

PM 23

10182-421

yellow 1/24



U.S. ENVIRONMENTAL PROTECTION AGENCY  
Office of Pesticide Programs  
Registration Division (7505C)  
401 "M" St., S.W.  
Washington, D.C. 20460

EPA Reg. Number:

10182-421

Date of Issuance:

NOV 07 1995

NOTICE OF PESTICIDE:

- Registration
- Reregistration

Term of Issuance:

Conditional

Name of Pesticide Product:

Twister Herbicide

(under FIFRA, as amended)

Name and Address of Registrant (include ZIP Code):

Zeneca Agricultural Products  
1800 Concord Pike  
P.O. Box 15458  
Wilmington, DE 19850-5458

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c) (7) (A) provided that you:

1. Submit and/or cite all data required for registration of your product under FIFRA sec. 3(c) (5) when the Agency requires all registrants of similar products to submit such data; and submit acceptable responses required for reregistration of your product under FIFRA section 4.

2. Make the following label changes before you release the product for shipment:

- a. Revise the EPA Registration Number to read, "EPA Reg. No. "10182-421".
- b. Revise the oral, dermal and inhalation statements of practical treatment to read as follows:

"IF SWALLOWED: Call a physician or Poison Control Center. 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."

Signature of Approving Official:

Date:

NOV 07 1995

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

"IF INHALED: Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention."

NOTE: The ocular statement of practical treatment is acceptable as written.

- c. Add the following Note To Physician in close proximity to, but clearly distinguished from, the Statement of Practical Treatment:

"Probable mucosal damage may contraindicate the use of gastric lavage."

- d. Revise the second paragraph under Hazards to Humans and Domestic Animals to read as follows:

"Corrosive. Causes irreversible eye damage and skin irritation. Harmful if swallowed, inhaled or absorbed through skin. Do not get in eyes, on skin or on clothing. Avoid breathing vapor or spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals."

- e. Revise the first sentence of the Pesticide Disposal instructions to read as follows: "Pesticide wastes are acutely hazardous."

- f. Add the following restriction to the Directions For Use on soybeans:

"Do not apply TWISTER less than 90 days before harvesting soybeans."

- g. Delete "FUSILADE DX" and "FUSION" from the list of products which may be used on soybeans sequentially or in tankmix with TWISTER.

3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

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A stamped copy of the label is enclosed for your records. Copies of the Agency's acute toxicology and product chemistry reviews are also enclosed.

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

Enclosures

RD:STANTON:PM Team 23:Rm. 235:CM-2:305-5218:Disk #3:10182UER.REG

CONCURRENCES

SYMBOL ▶	7505C							
SURNAME ▶	S. Stanton							
DATE ▶	Nov 6, 1996							

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**TWISTER™**  
Herbicide

For Postemergence Control of Broadleaf Weeds and Grasses in Soybeans

**COMPLETE DIRECTIONS FOR USE**

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

96 JUN 14 P12:29

RECD EPA/OPP/DPD1

**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.**

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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.

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

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ACCEPTED  
with COMMENTS  
In EPA Letter Dated

NOV 07 1996

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

10182-421

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TWISTER Booklet  
TWIS000.RSA - 5/29/96

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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.)

**ACTIVE INGREDIENT:**

Fluazifop-P-Butyl

Butyl(R)-2-[4-[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy]propanoate ..... 6.51%

Fenoxaprop-P-ethyl

(+)-ethyl-2-[4-[6-(chloro-2-benzoxazolyl)oxy]phenoxy]propanoate ..... 1.86%

Sodium salt of fomesafen

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

(methylsulfonyl)-2-nitrobenzamide ..... 13.18%

**INERT INGREDIENTS** ..... 78.45%

**TOTAL** ..... 100.00%

Contains 0.57 lbs (+) isomer (fluazifop-p-butyl), 0.16 lbs fenoxaprop-p-ethyl and 1.09 lbs fomesafen (acid equivalent) active ingredient per gallon.

EPA Reg. No. 10182-

**STATEMENT OF PRACTICAL TREATMENT**

**IF IN EYES:** Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

**IF ON SKIN:** Immediately remove contaminated clothing and wash with plenty of soap and water. Get medical attention if irritation persists.

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

**IF SWALLOWED:** Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol. Get medical attention.

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

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

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## 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.

**CAUSES EYE DAMAGE AND SKIN IRRITATION. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN.** Do not get in eyes, on skin or on clothing. Avoid breathing vapor or spray mist. Prolonged or repeated skin contact may cause allergic reactions in some individuals.

#### PERSONAL PROTECTIVE EQUIPMENT

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Coveralls over short-sleeved shirt and short pants.
- Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, PVC or Viton.
- Chemical resistant footwear plus socks.
- Protective eyewear.
- Chemical resistant apron when cleaning equipment, mixing or loading.

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.

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#### 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.
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### ENVIRONMENTAL HAZARDS

This product is toxic to fish. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters. Do not apply when weather conditions favor drift from target area.

### PHYSICAL AND CHEMICAL HAZARDS

Do not use or store near heat or open flame.

### 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.

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### 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 over short-sleeved shirt and short pants.
  - Chemical-resistant gloves such as Barrier Laminate, Butyl Rubber, Nitrile Rubber, Neoprene Rubber, PVC or Viton.
  - Chemical resistant footwear plus socks.
  - Protective eyewear.
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## STORAGE AND DISPOSAL

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

**STORAGE:** Store above 45°F in original containers only. If product solidifies, 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 toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

### CONTAINER DISPOSAL:

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

**Plastic Containers:** Triple rinse (or equivalent); then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or 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 TWISTER .** The contents of this container cannot be completely removed by cleaning. Refilling with materials other than TWISTER will result in contamination and may weaken container. After filling and before transporting, check for leaks.

Do not refill or transport damaged or leaking container.

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

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## GENERAL INFORMATION

Read all label directions before using.

TWISTER herbicide is a selective early postemergence herbicide for control of grass and broadleaf weeds in soybeans.

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TWISTER herbicide has systemic activity moving from the treated foliage into the shoots, roots, rhizomes, stolons, and growing points (meristematic regions) of treated grass weeds and contact activity for broadleaf weeds. Thorough coverage of all weed plant foliage is important for good activity. 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. Best perennial grass control can be obtained if rhizomes or stolons are cut up by preplant tillage practices (discing, plowing, etc.) to stimulate emergence of grass shoots.

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

Symptoms on broadleaf weeds occur within 3 days and appear as browning and crinkling.

Soybean plants are tolerant to TWISTER herbicide when it is applied at the recommended rate. There may be slight bronzing, crinkling or spotting of soybean leaves but soybeans soon outgrow these effects and develop normally.

#### **Information on Weed Resistance:**

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

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

#### **APPLICATION DIRECTIONS**

**TIMING:** Best control of susceptible weeds is obtained when TWISTER 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 the Northern region (see Regional Use Map), TWISTER should be used with a minimum of 2.5% of liquid nitrogen (28% or similar) or a minimum of 10 pounds ammonium sulfate per 100 gallons of spray volume.

Liquid and dry nitrogen fertilizer should not be used as a substitute for crop oil concentrate or nonionic surfactant in the spray mixture.

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**Always Add One of the Following:**

**Nonionic Surfactant (NIS)** - Use NIS containing at least 75% surface active agent at 0.25%-0.5% (1/2-1 pint per 25 gallons) of the finished spray volume (Southern Region Only).

**Crop Oil Concentrate (COC)** - Use a nonphytotoxic COC 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 finished spray volume.

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

**Recommended Mixing Order:**

1. Half required amount of water, begin agitation.\*
2. Dry pesticide formulations.
3. TWISTER 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, 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.

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

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

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

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

**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 TWISTER may assist weed control.

**GENERAL USE PRECAUTIONS**

- A maximum of 2.75 pints/A of TWISTER herbicide may be used per season in Region 1 (see Regional Use Map).
- A maximum of 2.75 pints/A of TWISTER herbicide may be applied in alternate years in Region 2 (see Regional Use Map).
- A maximum of 2.25 pints/A of TWISTER herbicide may be applied in alternate years in Region 3 (see Regional Use Map).
- A maximum of 1.8 pints/A of TWISTER herbicide may be applied in alternate years in Region 4 (see Regional Use Map).
- Do not apply TWISTER or any other fomesafen containing product to any field in Regions 2, 3 or 4 more than once every two years.
- Thoroughly clean spray tank with water and a commercial tank cleaner before and after each use.
- Apply TWISTER herbicide before soybeans bloom.
- Tankmixes of TWISTER 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 and/or unsatisfactory crop injury.
- TWISTER herbicide requires a 1-hour rain-free period for best results.
- Apply to actively growing weeds. Avoid applying TWISTER to weeds or soybeans 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.

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- 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. Application is prohibited when wind velocity exceeds 10 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.

**ROTATIONAL CROP RESTRICTIONS**

The following rotational crops may be planted after applying TWISTER at recommended rates in soybeans:

<u>Crop To Be Planted</u>	<u>Minimum Rotation Interval (Months After Last TWISTER Application)</u>
Small grains such as wheat, barley, rye .....	4
Alfalfa, beans, corn*, cotton, peanuts, peas, rice .....	10
To avoid crop injury do not plant 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 crop loss due to weather conditions soybeans can be replanted.

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

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

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**TWISTER IN SOYBEANS - USE RATES AND WEEDS CONTROLLED**

**REFER TO MAP FOR DEFINITION OF SPECIFIED  
GEOGRAPHIC REGIONS**

**REGION 1**

**REGION 1** - Includes the following states or portion of states where TWISTER herbicide 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 (all areas East of Highway 77 to State Road 239, including all of Calhoun County).

**REGION 2**

**REGION 2** - Includes the following states or portions of states where TWISTER may be applied: Delaware, Kentucky, Maryland, Virginia and West Virginia and South of Interstate 70 in the following states: Illinois, Indiana and Ohio.

**REGION 3**

**REGION 3** - Includes the following states or portion of states where TWISTER may be applied: Iowa, Maine, Massachusetts, Missouri (all counties except for those listed in Region 1), New Hampshire, New Jersey, New York, Pennsylvania, 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 the following states: Illinois, Indiana and Ohio.

**REGION 4**

**REGION 4** - Includes the following states or portion of states where TWISTER may be applied: Kansas (all areas 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).

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**APPLICATION RATES FOR WEED GROWTH STAGES**

Weeds Controlled	TWISTER Rate (Pts/A)		
	Maximum Growth Stage Controlled At		
Broadleaf Weeds	1.8 Pts/A # of True Leaves	2.25 Pts/A # of True Leaves	2.75 Pts/A # of True Leaves
Anoda, Spurred	2*	2	4
Carpetweed	8" Diameter Size	Unlimited Size	Unlimited Size
Citron (Wild Watermelon)	4	4	6
Cocklebur, Common	4	6	8
Copperleaf, Hophornbeam	4	4	6
Copperleaf, Virginia	4	4	6
Crotalaria, Showy	6	6	6
Croton, Tropic	4	4	6
Cucumber, Volunteer	4	6	8
Eclipta	2	4	4
Groundcherry, Cutleaf	4	6	8
Jimsonweed	6	8	8
Ladysthumb	2	4	6
Lambsquarters, Common	2*	2*	2*
Mexicanweed	2*	2	4
Morningglory			
Cypressvine	4	6	6
Entireleaf var.	3	4	5
Ivyleaf	3	4	5
Purple Moonflower	3	5	6
Red (Scarlet)	3	6	6
Smallflower	3	4	6
Pitted (Smallwhite)	4	6	6
Tall (Common)	2	3	5
Palmleaf (Willowleaf)	3	6	6
Mustard, Wild	6	8	8
Nightshade, Black	4	6	6



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Weeds Controlled	TWISTER Rate (Pts/A)		
	Maximum Growth Stage Controlled At		
Broadleaf Weeds	1.8 Pts/A # of True Leaves	2.25 Pts/A # of True Leaves	2.75 Pts/A # of True Leaves
Nutsedge, Yellow	—	*	*
Pigweed, spp.			
Amaranth, Palmer	4	6	6
Amaranth, Spiny	2	4	6
Redroot	4	6	8
Smooth	4	6	6
Waterhemp, Common	4	4	6
Waterhemp, Tall	4	4	6
Poinsettia, Wild	2	4	6
Purslane, Common	Multi-Leaf 6" Diameter	Multi-Leaf 8" Diameter	Multi-Leaf 8" Diameter
Pusley, Florida	2	2	4
Ragweed, Common	4	6	8
Ragweed, Giant	4	6	8
Redweed	—	2*	3*
Sesbania, Hemp	8	12	12
Sicklepod	—	Cotyledon*	Cotyledon*
Sida, Prickly	2*	2	4
Smartweed, Pennsylvania	4	6	6
Smellmelon	2	2	4
Spurge, Prostrate	—	1" Diameter*	2" Diameter*
Spurge, Spotted	—	2*	2*
Starbur, Bristly	4	4	6
Sunflower, Common	2	4	6
Velvetleaf	4	4	6
Venice Mallow	6	6	8
Witchweed	Multi-leaf Up to 7"	Multi-leaf Up to 10"	Multi-leaf Up to 10"
Yellow Rocket	4	6	8

\*Suppression Only

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Weeds Controlled	TWISTER Rate (Pts/A)		
	Maximum Growth Stage Controlled At		
Grass Weeds <sup>1</sup>	1.8 Pts/A Ht. (In.)	2.25 Pts/A Ht. (In.)	2.75 Pts/A Ht. (In.)
Barnyardgrass	2	4	4
Bermudagrass	-	4	8
Broadleaf Signalgrass	-	2	4
Crabgrass	2	2	4
Downy Brome	4	4	6
Fall Panicum	4	4	6
Field Sandbur	2	2	4
Foxtails			
Giant Foxtail	4	6	8
Green Foxtail	4	2	4
Yellow Foxtail	-	2	3
Goosegrass	2	2	4
Italian Ryegrass	2	2	4
Itchgrass	6	12	24
Johnsongrass, Rhizome	-	10	18
Johnsongrass, Seedling	4	6	8
Junglerice	1	2	3
Quackgrass	-	6*	10
Red Rice	-	1	1
Shattercane	4	6	12
Sorghum almum	4	6	12
Southern Sandbur	1	2	4
Texas Panicum	2	4	8
Volunteer Cereals			
V. Barley	4	4	6
V. Corn	12	24	24
V. Milo	4	6	12

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Weeds Controlled	TWISTER Rate (Pts/A)		
	Maximum Growth Stage Controlled At		
Grass Weeds <sup>1</sup>	1.8 Pts/A Ht. (In.)	2.25 Pts/A Ht. (In.)	2.75 Pts/A Ht. (In.)
V. Oats	4	6	6
V. Rye	4	6	6
V. Wheat	4	6	6
Wild Oats	4	6	6
Wild Proso Millet	4	8	10
Wirestem Muhly	-	4	12
Witchgrass	2	4	4
Woolly Cupgrass	-	2	4

<sup>1</sup> See Fusion® or Fusilade® DX labels for directions to control later germinating grasses or if regrowth occurs.

\* Suppression Only

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## SPECIAL USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS

### Suppression of Perennial Weeds:

Use of TWISTER at rates of 2.25-2.75 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 TWISTER 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

## TANKMIX AND SEQUENTIAL APPLICATIONS FOR SOYBEANS

TWISTER can be used sequentially or in tankmix with one or more of the following products: FUSILADE<sup>®</sup> DX, FUSION<sup>®</sup>, Pursuit<sup>®</sup>, Basagran<sup>®</sup>, Classic<sup>®</sup>, Concert<sup>®</sup>, Pinnacle<sup>®</sup>, Synchrony STS<sup>®</sup>, Scepter<sup>®</sup>, Scepter<sup>®</sup> OT, Resource<sup>®</sup>, Butyrac<sup>®</sup> and Roundup Ultra.

Under certain conditions, the mixture of TWISTER with one of the above mentioned broadleaf herbicides may cause a reduction in activity of postemergence grass control.

For sequential applications, allow 7 days after application of TWISTER before applying any other postemergence grass or broadleaf herbicide.

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

Do not exceed 1 fluid ounce of Butyrac per acre in mixture with TWISTER.

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

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APPENDIX

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

COMMON NAME	SCIENTIFIC NAME
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Spiny	<i>Amaranthus spinosus</i>
Anoda, Spurred	<i>Anoda cristata</i>
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bermudagrass	<i>Cynodon dactylon</i>
Bindweed, Field	<i>Convolvulus arvensis</i>
Bindweed, Hedge	<i>Calystegia sepium</i>
Broadleaf Signalgrass	<i>Brachiaria platyphylla</i>
Brome, Downy	<i>Bromus tectorum</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>
Field Sandbur	<i>Cenchrus incertus</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>

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COMMON NAME	SCIENTIFIC NAME
Itchgrass	<i>Rottboellia exaltata</i>
Jimsonweed	<i>Datura stramonium</i>
Johnsongrass, Rhizome	<i>Sorghum halapense</i>
Johnsongrass, Seedling	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</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>
Morningglory, Cypressvine	<i>Ipomoea quamoclit</i>
Entireleaf	<i>Ipomoea hederacea</i> var. <i>integriscula</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>
Quackgrass	<i>Agropyron repens</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Ragweed, Giant	<i>Ambrosia trifida</i>

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COMMON NAME	SCIENTIFIC NAME
Redweed	<i>Melochia corchorifolia</i>
Red Rice	<i>Oryza sativa</i>
Ryegrass, Italian	<i>Lolium multiflorum</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Shattercane	<i>Sorghum bicolor</i>
Sicklepod	<i>Cassia obtusifolia</i>
Sida, Prickly	<i>Sida spinosa</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Smellmelon	<i>Cucumis melo</i>
Sorghum alnum	<i>Sorghum alnum</i>
Southern Sandbur	<i>Cenchrus echinatus</i>
Spurge, Prostrate	<i>Euphorbia humistrata</i>
Spurge, Spotted	<i>Euphorbia 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>
Volunteer Cereals	
V. Barley	<i>Hordeum vulgare</i>
V. Corn	<i>Zea mays</i>
V. Milo	<i>Sorghum bicolor</i>
V. Oats	<i>Avena sativa</i>
V. Rye	<i>Secale cereale</i>
V. Wheat	<i>Triticum aestivum</i>
Waterhemp, Common	<i>Amaranthus rudis</i>
Waterhemp, Tall	<i>Amaranthus tuberculatos</i>
Wild Oats	<i>Avena fatua</i>
Wild Proso Millet	<i>Panicum miliaceum</i>
Wirestem Muhly	<i>Muhlenbergia frondosa</i>
Witchgrass	<i>Panicum capillare</i>
Witchweed	<i>Striga asiatica</i>

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COMMON NAME	SCIENTIFIC NAME
Wooly Cupgrass	<i>Eriochloa villosa</i>
Yellow Rocket	<i>Barbarea vulgaris</i>

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