



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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

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

FEB 28 2011

Subject: Label Amendment – Adding New Use on Potatoes to Label; Associated with
Establishing Tolerances for Use of Fomesafen on Potatoes, Tomatoes, and Peppers

Product Name: Reflex Herbicide
EPA Registration Number: 100-993
Submission Date: December 21, 2009
Decision Number: 425353

The label amendment referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended is acceptable provided you address the following:

- 1) You must submit the following studies within twelve (12) months from the date on this notice.
 - a) Acute Dermal Toxicity Study (Guideline 869.1200)
 - b) Acute Inhalation Toxicity Study (Guideline 870.1300)
 - c) Skin Sensitization Study (Guideline 869.2600)
 - d) Acute Neurotoxicity Study (Guideline 870.7200)
 - e) Subchronic Neurotoxicity Study (Guideline 870.7200)
 - f) Immunotoxicity Study (Guideline 870.7800)
 - g) Freshwater fish early life-stage toxicity, modified protocol to investigate enhanced toxicity under UV lighting (LDPH herbicides)¹
 - h) Testing using the TGAI for the following data requirements²:
 - i. Freshwater invertebrate acute toxicity (850.1010)
 - ii. Freshwater fish acute toxicity (850.1075)
 - iii. Estuarine/marine fish acute toxicity (850.1025)
 - iv. Estuarine/marine fish early life-stage toxicity (850.1400)
 - v. Avian acute oral toxicity (850.2100)

2) On page 3 in the Personal Protective Equipment (PPE) header, delete the text that reads:

“In additional for aerial applications mixers and loaders handling more than 140 gallons of Reflex Herbicide in any single workday must wear:

- Dust/mist filtering NIOSH-approved respirator with any N, R, P, or HE filter.”

SEE NEXT PAGE

1 Registrant is a member of the LDPH Task Force; therefore, this requirement is already being addressed.
2 Required if previously tested formulation (JF7383) is not representative of formulations marketed in the United States

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Decision Numbers: 409397 & 425353

3) The following text must be added under the Groundwater Advisory section on page 4 of the label:

“Surface Water Advisory

This product may impact surface water quality due to spray drift and runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of fomesafen from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours. See the manual for “Conservation Buffers to Reduce Pesticide Losses” at the following Internet address: <http://www.wsi.nrcs.usda.gov/products/W2Q/pest/core4.html>.”

4) Per Product Registration (PR) Notice 87-1, the following language in quotation marks must be added to the label because the product bears a signal word DANGER:

Label Statements for Chemigated Toxicity Category I Products:

“Posting of areas to be chemigated is required when 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, day care centers, hospitals, in-patient clinics, nursing homes or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to the public such as golf courses or retail greenhouses.”

“Posting must conform to the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive area. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other locations affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in English. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to event deterioration and maintain legibility for the duration of the posting period.”

“All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words KEEP OUT, followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word STOP. Below the symbol shall be the words PESTICIDES IN IRRIGATION WATER.”

“Posting required for chemigation does not replace other posting and reentry interval requirements for farmworker safety.”

- 5) Since no prohibition for connecting to public water systems is on the proposed label, additional text must be added to the irrigation section of the label. Per Product Registration (PR) Notice 87-1, the following language in quotation marks must be placed verbatim on the label in addition to the center pivot irrigation instructions already on the label:

a) Label Statements for Chemigation Systems Connected to Public Water

"Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regular serves an average of at least 25 individuals daily at least 60 days out of the year."

"Chemigation systems connected to public water systems must contain functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe."

"The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection."

"The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down."

"The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected."

"Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock."

"Do not apply when wind speed favors drift beyond the area intended for treatment."

b) Nonspecific Required Label Statements

The following subjects must be addressed using the registrants own wording:

Indicate whether agitation is or is not recommended in the pesticide supply tank. If it is not always recommended, identify the situations when it is recommended (e.g. when tank mixing with other pesticides or fluid fertilizers).

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Label Amendment – Adding New Use on Potatoes

Product Name: Reflex Herbicide

EPA Registration Number: 100-993

Submission Date: April 27, 2009

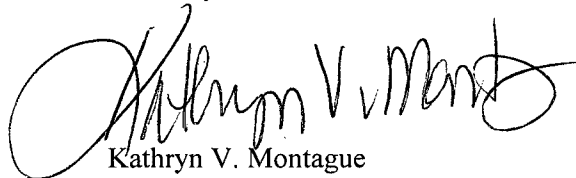
Decision Numbers: 409397 & 425353

- 1. Indicate if the pesticide is to be applied continuously for the duration of the water application. If not, indicate when during the water application the pesticide is to be applied.
- 2. Provide mixing instructions for dilution of the pesticide in the supply tank.

- 6) NOTE: While no additional data is being requested at this time, any marketing claims made on the pesticide label must be substantiated by data maintained in your files. If data supporting marketing claims made on the product label is not available then those claims must be removed.
- 7) NOTE: Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Products shipped after 18 months from the date on this notice or the next printing of the master label whichever occurs first, must bear the new label language. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA. Your release for shipment of this product constitutes acceptance of these conditions. As required, you must submit one copy of the final printed label before the product is released for shipment. If you have any questions please contact Michael Walsh by phone at (703) 308-2972 or via email at "walsh.michael@epa.gov"

Sincerely,



Kathryn V. Montague
 Product Manager (23)
 Herbicide Branch
 Registration Division (7505P)

Enclosure

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U.S. Label
Reflex Herbicide
EPA Reg. No. 100-993
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IMPORTANT NOTICE
U.S. LABEL – It is a violation of United States law to use this product in the United States in a manner inconsistent with its United States labeling.

GROUP **14** HERBICIDE

Reflex®
Herbicide

For Control of Certain Weeds in Cotton, Dry Beans, Potatoes, Snap Beans, and Soybeans

Active Ingredient/Guarantee:	
Sodium salt of fomesafen	
5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide.....	22.8%
Other Ingredients:	77.2%
<hr/> Total:	<hr/> 100.0%

Contains 1,2-benzisothiazolin-3-one at 0.02% as a preservative.

Equivalent to 21.7% or 2 pounds per U.S. gallon or 240 grams per liter of fomesafen active ingredient.

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.)

See additional precautionary statements and directions for use inside booklet.

EPA Reg. No. 100-993
EPA Est.

Product of
Formulated in

SCP 993A-

2.64 gallons/10 liters
Net Contents

ACCEPTED
with COMMENTS
In EPA Letter Dated:

FEB 28 2011

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

100-993

FIRST AID	
If in eyes	<ul style="list-style-type: none"> • Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. • Call a poison control center or doctor for treatment advice.
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. • Call a poison control center or doctor for further treatment advice.
NOTE TO PHYSICIAN	
Probable mucosal damage may contraindicate the use of gastric lavage.	
Have the product container or label with you when calling a poison control center or doctor or going for treatment.	
HOTLINE NUMBER	
For 24 Hour Medical Emergency Assistance (Human or Animal) Or Chemical Emergency Assistance (Spill, Leak, Fire or Accident) Call 1-800-888-8372	

PRECAUTIONARY STATEMENTS

Hazards To Humans And Domestic Animals

DANGER

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.

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Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate or Viton®
- Shoes plus socks
- Protective eyewear

In addition for aerial applications mixers and loaders handling more than 140 gallons of Reflex Herbicide in any single workday must wear:

- Dust/mist filtering NIOSH-approved respirator with any N, R, P, or HE filter.

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 exist, 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 thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE 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

For Terrestrial Uses: 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 washwater or rinsate. Do not apply when weather conditions favor drift from target area.

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Reflex Herbicide
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Groundwater Advisory

This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where permeable, particularly where the water table is shallow.

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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 must 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. To the extent permitted by applicable law, 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. To the extent permitted by applicable law: (1) this warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or Syngenta, and, (2) Buyer and User assume the risk of any such use. To the extent permitted by applicable law, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.

To the extent permitted by applicable law, in no event shall Syngenta be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, 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 Limitation of Warranty and 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

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
- Chemical-resistant gloves such as barrier laminate or Viton
- Shoes plus socks
- Protective eyewear

PRODUCT INFORMATION

Read all label directions before using.

Reflex is a selective herbicide which may be applied preplant surface, preemergence and/or postemergence for control or partial control of broadleaf weeds, grasses and sedges in cotton, dry beans, potatoes, snap beans, and soybeans.

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Preplant Surface and Preemergence Applications

Certain germinating broadleaf weeds, grasses and sedges can be controlled or partially controlled by soil-residual activity from either preplant surface or preemergence applications of Reflex. Moisture is necessary to activate Reflex in soil for residual weed control. Dry weather following applications of Reflex may reduce effectiveness. When adequate moisture is not received after a Reflex application, weed control may be improved by overhead irrigation with at least a ¼ inch of water.

Postemergence Applications

Reflex is generally most effective when used postemergence, working through contact action. Therefore, emerged weeds must have thorough spray coverage for effective control. Best broad-spectrum postemergence control of susceptible broadleaf weeds is obtained when Reflex is applied early to actively growing weeds. This usually occurs within 14 to 28 days after planting. Refer to the weed control tables for specific recommendations on weed growth stages and rates.

Some bronzing, crinkling or spotting of labeled crop leaves may occur following postemergence applications, but labeled crops soon outgrow these effects and develop normally.

Soil Characteristics

Application of Reflex to soils with high organic matter and/or high clay content may require higher rates than soils with low organic matter and/or low clay content. Refer to the Reflex Regional Use Map, weed control tables, and specific crop use sections for recommendations on use rates based on soil texture.

Environmental and Agronomic Conditions

Always apply Reflex under favorable environmental conditions that promote active weed growth. Avoid applying Reflex to weeds or labeled crops which are under stress from drought, extreme temperatures, excessive water, low humidity, low soil fertility, mechanical or chemical injury as reduced weed control and/or increased crop injury may result.

Rainfastness

Reflex requires a 1 hour rain-free period for best results when applied postemergence.

Cultivation

Cultivation prior to postemergence 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.

Information on Weed Resistance

Naturally occurring biotypes of certain broadleaf 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 similar mode of action products are not recommended. Consult your local company representative or agricultural advisor for assistance.

APPLICATION DIRECTIONS

Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator and grower must consider the interaction of equipment and weather-related factors to ensure that the potential for drift to sensitive nontarget plants is minimal.

This pesticide may only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, nontarget plants) is minimal (i.e., when the wind is blowing away from the sensitive area).

Spray Additives

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

For Postemergence Applications Always Add One Of The Following Except in Tank Mix With Products Prohibiting Spray Additives:

Nonionic Surfactant (NIS) - Use NIS containing at least 75% surface active agent at 0.25 to 0.5% v/v (1-2 qts./100 gals.) of the finished spray volume.

Crop Oil Concentrate (COC) - Use a nonphytotoxic COC containing 15-20% approved emulsifier, at 0.5-1% v/v (0.5-1 gal./100 gals.) of the finished spray volume. 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 surface or preemergence applications unless Reflex is being used in a burndown on emerged weeds.

Recommended Mixing Order:

1. Fill the spray tank with half the required amount of water and begin agitation.*
2. Add dry pesticide formulations.
3. Add Reflex Herbicide.
4. Add liquid pesticide formulations.
5. Add spray adjuvant and fertilizer (if used).
6. Add the remaining water and maintain agitation throughout the spray operation.

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

Tank-Mix Compatibility Test

A jar test is recommended prior to tank mixing to ensure compatibility of Reflex Herbicide with mixture partners. Add proportion amounts of tank mixture components in a clear quart jar one at a time in the recommended mixing order. Gently shake or invert capped jar and let stand for 15-30 minutes. If the mixture clumps, forms flakes, oily films or layers or other precipitates, it is not compatible and the tank mixture should not be used.

GROUND APPLICATION

Preplant Surface and Preemergence Application - Use a minimum of 10 gallons per acre. Nozzle selection should meet manufacturer's gallonage and pressure recommendations for preplant surface or preemergence applications.

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

The use of flat fan nozzles will result in the most effective postemergence application of Reflex. Use nozzles that are set up to deliver medium quality spray (ASAE Standard S-572).

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

BAND APPLICATIONS

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

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

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

Note: Thorough weed coverage is important for postemergence band applications. 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.

AERIAL APPLICATION

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

DO NOT APPLY THIS PRODUCT THROUGH ANY TYPE OF IRRIGATION SYSTEM, EXCEPT CENTER PIVOT SYSTEMS.

CENTER PIVOT IRRIGATION APPLICATION

~~Reflex alone or in tank mixture with other herbicides on this label, which are registered~~ for center pivot application, may be applied in irrigation water preemergence (after planting but before weeds or crop emerge) at rates recommended on this label. Reflex also may be applied postemergence to the crop and preemergence to weeds in crops where postemergence applications are allowed on this label. Follow all restrictions (height, timing, rate, etc.) to avoid illegal residues. Apply this product only through a center pivot irrigation system. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform distribution of treated water. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Operating Instructions

- The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
- The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distributions adversely affected.
- Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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- Do not apply when wind speed favors drift beyond the area intended for treatment.
- Prepare a mixture with a minimum of 1 part water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of equipment. Maintain sufficient agitation to keep the herbicide in suspension.
- Meter into irrigation water during entire period of water application.
- Apply in ½-1 inch of water. Use the lower water volume (½ inch) on *coarser soils* and the higher volume (1 inch) on *fine-textured soils*. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

Precaution for center pivot applications: Where sprinkler distribution patterns do not overlap sufficiently unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

RESTRICTIONS AND PRECAUTIONS

- A maximum of 1.5 pts. of Reflex Herbicide **(or a maximum of 0.375 lb. a.i./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 pts. of Reflex Herbicide **(or a maximum of 0.375 lb. a.i./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 pts. of Reflex Herbicide **(or a maximum of 0.313 lb. a.i./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 pt. of Reflex Herbicide **(or a maximum of 0.25 lb. a.i./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 pt. of Reflex Herbicide **(or a maximum of 0.1875 lb. a.i./A of fomesafen from any product containing fomesafen)** may be applied per acre in ALTERNATE years in Region 5 (see Regional Use Map).
- Thoroughly clean the spray system with water and a commercial tank cleaner before and after each use.

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- Tank mixes of Reflex Herbicide with other pesticides, fertilizers or any other additives except as specified on this label or other approved Syngenta supplemental labels may result in tank-mix incompatibility, unsatisfactory performance or unsatisfactory crop injury.
- Avoid overlapping spray swaths, as injury may occur to rotational crops.
- To provide adequate coverage, it is recommended that ground speed not exceed 10 mph during application.
- Avoid drift to all other crops and nontarget areas. Crops other than those labeled may be severely injured by drift. Do not apply when wind velocity exceeds 15 mph.
- Do not make ground or aerial application during temperature inversions.

Replanting

If replanting is necessary in fields previously treated with Reflex, the field may be replanted to cotton, dry beans, potatoes, snap beans or soybeans. During replanting, a minimum of tillage is recommended to preserve the herbicide barrier for effective weed control. Do not apply a second application of Reflex or other fomesafen containing product as crop injury or illegal residues may occur in harvested crops. If tank-mix combinations were used, refer to product labels for any additional replanting instructions.

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ROTATIONAL CROP RESTRICTIONS

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

Crop To Be Planted	Minimum Rotation Interval (After Last Reflex Application)
Cotton, dry beans, potatoes, snap beans, soybeans	0 days
Small grains such as wheat, barley, rye	4 months
Corn*, peanuts, peas, rice, seed corn	10 months
To avoid crop injury do not plant alfalfa, sunflowers, sugar beets, sorghum** or any other crop within	18 months

Do not graze rotated small grain crops or harvest forage or straw for livestock.

- * Use a 12 month minimum rotation interval for popcorn in the states of Ohio, Kentucky, Illinois, Indiana, Iowa, and Region 4 when applied at rates of 1.0 pint per acre or more.
- * 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.

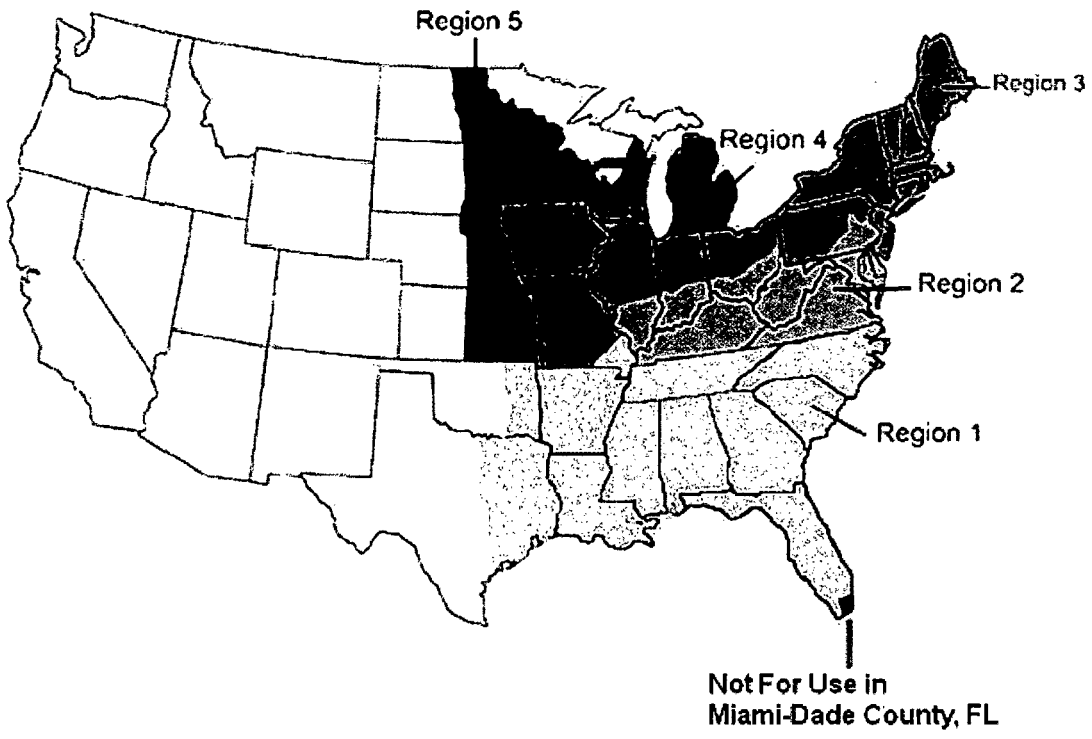
**Sorghum may be planted back after 10 months in Region 1.

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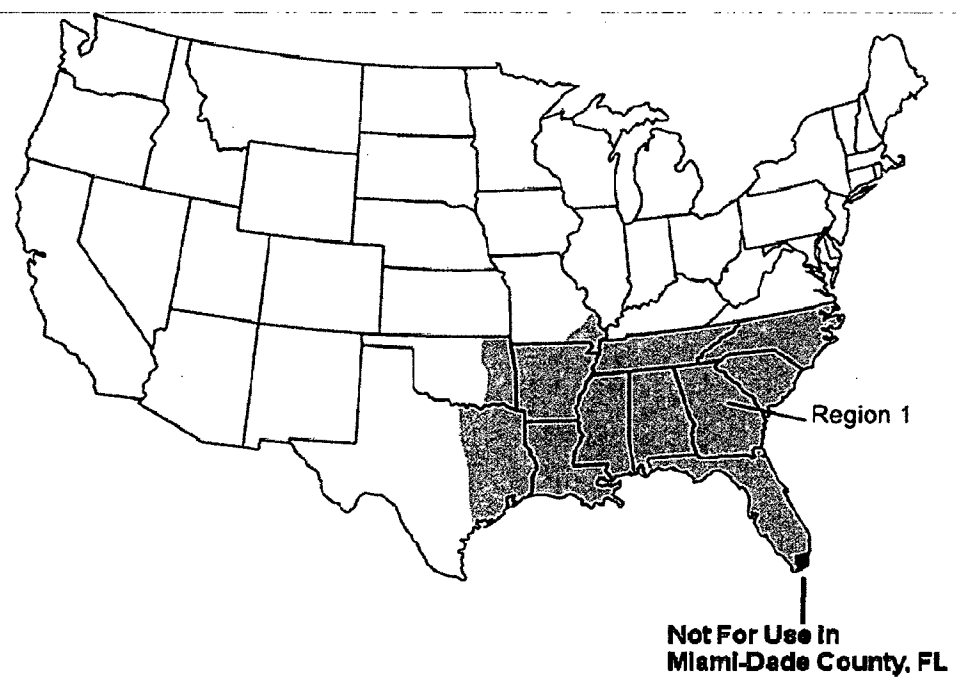
U.S. Label
Reflex Herbicide
EPA Reg. No. 100-993
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USE RATES AND WEEDS CONTROLLED

REFLEX REGIONAL USE MAP



REGION 1
(Maximum Rate 1.5 pts./A per year)



REGION 1 - Includes the following states or portion of states where Reflex may be applied: Alabama, Arkansas, Florida (except Miami-Dade County), 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).

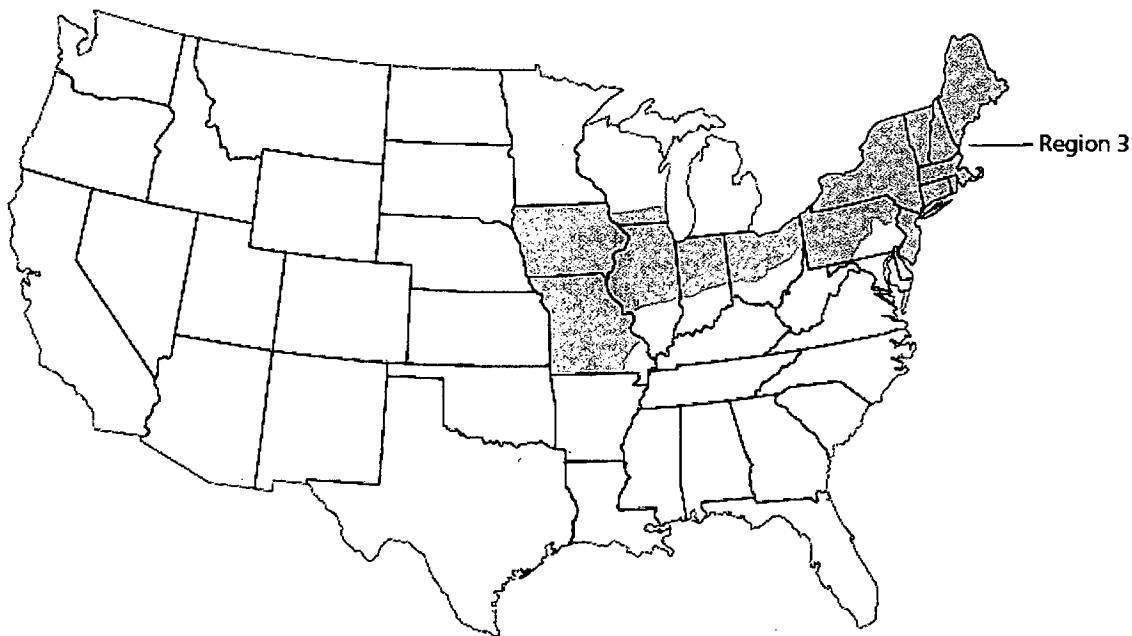
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REGION 2
(Maximum Rate 1.5 pts./A, alternate years)



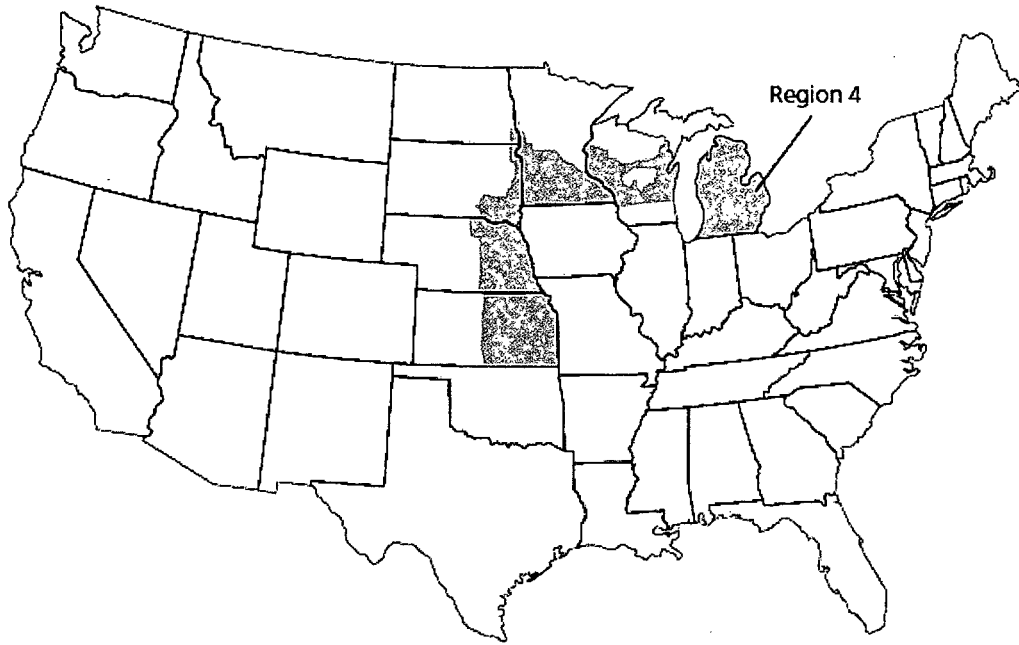
REGION 2 - Includes the following states or portion of states where Reflex may be applied: Delaware, Kentucky, Maryland, Virginia, West Virginia, South of Interstate 70 in the following states: Illinois, Indiana and Ohio and all areas South of Interstate 80 to the intersection of U.S. Highway 15 and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

REGION 3
(Maximum Rate 1.25 pts./A, alternate years)



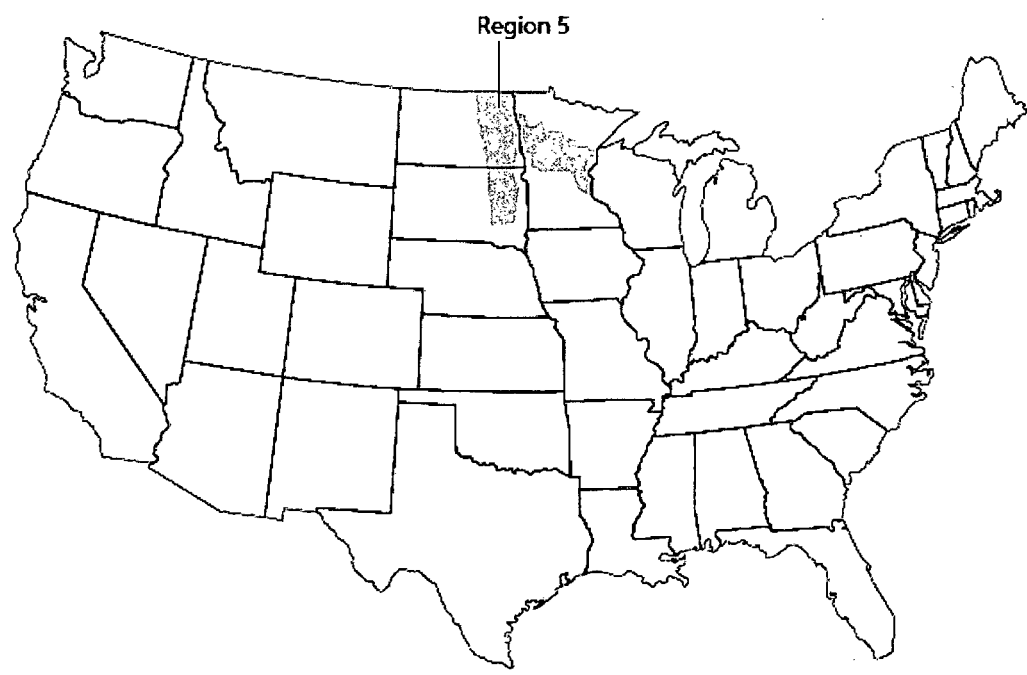
REGION 3 - Includes the following states or portion of states where Reflex may be applied: Connecticut, Iowa, Maine, Massachusetts, Missouri (all counties except for those listed in Region 1), New Hampshire, New Jersey, New York, Pennsylvania (all areas except those listed in Region 2), Rhode Island, 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.

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 or intersected by U.S. Highway 281), Michigan (Southern Peninsula), Minnesota (all areas South of Interstate 94), Nebraska (all counties East of or intersected by U.S. Highway 281), and Wisconsin (all areas, except those in Region 3, South of Interstate 94 from Minnesota state line to Eau Claire and South of U.S. Highway 29 from Eau Claire to Green Bay plus Barron, Chippewa, Clark, Door, Dunn, Eau Claire, Kewaunee, Marathon, Menominee, Oconto, Polk, Shawano, and St. Croix counties. The following counties are excluded: Adams, Marquette, Portage, Waupaca, Waushara and Wood). 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 the North Dakota state line to Watertown, all areas East of 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).

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 U.S. Highway 281 except those areas in Region 4), South Dakota (all areas East of U.S. Highway 281 except those areas in Region 4) and Minnesota (all areas South of U.S. Highway 2 except those areas in Region 4).

WEEDS CONTROLLED

Table 1. Weeds controlled or partially controlled* by preemergence activity of Reflex at 1 to 1.5 pts./A¹.

Broadleaf Weeds Controlled	Soil Texture	Organic Matter
Amaranth, Palmer	All soil types	Up to 5%
Croton, tropic ²		
Eclipta		
Galinsoga spp.		
Lambsquarters, common		
Morningglory, smallflower		
Nightshade, black		
Nightshade, Eastern black		
Pigweed, redroot		
Pigweed, smooth		
Poinsettia, wild		
Purslane, common		
Ragweed, common ²		
Sida, prickly ²		
Starbur, bristly		
Broadleaf Weeds Partially Controlled*		
Anoda, spurred		
Cocklebur, common		
Morningglory, entireleaf		
Morningglory, ivyleaf		
Morningglory, pitted		
Morningglory, red/scarlet		
Morningglory, tall		
Nightshade, hairy		
Ragweed, giant		
Waterhemp, common		
Sedges Partially Controlled*		
Nutsedge, yellow		

*Partial control means significant activity but not always at a level considered acceptable for commercial weed control.

¹Use the higher end of the rate range when heavy weed populations are anticipated.

²Rates less than 1.5 pts./A will provide only partial control of this weed.

Table 2. Weeds controlled or partially controlled* by postemergence activity of Reflex

Weed	Reflex Rate (pt./A)			
	Maximum Growth Stage Controlled At			
	0.75 pt./A No. of True Leaves	1 pt./A No. of True Leaves	1.25 pts./A No. of True Leaves	1.5 pts./A No. 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}	--	-	2	4
Copperleaf, Hophornbeam	--	2	2	4
Copperleaf, Virginia	--	2	2	4
Crotalaria, Showy	--	4	4	6
Croton, Tropic	--	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	2	4	6	8
Ladysthumb	--	2	2	4
Lambsquarters, Common ^c	--	2	2	2
Mexicanweed	--	2 ^c	2 ^c	2
Morningglory				
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
Mustard, Wild	2	4	6	8
Nightshade, Black	2	4	4	4

Weed	Reflex Rate (pt./A)			
	Maximum Growth Stage Controlled At			
	0.75 pt./A No. of True Leaves	1 pt./A No. of True Leaves	1.25 pts./A No. of True Leaves	1.5 pts./A No. of True Leaves
Nutsedge, Yellow	--	--	--	Suppression Only
Pigweed				
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
Poinsettia, Wild	--	--	--	3
Purslane, Common	--	Multi-Leaf 6" Diameter	Multi-Leaf 6" Diameter	Multi-Leaf 8" Diameter
Pusley, Florida	--	--	--	2
Ragweed, Common	2	4	4	6
Ragweed, Giant ^b	--	--	4	4
Redweed	--	--	--	3 ^c
Sesbania, Hemp	--	6	6	12
Sicklepod	--	--	--	Cotyledon ^c
Sida, Prickly	--	--	--	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"
Waterhemp, Common	2 ^c	2	2	4
Waterhemp, Tall	2 ^c	2	2	4
Yellow Rocket	2	4	6	6

*Partial control means significant activity but not always at a level considered acceptable for commercial weed control.

^aDo not apply in cotyledon stage.

^bFor effective control of this weed it is necessary to use 1% MSO and 2.5% UAN v/v as an adjuvant in Regions 2 and 3 (soybeans only).

^cPartial control.

SPECIAL USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS

Partial Control* of Annual Grasses

The grasses listed below may be partially controlled by preemergence applications of Reflex at 1-1.5 pts./A.

- Crabgrass
- Goosegrass
- Panicum, Texas
- Signalgrass, broadleaf

The grasses listed below may be partially controlled by postemergence applications of Reflex at 1-1.5 pts./A.

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

Partial Control* of Perennial Weeds

Use of Reflex postemergence at rates of 1-1.5 pts./A 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

*Partial control means significant activity but not always at a level considered acceptable for commercial weed control.

CROP USE DIRECTIONS

COTTON

Preemergence Application

Apply Reflex preemergence at 1-1.5 pts./A in cotton for control or partial control of the weeds listed in Table 1. Apply as a preemergence treatment only to coarse textured soils (sandy loam, loamy sand, sandy clay loam). **Do not** apply as a preemergence treatment to medium or fine-textured soils as crop injury will likely occur.

To broaden the weed control spectrum, Reflex may be tank mixed with other preemergence herbicides such as Caparol®, Cotoran®, Direx®, Karmex®, Solicam®, or Staple®. For control of emerged weeds, Reflex may be tank mixed with a burndown herbicide such as Gramoxone Inteon™ or glyphosate brands (such as Touchdown®, Roundup®) labeled in cotton. In reduced tillage plantings, Reflex can be applied up to 14 days prior to planting or at planting with a burndown herbicide. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

Cotton plants are tolerant to preemergence applications of Reflex when applied at recommended rates and to coarse textured soil types. Some crinkling or spotting of cotton foliage or stunting may occur, especially if heavy rainfall occurs during or soon after cotton emergence, but cotton plants normally outgrow these effects and develop normally.

Cotton foliage is not tolerant to Reflex. Do not apply Reflex over the top of emerged cotton as unacceptable cotton injury will occur.

Post-Directed Application

Apply Reflex in emerged cotton as a post-directed treatment using precision post-directed, hooded or shielded application equipment to provide complete coverage of emerged weeds. Apply Reflex at 1-1.5 pints per acre in a minimum of 10 gallons spray solution per acre. Applications may be made broadcast or banded. Post-directed applications of Reflex will provide contact control of labeled emerged weeds and residual preemergence control of labeled weeds (once activated by rainfall or irrigation). See previous label sections for a list of weeds controlled, recommended application rates, weed growth stages, and application directions.

Reflex should be applied with a non-ionic surfactant at 0.25 to 0.5% v/v, or crop oil concentrate at 1% v/v to emerged weeds. Do not add liquid nitrogen (28% or similar) to Reflex, or Reflex tank mixes in cotton.

To broaden the weed control spectrum, post-directed applications of Reflex may be tank mixed with other labeled post-directed herbicides such as Caparol, DSMA, Direx, Dual MAGNUM®, Envoke®, Karmex, Layby™ Pro, MSMA, Sequence®, or Suprend®.

~~When applied with hooded or shielded sprayers, Reflex and Reflex tank mixes may be~~ applied with burndown products such as Gramoxone Inteon, Sequence or glyphosate brands (such as Touchdown, Roundup) labeled for in crop application in cotton. Refer to the tank-mix partner label for use directions, restrictions and limitations. The most restrictive product labeling applies.

Cotton foliage is not tolerant to Reflex applications. Avoid contact to cotton foliage as unacceptable injury will occur. Application equipment should be calibrated (spray pressure, nozzle type and configuration, and orifice size) to avoid fine spray droplets contacting green cotton stems and foliage.

Post-Directed Application Timing in Cotton

Reflex may be applied to cotton at least 6 inches in height through layby as a post-directed application. All post-directed applications should avoid spray contact with any green non-barked parts of the cotton plant or foliage as unacceptable injury will occur. Follow the application timing recommendations below for post-directed applications in cotton.

Shield and Hooded Applications

Make a precision post-directed Reflex application to the base of the cotton plant avoiding contact with the cotton stem or foliage when cotton is at least 6 inches in height to avoid cotton injury. Use only hooded or shielded spray equipment to apply Reflex in cotton that is 6 inches to 12 inches in height. Adjust nozzles to provide full coverage of emerged target weeds.

Layby Applications

Make a post-directed Reflex application to the base of the cotton plant avoiding contact with any non-barked portion of the cotton plant or foliage. Use precision post-directed equipment or hooded or shielded sprayers on cotton that has developed a minimum of 4 inches of brown bark through layby. Application equipment should be configured to provide full coverage of emerged target weeds.

Product Use Restrictions - Cotton

Do not apply Reflex later than 70 days before harvest.

Do not apply more than 1.5 pints per acre of Reflex in any year.

**Special Use Directions for the Suppression of Woollyleaf Bursage (Lakeweed),
Ambrosia grayi, in Texas**

Apply Reflex to cultivated areas of cropland in the fall or spring as a spot treatment at a rate of 1.5 pints per acre and incorporate to a depth of 2-3 inches for suppression of woollyleaf bursage. Applications should be made with ground equipment.

The use of adjuvants, as specified under the Spray Additives section, will significantly improve the initial burndown of any emerged woollyleaf bursage, but this effect is only temporary. Therefore, an adjuvant may be used if desired, but is not necessary.

Significant suppression may not be seen until 6-8 months after application, but should then continue for at least 2 years after application. Cotton or soybeans may be planted in treated areas. Under certain conditions, significant damage may occur to cotton planted within 18 months of application. A 3-year interval from last application to planting is required for all other crops.

Do not make more than one application of Reflex per year. Do not apply more than 1.5 pints per acre of Reflex in any year. If two consecutive year applications are made, allow a 2 year interval before another application.

DRY BEANS AND SNAP BEANS

Preplant Surface and Preemergence Application

Apply Reflex as a preplant surface or preemergence application in Regions 1, 2, 3, and 4 only for control or partial control of the weeds listed in Table 1. Reflex can be applied alone, or tank mixed or followed sequentially with other labeled dry bean or snap bean herbicides to broaden the weed control spectrum or control newly emerged weeds. Refer to the **Tank Mix and Sequential Application** section for additional information.

NOTE: Treated soil that is splashed onto newly emerged seedlings may result in temporary crop injury but plants normally outgrow these effects and develop normally.

Postemergence Application

Apply Reflex as a postemergent broadcast application in Regions 1, 2, 3, 4 and 5 for control or partial control of the weeds listed in Table 2 and in the **Special Use Directions For Additional Weed Problems** section. Application rate depends on weed species and growth stage. Two applications may be made if necessary but not to exceed the maximum rate specified per geographic region. (Refer to map for definition of specified geographic regions). Refer to the Spray Additive section for recommended spray additives. Use of crop oil concentrate can improve weed control but may slightly reduce crop tolerance. Do not use UAN (28% or similar) or ammonium sulfate on dry beans or snap beans as severe crop injury may occur. Apply when dry beans or snap beans have at least one fully expanded trifoliate leaf.

Reflex can be applied alone or in tank mix with other labeled dry bean or snap bean postemergence herbicides to broaden the weed control spectrum. Refer to the **Tank Mix and Sequential Application** section.

Some bronzing, crinkling or spotting of dry bean or snap bean leaves may occur following postemergent applications, but dry beans and snap beans soon outgrow these effects and develop normally.

Tank Mix and Sequential Applications for Dry Beans and Snap Beans

Reflex can be used sequentially or in tank mix with the following products:

Dry Beans and Snap Beans

Dry Beans Only

- Assure II®
- Basagran®
- Dual MAGNUM
- Eptam®
- Poast®
- Prowl®
- Pursuit®
- Raptor®
- Treflan®

- Frontier®
- Select®
- Sonalan®

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 postemergence grass herbicide before applying Reflex or Reflex mixtures. Where 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: Tank-mix applications can result in increased 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 tank mix. The most restrictive labeling of any product used applies.

Product Use Restrictions – Dry Beans and Snap Beans

- Refer to Reflex Regional Use Map for the maximum rate of Reflex (or other fomesafen containing products) that may be applied in each geographic region.

- Do not apply to any field in Regions 2, 3, 4 or 5 more than once every two years.
- **For snap beans:** Do not exceed 1.5 pints of Reflex per acre in any one year and also adhere to the maximum rate that may be applied in each geographic region (refer to the Reflex Regional Use Map). Do not graze treated areas or harvest for forage or hay. Do not utilize hay or straw for animal feed or bedding. Do not apply within 30 days of harvest.
- **For dry beans:** Do not exceed 1.5 pints of Reflex per acre in any one year and also adhere to the maximum rate that may be applied in each geographic region (refer to the Reflex Regional Use Map). Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding. Do not apply within 45 days of harvest.

POTATOES

Apply Reflex at 1 pt./A as a broadcast preemergence application after planting but before potato emergence for control or partial control of weeds listed in Table 1. Effectiveness will be reduced if later cultural practices expose untreated soil. For application by center pivot irrigation, see the Center Pivot Irrigation Application section of this label.

Note: Potato varieties may vary in their response to Reflex. When using Reflex for the first time on a particular variety, always determine crop tolerance before using.

Tank Mixtures With Other Products Registered for Use in Potatoes:

For preemergence applications in potatoes, Reflex may be tank mixed with other pesticide products registered for use in this way and timing in potatoes. Follow the directions for use, observe the stated precautions, and abide by the limitations and restrictions on the most restrictive of the product labels. If you have no previous experience mixing these products under your conditions, perform a compatibility test before attempting large-scale mixing (see Tank Mix Compatibility Test section of this label).

Product Use Restrictions – Potatoes

- Do not exceed 1 pt./A of Reflex per season. Refer to Reflex Regional Use Map for the maximum rate of Reflex (or other fomesafen containing products) that may be applied per year or alternate year in each geographic region.
- Do not harvest potatoes treated with Reflex within 70 days of application.
- Do not apply Reflex to sweet potatoes or yams.

- Do not apply Reflex as a preplant incorporated application in potatoes or crop injury may occur.
- Do not apply to emerged potato plants or severe crop injury will occur.

SOYBEANS

Preplant Surface and Preemergence Application

Apply Reflex as a preplant surface or preemergence application in Regions 1, 2, 3, and 4 only for control or partial control of the weeds listed in Table 1. Reflex can be applied alone or tank mixed or followed sequentially with other labeled soybean herbicides to broaden the weed control spectrum or control newly emerged weeds. Refer to the **Tank Mix and Sequential Application** section for additional information.

For control of emerged weeds, Reflex may be tank mixed with a burndown herbicide such as Gramoxone Inteon or glyphosate brands (such as Touchdown or Roundup) labeled in soybeans. In reduced tillage plantings, Reflex can be applied up to 14 days prior to planting or at planting with a burndown herbicide.

Postemergence Application

Apply Reflex as a postemergence broadcast application in Regions 1, 2, 3, 4 and 5 for control or partial control of weeds listed in Table 2 and in the **Special Use Directions For Additional Weed Problems** section. Application rate depends on weed species and growth stage. Refer to the Spray Additive section for recommended spray additives. To enhance postemergence control of susceptible broadleaf weeds (**soybeans only**) in Regions 2, 3, 4 and 5 (see Reflex Regional Use Map), 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.

Reflex can be applied alone or in combination with other labeled soybean postemergence herbicides to broaden the weed control spectrum. Refer to the **Tank Mix and Sequential Application** section.

Some bronzing, crinkling or spotting of soybean leaves may occur following postemergent applications, but soybeans soon outgrow these effects and develop normally.

Tank Mix and Sequential Applications For Soybeans

Reflex can be used sequentially or in tank mix with one or more of the following products: Assure II, Basagran, Boundary®, Butyrac®, Classic®, Dual-MAGNUM, Dual II MAGNUM®, FirstRate®, Fusilade® DX, Fusion®, Glyphosate (such as Touchdown, Roundup or Glyphomax™), Gramoxone Inteon, Harmony® GT XP, Pursuit, Poast, Poast Plus®, Prowl, Raptor, Resource®, Select®, Sequence, 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 postemergence grass herbicide before applying Reflex or Reflex mixtures. Where Reflex or the Reflex mixture is applied first, apply the postemergence grass herbicide when the grass weeds begin to develop new leaves (generally around 7 days).

NOTE:

- Tank-mix applications can result in increased crop injury as compared to either product used alone.
- Do not exceed 1 fl. oz. of Butyrac per acre in mixture with Reflex.
- Do not exceed 0.25 oz./A of Synchrony STS herbicide in the tank with labeled rates of Reflex on non-STs varieties. This tank mix can be applied postemergence to any soybean variety for additional broadleaf weed control. Refer to the Synchrony STS label for more information and crop rotation restrictions.
- Always read and follow the recommendations, restrictions and limitations for all products whether used alone, sequentially or in a tank mix. The most restrictive labeling of any product used applies.

Roundup Ready® (Glyphosate Tolerant) Soybean Tank Mixes

Reflex at 6-12 oz./A, can be tank mixed with glyphosate products (such as Touchdown or Roundup) that are labeled for Roundup Ready (glyphosate tolerant) soybeans for improved postemergence control of many weeds such as morningglory spp., hemp sesbania, waterhemp, and black nightshade which are known to have tolerance to glyphosate, but are susceptible to Reflex.

FOLLOW THE RECOMMENDATIONS ON THE GLYPHOSATE PRODUCT LABEL FOR THE USE OF SPRAY ADDITIVES IN THIS TANK MIX.

Do not allow this tank mix to move off target as contact by even minute quantities can cause severe damage or death to any non-target vegetation.

NOTE: Postemergence application of this tank mix 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.

Product Use Restrictions – Soybeans

- Refer to Reflex Regional Use Map for the maximum rate of Reflex (or other fomesafen containing products) that may be applied in each geographic region. Do not apply to any field in Regions 2, 3, 4 or 5 more than once every two years.
- Do not exceed 1.5 pints of Reflex per acre in any one year and also adhere to the maximum rate that may be applied in each geographic region (refer to the Reflex Regional Use Map). Do not graze treated areas or harvest for forage or hay. Do not apply within 45 days of harvest.

AERIAL SPRAY DRIFT MANAGEMENT ADVISORY

SPRAY DRIFT MANAGEMENT

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR. The interaction of many equipment and weather related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the **Aerial Drift Reduction Advisory Information**.

Aerial Drift Reduction Advisory Information

IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See **Wind, Temperature and Humidity**, and **Temperature Inversion** sections of this label).

CONTROLLING DROPLET SIZE

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

BOOM LENGTH

For some use patterns, reducing the effective boom length to less than $\frac{3}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

APPLICATION HEIGHT

Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

WIND

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

TEMPERATURE INVERSIONS

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

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>
Milkweed, Climbing	<i>Sarcostemma cyanchoides</i>
Milkweed, Honeyvine	<i>Ampelamus albidus</i>

COMMON NAME	SCIENTIFIC NAME
Morningglory	
Cypressvine	<i>Ipomoea quamoclit</i>
Entireleaf var.	<i>Ipomoea hederacea</i> var. <i>integruscula</i>
Ivyleaf	<i>Ipomoea 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>Sinapis arvensis</i>
Nightshade, Black	<i>Solanum nigrum</i>
Nightshade, Eastern Black	<i>Solanum ptychanthum</i>
Nightshade, Hairy	<i>Solanum physalifolium</i>
Nutsedge, Yellow	<i>Cyperus esculentus</i>
Panicum, Fall	<i>Panicum dichotomiflorum</i>
Panicum, Texas	<i>Panicum texanum</i>
Pigweed, Amaranth	<i>Amaranthus palmeri</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>Senna obtusifolia</i>
Sida, Prickly	<i>Sida spinosa</i>
Signalgrass, Broadleaf	<i>Brachiaria platyphylla</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Smellmelon	<i>Cucumis melo</i>
Spurge, Prostrate	<i>Chamaesyce humistrata</i>
Spurge, Spotted	<i>Chamaesyce maculata</i>
Starbur, Bristly	<i>Acanthospermum hispidum</i>
Sunflower, Common	<i>Helianthus annuus</i>
Trumpetcreeper	<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 tuberculatos</i>
Witchweed	<i>Striga asiatica</i>
Yellow Rocket	<i>Barbarea vulgaris</i>

STORAGE AND DISPOSAL

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

Prohibitions

Open dumping is prohibited. Do not reuse empty container.

Pesticide 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 Handling

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available 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.

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

Boundary®, Caparol®, Dual MAGNUM®, Dual II MAGNUM®, Envoke®, Fusilade®, Fusion®, Gramoxone Inteon™, Reflex®, Sequence®, Solicam®, Suprend®, Touchdown® and the Syngenta logo are trademarks of a Syngenta Group Company.

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For non-emergency (e.g., current product information) call
Syngenta Crop Protection at 1-800-334-9481

Manufactured for:
Syngenta Crop Protection, Inc.
P. O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 993A-

REF 993A-AMEND-F-1209 - bb - 2-17-11

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IMPORTANT NOTICE
 This product is registered in both the U.S. and Canada.
 It has **BOTH** U.S. and Canadian Labeling.
 You must follow **ONLY** the U.S. label **WHEN USING THIS** product
 in the U.S.
 You must follow **ONLY** the Canadian label **WHEN USING THIS**
 product in Canada.

REFLEX

Liquid Herbicide

GROUP 14 HERBICIDE

HERBICIDE
AGRICULTURAL

**READ THE LABEL AND ATTACHED
BOOKLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN**

ACTIVE INGREDIENT/GUARANTEES:

Sodium salt of Fomesafen: 5- [2-chloro-4-(trifluoromethyl)
 phenoxy]-N-(methylsulfonyl)-2-nitrobenzamide 22.8%
 Other Ingredients: 77.2%
 Total: 100.0%

Contains 1,2-benzisothiazolin-3-one at 0.02% as a preservative.

Equivalent to 21.7% or 2 pounds per U.S. gallon or 240 grams per litre of fomesafen active ingredient

DANGER/PELIGRO

**CORROSIVE: CAUSES IRREVERSIBLE EYE DAMAGE.
HARMFUL IF SWALLOWED, INHALED OR ABSORBED
THROUGH SKIN**

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.)

Syngenta Crop Protection, Inc./Syngenta Crop Protection Canada, Inc.
 PO Box 18300 / 140 Research Lane, Research Park
 Greensboro, NC 27419 / Guelph, ON N1G 4Z3 Telephone (Canada):1-877-964-3682

**IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL,
FIRE OR POISONING CALL 1-800-888-8372 (in the U.S.)
or 1-800-327-8633 (FASTMED) (in Canada)**

NET CONTENTS: 10 Litres / 2.64 gallons

EPA Reg. No. 100-993 / EPA Est. 100-NE-001
 REGISTRATION NO. 24779 PEST CONTROL PRODUCTS ACT

FIRST AID

If in eyes, hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

If on skin/clothing, take off contaminated clothing. Rinse skin **IMMEDIATELY** with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If swallowed, call a poison control center or doctor **IMMEDIATELY** for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

If inhaled, move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

IN CASE OF POISONING, contact a physician or a poison control center **IMMEDIATELY**. When seeking medical attention, take the container label if at all possible. If not, take the information which identifies the product, that is, the product name and registration numbers.

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40CFR Part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Avoid contamination of feed, seed, fertilizers and foodstuff. Store above freezing in original containers.

In the United States: It is a violation of United States law to use this product without having obtained the United States label at the time of purchase and following the US label at the time of application.

In Canada: NOTICE TO USER: This pest control product is to be used only in accordance with the directions for use on the label. It is an offence under the Pest Control Products Act to use this product in a way that is inconsistent with the directions for use on the label. The user assumes the risk to persons or property that arises from any such use of this product.

Refer to country specific label booklet for additional information including precautions, protective clothing and equipment, user safety recommendations, environmental hazards, storage and disposal directions and warranty information.

Product of , Formulated in the

SCP 993A

REF 993 MAS 1008 – bb – 2-17-11