

PM 23

10182-83 UN

STATES ENVIRONMENTAL PROTECTION AGENCY

4/3/97

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Ms. Sandra M. O'Bryan
Zeneca Inc., Zeneca Ag Products
1800 Concord Pike, P.O. Box 15458
Wilmington, DE 19850-5458

NOV 3 1997

Dear Ms. O'Bryan:

SUBJECT: Label Amendment Revising General Information, Tank Mixes, Application
Directions, General Use Precautions, Corn Rotational Crop Intervals and
Weeds Controlled.

Reflex Herbicide

EPA File Symbol: 10182-83

Your Submission Dated August 22, 1997, as Amended October 23, 1997

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:

1. On page 8, in the second paragraph under "Spray Additives", delete the phrase "In soybeans only" or revise it to read "In soybeans". As written, it implies the product is registered for use on other sites.
2. On page 11, delete the heading "Additional Use Precautions - Soybeans", since soybeans is the only site on which the product may be used.
3. On page 17, in footnote "b" below the application rate table, delete the phrase "in soybeans only" or revise it to read "in soybeans". As written, it implies the product is registered for use on other sites.

A stamped copy is enclosed for your records. Please submit one copy of the final printed
labeling before you release the product for shipment.

Sincerely yours,

Joanne I. Miller
Product Manager (23)
Herbicide Branch
Registration Division (7505C)

Enclosure

RD:STANTON:PM Team 23:Rm. 237:CM-2:305-5218:Disk #6:

CONCURRENCES							
SYMBOL ▶	7505C						
SURNAME ▶	S. Stanton						
DATE ▶	Nov 3, 1997						

EPA Form 1320-1 (12-70)

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REFLEX® HERBICIDE

For Control of Weeds in Soybeans
For Postemergence Control of Broadleaf Weeds in Soybeans

COMPLETE DIRECTIONS FOR USE

ACTIVE INGREDIENT:

Sodium salt of fomesafen

5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-

(methylsulfonyl)-2-nitrobenzamide 22.8%*

INERT INGREDIENTS 77.2%

TOTAL 100.0%

*Equivalent to 21.7% fomesafen or 2 pounds fomesafen active ingredient per gallon.

EPA Reg. No. 10182-083
U.S. Patent No. 4,285,723

KEEP OUT OF REACH OF CHILDREN

DANGER - PELIGRO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

Made in U.S.A.
ZENECA Ag Products
ZENECA Inc.
Wilmington, DE 19850-5458

ACCEPTED
with COMMENTS
In EPA Letter Dated
NOV 3 1997

Under the Federal Insecticide,
Fungicide, and Rodenticide Act
as amended, for the pesticide
registered under EPA Reg. No.
10182-83

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**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 ZENECA or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold ZENECA and Seller harmless for any claims relating to such factors.

ZENECA 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 ZENECA, and Buyer and User assume the risk of any such use. ZENECA 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 ZENECA 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 ZENECA 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 ZENECA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

ZENECA 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 ZENECA.

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STATEMENT OF PRACTICAL TREATMENT

IF IN EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

IF SWALLOWED: Call a doctor or get medical attention. Do not induce vomiting. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol.

IF ON SKIN: Immediately remove contaminated clothing and wash thoroughly with plenty of soap and water. Get medical attention.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

FOR 24-HOUR EMERGENCY MEDICAL ASSISTANCE, CALL (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

DANGER

This product contains fomesafen which has been determined to cause tumors in laboratory animals (mice). Risks can be reduced by closely following use directions and precautions and by wearing the protective clothing specified elsewhere on this label.

CORROSIVE. CAUSES IRREVERSIBLE EYE DAMAGE. DUE TO CORROSIVE NATURE, MAY BE HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. Do not get in eyes, on skin or on clothing. Avoid breathing vapors or spray mist.

PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear:

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

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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

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.

This chemical is known to leach through soil into ground water under certain conditions as a result of label use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

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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.

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.
- Waterproof gloves.
- Shoes plus socks.
- Protective eyewear.

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 above 32°F in original containers only. If product freezes, return to room temperature and agitate to reconstitute. 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 acutely hazardous. 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.

Glass Containers: Triple rinse (or equivalent); then dispose of in a sanitary landfill or by other approved State and local procedures.

FOR BULK AND MINI-BULK CONTAINERS:

Container Disposal: Reseal container and offer for reconditioning, or triple rinse (or equivalent) and offer for recycling or reconditioning, or clean in accordance with manufacturer's instructions.

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 REFLEX. The contents of this container cannot be completely removed by cleaning. Refilling with materials other than REFLEX 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.

GENERAL INFORMATION

Read all label directions before using.

REFLEX is a selective herbicide which may be applied preplant, preemergence and/or postemergence for control and suppression of broadleaf weeds, grasses and sedges in soybeans. Soybean plants are tolerant to REFLEX when applied according to labeled rates and uses.

REFLEX is generally most effective and consistent when used postemergence, working through contact action. Therefore, emerged weeds must be thoroughly covered with spray. Some bronzing, crinkling or spotting of labeled crop leaves may occur following postemergent applications, but labeled crops soon outgrow these effects and develop normally.

Optimum broadspectrum weed control is achieved by postemergent applications of REFLEX to young actively growing broadleaf weeds that are not under stress from moisture, temperature, low soil fertility, mechanical or chemical injury.

Certain germinating broadleaf weeds, grasses and sedges may be controlled or suppressed by soil residual activity from either preplant, preemergent or postemergent applications if rainfall occurs shortly after application. The extent and consistency of soil activity is dependent upon soil type, ground cover at time of application, amount of rainfall and the rate of REFLEX used.

~~REFLEX® is a selective postemergence herbicide for control of broadleaf weeds in soybeans. Soybean plants are tolerant to REFLEX when applied at recommended rates. Some bronzing,~~

~~crinkling or spotting of soybean leaves may occur, but soybeans soon outgrow these effects and develop normally.~~

~~REFLEX is effective through contact action, therefore weeds must be thoroughly covered with spray.~~

~~Optimum weed control is achieved when young actively growing weeds are treated that are not under stress from moisture, temperature, low soil fertility, mechanical or chemical injury.~~

~~Secondary flushes of certain weeds may be controlled by soil residual activity if rainfall occurs shortly after application. The extent of soil activity is dependent upon soil type, ground cover at time of application, amount of rainfall and the rate of REFLEX used.~~

APPLICATION DIRECTIONS

Timing - Best broadspectrum postemergence control of susceptible broadleaf weeds is obtained when REFLEX is applied early to actively growing weeds. This usually occurs 14 to 28 days after planting. Refer to the weed tables for specific recommendations on weed growth stages, rates, and regions.

Spray Additives - Only spray additives cleared for use on growing crops under 40 CFR 180.1001 may be used in spray mixture.

~~In soybeans only, for best broadspectrum postemergence control of susceptible broadleaf weeds in Regions 2, 3, 4 and 5 (see Regional Use Maps), REFLEX can be used with a minimum of 2.5% liquid nitrogen (28% or similar) or a minimum of 10 pounds ammonium sulfate per 100 gallons of spray volume.~~

FOR POSTEMERGENCE APPLICATIONS ALWAYS ADD ONE OF THE FOLLOWING:

Nonionic Surfactant (NIS) - Use NIS Add nonionic surfactant containing at least 75% surface active agent at 0.25 to 0.5% (1/2 to 1 pint per 25 gallons) of the finished spray volume to improve contact activity. (For soybeans, use in Region 1 and East of Interstates 79 and 77 for Regions 2 and 3.)

Crop Oil Concentrate (COC) - Use Add a nonphytotoxic COC crop oil concentrate, or a once-refined vegetable oil concentrate (VOC, MSO) containing 15%-20% approved emulsifier, at 0.5-1% (1-2 pints per 25 gallons) of the finished spray volume. Crop oil concentrate COC can improve weed control but may slightly reduce crop tolerance.

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 REFLEX on the target crop through proven field trials and through university and extension recommendations.

~~Note: no adjuvants are needed for preplant or preemergence applications unless REFLEX is being used in a burndown.~~

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.

In addition to crop oil concentrate or nonionic surfactant, liquid nitrogen fertilizer (28% or similar) can be added to the spray mixture. This 28% liquid nitrogen fertilizer is water soluble and should be used at a rate of one gallon per acre. Liquid nitrogen fertilizers should not be used as a substitute for crop oil concentrate or nonionic surfactant in the spray mixture.

In addition to crop oil concentrate or nonionic surfactant, diammonium phosphate (aqueous ammonium polyphosphate) commonly sold as a solution (10-34-0) can be added to the spray mixture. This completely water soluble material should be used at a rate of 2 pts. per acre. Diammonium phosphate should not be used as a substitute for crop oil concentrate or nonionic surfactant in the spray mixture.

MIXING - Fill the clean spray tank with 1/2 the required amount of water. Begin agitation and add the recommended amount of REFLEX herbicide and appropriate amount of approved adjuvant. Add the remaining quantity of water and allow sprayer to agitate and recyle 5-10 minutes before application.

Recommended Mixing Order:

1. Half required amount of water, begin agitation.*
2. Dry pesticide formulations.
3. REFLEX herbicide.
4. Liquid pesticide formulation.
5. Adjuvant (COC or NIS) and fertilizer.

*Compatibility agent, 1 gallon/500 gallons of water or 0.2% v/v, may be added as needed.

GROUND APPLICATION - Use sufficient spray volume and pressure to ensure complete coverage of the target weeds. A spray volume of 10-20 gallons per acre and 30-60 psi at the nozzle tip is recommended. When weed foliage is dense On large weeds and/or dense foliage, use 60 psi and a minimum of 20 gallons per acre to ensure coverage of weed foliage.

Use only hollow cone or flat fan nozzles. The sprayer must be calibrated to provide the proper volume and rate per acre. In addition, the boom and nozzle height must be adjusted to provide complete coverage of all weeds: the target.

DO NOT USE FLOOD TYPE OR OTHER SPRAY NOZZLES, WHICH DELIVER COARSE, LARGE DROPLET SPRAYS.

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM.

BAND APPLICATIONS - Thorough weed coverage is important for postemergent control. Best coverage is obtained with 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 for postemergence applications but is suitable for preemergence applications. Cultivation of untreated areas may be needed following band applications. When making postemergence 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 spray, reducing weed coverage, resulting in less than adequate weed control.

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

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

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

AERIAL APPLICATION - Use sufficient spray volume and pressure to ensure complete coverage of the target weeds. A minimum of 5 gallons per acre of spray mixture should be applied with a maximum of 40 PSI pressure. When broadleaf weed foliage is dense, use a minimum of 10 gallons per acre to ensure coverage of weed foliage.

CULTIVATION - Cultivation prior to application is not recommended. Cultivation may put weeds under stress, reducing weed control. Timely cultivation 1-3 weeks after applying REFLEX may assist weed control.

GENERAL USE PRECAUTIONS

- ~~The maximum rates specified for application are inclusive of all products containing fomesafen.~~
- A maximum of 1.5 pints of REFLEX herbicide (or a maximum of 0.375 lb ai/A of fomesafen from any product containing fomesafen) may be applied per acre per year in Region 1 (see Regional Use Map).
- A maximum of 1.5 pints of REFLEX herbicide (or a maximum of 0.375 lb ai/A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years in Region 2 (see Regional Use Map).
- A maximum of 1.25 pints of REFLEX herbicide (or a maximum of 0.313 lb ai/A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years in Region 3 (see Regional Use Map).
- A maximum of 1 pint of REFLEX herbicide (or a maximum of 0.25 lb ai/A of fomesafen from any product containing fomesafen) may be applied per acre in ALTERNATE years in Region 4 (see Regional Use Map).
- A maximum of 0.75 pint of REFLEX herbicide (or a maximum of 0.1875 lb ai/A of fomesafen from any product containing fomesafen) may be applied per acre in alternate years in Region 5 (see Regional Use Map).
- ~~Apply REFLEX before bloom.~~
- ~~It is recommended that the spray system be Thoroughly cleaned with the spray system with water and a commercial tank cleaner before and after each use.~~
- Tankmixes of REFLEX herbicide with other pesticides, fertilizers or any other additives except as specified on this label or other approved ZENECA supplemental labels may result in tankmix incompatibility, unsatisfactory performance or unsatisfactory crop injury.

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- ~~REFLEX may be mixed with other postemergence pesticides as labeled. Refer to the other pesticide labels for restrictions.~~
- REFLEX herbicide requires a 1-hour rain-free period for best results when applied postemergence.
- Apply postemergence to actively growing weeds. Avoid applying REFLEX to weeds or labeled crops which are under stress from moisture, temperature, low soil fertility, mechanical or chemical injury, as reduced weed control and/or increased crop injury may result.
- Avoid overlapping spray swaths, as injury may occur to rotational crops.
- Avoid drift to all other crops and nontarget areas. Crops other than soybeans may be severely injured by drift. ~~Avoid application~~ Do not apply when wind velocity exceeds 15 mph. Do not make ground or aerial application during temperature inversions.
- To provide adequate coverage, it is recommended that ground speed not exceed 10 mph during application.
- ~~Do not graze treated areas or harvest for forage or hay.~~

ADDITIONAL USE PRECAUTIONS - SOYBEANS

- Apply REFLEX before soybeans bloom.
- Do not graze treated areas or harvest for forage or hay.

ROTATIONAL CROP RESTRICTIONS

The following rotational crops may be planted after applying REFLEX at recommended rates:

<u>Crop To Be Planted</u>	<u>Minimum Rotation Interval (Months After Last REFLEX Application)</u>
Small grains such as wheat, barley, rye	4
Alfalfa, Beans, corn*, cotton, peanuts, peas, rice, <u>seed corn</u>	10
To avoid crop injury do not plant <u>alfalfa</u> , sunflowers, sugar beets, sorghum** or any other crop within	18

Do not graze rotated small grain crops or harvest forage or straw for livestock. In the event of a crop loss due to weather conditions soybeans can be replanted.

* Use 18 month minimum rotation interval for sweet corn in the states of Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, Vermont and Region 5.

** Sorghum may be planted back after 10 months in Region 1.

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REFLEX REGIONAL USE MAP

REFLEX USE RATES AND WEEDS CONTROLLED

REFER TO MAP FOR DEFINITION OF SPECIFIED
GEOGRAPHIC REGIONS

REGION 1

(Maximum Rate 1.5 pints per acre per year)

REGION 1 - Includes the following states or portion of states where REFLEX may be applied: Alabama, Arkansas, Georgia, Louisiana, Mississippi, Missouri (counties of Bollinger, Butler, Cape Girardeau, Dunklin, Madison, Mississippi, New Madrid, Pemiscot, Perry, Ripley, Scott, Stoddard and Wayne), North Carolina, Oklahoma (East of U.S. Highway 75 and East of Indian Nation Parkway), South Carolina, Tennessee, and Texas (includes area east of U. S. Highway 77 to State Road 239 including all of Calhoun County).

(Insert Region 1 Use Map Here)

REGION 2

(Maximum Rate 1.5 pints per acre, alternate years)

REGION 2 - Includes the following states or portion of states where REFLEX may be applied: Delaware, Kentucky, Maryland, Virginia, West Virginia, and South of Interstate 70 in the following states: Illinois, Indiana and Ohio and all areas South of Interstate 80 to the intersection of U.S. Highway 15 and East of U.S. Highway 15 and U.S. Highway 522 in Pennsylvania.

(Insert Region 2 Use Map Here)

REGION 3

(Maximum Rate 1.25 pints per acre, alternate years)

REGION 3 - Includes the following states or portion of states where REFLEX may be applied: Connecticut, Iowa, Maine, Massachusetts, Missouri (all counties except for those listed in Region 1), New Hampshire, New Jersey, New York, Pennsylvania (all areas except those listed in Region 2), Rhode Island, Vermont and Wisconsin (South of U.S. Highway 18 between Prairie Du Chien and Madison, and South of Interstate 94 between Madison and Milwaukee), and North of Interstate 70 in following states: Indiana, Illinois and Ohio.

(Insert Region 3 Use Map Here)

REGION 4

(Maximum Rate 1 pint per acre, alternate years)

REGION 4 - Includes the following states or portion of states where REFLEX may be applied: Kansas (all counties east of U.S. Highway 75), Michigan (all areas south of State Road 55), Minnesota (all areas South of U.S. Highway 212), Nebraska (all areas east of U.S. Highway 81), and Wisconsin (North of U.S. Highway 18 between Prairie Du Chien and Madison, and South of Interstate 94 from Hudson to Madison).

(Insert Region 4 Use Map Here)

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REGION 5

(Maximum Rate 0.75 pint per acre, alternate years)

REGION 5 - Includes the following states or portion of states where REFLEX may be applied:
North Dakota (all areas East of Interstate 29 from Fargo South to the South Dakota State line),
South Dakota (all areas East of Interstate 29 from North Dakota State line to Watertown, all
areas East of U.S. Highway 81 from Watertown to Madison and all areas East and South of State
Road 34 and U.S. Highway 281 to the Nebraska State line) and Minnesota (all areas North of U.
S. Highway 212 and South of Interstate 94).

(Insert Region 5 Use Map Here)

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APPLICATION RATES FOR WEED GROWTH STAGES

		REFLEX Rate (Pts/A)		
		Maximum Growth Stage Controlled At		
Weed	3/4 Pt/A # of True Leaves	1 Pt/A # of True Leaves	1.25 Pts/A # of True Leaves	1.5 Pts/A # of True Leaves
Anoda, Spurred	--	--	--	2
Balloonvine	--	--	2 ^c	2
Carpetweed	--	6" Diameter Size	Multi-leaf 6" Diameter	Unlimited Size
Citron (Wild Watermelon)	--	2	2	4
Cocklebur, Common ^{a,b,d}	--	-	2	4
Copperleaf, Hophornbeam ^d	--	2	2	4
Copperleaf, Virginia	--	2	2	4
Crotalaria, Showy	--	4	4	6
Croton, Tropic ^d	--	2	2	4
Cucumber, Volunteer	--	4	4	6
Eclipta	--	2	2	4
Groundcherry, Cutleaf	--	4	4	6
Hemp ^b	--	--	4	6
Horsenettle ^b	--	2 ^c	3 ^c	4 ^c
Jimsonweed ^d	2	4	6	8
Ladysthumb	--	2	2	4
Lambsquarters, Common ^c	--	2	2	2
Mexicanweed	--	2 ^c	2 ^c	2
Morningglory ^d				
Cypressvine	--	4	4	6
Entireleaf var.	2 ^c	2	2	4
Ivyleaf	2 ^c	2	2	4
Purple Moonflower	--	2	4	4
Red (Scarlet)	--	2	2	4
Smallflower	--	2	2	4
Pitted (Smallwhite)	--	4	4	4
Tall (Common)	2 ^c	2	2	3
Palmleaf (Willowleaf)	--	2	2	4

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	REFLEX Rate (Pts/A)			
	Maximum Growth Stage Controlled At			
Weed	3/4 Pt/A # of True Leaves	1 Pt/A # of True Leaves	1.25 Pts/A # of True Leaves	1.5 Pts/A # of True Leaves
Mustard, Wild	2	4	6	8
Nightshade, Black	2	4	4	4
Nutsedge, Yellow ^a	--	--	--	Suppression Only
Pigweed, spp. ^a	--			
Amaranth, Palmer	2 ^c	4	4	6
Amaranth, Spiny	2 ^c	2	2	4
Redroot	2 ^c	4	6	6
Smooth	2 ^c	4	4	6
Waterhemp, Common	2 ^c	2	2	4
Waterhemp, Tall	2 ^c	2	2	4
Poinsettia, Wild	--	--	--	3
Purslane, Common	--	Multi-Leaf 6" Diameter	Multi-Leaf 6" Diameter	Multi-Leaf 8" Diameter
Pusley, Florida	--	--	--	2
Ragweed, Common ^a	2	4	4	6
Ragweed, Giant ^b	--	--	4	4
Redweed	--	--	--	3 ^c
Sesbania, Hemp	--	6	6	12
Sicklepod	--	--	--	Cotyledon ^c
Sida, Prickly ^a	--	--	--	Cotyledon ^c
Smartweed, Pennsylvania	2 ^c	4	4	6
Smellmelon	--	--	--	2
Spurge, Prostrate	--	--	--	1" Diameter ^c
Spurge, Spotted	--	--	--	2 ^c
Starbur, Bristly	--	2	2	4
Sunflower, Common	--	--	--	2
Velvetleaf ^b	--	--	2	4
Venice Mallow	2	4	4	6
Witchweed	--	Multi-leaf Up to 7"	Multi-leaf Up to 7"	Multi-leaf Up to 10"

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	REFLEX Rate (Pts/A)			
	Maximum Growth Stage Controlled At			
Weed	3/4 Pt/A # of True Leaves	1 Pt/A # of True Leaves	1.25 Pts/A # of True Leaves	1.5 Pts/A # of True Leaves
Yellow Rocket	2	4	6	6

- a Do not apply in cotyledon stage.
- b It is necessary to use 1% MSO and 2.5% UAN v/v as an adjuvant in Regions 2 and 3 in soybeans only.
- c Suppression only.
- d REFLEX may provide preemergence activity at 1-1.5 pints/A.

SPECIAL USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS IN SOYBEANS

Suppression of Annual Grasses:

The grasses listed below may be suppressed by postemergence applications and controlled or suppressed by preemergence applications of REFLEX at 1-1½ pints/acre. Consult Use Rate Table for maximum rate in each region. For full-season broad-spectrum annual grass control, FUSILADE® DX or FUSION® herbicide should be used alone or in tankmix with REFLEX. Consult tankmix section.

Barnyardgrass
Broadleaf Signalgrass
Crabgrass
Foxtail
Giant
Green
Yellow
Goosegrass
Johnsongrass, Seedling
Panicum, Fall
Panicum, Texas

Suppression of Perennial Weeds:

Use of REFLEX postemergence at rates of 1 to 1½ pints/acre will aid in suppressing the above-ground portions of the weeds listed below until crop canopy can assist in suppression. Perennial weeds continue to regrow from underground rootstocks even if above-ground foliage is temporarily controlled or retarded. Even though REFLEX and crop competition can suppress perennial weeds for a growing season, the rootstocks will continue to live and reestablishment will occur in subsequent years.

Milkweed, Climbing
Milkweed, Honeyvine
Bindweed, Field
Bindweed, Hedge
Trumpet creeper

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TANKMIX AND SEQUENTIAL APPLICATIONS FOR SOYBEANS

REFLEX can may be used sequentially or in tankmix with one or more of the following herbicides products: FUSILADE® DX, FUSION®, GRAMOXONE® EXTRA, TOUCHDOWN®, Assure II®, Basagran®, Bugle™, Butyrac®, Classic®, Concert®, Option® II, Pinnacle®, Pursuit®, Poast®, Poast Plus®, Raptor®, Reliance™ STS® SP, Resource®, Roundup®, Roundup® Ultra, Select®, Scepter® and Synchrony® STS®.

Under certain conditions, the mixture of REFLEX with one or more of the above mentioned broadleaf herbicides may cause a reduction in activity of any postemergence grass herbicide in the mixture.

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

NOTE: Tankmix applications can result in increases in crop injury as compared to either product used alone.

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

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APPENDIX

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

COMMON NAME	SCIENTIFIC NAME
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Spiny	<i>Amaranthus spinosus</i>
Anoda, Spurred	<i>Anoda cristata</i>
Balloonvine	<i>Cardiospermum halicacabum</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bindweed, Field	<i>Convolvulus arvensis</i>
Bindweed, Hedge	<i>Calystegia sepium</i>
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>
Carpetweed	<i>Mollugo verticillata</i>
Citron (Wild Watermelon)	<i>Citrullus vulgaris</i>
Cocklebur, Common	<i>Xanthium strumarium</i>
Copperleaf, Hophornbeam	<i>Acalypha ostryifolia</i>
Copperleaf, Virginia	<i>Acalypha virginica</i>
Crabgrass	<i>Digitaria spp.</i>
Crotalaria, Showy	<i>Crotalaria spectabilis</i>
Croton, Tropic	<i>Croton glandulosus</i>
Cucumber, Volunteer	<i>Cucumis sativas</i>
Eclipta	<i>Eclipta prostrata</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Foxtail, Yellow	<i>Setaria glauca</i>
Goosegrass	<i>Eleusine indica</i>
Groundcherry, Cutleaf	<i>Physalis angulata</i>
Hemp	<i>Cannabis sativa</i>
Horsenettle	<i>Solanum carolinense</i>
Jimsonweed	<i>Datura stramonium</i>
Johnsongrass, Seedling	<i>Sorghum halepense</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Mexicanweed	<i>Caperonia castaniifolia</i>

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COMMON NAME	SCIENTIFIC NAME
Milkweed, Climbing	<i>Sarcostemma cyanchoides</i>
Milkweed, Honeyvine	<i>Ampelamus albidus</i>
Morningglory, Cypressvine	<i>Ipomoea quamoclit</i>
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integruscula</i>
Ivyleaf	<i>Ipomoea hederacea</i> var. <i>hederacea</i>
Purple Moonflower	<i>Ipomoea turbinata</i>
Red (Scarlet)	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Pitted (Smallwhite)	<i>Ipomoea lacunosa</i>
Tall (Common)	<i>Ipomoea purpurea</i>
Palmleaf (Willowleaf)	<i>Ipomoea wrightii</i>
Mustard, Wild	<i>Brassica kaber</i>
Nightshade, Black	<i>Solanum nigrum</i>
Nutsedge, Yellow	<i>Cyperus esculentus</i>
Panicum, Fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Pigweed, Redroot	<i>Amaranthus retroflexus</i>
Pigweed, Smooth	<i>Amaranthus hybridus</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Purslane, Common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Ragweed, Giant	<i>Ambrosia trifida</i>
Redweed	<i>Melochia corchorifolia</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Sicklepod	<i>Cassia obtusifolia</i>
Sida, Prickly	<i>Sida spinosa</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Smellmelon	<i>Cucumis melo</i>
Spurge, Prostrate	<i>Euphorbia humistrata</i>
Spurge, Spotted	<i>Euphorbia maculata</i>

COMMON NAME	SCIENTIFIC NAME
Starbur, Bristly	<i>Acanthospermum hispidum</i>
Sunflower, Common	<i>Helianthus annuus</i>
Trumpet creeper	<i>Campsis radicans</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Venice Mallow	<i>Hibiscus trionum</i>
Waterhemp, Common	<i>Amaranthus rudis</i>
Waterhemp, Tall	<i>Amaranthus tuberculatus</i>
Witchweed	<i>Striga asiatica</i>
Yellow Rocket	<i>Barbarea vulgaris</i>

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