue, Fine	Festuca rubra
Fescue, Tall	Festuca arundinaceae
Field Sandbur	Cenchrus incertus
Foxtail, Giant	Setaria faberi
Foxtail, Green	Setaria viridis
Foxtail, Yellow	Setaria lutescens
Goosegrass	Eleusine indica
Guineagrass, seedling	Panicum maximum
Itchgrass	Rottboellia exaltata
Johnsongrass, Rhizome	Sorghum halapense
Johnsongrass, Seedling	Sorghum halapense
Junglerice	Echinochloa colonum
Prairie cupgrass	Eriochloa contracta
Quackgrass	Agropyron repens
Red Rice	Oryza sativa

COMMON NAME	SCIENTIFIC NAME
Ryegrass, Italian	Lolium multiflorum
Ryegrass, Perennial	Lolium perenne
Sorghum Almum	Sorghum almum
Southern Sandbur	Cenchrus echinatus
Southwestern cupgrass	Eriochloa gracilis
Texas Panicum	Panicum texanum
Volunteer Cereals	
V. Barley	Hordeum vulgare
V. Com	Zea mays
V. Milo	Sorghum bicolor
V. Oats	Avena sativa
V. Rye	Secale cereale
V. Wheat	Triticum aestivum
Wild Oats	Avena fatua
Wild Proso Millet	Panicum miliaceum
Wirestem Muhly	Muhlenbergia frondosa
Witchgrass	Panicum capillare
Wooly cupgrass	Eriochloa villosa

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#### STORAGE AND DISPOSAL

**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 with 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 quidance.

# **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 thread 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.

**IMPORTANT:** Read the Entire Directions for Use and the Conditions of Sale and Warranty before using this product.

#### CONDITIONS OF SALE AND LIMITED WARRANTY:

The Directions for Use of this product are believed to be reliable and should be followed carefully. However, 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 timing and method of application, weather and crop conditions, mixture with other chemicals not specifically recommended or other influencing factors in the use of the product, all of which are beyond the control of the seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Seller harmless for any claims relating to such factors.

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Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label, subject to the inherent risks referred to above, when used in accordance with directions under normal conditions of use. 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 and Buyer and User assume the risk of any such use. SELLER DISCLAIMS ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING ANY WARRANTY OF FITNESS OR MERCHANTABILITY.

When Buyer or User claims losses or damages resulting from the use or handling of this product (including claims based on contract, negligence, strict liability or other legal theories), Buyer or User must promptly notify in writing Seller of any claims to be eligible to receive either of the remedies set forth below. The EXCLUSIVE REMEDY OF BUYER OR USER and the LIMIT OF LIABILITY of Seller will be, at the election of Seller, refund of the purchase price paid for product bought, or replacement of amount of product used. SELLER SHALL NOT BE LIABLE FOR CONSEQUENTIAL, SPECIAL OR INDIRECT DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT AND SELLER'S SOLE LIABILITY AND BUYER'S AND USER'S EXCLUSIVE REMEDY SHALL BE LIMITED TO THE REFUND OF THE PURCHASE PRICE.

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