

PM-23

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Reg # 10182-368

1924

DEC 19 1996

Mr. Wayne Hillebrecht  
Zeneca Inc., Zeneca Ag Products  
1800 Concord Pike  
P.O. Box 15458  
Wilmington, DE 19850-5458

Dear Mr. Hillebrecht:

SUBJECT: Label Amendment Revising Tank Mixes  
Typhoon Herbicide  
EPA File Symbol: 10182-368  
Your Submission Dated August 22, 1995

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

1. Revise the Statement Of Practical Treatment to read as follows:

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

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."

2. Delete the following products from the "Tankmix and Sequential Applications for Soybeans" section on page 18: Fusilade DX, Fusion, and Reflex. Since these products contain active ingredients also found in Typhoon Herbicide, their use in tankmix or sequentially with Typhoon Herbicide could result in unacceptable residues of fluazifop-P butyl and/or fomesafen in or on soybeans. You should also delete references to these products on page 22 of the label.

RD:STANTON:PM Team 23:Rm. 235:CM-2:305-5218:Disk #4:S516058.LET

## CONCURRENCES

SYMBOL ▶	7505C							
SURNAME ▶	S. Stanton							
DATE ▶	Dec 19, 1996							

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

Sincerely yours,

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

Enclosure

## TYPHOON™ Herbicide

Grass and Broadleaf Weed Herbicide for Soybeans

### COMPLETE DIRECTIONS FOR USE

### CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

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**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.

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

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

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

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

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

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KEEP OUT OF REACH OF CHILDREN

**WARNING**

**AVISO**

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 INGREDIENTS:**

**Fluazifop-P-butyl**

butyl (R)-2-[4[[5-(trifluoromethyl)-2-pyridinyl]oxy]phenoxy] propanoate ..... 5.30%

**Sodium salt of fomesafen**

5-[2-chloro-4-(trifluoromethyl)phenoxy]N-(methylsulfonyl)-2-nitrobenzamide ..... 11.03%

**INERT INGREDIENTS:** ..... 83.67%

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

Contains 0.47 lbs. (+) isomer of fluazifop-P-butyl and the equivalent of 10.5% fomesafen or  
0.94 lb. fomesafen active ingredient per gallon.

EPA Reg. No. 10182-368

**STATEMENT OF PRACTICAL TREATMENT**

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

**IF ON SKIN:** Wash with plenty of soap and water. Get medical attention if irritation persists.

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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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**ACCEPTED  
with COMMENTS  
In EPA Letter Dated**

DEC 19 1996

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

10182-368

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### WARNING

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 SUBSTANTIAL, BUT TEMPORARY, EYE INJURY. HARMFUL IF ABSORBED THROUGH SKIN OR INHALED. MAY CAUSE ALLERGIC SKIN RESPONSE.**

Do not get in eyes, on skin or on clothing. Avoid breathing vapors or spray mist.

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

Applicators and other handlers (other than mixers and loaders) must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as Barrier Laminate or Butyl Rubber or Nitrile Rubber or Neoprene Rubber or Polyvinyl Chloride (PVC) or Viton.
- Shoes plus socks.
- Protective eyewear.

Mixers and Loaders must wear:

- Long-sleeved shirt and long pants.
- Chemical-resistant gloves, such as Barrier Laminate or Butyl Rubber or Nitrile Rubber or Neoprene Rubber or Polyvinyl Chloride (PVC) or Viton.
- Shoes plus socks.
- Protective eyewear.
- Chemical-resistant apron when mixing or loading.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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

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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 through any type of irrigation system.

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.
- Chemical-resistant gloves, such as Barrier Laminate or Butyl Rubber or Nitrile Rubber or Neoprene Rubber or Polyvinyl Chloride (PVC) or Viton.
- Shoes 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 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 toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

**CONTAINER DISPOSAL:**

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

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

**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 thread on closure devices.

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

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

**GENERAL INFORMATION**

Read all label directions before using.

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

TYPHOON 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.

**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 TYPHOON 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 TYPHOON herbicide is applied to actively growing young weeds before they exceed the recommended growth stages shown on this label. Refer to the weed tables for specific recommendations on weed growth stages. Generally, the application should occur 10 to 21 days after soybean emergence.

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

#### **Always Add One of the Following:**

**Crop Oil Concentrate** - Add a non-phytotoxic crop oil concentrate at 0.5-1% (1 quart per 25 gallons) of the finished spray volume for ground sprays. For aerial applications, add 1 pint of crop oil concentrate per acre. Crop oil concentrate can improve weed control but may slightly reduce crop tolerance.

**Nonionic Surfactant** - Add nonionic surfactant containing at least 75% surface active agent, at 0.25 - 0.5% (1/2 - 1 pint per 25 gallons) of the finished spray volume for ground sprays. For aerial applications, add 1/2 pint nonionic surfactant per are.

**Other Adjuvants** - Adjuvants other than COC or NIS may be used providing the product meets the following criteria:

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

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

In addition to crop oil concentrate or nonionic surfactant, diammonium phosphate (aqueous ammonium polyphosphate) commonly sold as a solution (10-34-0) can be added to the spray mixture. This water soluble material should be used at a rate of 2 pints per acre. Diammonium phosphate should not be used as a substitute for crop oil concentrate or nonionic surfactant in the spray mixture. Liquid nitrogen fertilizer (28% or similar) can also be added to spray mixture. Liquid nitrogen fertilizers are completely water soluble and should be used at a rate of one gallon per acre. Liquid nitrogen fertilizers should not be used as a substitute for crop oil concentrate or nonionic surfactant in the spray mixture.

**MIXING** - Fill a clean sprayer tank 1/2 full with clean water. Begin agitation and add the recommended rate of TYPHOON. Add the appropriate amount of nonionic surfactant or crop oil concentrate to be used. Finish filling the tank with water to the needed volume. Allow the spray mixture to agitate and recycle 5-10 minutes before application.

**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 at 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 NOZZLE TIPS WHICH DELIVER COARSE, LARGE DROPLET SPRAYS.**

**DO NOT APPLY TYPHOON WITH RECIRCULATING SPRAYERS, ROPEWICK APPLICATORS, CONTROLLED DROPLET APPLICATORS (CDA) OR ANY SIMILAR DEVICE.**

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

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**BAND APPLICATION** - Adjust band application equipment to provide thorough weed coverage. Best coverage is obtained by using a minimum of two nozzles, one directed to each side of the planted row. A single nozzle directed over the top of the row will not provide adequate coverage and is not recommended. Cultivation of untreated areas may be needed following band applications. When making band applications and cultivating in the same operation, position nozzles in advance of the cultivation device. This will reduce dust in the spray area. Dust can intercept the spray, reducing weed coverage resulting in less than adequate weed control.

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

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

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

**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 or grass foliage is dense, use a minimum of 10 gallons per acre to ensure coverage of weed foliage. Add 1 pint/A of crop oil concentrate or 1/2 pint/A nonionic surfactant in the spray mixture.

When making aerial applications, care should be taken to avoid drift to crops other than soybeans or to other non-target areas. Do not spray when conditions are favorable for drift or when wind velocity exceeds 10 mph.

**CULTIVATION** - Cultivation within 7 days prior to or within 7 days after application is not recommended as weeds may be put under stress reducing weed control. Timely cultivation 1-3 weeks after applying TYPHOON may assist weed control.

#### GENERAL USE PRECAUTIONS

TYPHOON herbicide can be applied only in the states or part of states listed under TYPHOON USE REGIONS.

In Region 1, TYPHOON herbicide may be applied to soybeans once per growing season. Make only one application of TYPHOON herbicide, or other fomesafen containing product, per growing season.

In Region 2, TYPHOON herbicide may be applied to soybeans in alternate years. In the year of application, make only one application of TYPHOON herbicide per growing season. Do not apply TYPHOON herbicide, or other fomesafen containing product, to any field in Region 2 more than once every two years.

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Apply TYPHOON herbicide before soybeans bloom.

A maximum of 1.6 quarts (0.375 lb. active fomesafen + 0.188 lb. active fluazifop-P-butyl) per acre of TYPHOON herbicide may be applied in the year of application.

For mixed weed populations, apply when the first weed species reaches the recommended growth stage for treatment.

Where irrigation is used as part of normal cropping practice, best results are usually obtained when TYPHOON herbicide is applied within 7 days after irrigation.

Thoroughly clean spray tank with water and a commercial tank cleaner before and after each use.

TYPHOON herbicide should not be mixed with fertilizers or pesticides unless specifically recommended on this label or on other approved ZENECA supplemental labeling.

TYPHOON herbicide requires a 4-hour rain-free period for best results.

Avoid overlapping spray swaths.

Avoid drift to all other crops and nontarget areas. Crops other than soybeans may be severely injured by drift.

Do not graze treated areas or harvest for forage or hay.

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## ROTATIONAL CROP RESTRICTIONS

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

<u>Crops To Be Planted</u>	<u>Minimum Rotational Interval (Months After Last TYPHOON Application)</u>
Small grains such as wheat, barley, rye .....	4
Alfalfa, beans and peas, corn, cotton, peanuts, rice, sorghum ..	10
To avoid crop injury do not plant sunflowers, sugar beets or any other crop within .....	18

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

## TYPHOON USE REGIONS

Alabama, Arkansas, Delaware, Florida, Georgia, Illinois (South of Interstate 70), Indiana (South of Interstate 70), Kentucky, Louisiana, Maryland, Mississippi, Missouri (counties of Butler, Dunklin, Mississippi, New Madrid, Pemiscot, Scott, Stoddard), North Carolina, Ohio (South of Interstate 70), Oklahoma (East of U.S. Highway 75 & East of Indian Nation Parkway), South Carolina, Tennessee, Texas (Counties east of U.S. Highway 75 & Interstate 35, U.S. Highway 183 and U.S. Highway 87, including all of Calhoun county), Virginia and West Virginia.

**REGION 1:** Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri (counties of Butler, Dunklin, Mississippi, New Madrid, Pemiscot, Scott, Stoddard), North Carolina, Oklahoma (East of U.S. Highway 75 & East of Indian Nation Parkway), South Carolina, Tennessee and Texas (Counties east of U.S. Highway 75 & Interstate 35, U.S. Highway 183 and U.S. Highway 87, including all of Calhoun county).

**REGION 2:** Delaware, Illinois (South of Interstate 70), Indiana (South of Interstate 70), Kentucky, Maryland, Ohio (South of Interstate 70), Virginia and West Virginia.

### RATES AND WEED GROWTH STAGES

TYPHOON USE RATE - 1.6 QUARTS/ACRE	
WEEDS CONTROLLED <sup>a</sup>	MAXIMUM GROWTH STAGE (NO. OF LEAVES) <sup>c</sup>
<b>BROADLEAF WEEDS</b>	
Anoda, Spurred	2
Carpetweed	Unlimited Size
Citron (Wild Watermelon)	2-4
Cocklebur, Common <sup>b</sup>	2-4
Copperleaf, Hophornbeam	2-4
Copperleaf, Virginia	2-4
Crotalaria, Showy	4-6
Croton, Tropic	2-4
Cucumber, Volunteer	4-6
Eclipta	2-4
Groundcherry, Cutleaf	4
Jimsonweed	4-8
Ladysthumb	2-4
Lambsquarters, Common	2 Suppression Only
Mexicanweed	2
Morningglory spp.	
Cypressvine	4-6
Entireleaf var. <i>integrifolia</i>	2-3
Ivyleaf var. <i>hederacea</i>	2-3
Purple Moonflower	2-4
Scarlet	2-4
Smallflower	2-4
Smallwhite (pitted)	2-4
Tall (Common)	2-4
Willowleaf (Palmleaf)	2-4
Mustard, Wild	4-8
Nightshade, Black	4



TYPHOON USE RATE - 1.6 QUARTS/ACRE	
WEEDS CONTROLLED <sup>a</sup>	MAXIMUM GROWTH STAGE (NO. OF LEAVES) <sup>c</sup>
Nutsedge, Yellow	Suppression Only
Pigweed, spp.	
Amaranth, Palmer	4-6
Amaranth, Spiny	2
Redroot	4-6
Smooth	4-6
Waterhemp, Tall	2-4
Poinsettia, Wild	2-3
Purslane, Common	6"-8" Diameter
Pusley, Florida	2
Ragweed, Common	4-6
Ragweed, Giant	2-4
Redweed	2-3 Suppression Only
Sesbania, Hemp	6-12
Sicklepod	Suppression Only Cotyledon
Sida, Prickly	Suppression Only Cotyledon
Smartweed, Pennsylvania	4
Smellmelon	2
Spurge, Prostrate	Suppression Only 1" Diameter
Spurge, Spotted	2 Suppression Only
Starbur, Bristly	2-4
Velvetleaf	2 Suppression Only
Venice Mallow	4-6
Witchweed	Multi-leaf Up to 10"
Yellow Rocket	4-6

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TYPHOON USE RATE - 1.6 QUARTS/ACRE		
WEEDS CONTROLLED <sup>a</sup>	MAXIMUM HEIGHT (INCHES)	MAXIMUM GROWTH STAGE (NO. OF LEAVES) <sup>c</sup>
<b>ANNUAL GRASSES</b>		
Barnyardgrass	2-3	3
Broadleaf signalgrass	2-4	5
Crabgrass		
Large crabgrass	1-2	4
Smooth crabgrass	1-2	4
Southern crabgrass	1-2	4
Tropical crabgrass	1-2	4
Downy Brome	2-6	4
Fall panicum	2-6	6
Field Sandbur	2-4	4
Foxtails		
Giant foxtail	2-6	4
Green foxtail	2-4	4
Yellow foxtail	2-4	4
Goosegrass	2-4	6
Italian Ryegrass	2-4	4
Itchgrass	4-24	6
Johnsongrass, Seedling	2-8	4
Junglerice	2-3	3
Shattercane	6-12	8
Sorghum	6-12	8
Southern sandbur	2-6	6
Texas panicum	2-8	8
Volunteer cereals		
V. Barley	2-6	6
V. Corn	12-24	10
V. Milo	6-12	4
V. Oats	2-6	6

TYPHOON USE RATE - 1.6 QUARTS/ACRE		
WEEDS CONTROLLED <sup>a</sup>	MAXIMUM HEIGHT (INCHES)	MAXIMUM GROWTH STAGE (NO. OF LEAVES) <sup>c</sup>
V. Rye	2-6	6
V. Wheat	2-6	6
Wild Oats	2-6	6
Wild Proso Millet	4-8	6
Witchgrass	2-4	6
Wooly cupgrass	2-4	6

<sup>a</sup> Scientific names for weeds are listed in the Appendix (Page \_\_\_\_\_).

<sup>b</sup> Do not apply TYPHOON to cotyledon stage.

<sup>c</sup> **USE DIRECTIONS FOR SPECIAL RATE**

The rates of TYPHOON herbicide/acre can be reduced to 1.3 qts under the following conditions:

- Application under favorable soil moisture and humidity conditions, normally within a few days after rainfall or irrigation. Avoid extreme air temperatures.
- Application at earliest growth stages indicated on rate tables.
- Application in highly competitive crop stands such as narrow row or drilled soybeans, or where cultivation is planned.
- Application to light or moderate weed densities.
- Application with 1% v/v crop oil concentrate only.
- Application alone, avoiding tank mixes with other pesticides.

TYPHOON can be used for the control of rhizome johnsongrass (height 8-18 inches) and bermudagrass (runner length 4-8 inches) and should be used at a rate of 1.6 quarts per acre. In case a second application needs to be made, use FUSILADE DX at a rate of 8 oz per acre and apply before johnsongrass reaches a height of 12 inches or before bermudagrass reaches a runner length of 8 inches.

## TANKMIX AND SEQUENTIAL APPLICATIONS FOR SOYBEANS

TYPHOON can be used sequentially or in tankmix with one or more of the following products: FUSILADE® DX, FUSILADE® 2000, FUSION®<sup>TM</sup>, REFLEX®, Basagran®, Butyrac®, Classic®, Pinnacle®, or Scepter®.

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

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

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.

### TANKMIX APPLICATION

Fill the spray tank with half the amount of required water and add the recommended amounts of TYPHOON, the selected tankmix herbicide, and proper rate of approved adjuvant while the agitator is running and then add the remaining quantity of water. Allow the spray mixture to agitate and recycle 5-10 minutes before application.

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

**NOTE:** Tankmix applications sometimes have resulted in reduced grass weed control. A tankmix application is not recommended if perennial grass weeds are the predominant grasses to be controlled. If grass regrowth occurs following an application of the tankmix or an additional flush of grasses emerges, make an application of FUSILADE DX herbicide to actively growing grass weeds according to label recommendations.

## APPENDIX

Scientific names are listed for annual grass and broadleaf weeds referred to in the TYPHOON label.

COMMON NAME	SCIENTIFIC NAME
<b>BROADLEAF WEEDS</b>	
Amaranth, Palmer	<i>Amaranthus palmeri</i>
Amaranth, Spiny	<i>Amaranthus spinosus</i>
Anoda, Spurred	<i>Anoda cristata</i>
Carpetweed	<i>Mollugo verticillata</i>
Citron (Wild Watermelon)	<i>Citrullus vulgaris</i>
Cocklebur, Common	<i>Xanthium pennsylvanicum</i>
Copperleaf, Hophornbeam	<i>Acalypha ostryaefolia</i>
Copperleaf, Virginia	<i>Acalypha virginica</i>
Crotalaria, Showy	<i>Crotalaria spectabilis</i>
Croton, Tropic	<i>Croton glandulosus</i>
Cucumber, Volunteer	<i>Cucumis sativas</i>
Eclipta	<i>Eclipta prostrata</i>
Groundcherry, Cutleaf	<i>Physalis angulata</i>
Jimsonweed	<i>Datura stramonium</i>
Ladysthumb	<i>Polygonum persicaria</i>
Lambsquarters, Common	<i>Chenopodium album</i>
Mexicanweed	<i>Caperonia castanaefolia</i>
Morningglory spp.	
Cypressvine	<i>Ipomoea quamoclit</i>
Entireleaf var. <i>integriuscula</i>	<i>Ipomoea hederacea</i>
Ivyleaf var. <i>hederacea</i>	<i>Ipomoea hederacea</i>
Purple Moonflower	<i>Ipomoea turbinata</i>
Scarlet	<i>Ipomoea coccinea</i>
Smallflower	<i>Jacquemontia tamnifolia</i>
Smallwhite (Pitted)	<i>Ipomoea lacunosa</i>
Tall (Common)	<i>Ipomoea purpurea</i>
Willowleaf (Palmleaf)	<i>Ipomoea wrightii</i>

COMMON NAME	SCIENTIFIC NAME
Mustard, Wild	<i>Brassica kaber</i>
Nightshade, Black	<i>Solanum nigrum</i>
Nutsedge, Yellow	<i>Cyperus esculentus</i>
Pigweed, Redroot	<i>Amaranthus retroflexus</i>
Pigweed, Smooth	<i>Amaranthus hybridus</i>
Poinsettia, Wild	<i>Euphorbia heterophylla</i>
Purslane, Common	<i>Portulaca oleracea</i>
Pusley, Florida	<i>Richardia scabra</i>
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Ragweed, Giant	<i>Ambrosia trifida</i>
Redweed	<i>Melochia corchorifolia</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Sicklepod	<i>Cassia obtusifolia</i>
Sida, Prickly	<i>Sida spinosa</i>
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>
Smellmelon	<i>Cucumis melo</i>
Spurge, Prostrate	<i>Euphorbia supina</i>
Spurge, Spotted	<i>Euphorbia maculata</i>
Starbur, Bristly	<i>Acanthospermum hispidum</i>
Velvetleaf	<i>Abutilon theophrasti</i>
Venice Mallow	<i>Hibiscus trionum</i>
Waterhemp, Tall	<i>Amaranthus tuberculatos</i>
Witchweed	<i>Striga asiatica</i>
Yellow Rocket	<i>Barbarea vulgaris</i>
<b>GRASS WEEDS</b>	
Barnyardgrass	<i>Echinochloa crus-galli</i>
Bermudagrass	<i>Cynodon dactylon</i>
Broadleaf signalgrass	<i>Brachiaria platyphylla</i>
Crabgrass	
Large	<i>Digitaria sanguinalis</i>
Smooth	<i>Digitaria ischaemum</i>
Southern	<i>Digitaria ciliaris</i>

COMMON NAME	SCIENTIFIC NAME
Tropical	<i>Digitaria bicornis</i>
Downy Brome	<i>Bromus tectorum</i>
Fall Panicum	<i>Panicum dichotomiflorum</i>
Field Sandbur	<i>Cenchrus incertus</i>
Foxtails	
Giant	<i>Setaria faberi</i>
Green	<i>Setaria viridis</i>
Yellow	<i>Setaria lutescens</i>
Goosegrass	<i>Eleusine indica</i>
Italian Ryegrass	<i>Lolium multiflorum</i>
Itchgrass	<i>Rottboellia exaltata</i>
Johnsongrass, rhizome	<i>Sorghum halepense</i>
Johnsongrass, seedling	<i>Sorghum halepense</i>
Junglerice	<i>Echinochloa colonum</i>
Shattercane	<i>Sorghum bicolor</i>
Sorghum	<i>Sorghum alnum</i>
Southern sandbur	<i>Cenchrus echinatus</i>
Texas panicum	<i>Panicum texanum</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>
Wild Oats	<i>Avena fatua</i>
Wild Proso Millet	<i>Panicum miliaceum</i>
Witchgrass	<i>Panicum capillare</i>
Wooly cupgrass	<i>Eriochloa villosa</i>

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