

10/10/95

PM 22

10182-324

P 1129

Please read instructions on reverse before completing form

Form Approved

OMB No 2070-0060

Approval expires 05-31-98



United States  
Environmental Protection Agency  
Washington, DC 20460

Registration  
Amendment  
☒ Other

OPP Identifier Number

243860

## Application for Pesticide - Section I

1. Company/Product Number 10182-324	2. EPA Product Manager Terry Stowe, Acting	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) TOUCHDOWN	PM# 22	
5. Name and Address of Applicant (Include ZIP Code) Zeneca Ag Products P.O. Box 15458 Wilmington, DE 19850-5458 <input type="checkbox"/> Check if this is a new address		6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____

## Section - II

<input type="checkbox"/> Amendment - Explain below	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below

Explanation Use additional page(s) if necessary (For section I and Section II)

Replacing EZ Handler 110 gallon containers with Bulk/Minibulk containers.

## Section - III

1. Material This Product Will Be Packaged In:			
Child Resistant Packaging <input type="checkbox"/> Yes* <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	2. Type of Container <input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____
* Certification must be submitted		If "Yes" Unit Packaging wgt. No. per container	If "Yes" Package wgt. No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container	5. Location of Label Directions <input type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled <input type="checkbox"/> Other _____			

## Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)		
Name Becky Rhodes	Title Regulatory Product Manager	Telephone No. (Include Area Code) (615) 982-9076
Certification I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.		6. Date Application Received (Stamped)
2. Signature Becky Rhodes	3. Title Regulatory Product Manager	
4. Typed Name Becky Rhodes	5. Date October 6, 1995	

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**TOUCHDOWN® Herbicide**

**NONSELECTIVE FOLIAR SYSTEMIC HERBICIDE FOR WEED CONTROL  
IN NONCROP AREAS AROUND THE FARM AND IN  
NONBEARING TREES AND VINES**

**COMPLETE DIRECTIONS FOR USE**

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

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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

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

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

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**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

**ACTIVE INGREDIENT:**

Trimethylsulfonium carboxymethylaminomethylphosphonate . . . . . 57.6%

**INERT INGREDIENTS:** . . . . . 42.4%

**Total** . . . . . 100.0%

Contains 6 pounds glyphosate-trimesium active ingredient per gallon.

EPA Reg. No. 10182-324

**STATEMENT OF PRACTICAL TREATMENT**

If a known exposure occurs or is suspected, immediately initiate the recommended procedures below. If further treatment is required, contact a POISON CONTROL CENTER, a physician, or the nearest hospital.

**IF SWALLOWED:** Immediately give several glasses of water and induce vomiting by gagging the victim with a finger placed on the back of the victim's tongue. Give fluids until vomitus is clear. Do not induce vomiting or give anything by mouth if victim is unconscious or convulsing.

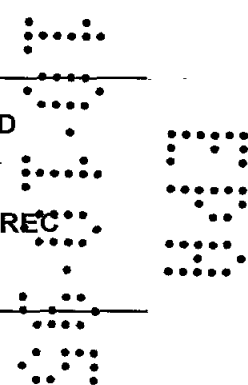
**IF ON SKIN:** Flush with plenty of water for at least 15 minutes. Get medical attention if skin irritation occurs.

**IF IN EYES:** Hold eyelids apart and flush eyes with large amounts of running water for at least 15 minutes. Get medical attention if irritation persists.

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

**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

#### CAUTION

HARMFUL IF SWALLOWED, ABSORBED THROUGH THE SKIN, OR INHALED  
PROLONGED CONTACT MAY CAUSE SKIN IRRITATION MAY CAUSE ALLERGIC SKIN  
REACTIONS Avoid contact with skin, eyes, or clothing Avoid breathing spray mist

#### PERSONAL PROTECTIVE EQUIPMENT

Applicators and other handlers must wear

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

Follow manufacturer's instructions for cleaning/maintaining PPE If no such instructions for washables, use detergent and hot water Keep and wash PPE separately from other laundry

When handlers use closed systems, or enclosed cabs 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
- 

#### ENVIRONMENTAL HAZARDS

Keep out of lakes, ponds and streams 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

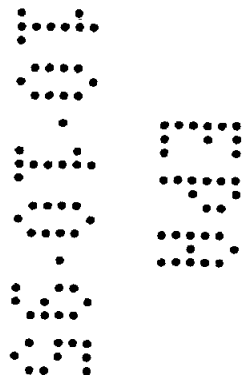
In case of spill, ISOLATE the spill Absorb spill with inert absorbent material such as clay or Fuller's earth Sweep up used absorbent and place in an appropriate chemical waste container Flush spill area with water Observe all local, State and Federal laws and regulations regarding disposal, spill, cleanup removal or discharge

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## OTHER PRECAUTIONS

Caution must be taken when applying TOUCHDOWN® nonselective foliar systemic herbicide to avoid drift or contact with nontarget plant species. Such contact may result in plant injury.

TOUCHDOWN should not be mixed or stored in galvanized steel or unlined steel containers. Stainless steel, plastic-lined steel, plastic or fiberglass containers are acceptable for mixing and storing TOUCHDOWN.



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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.

- Apply this product only as specified on the label.
- Do not apply by aircraft.
- 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 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls.
- Waterproof gloves.
- Shoes plus socks.

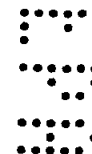
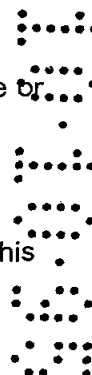
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## STORAGE AND DISPOSAL

**PROHIBITIONS:** Do not contaminate water, food, feed, fertilizer, or seeds by storage or disposal.

**STORAGE:** Keep container tightly closed when not in use.

**PESTICIDE DISPOSAL:** Rinse spray equipment. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.



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#### CONTAINER DISPOSAL:

**Plastic** - Triple rinse (or equivalent). 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.

**Metal** - Triple rinse (or equivalent); then offer for recycling or reconditioning, or disposal in a sanitary landfill, or by other approved State and local procedures.

#### FOR BULK/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 TOUCHDOWN. The contents of this container cannot be completely removed by cleaning. Refilling with materials other than TOUCHDOWN 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

TOUCHDOWN is a nonselective foliar systemic herbicide used to control a broad spectrum of emerged weeds. TOUCHDOWN controls most grass and broadleaf weeds - both annual and perennial. TOUCHDOWN may be used to control unwanted vegetation:

- in chemical fallow-ecofallow systems;
- in certain noncrop areas around the farm; and
- in nonbearing groves, orchards, or vineyards up to 1 year of harvest

TOUCHDOWN is formulated as a liquid concentrate which contains 6 pounds of active ingredient per gallon.

TOUCHDOWN requires a 6-hour rain-free period after application. Rain occurring within 6 hours of application may reduce weed control.

#### APPLICATION DIRECTIONS

See CHEMICAL FALLOW-ECOFALLOW SYSTEMS Section for Use Directions specific for this use.

##### Timing

TOUCHDOWN should be applied to actively growing emerged weeds when they are small. Weeds 6 inches in height are the easiest to control. Larger weeds may be more difficult to



control. The exception to this is johnsongrass or bermudagrass. These grasses should be allowed to reach the seedhead stage before application.

When weeds have been mowed, thus removing much of the green foliage, wait for 3-4 inches of new growth to appear before making an application of TOUCHDOWN.

#### Rates

Follow recommended rates for TOUCHDOWN listed in the **WEEDS CONTROLLED** section. Use the higher label rates when weeds are dense or large. Also, use higher application volumes and pressures when weed vegetation is dense.

#### Tankmixes

When perennial broadleaf weeds such as Canada thistle, field bindweed, or difficult to control annual broadleaf weeds such as common ragweed or morningglory spp. are present, tankmixes with 2,4-D or Banvel® herbicide, where labeled, will help improve control. In general, labeled TOUCHDOWN tankmixes with other products should be mixed as follows:

1. Fill spray tank 1/2 full with clean water.
2. Begin tank agitation and continue throughout mixing and spraying.
3. Add dry formulations (WP, DF, etc.) to tank.
4. Add liquid formulations (SC, EC, L, etc.) to tank.
5. Add TOUCHDOWN and nonionic surfactant to tank.
6. Fill remainder of spray tank.

Always refer to labels of other pesticide products for mixing directions and precautions which may differ from those outlined here.

#### SPRAY ADDITIVES

##### Surfactants/Wetting Agents

A surfactant or wetting agent (approved for use on growing crops) IS REQUIRED with TOUCHDOWN to improve coverage of weed foliage. All surfactants or wetting agents should contain at least 50% active ingredient unless otherwise indicated. (See Chemical Follow-Ecofallow section for spray additive information specific for this use). The concentration of active ingredient in a particular surfactant will determine how much should be added to the tank. Refer to table below for specific recommendations:

Surfactant % Active Ingredient	Rate of Surfactant Per 1 Gallon of Water	Rate of Surfactant Per 100 Gallons of Water
75% or greater	3/4 fl oz	2 quarts*
50-74%	1-1/2 fl oz	4 quarts
Less than 50%	DO NOT USE	DO NOT USE

\*2 quarts = 0.5% V/V

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### Ammonium Sulfate (Not for use in California)

Control of annual and perennial weeds with TOUCHDOWN may be improved by adding dry ammonium sulfate 2% by weight or 17 pounds per 100 gallons water in addition to nonionic surfactant in chemical fallow-ecofallow systems, noncrop areas, and in nonbearing crops. The addition of ammonium sulfate will generally improve control under conditions of adverse environmental stress. Do not reduce use rates of TOUCHDOWN or nonionic surfactant when using ammonium sulfate.

## APPLICATION EQUIPMENT & TECHNIQUES

### Broadcast Application

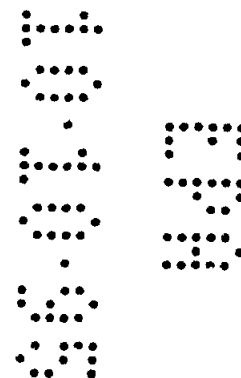
Apply TOUCHDOWN to actively growing weeds at the broadcast rates indicated in the **WEEDS CONTROLLED** section. Applications should be made in 10 to 30 gallons of water per acre with conventional spray equipment, or in 3 to 10 gallons per acre with low volume equipment and in chemical fallow-ecofallow systems. Increase volumes if weed foliage is dense.

The use of flat-fan nozzles will result in the most effective application of TOUCHDOWN. Flat fans should be used at 30 to 50 psi. Flood nozzles are generally not as good as flat fans since they produce large uneven droplets. The use of flood nozzles may result in reduced weed control due to inadequate coverage.

### Spot Treatments

For control of the weeds listed, use a 0.25% solution of TOUCHDOWN plus nonionic surfactant in water to weeds less than 6 inches in height or runner length. For annual weeds over 6 inches, use a 0.5% to 1% solution. For best results, use a 1.5% to 2% solution on harder-to-control perennials such as hemp dogbane, field bindweed, dock, bermudagrass, milkweed, and Canada thistle. Refer to the **WEEDS CONTROLLED** section for a list of hard to control weeds (Tables 4 and 5). Use a 3% solution when using motorized spot spray equipment (rider bar). Spray the solution on actively growing foliage until uniformly wet but not to the point of runoff. Retreat 14-21 days later if regrowth occurs.

Prepare the desired volume of spray solution by mixing the amount of this product in water as shown in the following table:



## Spot Spray Recommendations

### Amount of TOUCHDOWN Herbicide for Hand-Directed Spot Spray\*

Solution Strength	To Make This Volume				
	1 gallon	2 gallons	10 gallons	25 gallons	100 gallons
0.25%	1/3 fl oz	2/3 fl oz	3-1/3 fl oz	8 fl oz	2 pints
0.5%	2/3 fl oz	1-1/3 fl oz	6-2/3 fl oz	1 pint	4 pints
1%	1-1/3 fl oz	2-1/2 fl oz	12-1/2 fl oz	2 pints	1 gallon
1.5%	2 fl oz	4 fl oz	19-1/3 fl oz	3 pints	1-1/2 gallons
2%	2-2/3 fl oz	5-1/3 fl oz	1-1/2 pints	4 pints	2 gallons
3%	4 fl oz	8 fl oz	2-1/2 pints	8 pints	3 gallons
5%	6-1/2 fl oz	13 fl oz	4 pints	10 pints	5 gallons

\*See **SPRAY ADDITIVES** directions for surfactants and amounts which can be used.

1/3 fl. oz. = 2 teaspoons  
1/2 fl. oz. = 1 tablespoon  
1 fl. oz. = 2 tablespoons

8 fl. oz. or 1/2 pint = 1 cup  
16 fl. oz. = 1 pint  
1 gallon = 8 pints

### Wiper Applications

TOUCHDOWN may be applied using a wiper or "wick" applicator for selective control or suppression of annual and perennial weeds which become taller than the crop or desirable vegetation. To prevent injury to the crop or desirable vegetation, precautions should be taken to avoid contact with these plants. Equipment should be operated at speeds of 5 mph or less. Use slower speeds where weeds are dense. For improved control, make two applications in opposite directions.

### Mixing Directions

Mix 2 quarts of TOUCHDOWN in 2 gallons of water. Apply this mixture to target weeds, while avoiding contact with desirable vegetation.

### GENERAL USE PRECAUTIONS

- TOUCHDOWN requires actively growing green plant tissue to function. Application to drought-stressed weeds or weeds with little green foliage (i.e., mowed or cut weeds) may result in reduced weed control.
- DO NOT spray if conditions of thermal inversion exist, or if wind direction and speed may cause spray to drift onto adjacent areas. Drift minimization is the responsibility of the applicator. Consult with local and State agricultural authorities for information regarding avoiding or minimizing spray drift.

- Do not tank mix TOUCHDOWN with other pesticides or any other additives except as specified on this label or other supplemental labeling.
- Do not apply TOUCHDOWN if rain is expected within 6 hours.
- Thoroughly clean spray tank after each use.
- Rotational crops may be planted back into TOUCHDOWN treated areas 35 days after application.

#### CONSERVATION COMPLIANCE OR FEDERAL SET-ASIDE PROGRAMS

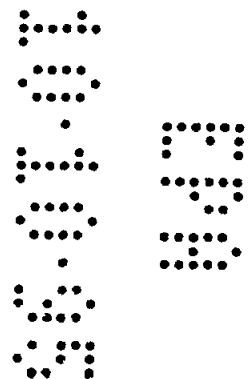
(For use in compliance with the Federal Conservation Compliance or Federal set-aside programs)

- Apply to annual and perennial grass and broadleaf weeds according to the **WEEDS CONTROLLED** section of this label.
- TOUCHDOWN may be tank mixed with other herbicides registered for this use.

#### CHEMICAL FALLOW - ECOFALLOW SYSTEMS

##### GENERAL INFORMATION

TOUCHDOWN applied at 6 to 16 ounces per acre may be used in chemical fallow and ecofallow systems for control of grasses and broadleaf weeds. Apply to actively growing weeds only after maximum germination period. Weeds emerging after application will not be controlled. Repeat treatments may be necessary to control late germinating weeds. Reduced control may result from applications made to drought stressed or dust covered plants. Allow a minimum of 3 days after application before tillage.



## APPLICATION DIRECTIONS FOR CHEMICAL FALLOW - ECOFALLOW SYSTEMS

### RATES AND WEEDS CONTROLLED

Weed Species		Maximum Plant Height	TOUCHDOWN Rate (ounces/acre)
Foxtail, Green	<i>Setaria viridis</i>	12"	6 oz
Foxtail, Yellow	<i>Setaria lutescens</i>	12"	
Barley	<i>Hordeum vulgare</i>	12"	8 to 12 oz
Barnyardgrass	<i>Echinochloa crus-galli</i>	6"	
Bluegrass, Annual	<i>Poa annua</i>	6"	
Bluegrass, Bulbous	<i>Poa bulbosa</i>	6"	
Brome, Downy	<i>Bromus tectorum</i>	6"	
Chickweed	<i>Stellaria media</i>	6"	
Rye	<i>Secale cereale</i>	12"	
Ryegrass, Italian	<i>Lolium multiflorum</i>	12"	
Wheat	<i>Triticum aestivum</i>	18"	
Witchgrass	<i>Panicum capillare</i>	12"	12 to 16 oz
Crabgrass	<i>Digitaria spp.</i>	12"	
Kochia	<i>Kochia scoparia</i>	6"	
Lambsquarters, Common	<i>Chenopodium album</i>	6"	
Oats, Wild	<i>Avena fatua</i>	12"	
Mustard	<i>Brassica spp.</i>	6"	
Shepherdspurse	<i>Capsella bursa-pastori</i>	6"	8 oz + 2,4-D or Banvel
Kochia	<i>Kochia scoparia</i>	6"	
Lambsquarters, Common	<i>Chenopodium album</i>	6"	
Lettuce, Prickly	<i>Lactuca serriola</i>	6"	
Pigweed, Redroot	<i>Amaranthus retroflexus</i>	6"	
Thistle, Russian	<i>Salsola kali</i>	6"	8 to 12 oz + Atrazine or Bladex
Barnyardgrass	<i>Echinochloa crus-galli</i>	6"	
Brome, Downy	<i>Bromus tectorum</i>	6"	
Foxtail, Green	<i>Setaria viridis</i>	12"	
Kochia	<i>Kochia scoparia</i>	6"	
Lambsquarters, Common	<i>Chenopodium album</i>	6"	
Lettuce, Prickly	<i>Lactuca serriola</i>	6"	
Mustard, Tansy	<i>Descurainia pinnata</i>	6"	
Pigweed, Redroot	<i>Amaranthus retroflexus</i>	6"	
Sandbur, Field	<i>Cenchrus spp.</i>	12"	
Stinkgrass	<i>Eragrostis cilianensis</i>	12"	
Thistle, Russian	<i>Salsola kali</i>	6"	
Wheat	<i>Triticum aestivum</i>	18"	
Witchgrass	<i>Panicum capillare</i>	12"	

## GENERAL USE PRECAUTIONS FOR CHEMICAL FALLOW - ECOFALLOW SYSTEMS

- Do not apply more than 5-1/3 pints of TOUCHDOWN per acre per year.
- Make application at least 35 days prior to seeding.

### Winter Wheat or Winter Wheat-Row Crop Rotations

#### Post-Harvest Application; 2 to 3 Month Recropping Interval

Apply TOUCHDOWN at 8 to 16 ounces per acre post-harvest to wheat stubble (June to September) for control of actively growing emerged weeds. Weeds should be allowed to regrow after harvest. Best control will occur when grasses are treated before the heading stage and broadleaf weeds do not exceed 24 inches in height. Tankmixes with Banvel or 2,4-D are recommended for enhanced broadleaf weed control (see Tankmix section).

#### Post-Harvest Application; 12 to 14 Month Recropping Interval

Apply TOUCHDOWN at 8 to 16 ounces per acre post-harvest to wheat stubble (June to September) for control of actively growing emerged weeds and volunteer wheat. Weeds should be allowed to regrow after harvest. Repeat applications may be necessary for fall germinating Downy brome, winter wheat and winter annual broadleaf weeds. Tankmixes with atrazine or Bladex are recommended for residual control of many weeds (see Tankmix section).

#### Spring Application

Apply TOUCHDOWN at 8 to 12 ounces per acre to actively growing Downy brome and volunteer wheat prior to seedhead formation. Early applications will improve moisture conservation. Tankmix with Banvel or 2,4-D to improve control of winter annual and spring germinating broadleaf weeds (see Tankmix section). Repeat applications may be necessary throughout the summer months to control newly germinating weeds prior to crop seeding.

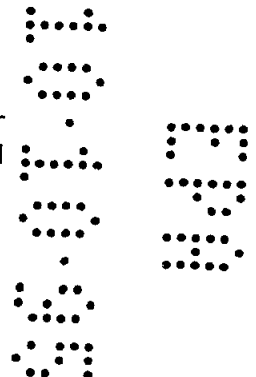
### Spring Grain (Wheat or Barley) Rotations and Spring Grain-Row Crop Rotations

#### Post-Harvest Application

Apply TOUCHDOWN at 8 to 12 ounces per acre to actively growing grasses and volunteer grain. Tankmix with Banvel or 2,4-D to improve control of large kochia, redroot pigweed, Russian thistle and lambsquarters (see Tankmix section).

#### Alternate Year Application

Apply TOUCHDOWN at 6 to 12 ounces per acre in the spring of the fallow year after germination of foxtail species and volunteer grain. Tankmixes of Banvel or 2,4-D will improve control of spring and winter annual broadleaf weeds (see Tankmix section). Repeat applications may be necessary as new weeds germinate.



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## TANKMIXTURES FOR CHEMICAL FALLOW - ECOFALLOW SYSTEMS

Tankmixes of TOUCHDOWN with other herbicides may improve control of some emerged weeds. Tankmixes with some residual herbicides provide preemergence control of weeds listed on the individual product labels. The following herbicides may be tankmixed with TOUCHDOWN at rates indicated.

Product	Rate/Acre
Banvel	0.25 lb ai
2,4-D	0.5 lb ai
Atrazine	1 to 3 lb ai
Bladex	2.4 to 4 lb ai

Refer to individual product labels for precautionary statements, restrictions, recropping intervals and a list of weeds controlled.

## SPRAY ADDITIVES FOR CHEMICAL FALLOW - ECOFALLOW SYSTEMS

### Surfactants

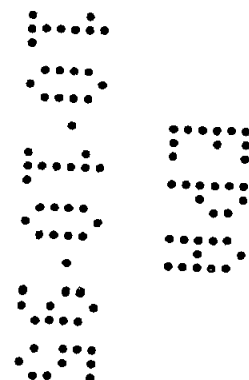
A nonionic surfactant (NIS) of 70% or higher active ingredient IS REQUIRED to improve coverage of weed foliage. Use NIS concentration of 1 to 2 percent of total spray volume (4 to 8 quarts per 100 gallons of spray solution).

### Ammonium Sulfate

Control of weeds with TOUCHDOWN may be improved by adding ammonium sulfate to the spray solution. See Spray Additives Section for rates and other information.

## APPLICATION VOLUMES FOR BROADCAST APPLICATION FOR CHEMFALLOW - ECOFALLOW SYSTEMS

Apply TOUCHDOWN to actively growing weeds at the broadcast rates indicated in the APPLICATION DIRECTIONS for CHEMICAL FALLOW - ECOFALLOW SYSTEMS SECTION. Application should be made in 3 to 10 gallons of water per acre with conventional ground spray equipment. Increase volumes if weed foliage is dense.



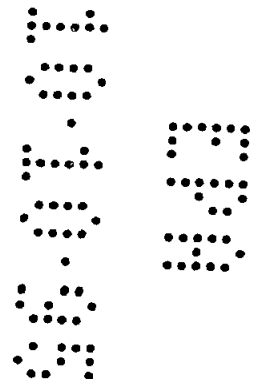
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### FARMSTEAD (NONCROP)

- Applications can be made in noncrop areas around the farm such as:

Farmyards	Rights-of-way
Soil Bank Land	Barrier Strips
Farm Buildings	Equipment Areas
Fuel Storage Areas	Fence Rows

- Apply to annual and perennial grass and broadleaf weeds according to the **WEEDS CONTROLLED** section of this label.
- Avoid contact with the foliage of ornamentals or other desirable plants.
- Repeat applications may be necessary.
- Do not exceed a total of 4 pounds (5.3 pints) of TOUCHDOWN per acre per year.





## NONBEARING CROPS

### GENERAL INFORMATION

TOUCHDOWN can be used to control annual and perennial weeds in nonbearing groves, orchards, or vineyards. Use TOUCHDOWN during site preparation prior to planting and up to 1 year of harvest. TOUCHDOWN is recommended on the following nonbearing crops:

Acerola (West Indian Cherry)	Huckleberry
Almonds	Jojoba
Apple	Kiwi
Apricots	Lemons
Artichokes	Limés
Asparagus	Loganberry
Avocados	Macadamia
Bananas	Mango
Blackberry	Nectarines
Blueberry	Olives
Boysenberry	Oranges
Cherries	Papayas
Coffee	Passion Fruit
Crabapple	Peaches
Cranberry	Pears
Dates	Pecans
Dewberry	Persimmons
Elderberry	Pistachios
Figs	Plantains
Filberts	Plums
Ginseng	Pomegranates
Gooseberry	Prunes
Grapes	Raspberry
Grapefruit	Tangelos
Guava	Tangerines
	Walnuts

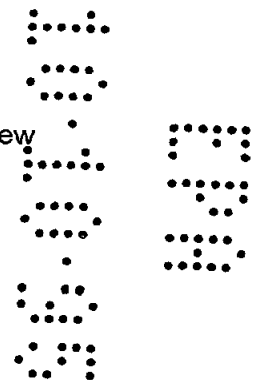
### GENERAL USE PRECAUTIONS FOR NONBEARING CROPS

Do not apply more than 5-1/3 pints of TOUCHDOWN per acre per year.

Do not allow the spray, spray drift, or mist to contact green foliage or green bark on the trunk, suckers, open wounds, or other green parts of trees and vines. Contact with any tree or vine part other than mature brown woody bark may cause crop injury.

Avoid contact with stumps as injury to adjacent trees may occur from root grafting.

If annual or perennial weeds have been mowed or grazed, wait for 3 to 4 inches of new growth to appear before making an application of TOUCHDOWN. See the **WEEDS CONTROLLED** section for specific rates of application.



## APPLICATION DIRECTIONS FOR NONBEARING CROPS

Applications may be made with boom equipment, CDA, shielded sprayers, hand-held and high-volume wands, lances, orchard sprayers, or with wiper application equipment. See the **APPLICATION DIRECTIONS** section of this label for specific information on use of equipment, carriers, and nozzles.

Multiple applications may be necessary to control certain perennial weeds, and weeds originating from underground parts (rhizomes, stolons, tubers) that are initially untreated. TOUCHDOWN does not provide residual weed control, and as such, weeds emerging after application will not be controlled. For residual weed control, tank mix TOUCHDOWN with residual herbicides as prescribed in the **TANK MIXTURES FOR NONBEARING CROPS** section, or make multiple applications.

## TANK MIXTURES WITH RESIDUAL HERBICIDES

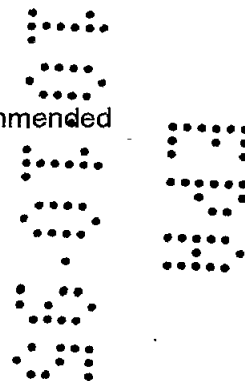
TOUCHDOWN can be tank mixed with the following herbicides for control or suppression of emerged annual and perennial weeds. The following residual herbicides provide preemergence control of weeds listed on the individual product labels.

## TANK MIXTURES FOR NONBEARING CROPS

TOUCHDOWN plus:

- \* DEVRINOL® 50-DF herbicide
- \* Direx® 4L herbicide
- \* Goal® 1.6E herbicide
- \* Karmex® DF herbicide
- \* Krovar® I herbicide
- \* Krovar II
- \* Prowl® herbicide
- \* Prowl® 3.3 EC herbicide
- \* Simazine/Caliber® 90 herbicide
- \* Simazine (80W, 4L, or Caliber 90) plus Surflan® herbicide (AS or 75W)
- \* Simazine 4L
- \* Simazine 80W
- \* Sim-Trol® 4L
- \* Solicam® DF
- \* Surflan AS
- \* Surflan 75W
- \* Goal 1.6E plus Surflan (AS or 75W)
- \* Goal 1.6E plus Simazine (80W, 4L, or Caliber 90)
- \* Goal 1.6E plus Surflan (AS or 75W) plus Simazine (80W, 4L, or Caliber 90)

Refer to the individual product labels for precautionary statements, restrictions, recommended rates and a list of weeds controlled.



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**For control of emerged weeds in a tankmix:**

- Use TOUCHDOWN at 1-1/3 pints (21 fl.oz.) for the control of annual weeds that are less than 12 inches tall. When annual weeds are taller than 12 inches use 2 pints (32 fl.oz.) of TOUCHDOWN herbicide.
- Use TOUCHDOWN at 2-2/3 pints (42 fl.oz.) to 5-1/3 pints (85 fl.oz.) for suppression of perennial weeds. Perennial weeds may require multiple applications for control.
- Add an agriculturally approved nonionic surfactant when tank mixing TOUCHDOWN with residual herbicides. See the **SPRAY ADDITIVES** section of this label for recommendations.

**PERENNIAL GRASS SUPPRESSION IN ORCHARD FLOORS**

**BAHIAGRASS**

TOUCHDOWN can be used to inhibit seedhead emergence and suppress vegetative growth for approximately 40 to 50 days with a single application. By using a sequential application, suppression of vegetative growth and inhibition of seedhead emergence can be extended to 120 days. Applications must be made prior to seedhead emergence. Apply TOUCHDOWN at 20 to 30 days after complete green-up or after mowing to 4 inches tall. When a single application is planned, use 4 fluid ounces of TOUCHDOWN per acre plus 0.5% to 1.0% v/v nonionic surfactant in 10 to 25 gallons of water. When a sequential application is planned, use 3 fluid ounces per acre for the first application followed by another application of 3 fluid ounces per acre 40 to 50 days later.

**BERMUDAGRASS**

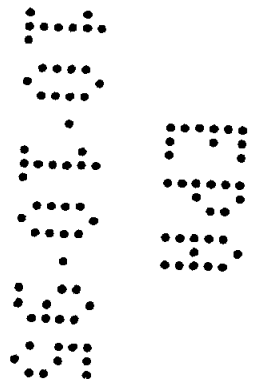
**For Suppression Only:**

**1. East of the Rocky Mountains**

Apply 4 to 10 fluid ounces of TOUCHDOWN plus 0.5% to 1.0% v/v nonionic surfactant in 3 to 20 gallons of water per acre. Make the application 2 weeks after complete green-up or after 3 to 4 inches of regrowth following mowing. Use 4 to 6-1/2 fluid ounces per acre if a lesser degree of suppression is desired. A sequential application can be used when regrowth occurs.

**2. West of the Rocky Mountains**

Apply 10 fluid ounces of TOUCHDOWN plus 0.5% to 1.0% v/v nonionic surfactant per acre in 3 to 10 gallons of water per acre. Make the application 2 weeks after complete green-up or after 3 to 4 inches of regrowth following mowing. A sequential application can be used when regrowth occurs.



**Partial Control and Burndown:**

TOUCHDOWN can be used for burndown and partial control of bermudagrass at 1-1/3 pints (21 fl.oz.) to 2-2/3 pints (42 fl.oz.) plus 0.5% to 1.0% v/v nonionic surfactant in 3 to 20 gallons of water per acre. Use 1-1/3 pints east of the Rocky Mountains and 2-2/3 pints west of the Rocky Mountains.

Use this treatment only if reduction of the bermudagrass stand can be tolerated. Allow at least 21 days for complete burndown.

**COOL SEASON GRASS COVERS**

For suppression of orchardgrass, fine fescue, tall fescue, and quackgrass apply 5 fluid ounces of TOUCHDOWN. Add a nonionic surfactant at 0.5% to 1.0% v/v in 10 to 20 gallons of water. Add ammonium sulfate at 2% by weight or 17 pounds per 100 gallons of spray mix. For suppression of Kentucky bluegrass, use 4 fluid ounces of TOUCHDOWN plus 0.5% to 1.0% v/v nonionic surfactant. Do not add ammonium sulfate for suppression of Kentucky bluegrass.

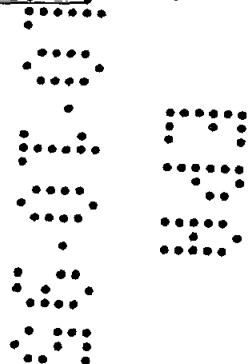
**LOW VOLUME APPLICATION (FLORIDA AND TEXAS ONLY)**

To control or suppress the perennial weeds listed in the following table, apply the recommended rate of TOUCHDOWN plus 0.5% to 1.0% v/v nonionic surfactant in 3 to 20 gallons of water per acre. Use higher gallonage if weed foliage is dense. Apply when the weeds have 3 to 4 inches of regrowth after mowing and are actively growing.

**USES FOR TOUCHDOWN IN LOW VOLUME APPLICATIONS  
IN FLORIDA AND TEXAS ONLY**

Weed Species	Rate of TOUCHDOWN (Pints per Acre)			
	1-1/3	2-2/3	4	5-1/3
Bermudagrass	B	NR	PC	C
Guineagrass				
Texas and Florida Ridge	B	C	C	C
Florida Flatwoods	NR	B	C	C
Paragrass	B	C	C	C
Torpedograss	S	NR	PC	C

S = Suppression      B = Burndown  
PC = Partial Control   C = Control  
NR = Not Recommended



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## WEEDS CONTROLLED

All weeds listed below are controlled by spray and hand-directed spot applications of TOUCHDOWN. For spray application use the indicated rates. See **DIRECTIONS FOR USE** for mixing and application instructions.

**TABLE 1**

The following weeds are controlled by 1/2 to 1-1/3 pints (0.375 - 1.0 lbs ai) TOUCHDOWN per acre:

COMMON NAME	SCIENTIFIC NAME
Bluegrass, Annual	<i>Poa annua</i>
Chickweed	<i>Stellaria media</i>
Cupgrass, Southwestern	<i>Eriochloa gracilis</i>
Foxtail, Giant	<i>Setaria faberi</i>
Foxtail, Green	<i>Setaria viridis</i>
Jimsonweed	<i>Datura stramonium</i>
Kochia	<i>Kochia scoparia</i>
Oats, Wild	<i>Avena fatua</i>
Puncturevine	<i>Tribulus terrestris</i>
Ryegrass, Italian (Annual)	<i>Lolium multiflorum</i>
Signalgrass	<i>Brachiaria</i> spp.
Sowthistle	<i>Sonchus</i> spp.
Spurge, Spotted	<i>Euphorbia maculata</i>
Thistle, Russian	<i>Salsola kali</i>
Wheat, Volunteer	<i>Triticum</i> spp.
Witchgrass	<i>Panicum capillare</i>

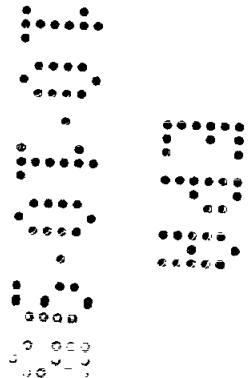


TABLE 4

The following weeds are controlled by 1.9 to 4 pints (1.4 - 3 lbs ai) TOUCHDOWN per acre:

COMMON NAME	SCIENTIFIC NAME
Morningglory	<i>Ipomea</i> spp.
Ragweed, Common	<i>Ambrosia artemisiifolia</i>
Sida, Prickly	<i>Sida spinosa</i>
Thistle, Canada	<i>Cirsium arvense</i>

TABLE 5

The following weeds are controlled by 2-3/4 to 5-1/3 pints (2.1 - 4 lbs ai) TOUCHDOWN per acre:

COMMON NAME	SCIENTIFIC NAME
Bermudagrass*	<i>Cynodon dactylon</i>
Bindweed, Field**	<i>Convolvulus arvensis</i>
Cogongrass	<i>Imperata cylindrica</i>
Fescue, Tall	<i>Fescue arundianacea</i>
Nutsedge, Yellow	<i>Cyperus esculentus</i>
Sesbania, Hemp	<i>Sesbania exaltata</i>
Velvetleaf	<i>Abutilon theophrasti</i>

\* To control regrowth of bermudagrass, apply TOUCHDOWN at or near seedhead stage or later.

\*\* To control regrowth of field bindweed, apply TOUCHDOWN at or near flowering stage.

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